

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549**

FORM 20-F

(Mark One)

☐ REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR (g) OF THE SECURITIES EXCHANGE ACT OF 1934

OR

☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the fiscal year ended December 31, 2022

OR

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

OR

☐ SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Date of event requiring this shell company report:

For the transition period from to

Commission file number: 001-40004

Cloopen Group Holding Limited

(Exact Name of Registrant as Specified in Its Charter)

N/A

(Translation of Registrant's Name into English)

Cayman Islands

(Jurisdiction of Incorporation or Organization)

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(Name, Telephone, E-mail and/or Facsimile Number and Address of Company Contact Person)

Securities registered or to be registered pursuant to Section 12(b) of the Act.

None

(Title of Class)

Securities registered or to be registered pursuant to Section 12(g) of the Act.

Title of Each Class	Trading Symbol
American depositary shares, each representing six Class A ordinary shares, par value US\$0.0001 per share Class A ordinary shares, par value US\$0.0001 per share*	RAASY

* Not for trading, but only in connection with the quotation of the American depositary shares on the over-the-counter market.

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act.

None

(Title of Class)

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report:

As of December 31, 2022, there were 308,308,147 Class A ordinary shares (excluding treasury shares) and 25,649,839 Class B ordinary shares outstanding.

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes ☐ No ☒

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.

Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days.

Yes ☐ No ☒

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

Yes ☐ No ☒

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or an emerging growth company. See definition of "large accelerated filer," "accelerated filer" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☐

Accelerated filer ☒

Non-accelerated filer ☐
Emerging growth company ☒

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards† provided pursuant to Section 13(a) of the Exchange Act. ☐

†The term “new or revised financial accounting standard” refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

Indicate by check mark whether the registrant has filed a report on and attestation to its management’s assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☐

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant’s executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP ☒

International Financial Reporting Standards as issued by the International Accounting Standards Board ☐

Other ☐

If “Other” has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow.

Item 17 ☐ Item 18 ☐

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes ☐ No ☒

(APPLICABLE ONLY TO ISSUERS INVOLVED IN BANKRUPTCY PROCEEDINGS DURING THE PAST FIVE YEARS)

Indicate by check mark whether the registrant has filed all documents and reports required to be filed by Sections 12, 13 or 15(d) of the Securities Exchange Act of 1934 subsequent to the distribution of securities under a plan confirmed by a court.

Yes ☐ No ☐

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INTRODUCTION

Unless we indicate otherwise and for the purpose of this annual report only:

- “active customers” at the end of any period refers to customers which had over RMB50 in annual spending in the preceding 12 months;
- “ADRs” refers to the American depositary receipts, which, if issued, evidence the ADSs;
- “ADSs” refers to our American depositary shares, each of which represents six Class A ordinary shares;
- “AI” or “artificial intelligence” refers to intelligence demonstrated by machines, in contrast to the natural intelligence displayed by humans and other animals;
- “API” or “application programming interface” refers to an application-specific computing interface that allows third parties to utilize and extend the features and functions of the application;
- “A2P SMS” or “application-to-person short message service” refers to a one-way process of sending messages from an application to mobile users;
- “CC” or “contact center” refers to a business’s central point for managing all communications with customers, including customer service and acquisition, through all channels;
- “CPaaS” or “communications platform as a service” refers to a cloud-based solution that allows enterprises to add real-time communications capabilities such as voice and messaging to their applications and systems by deploying APIs and SDKs;
- “China” or “PRC” refers to the People’s Republic of China, excluding, for the purposes of this annual report only, Taiwan, the Hong Kong Special Administrative Region and the Macau Special Administrative Region;
- “Class A ordinary shares” refers to our Class A ordinary shares, par value US\$0.0001 per share, each of which entitles the holder thereof to one vote;
- “Class B ordinary shares” refers to our Class B ordinary shares, par value US\$0.0001 per share, each of which entitles the holder thereof to ten votes;
- “dollar-based net customer retention rate” illustrates our ability to increase revenue generated from our existing customer base. To calculate dollar-based net customer retention rate for a given period, we first identify all customers for solutions that we offer on a recurring basis, unless otherwise specified, with over RMB1,000 in monthly spending in the preceding period, then calculate the quotient from dividing the revenue generated from such customers in the given period by the revenue generated from the same group of customers in the preceding period. Solutions that we offer on a recurring basis include our CPaaS solutions and cloud-based CC solutions deployed primarily on public cloud, for which we charge a combination of seat subscription fees and related resource usage fees;
- “dollar-based net customer retention rate for active customers” represents the dollar-based net customer retention rate for all active customers for solutions that we offer on a recurring basis, unless otherwise specified;
- “IM” or “instant messaging” refers to the exchange or real-time messages over the internet;

- “IoT” or “Internet of Things” refers to a network of interrelated computing devices that enables data transmissions without human-to-human or human-to-computer interactions;
- “IVR” or “interactive voice response” refers to an automated telephony system that interacts with human callers through voice and keypad selections;
- “large-enterprise customers” at the end of any period refers to customers which had over RMB700,000 (equivalent to approximately US\$100,000) in annual spending in the preceding 12 months;
- “multi-capability vendors” refers to vendors which offer a wide range of cloud-based communications services;
- “RMB” and “Renminbi” refers to the legal currency of China;
- “shares” or “ordinary shares” refers to our Class A ordinary shares and our Class B ordinary shares;
- “single-capability vendors” refers to vendors which focus on only one specific type of cloud-based communications services, with such service contributing over 75% of total revenues;
- “SDK” or “software development kit” refers to an installable software package that contains the tools one needs to build a platform;
- “UC&C” or “unified communications and collaboration” refers to the integration of enterprise communications and collaboration through a unified user interface, which allows consistent user experience across multiple devices, channels and communications formats;
- “US\$” and “U.S. dollars” refers to the legal currency of the United States;
- “VIE” or “Ronglian Yitong” refers to Beijing Ronglian Yitong Information Technology Co. Ltd., and “affiliated entities” refers to, collectively, the VIE and its subsidiaries;
- “we,” “us,” “our company,” “our,” “our group” or “Ronglian” refers to Cloopen Group Holding Limited, our Cayman Islands holding company, its predecessor entity, its subsidiaries and its affiliated entities, as the context requires; and
- “WFOE” or “Anxun Guantong” refers to Anxun Guantong (Beijing) Technology Co., Ltd.

Effective on March 15, 2023, we changed the ratio of the ADSs to Class A ordinary shares from the then ADS ratio of one ADS representing two Class A ordinary shares to a new ADS ratio of one ADS representing six Class A ordinary shares. Unless otherwise indicated, ADSs and per ADS amount in this annual report have been retroactively adjusted to reflect the change in ratio for all periods presented.

We have made rounding adjustments to reach some of the figures included in this annual report. Consequently, numerical figures shown as totals in some tables may not be arithmetic aggregations of the figures that precede them.

Our reporting currency is Renminbi. This annual report contains translations of certain foreign currency amounts into U.S. dollars for the convenience of the reader. Unless otherwise stated, all translations of Renminbi into U.S. dollars were made at RMB6.8972 to US\$1.00, the noon buying rate on December 30, 2022 as set forth in the H.10 statistical release of the U.S. Federal Reserve Board. We make no representation that the Renminbi or U.S. dollar amounts referred to in this annual report could have been or could be converted into U.S. dollars or Renminbi at any particular rate or at all. On August 23, 2024, the noon buying rate was RMB7.1244 to US\$1.00 as set forth in the H.10 statistical release of the U.S. Federal Reserve Board.

FORWARD-LOOKING STATEMENTS

This annual report contains forward-looking statements, including our current expectations and views of future events. These forward-looking statements are made under the “safe-harbor” provisions of the U.S. Private Securities Litigation Reform Act of 1995. These statements relate to events that involve known and unknown risks, uncertainties and other factors which may cause our actual results, performance or achievements to be materially different from those expressed or implied by these statements.

You can identify some of these forward-looking statements by words or phrases such as “may,” “will,” “could,” “expect,” “anticipate,” “aim,” “estimate,” “intend,” “plan,” “believe,” “is/are likely to,” “propose,” “potential,” “continue” or other similar expressions. We have based these forward-looking statements largely on our current expectations and projections about future events and financial trends that we believe may affect our results of operations, financial condition, business strategy and financial needs. The forward-looking statements included in this annual report relate to, among other things:

- our mission, goals and strategies;
- our ability to retain and grow customer base;
- our future business development, results of operations and financial condition;
- expected changes in our revenue, costs or expenditures;
- competition in our industry;
- relevant government policies and regulations relating to our industry;
- general economic and business conditions globally and in China; and
- assumptions underlying or related to any of the foregoing.

You should read this annual report and the documents that we refer to in this annual report completely and with the understanding that our actual future results may be materially different from and worse than what we expect. Moreover, new risk factors and uncertainties emerge from time to time and it is not possible for our management to predict all risk factors and uncertainties, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements. We qualify all of our forward-looking statements by these cautionary statements.

You should not place undue reliance on these forward-looking statements. The forward-looking statements made in this annual report relate only to events or information as of the date on which the statements are made in this annual report. Except as required by law, we undertake no obligation to update or revise publicly any forward-looking statements, whether as a result of new information, future events or otherwise, after the date on which the statements are made or to reflect the occurrence of unanticipated events. Comparisons of results for current and any prior periods are not intended to express any future trends or indications of future performance, unless specifically expressed as such, and should only be viewed as historical data.

PART I

ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS

Not applicable.

ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE

Not applicable.

ITEM 3. KEY INFORMATION

Our Holding Company Structure and Contractual Arrangements with the VIE and Its Shareholders

The VIE structure and its associated risks

Cloopen Group Holding Limited, our ultimate Cayman Islands holding company, does not have any substantive operations other than (1) directly controlling Anxun Guantong, our wholly-owned PRC subsidiary and a foreign-invested enterprise under PRC laws that controls the VIE and its subsidiaries through certain contractual arrangements instead of direct equity ownership, and (2) directly controlling our overseas subsidiaries that conduct our overseas business operations. Investors in the ADSs are purchasing equity securities of our ultimate Cayman Islands holding company rather than purchasing equity securities of the affiliated entities.

We, together with our WFOE and the affiliated entities, are subject to PRC laws relating to, among others, restrictions over foreign investment in companies that engage in value-added telecommunications services as set out in the Negative List (2021 Version) promulgated by the Ministry of Commerce, or the MOFCOM, and the National Development and Reform Commission, or the NDRC. As a result, we operate value-added telecommunications business in China through the affiliated entities, and rely on a series of contractual arrangements by and among WFOE, the VIE and its shareholders to control and receive the economic benefits of the business operations of the affiliated entities. Our VIE structure is used to replicate foreign investment in China-based companies where the PRC law prohibits direct foreign investment in the operating companies. The contractual agreements enable us to (1) exercise effective control over the affiliated entities; (2) receive substantially all of the economic benefits of the affiliated entities; and (3) have an exclusive option to purchase all or part of the equity interests in the affiliated entities when and to the extent permitted by PRC law. See “Item 4. Information on the Company—C. Organizational Structure—Contractual Arrangements.” As a result of our direct ownership in WFOE and the contractual agreements with the VIE, we are regarded as the primary beneficiary of the VIE, and the VIE and its subsidiaries are treated as our consolidated affiliated entities under U.S. GAAP. However, our contractual arrangements with the VIE are not equivalent of an investment in the VIE, and the PRC regulatory authorities could disallow our corporate structure at any time.

The VIE structure involves unique risks to investors in the ADSs. It may be less effective than direct ownership in providing us with operational control over the VIE or its subsidiaries and we may incur substantial costs to enforce the terms of the arrangements. For example, the VIE and its shareholders could breach their contractual arrangements with us by, among other things, failing to conduct the operations of the VIE in an acceptable manner or taking other actions that are detrimental to our interests. If we had direct ownership of the VIE in China, we would be able to exercise our rights as a shareholder to effect changes in the board of directors of the VIE, which in turn could implement changes, subject to any applicable fiduciary obligations, at the management and operational level. However, under the current contractual arrangements, we rely on the performance by the VIE and its shareholders of their obligations under the contracts to direct the VIE’s activities. The shareholders of the VIE may not act in the best interests of our company or may not perform its obligations under these contracts. If any dispute relating to these contracts remains unresolved, we will have to enforce our rights under these contracts through the operations of PRC law and arbitration, litigation and other legal proceedings and therefore will be subject to uncertainties in the PRC legal system.

We may face challenges in enforcing the contractual arrangements due to jurisdictional and legal limitations. There are and will continue to be substantial uncertainties regarding the interpretation and application of current and future PRC laws, rules and regulations regarding the status of the rights of our Cayman Islands holding company with respect to its contractual arrangements with the VIE and its shareholders through our WFOE. As of the date of this annual report, the agreements under the contractual arrangements among our WFOE, the VIE and its shareholders have not been tested in a court of law. It is uncertain whether any new PRC laws or regulations relating to VIE structures will be adopted or, if adopted, what they would provide. If we or the VIE is found to be in violation of any existing or future PRC laws or regulations or fail to obtain or maintain any of the required licenses, permits, filings or approvals, the relevant PRC regulatory authorities would have broad discretion to take action in dealing with such violations or failures. The PRC regulatory authorities could disallow the VIE structure at any time in the future. If the PRC government deems that our contractual arrangements with the VIE do not comply with PRC regulatory restrictions on foreign investment in the relevant industries, or if these regulations or the interpretation of existing regulations change or are interpreted differently in the future, we could be subject to severe penalties and may incur substantial costs to enforce the terms of the arrangements, or be forced to relinquish our interests in those operations. Our Cayman Islands holding company, our subsidiaries, the affiliated entities, and investors in our securities (including the ADS) face uncertainty with respect to potential future actions by the PRC government that could affect the enforceability of the contractual arrangements with the VIE and, consequently, significantly affect the financial performance of our company and the affiliated entities as a whole. For details, see “Risk Factors—Risks Related to Our Corporate Structure.”

Revenues contributed by the affiliated entities accounted for substantially all of our total revenues in 2020, 2021 and 2022. For a consolidation schedule depicting the results of operations, financial position and cash flows for us and the affiliated entities, see “Item 5. Operating and Financial Review and Prospects—B. Liquidity and Capital Resources—Financial Information Related to the VIE.”

Cash and asset flows through our organization

In light of our holding company structure and the VIE structure, our ability to pay dividends to the shareholders, including the investors in the ADSs, and to service any debt we may incur may highly depend upon dividends paid by our WFOE to us and service fees paid by the affiliated entities to our WFOE, despite that we may obtain financing at the holding company level through other methods. For example, if any of our WFOE or the VIE incurs debt on its own behalf in the future, the instruments governing such debt may restrict its ability to pay dividends to us and the investors in the ADS as well as the ability to settle amounts owed under the contractual arrangements. As of the date of this annual report, none of Cloopen Group Holding Limited, our WFOE and the VIE has paid any dividends or made any distributions to their respective shareholders, including any U.S. investors. In 2020, 2021 and 2022, the VIE did not pay any service fees to our WFOE under the contractual arrangements. We expect to distribute earnings and settle the service fees owed under the contractual arrangements at the request of our WFOE and based on our business needs, and do not expect to declare dividend in the foreseeable future. We currently have not maintained any cash management policies that specifically dictate how funds shall be transferred among Cloopen Group Holding Limited, the subsidiaries of Cloopen Group Holding Limited (including our WFOE), the affiliated entities and investors. We will determine the payment of dividends and fund transfer based on our specific business needs in accordance with the applicable laws and regulations.

Under PRC laws and regulations, our WFOE is permitted to pay dividends only out of its retained earnings, if any, as determined in accordance with PRC accounting standards and regulations. Furthermore, our WFOE and the affiliated entities are required to make appropriations to certain statutory reserve funds or may make appropriations to certain discretionary funds, which are not distributable as cash dividends except in the event of a solvent liquidation of the companies. Remittance of dividends by our WFOE out of China is also subject to certain procedures with the banks designated by the State Administration of Foreign Exchange, or SAFE. These restrictions are benchmarked against the paid-up capital and the statutory reserve funds of our WFOE and the net assets of the VIE in which we have no legal ownership. In addition, while there are currently no such restrictions on foreign exchange and our ability to transfer cash or assets between Cloopen Group Holding Limited and our Hong Kong subsidiary, if certain PRC laws and regulations, including existing laws and regulations and those enacted or promulgated in the future were to become applicable to our Hong Kong subsidiary in the future, and to the extent our cash or assets are in Hong Kong or a Hong Kong entity, such funds or assets may not be available due to interventions in or the imposition of restrictions and limitations on our ability to transfer funds or assets by the PRC government. Furthermore, we cannot assure you that the PRC government will not intervene or impose restrictions on Cloopen Group Holding Limited, its subsidiaries and the affiliated entities to transfer or distribute cash within the organization, which could result in our inability of or prohibition on making transfers or distributions to entities outside of mainland China and Hong Kong.

Under PRC laws and regulations, we, the Cayman Islands holding company, may fund our WFOE only through capital contributions or loans, and fund the affiliated entities only through loans, subject to satisfaction of applicable government registration and approval requirements. See “—D. Risk Factors—Risks Related to Our Corporate Structure—We may rely on dividends paid by our PRC subsidiaries to fund cash and financing requirements. Any limitation on the ability of our PRC subsidiaries to pay dividends to us could have a material adverse effect on our ability to conduct our business and to pay dividends to holders of our ordinary shares, including those represented by the ADSs,” and “—D. Risk Factors—Risks Related to Doing Business in China—Governmental control of currency conversion may limit our ability to utilize our revenues effectively and affect the value of your investment.”

Our Operations in China and Permissions Required from the PRC Authorities for Our Operations

We, through our WFOE and the affiliated entities, conduct our operations in China. We also control Anxun Shuzhi (Shenzhen) Technology Co., Ltd., our wholly-owned PRC subsidiary and a foreign-invested enterprise under PRC laws, which has no material business operations as of the date of this annual report. Our operations in China are governed by PRC laws and regulations. We and the affiliated entities are required to obtain certain licenses, permits, filings or approvals from relevant governmental authorities in China in order to operate our business. As of the date of this annual report, as advised by our PRC counsel, CM Law Firm, our PRC subsidiaries and the affiliated entities in China have obtained the material licenses, permits, filings and approvals from the PRC government authorities necessary for our business operations in China, including, among others, Value-Added Telecommunications Business Operating Licenses. Given the uncertainties of interpretation and implementation of relevant laws and regulations and the enforcement practice by relevant government authorities, and the promulgation of new laws and regulations and amendment to the existing ones, we may be required to obtain additional licenses, permits, filings or approvals for our business operations in the future. We cannot assure you that we or the affiliated entities will be able to obtain, in a timely manner or at all, or maintain such licenses, permits, filings or approvals, and we or the affiliated entities may also inadvertently conclude that such permissions or approvals are not required. Any lack of or failure to maintain requisite licenses, permits, filings or approvals applicable to us or the affiliated entities may have a material adverse effect on our business, results of operations, financial condition and prospects and cause the value of any securities we offer to significantly decline or become worthless. For details, see “—D. Risk Factors—Risks Related to Regulatory Compliance—Our business is subject to extensive regulation, and if we fail to obtain and maintain required licenses and permits, we could face government enforcement actions, fines and possibly restrictions on our ability to operate or offer certain of our solutions.”

On December 28, 2021, the Cyberspace Administration of China, or the CAC, and other 12 PRC regulatory authorities jointly issued an amendment to the Measures for Cybersecurity Review, or the Cybersecurity Review Measures, which took effect on February 15, 2022. The Cybersecurity Review Measures stipulates that (1) critical information infrastructure operators purchasing network products and services and network platform operators carrying out data processing activities, which affect or may affect national security, are subject to the cybersecurity review by the Cybersecurity Review Office, and (2) network platform operators holding personal information of more than one million users seeking for listing in a foreign country must apply for the cybersecurity review. See “Item 4. Information on the Company—B. Business Overview—Regulations—Regulations relating to cybersecurity and privacy protection—Cybersecurity.” As of the date of this annual report, we have not been informed by any PRC governmental authority of any requirement that we file for a cybersecurity review. However, if we are not able to comply with the cybersecurity and data privacy requirements in a timely manner, or at all, we may be subject to government enforcement actions and investigations, fines, penalties, or suspension of our non-compliant operations, among other sanctions, which could materially and adversely affect our business and results of operations. See “—D. Risk Factors—Risks Related to Our Business and Industry—If we fail to comply with laws and contractual obligations related to data privacy and protection and cybersecurity, our business, results of operations and financial condition could be materially and adversely affected.”

On February 17, 2023, Chinese Securities Regulatory Commission, or the CSRC, promulgated the Trial Measures of the Overseas Securities Offering and Listing by Domestic Companies, or the Overseas Listing Trial Measures, and the related guidelines, which became effective on March 31, 2023. The Overseas Listing Trial Measures has comprehensively improved and reformed the existing regulatory regime for overseas offering and listing of securities by PRC domestic companies and regulates both direct and indirect overseas offering and listing of securities by PRC domestic companies by adopting a filing-based regulatory regime. According to the Overseas Listing Trial Measures, PRC domestic companies that seek to offer and list securities in overseas markets, either in direct or indirect means, are required to fulfill the filing procedure with the CSRC and report relevant information. The CSRC provided further notice related to the Overseas Listing Trial Measures that companies that have already been listed on overseas stock exchanges prior to March 31, 2023 are not required to make immediate filings for its listing, but are required to make filings for subsequent offerings in accordance with the Overseas Listing Trial Measures, i.e., to file with the CSRC within three business days after the closing of such subsequent offerings. As we had been listed on an overseas stock exchange prior to March 31, 2023, we are not required to make such immediate filing with the CSRC in connection with such previous listing. However, we could be subject to the filing requirements with the CSRC if we conduct subsequent offerings or seek to list our securities on a stock exchange. See “Item 4. Information on the Company—B. Business Overview—Regulations—Regulations relating to M&A Rule and overseas listing in the PRC.”

We cannot assure you that we can complete the filing procedures, obtain the approvals or complete other compliance procedures in a timely manner, or at all, or that any completion of filings or approvals or other compliance procedures would not be rescinded. Any such failure would subject us to sanctions by the CSRC or other PRC regulatory authorities. These regulatory authorities may impose restrictions and penalties on the operations in China, significantly limit or completely hinder our ability to launch any new offering of our securities, limit our ability to pay dividends outside of China, delay or restrict the repatriation of the proceeds from future capital raising activities into China, or take other actions that could materially and adversely affect our business, results of operations, financial condition and prospects, as well as the trading price of the ADSs. Furthermore, the PRC government authorities may further strengthen oversight and control over listings and offerings that are conducted overseas. Any such action may adversely affect our operations and significantly limit or completely hinder our ability to offer ADSs and/or other securities to investors, and cause the value of such securities to significantly decline or be worthless. See “—D. Risk Factors—Risks Related to Doing Business in China—The approval of and the filing with the CSRC or other PRC government authorities may be required in connection with our future offshore offerings under PRC law, and, if required, we cannot predict whether or for how long we will be able to obtain such approval or complete such filing.”

The Holding Foreign Companies Accountable Act

The Holding Foreign Companies Accountable Act, or the HFCAA, was enacted on December 18, 2020. Pursuant to the HFCAA and related regulations, if we have filed an audit report issued by a registered public accounting firm that the PCAOB has determined that it is unable to inspect and investigate completely, the SEC will identify us as a “Commission-Identified Issuer,” and the trading of our securities on any U.S. national securities exchanges, as well as any over-the-counter, or OTC, trading in the United States, will be prohibited if we are identified as a Commission-Identified Issuer for two consecutive years. On August 26, 2022, the PCAOB, the CSRC and the Ministry of Finance of the PRC signed the Statement of Protocol, which establishes a specific and accountable framework for the PCAOB to conduct inspections and investigations of PCAOB-governed accounting firms in mainland China and Hong Kong. On December 15, 2022, the PCAOB announced that it was able to secure complete access to inspect and investigate PCAOB-registered public accounting firms headquartered in mainland China and Hong Kong in 2022. The PCAOB Board vacated its previous 2021 determinations that the PCAOB was unable to inspect or investigate completely registered public accounting firms headquartered in mainland China and Hong Kong. However, whether the PCAOB will continue to be able to satisfactorily conduct inspections of PCAOB-registered public accounting firms headquartered in mainland China and Hong Kong is subject to uncertainties and depends on a number of factors out of our and our auditor’s control. The PCAOB continues to demand complete access in mainland China and Hong Kong moving forward and is making plans to resume regular inspections, as well as to continue pursuing ongoing investigations and initiate new investigations as needed. The PCAOB has also indicated that it will act immediately to consider the need to issue new determinations with the HFCAA if needed. If the PCAOB is unable to inspect and investigate completely registered public accounting firms located in mainland China and Hong Kong, or if we fail to, among others, meet the PCAOB’s requirements, including retaining a registered public accounting firm that the PCAOB determines it is able to inspect and investigate completely, and upon two consecutive years of non-inspection under the HFCAA, our shares and the ADSs will not be permitted for trading on a national securities exchange or the OTC trading market in the United States under the HFCAA and related regulations. The related risks and uncertainties could cause the value of the ADSs to decline significantly or become worthless. For details, see “—D. Risk Factors—Risks Related to Doing Business in China—The ADSs may be prohibited from being traded over the counter in the United States under the HFCAA if the SEC subsequently determines our audit work is performed by auditors that the PCAOB is unable to inspect or investigate completely. The prohibition from trading of the ADSs, or the threat of their being prohibited from being traded, may materially and adversely affect the value of your investment.”

A. [Reserved]

B. Capitalization and Indebtedness

Not applicable.

C. Reasons for the Offer and Use of Proceeds

Not applicable.

D. Risk Factors

Summary Risk Factors

Our business is subject to a number of risks, including risks that may prevent us from achieving our business objectives or may adversely affect our business, results of operations, financial condition, cash flows, and prospects. These risks are discussed more fully below and include, but are not limited to, risks related to:

Risks related to the Independent Investigation and restatement of consolidated financial statements

- legal proceedings, investigations and inquiries in connection with or arising from the previously disclosed employee misconduct and transaction irregularities, and other associated adverse effects;
- adverse publicity and potential concerns from our customers and other business partners relating to or arising from the Independent Investigation and restatement of consolidated financial statements;
- our ability to implement and maintain an effective system of internal control over financial reporting to accurately report our results of operations, meet our reporting obligations and prevent fraud; and
- our failure to timely comply with our SEC reporting obligations.

Risks related to our business and industry

- our ability to attract new customers or retain existing ones;
- continued development of our solutions and the markets our solutions target;
- our limited operating history;
- our ability to generate profits and positive cash flows;
- our reliance on collaborations with China's major mobile network operators;
- our ability to enhance or upgrade our existing solutions and introduce new ones;

- compatibility of our solutions across devices, business systems and applications and physical infrastructure;
- our ability to compete effectively in China's cloud-based communications industry and internationally;
- our ability to collect accounts receivable from our customers in a timely manner;
- our ability to maintain and enhance our brand image and generate positive publicity;
- our ability to optimize the prices for our solutions;
- our ability to manage our sales cycle to large enterprises;
- our ability to comply with related laws and regulations associated with conducting business with state-owned enterprises;
- real or perceived errors, defects, failures, vulnerabilities, or bugs in our solutions;
- our ability to integrate acquired businesses and technologies successfully or achieve the expected benefits of such acquisitions;
- our ability to support and resolve intellectual property rights claims and other litigation matters;
- our ability to protect or defend our intellectual property rights; and
- our ability to comply with laws and contractual obligations related to data privacy and protection and cybersecurity.

Risks related to regulatory compliance

- compliance with extensive and evolving laws and regulations in the PRC;
- third-party misconduct and misuse of our solutions in violation of relevant laws and regulations; and
- our limited insurance coverage, which could expose us to significant costs and business disruption.

Risks related to doing business in China

- changes in China's economic, political or social conditions or government policies;
- evolving legal development, non-compliance with which, or changes in which, may adversely affect our business and prospects;
- Chinese government's significant authority to intervene or influence our operations and to exert control over offerings conducted overseas and/or foreign investment in China-based issuers;
- the approval of and the filing with the CSRC or other PRC government authorities in connection with our future offshore offerings; and

- the threat of the ADSs being prohibited from being traded over the counter in the United States under the HFCAA if the SEC subsequently determines our audit work is performed by auditors that the PCAOB is unable to inspect or investigate completely.

Risks related to our corporate structure

- compliance of the contractual arrangements that establish our corporate structure for operating our business;
- failure by the VIE or its shareholders to perform their obligations under our contractual arrangements with them; and
- actual or potential conflicts of interest of shareholders of the VIE with us.

Risks related to corporate governance

- our status as a foreign private issuer;
- our status as an emerging growth company; and
- our dual-class voting structure and the concentration of ownership which provide Class B ordinary shareholder considerable influence over corporate matters, including the election of board of directors.

Risks related to the ADS

- delisting of the ADSs from the New York Stock Exchange, which may continue to have a material adverse effect on the trading and price of the ADSs;
- volatility of the trading price of the ADSs; and
- the sale or availability for sale of substantial amounts of the ADSs.

Risks Related to the Independent Investigation and Restatement of Consolidated Financial Statements

The previously disclosed employee misconduct and transaction irregularities have exposed us to a number of legal proceedings, investigations and inquiries, resulted in significant legal and other expenses, required significant time and attention from our senior management, among other adverse effects.

As previously disclosed in press releases dated May 3, 2022 and September 6, 2022, the Special Committee undertook the Independent Investigation regarding certain employee misconduct and transaction irregularities with the assistance of independent advisors during 2022.

The employee misconduct and transaction irregularities had and could continue to have material adverse effects on us. On February 6, 2024, we reached a settlement with the SEC regarding the employee misconduct and transaction irregularities, under which we shall cease and desist from committing or causing any violations and any future violations of certain federal securities laws. Entering into the settlement with the SEC also results in the loss of certain exemptions or protections that were available to us under federal securities laws. See “Item 8. Financial Information—A. Consolidated Statements and Other Financial Information—Legal and Other Proceedings.” We incurred significant costs, including legal expenses and cost associated with the restatement and adjustment of our financial statements. We may also incur material costs associated with our indemnification arrangements with our current and former directors and certain of our officers, as well as other indemnitees. Moreover, an unfavorable outcome in any of these matters could result in significant damages, additional penalties or other remedies imposed against us, and/or our current or former directors or officers, which could harm our reputation, business, results of operations, financial condition, or liquidity. In addition, an unfavorable outcome in any of these matters could exceed coverage provided, if any, under potentially applicable insurance policies, which is limited. Following disclosure of the employee misconduct and transaction irregularities, we have had difficulties in obtaining desirable insurance coverage, or any insurance coverage, regarding legal proceedings, investigations and inquiries, and we cannot assure you with any certainty that we will be able to obtain such coverage in the future. The employee misconduct and transaction irregularities also led to material adverse effects on our operations, our reputation and our relationships with business partners, as well as material adverse effects on our financial position, including incurred costs and expenses and our ability to raise new capital in the future. Furthermore, our senior management team devoted significant time to facilitate the Independent Investigation and is expected to continue to devote significant time and efforts to address the impacts associated with or arising from the employee misconduct and transaction irregularities.

We cannot predict all impacts on us in connection with or arising from the employee misconduct and transaction irregularities. Any unknown or new risks might result in a material adverse effect on us.

We were named as a defendant in a number of lawsuits filed by purchasers of our securities, including class action lawsuits that could have a material adverse effect on our business, results of operation, financial condition and cash flows, and our reputation. We may continue to be, the subject of a number of legal proceedings, investigations and inquiries by governmental agencies with respect to the employee misconduct and transaction irregularities.

We were named as a defendant in a number of lawsuits filed by purchasers of our securities, including class action lawsuits described in “Item 8. Financial Information—A. Consolidated Statements and Other Financial Information—Legal and Other Proceedings.” We may continue to be, the subject of a number of legal proceedings, investigations and inquiries by governmental agencies with respect to the employee misconduct and transaction irregularities.

The matters that led to the Independent Investigation and restatement of consolidated financial statements have exposed us to increased risks of litigation, regulatory proceedings and government enforcement actions. We and our current and former directors and officers may, in the future, be subject to additional proceedings relating to such matters. Regardless of the outcome, any lawsuits or other proceedings that may be brought against us or our current or former directors and officers, could be time-consuming, result in significant expense and divert the attention and resources of our management and other key employees. An unfavorable outcome in any of these matters could result in significant damages, fines, additional penalties, administrative sanctions or other remedies imposed against us, our current or former directors or officers, which could harm our reputation, business, results of operations, financial condition or cash flows. Subject to certain limitations, we are obligated to indemnify, among others, our current and former directors and officers in connection with such lawsuits and any related proceedings or settlements amounts. In addition, an unfavorable outcome in any of these matters could exceed coverage provided, if any, under potentially applicable insurance policies, which is limited.

Matters relating to or arising from the Independent Investigation and restatement of consolidated financial statements, including adverse publicity and potential concerns from our customers and other business partners, have had and could continue to have a material adverse effect on our business and financial condition.

We have been and could continue to be the subject of negative publicity focusing on the Independent Investigation and restatement of our financial statements, and we may be materially and adversely affected by negative reactions from our customers, suppliers or others with whom we do business. Concerns include the perception of the efforts required to address our accounting and control environment, and the ability for us to be a long-term provider to our customers. Continued adverse publicity and potential concerns from our customers and business partners could harm our business and have an adverse effect on our financial condition.

If we fail to implement and maintain an effective system of internal control over financial reporting, we could be unable to accurately report our results of operations, meet our reporting obligations or prevent fraud, and investor confidence and the market price of the ADSs may be materially and adversely affected.

In the course of preparing our consolidated financial statements as of and for the year ended December 31, 2022, we and our independent registered public accounting firm identified certain material weaknesses in our internal control over financial reporting as of December 31, 2022. As defined in the standards established by the PCAOB, a “material weakness” is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim consolidated financial statements will not be prevented or detected on a timely basis.

The material weaknesses identified relate to: (1) insufficient accounting personnel with appropriate U.S. GAAP knowledge for accounting of complex transactions, presentation and disclosure of financial statements in accordance with U.S. GAAP and SEC reporting requirements, (2) lack of rigorous implementation of controls on financial closing policies and procedures, (3) lack of sufficient procedures on recognizing revenue on a gross basis or a net basis, (4) insufficient controls and reporting procedures on monitoring the past due status of customer to assess the revenue recognition and provision of accounts receivable, (5) insufficient authorization, monitoring or review controls in the revenue and the purchase processes, (6) lack of systematic process controls over the filing and registration of the sales and purchase agreements, (7) improper approval and timely review on certain system user’s authorization relating to general information technology control, and (8) insufficient acceptance control of systems (or subsystems) developed by external subcontractors. See “Item 15. Controls and Procedures—Management’s Annual Report on Internal Control over Financial Reporting” for details of our remedial measures.

The implementation of remedial measures, however, may not fully address the material weaknesses identified in our internal control over financial reporting, and we cannot conclude that they have been fully remedied. Our failure to correct the material weaknesses or our failure to discover and address any other material weaknesses or deficiencies could result in inaccuracies or material misstatements in our financial statements and impair our ability to comply with applicable financial reporting requirements and related regulatory filings on a timely basis.

We are subject to reporting obligations under the U.S. securities laws. As a public company, we are also subject to the Sarbanes-Oxley Act of 2002. Commencing with our fiscal year ended December 31, 2021, we must perform system and process evaluation and testing of our internal control over financial reporting to allow management to report on the effectiveness of our internal control over financial reporting in our annual report on Form 20-F for such year, as required by Section 404 of the Sarbanes-Oxley Act, or Section 404. Our management has concluded that our internal control over financial reporting was ineffective as of December 31, 2022. See “Item 15. Controls and Procedures.” In addition, once we cease to be an “emerging growth company” as such term is defined in the JOBS Act, our independent registered public accounting firm must attest to and report on the effectiveness of our internal control over financial reporting. Our management may conclude that our internal control over financial reporting is not effective. Moreover, even if our management concludes that our internal control over financial reporting is effective, our independent registered public accounting firm, after conducting its own independent testing, may issue a report that is qualified if it is not satisfied with our internal controls or the level at which our controls are documented, designed, operated or reviewed, or if it interprets the relevant requirements differently from us. As a public company, our reporting obligations may also place a significant strain on our management, operational and financial resources and systems for the foreseeable future. We may be unable to timely complete our evaluation testing and any required remediation.

Furthermore, our internal control over financial reporting will not prevent or detect all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system’s objectives will be met. In light of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud will be detected.

During the course of documenting and testing our internal control procedures, in order to satisfy the requirements of Section 404, we may identify other weaknesses and deficiencies in our internal control over financial reporting. If we fail to maintain the adequacy of our internal control over financial reporting, as these standards are modified, supplemented or amended from time to time, we may not be able to conclude on an ongoing basis that we have effective internal control over financial reporting in accordance with Section 404. Generally, if we fail to achieve and maintain an effective internal control environment, it could result in material misstatements in our financial statements and could also impair our ability to comply with applicable financial reporting requirements and related regulatory filings on a timely basis. As a result, our businesses, results of operations, financial condition and prospects, as well as the trading price of the ADSs, may be materially and adversely affected. Additionally, ineffective internal control over financial reporting could expose us to increased risk of fraud or misuse of corporate assets and subject us to regulatory investigations and civil or criminal sanctions. We may also be required to restate our financial statements from prior periods.

The circumstances that led to the failure to file our annual report on time, and our efforts to investigate, assess and remediate those matters have caused and may continue to cause substantial delays in our SEC filings.

Our ability to resume a timely filing schedule with respect to our SEC reporting is subject to a number of contingencies, including whether and how quickly we are able to effectively remediate the identified material weaknesses in our internal control over financial reporting. Our filing of this annual report has been delayed and we cannot assure you we will be able to timely make our future filings.

In case we delay our filings, investors may need to evaluate certain decisions with respect to the ADSs in light of our lack of current financial information. Furthermore, in June 2022, we were informed by the depositary bank that due to our failure to timely comply with our SEC reporting obligations, the depositary bank decided to close its books to conversions of our ordinary shares into the ADSs. We cannot assure you when or if our ADR facility will be reopened for conversions. The closing of the depositary's books does not affect the trading of the previously issued ADSs. Accordingly, any investment in our shares and/or the ADSs involves a greater degree of risk. Our lack of current public information may have an adverse effect on investor confidence, which could lead to a reduction in our stock price or restrictions on our abilities to obtain financing in the public market, among others.

Risks Related to Our Business and Industry

If we fail to attract new customers or retain existing ones, our business, results of operations and financial condition could be materially and adversely affected.

In order to increase our revenues and maintain future growth, we must attract new customers and encourage existing customers to continue their subscriptions, increase their usage, and purchase additional features and solutions from us.

For customer demand and the adoption of our solutions to grow, the quality, cost and features of these solutions must compare favorably to those of competing products and services. To that end, we must continue to offer high-quality solutions and features at competitive prices. As our target markets mature, or as competitors introduce more differentiated products or services at lower costs that compete or are perceived to compete with ours, we may be unable to attract new customers or retain existing ones on favorable terms or at all, which could have an adverse effect on our revenues and future growth. The rate at which our existing customers purchase any new or enhanced feature and solution we may offer also depends on a number of factors, including the importance of these additional features and solutions to our customers, their quality and performance, the prices at which we offer them, and the general economic condition and specific industry landscape in relation to our customers. If our customers react negatively to our new and enhanced features and solutions, or our efforts to cross-sell and up-sell are otherwise not as successful as we anticipate, we may fail to maintain or grow our revenues and our customer base.

Our sales and marketing strategies must also continue to evolve and adapt, including through various online and offline channels and direct and indirect sales efforts. In addition, marketing and selling new and enhanced features and solutions may require increasingly sophisticated and costly marketing campaigns. If we fail to do so cost-effectively, we may be unable to attract new customers or sell additional features and solutions to existing customers in a cost-effective manner.

We must also continue to offer high-quality training, implementation and other customer support services in order to attract new customers and retain existing ones. These services require customer support personnel with industry-specific technical knowledge and expertise which may be difficult and costly to locate and hire. We also need to provide our customer support personnel with extensive training on our solutions and their features, which could make it difficult to scale up our operations rapidly or effectively, especially when we expand our business across different geographical markets or industries. If we fail to provide effective ongoing support and help our customers promptly resolve product issues, our ability to attract new customers and retain existing ones could be negatively affected, which, in turn, could materially and adversely affect our business, results of operations and financial condition.

Our future business growth and expansion is dependent on the continued development of our solutions and the markets our solutions target.

We offer a comprehensive portfolio of cloud-based communications solutions to enterprises of all sizes, from which we generate most of our revenues. The markets we target are rapidly evolving and subject to a number of risks and uncertainties. Our success will depend to a substantial extent on the growth of these markets, especially the widespread adoption of cloud-based communications solutions as a replacement for legacy on-premises systems and other traditional forms of communications.

The growth of these addressable markets also depends on a number of other factors, including the refresh rate for legacy on-premises systems, the cost, performance and perceived value associated with cloud-based communications solutions, as well as their ability to address security, stability, and privacy concerns. In order to grow our business and extend our market position, we intend to educate our existing and prospective customers about the benefits of our solutions and continuously enhance and innovate our solutions and features to increase market acceptance. However, if ever the cloud-based communications technologies fail to develop in a way that satisfies the growing demands of customers, or develop more slowly than we anticipate, it could significantly harm our business. In addition, the cloud-based communications industry may fail to grow significantly or at all, or there could be a reduction in demand as a result of a lack of public acceptance, technological challenges, competing products and services, decreases in IT spending by current and prospective customers, weakening economic conditions and other causes. The occurrence of any of the foregoing could materially and adversely affect our business, results of operations and financial condition.

We have a limited operating history, which could make it difficult to forecast our revenues and evaluate our business and prospects.

We began offering cloud-based communications solutions in 2014. As a result of our limited operating history, however, our ability to forecast our future results of operations is limited and subject to a number of uncertainties. We have encountered, and expect to continue to encounter, risks and uncertainties frequently experienced by growing companies in rapidly evolving industries, such as the risks and uncertainties related to technological development and regulatory environment. We derive a significant portion of our revenues from project-based solutions focusing primarily on large enterprises, and the continued availability of such projects and customers is uncertain, which could materially affect the accuracy of our forecasts and our financial performance. For solutions that we offer on a recurring basis, our short operating history also limits our ability to predict our future pricing capabilities and sales volumes. If we do not successfully address these risks and uncertainties, our results of operations and financial condition could differ materially from our estimates and forecasts, which could materially and adversely impact our business and the trading price of the ADSs.

We have incurred significant net losses and negative operating cash flows since inception, and we may therefore not be able to achieve or sustain profitability in the future.

We have incurred substantial net losses since our inception. In 2020, 2021 and 2022, our net loss was RMB425.2 million, RMB904.5 million and RMB975.9 million (US\$141.5 million), respectively, our operating cash outflow was RMB216.5 million, RMB238.1 million and RMB567.3 million (US\$82.2 million), respectively. Over the past few years, we have spent considerable amounts of time and financial resources to develop new cloud-based communications solutions and enhance or upgrade our existing ones in order to position us favorably for future growth. In addition, we have expended significant resources upfront to market, promote and sell our solutions through various direct and indirect channels, and expect to continue to do so in the future. Our aggressive investments continue to drive our negative cash flows and we expect to continue to invest in business operations, technological improvements, marketing campaigns and international expansion. Our status as a public company could also incur significant additional accounting, legal and other expenses.

Achieving profitability will require us to increase revenues, manage our cost structure, and avoid significant liabilities. We cannot guarantee, however, that we can achieve any of these goals as we continue to aggressively invest in the aspiration of continued revenue growth. Our failure to generate increased revenues to cover the expected increase in these various expenditures could prevent us from ever achieving profitability or positive cash flows from operating activities.

Our business relies on the communications infrastructure and telecommunications resources provided by China's major mobile network operators. If we fail to maintain our collaborations with these mobile network operators, our ability to serve our customers could be materially and adversely affected.

We interconnect with mobile network operators in China and other countries to enable the use of our solutions by our customers. Specifically, we obtain telecommunications resources from mobile network operators and offer our CPaaS and other solutions to allow our customers to access and utilize these resources in a way that suits their specific communication needs. We currently collaborate with all three major mobile network operators in China. As all telecommunications resources in China are distributed among and managed by these mobile network operators and their provincial branches, we expect that we will continue to rely heavily on our collaborations with them to offer our solutions. Any termination of our collaborations with any major mobile network operator in China would negatively impact our business.

Our reliance on mobile network operators has reduced our operating flexibility as well as our ability to control quality and make rectifications. If our customers encounter errors or defective performance, whether or not caused by a mobile network operator or otherwise, we could find it difficult to identify the source of the problems and fail to make timely or effective rectifications, which could have a negative impact on customer satisfaction and lead to a loss of our existing customers or delay the adoption of our solutions by prospective customers.

In addition, the fees charged by mobile network operators may fluctuate more frequently than we could charge our customers to pass on the increased cost, which may adversely affect our margins and business. Mobile network operators have also, at times, instituted additional fees due to regulatory, competitive or other reasons. We have historically responded to such fee increases by negotiating an agreed-upon fee arrangement with mobile network operators, passing on the increased cost to our customers, or accepting lower profit margins. Our ability to respond to any increased fees charged by mobile network operators may be constrained if all mobile network operators in a particular market implement similar fee increases, if the magnitude of the fees is disproportionately large when compared to the underlying prices we charge our customers, or if the market conditions and competitive landscape limit our ability to increase the price we charge our customers. If we are unable to respond to such fee increases in a way that preserves the competitiveness or profitability of our solutions, our business, results of operations and financial condition could be materially and adversely affected.

Furthermore, although we have historically collaborated closely with a number of China's mobile network operators and their local branches, our contracts with them generally have fixed terms ranging from one to five years, and they may terminate our collaboration upon expiration. In the past, we were generally able to renew our contracts with mobile network operators and their local branches. However, if a significant portion of such mobile network operators and their local branches cease to provide us with access to their telecommunications resources or fail to provide services to us on favorable terms, it could be costly and time-consuming to switch to other qualified mobile network operators in the affected regions on commercially reasonable terms or at all, which could materially and adversely affect our business, results of operations and financial condition.

If we fail to enhance or upgrade our existing solutions and introduce new ones that are broadly accepted by the market and meet our customers' evolving demands in a timely and cost-effective manner, our business, results of operations and financial condition could be materially and adversely affected.

Our ability to attract new customers and increase revenues from existing customers depends in part on our ability to enhance and improve our existing solutions and introduce new ones. The success of any enhancement or new solution depends on a number of factors, including timely completion, adequate quality testing, consistently high actual performance, market-accepted pricing levels and overall market acceptance. Enhancements and new solutions that we develop may not be introduced in a timely or cost-effective manner, may contain errors or defects, may have interoperability difficulties or may not achieve the broad market acceptance necessary to generate significant revenues. We also have invested, and may continue to invest, in the acquisition of complementary businesses, technologies, services, products and other assets that benefit our innovation and overall business operations. Our investments may not result in enhancements or new solutions that will be accepted by existing or prospective customers. If we are unable to enhance or upgrade our existing solutions to meet the evolving customer requirements or develop new ones in a timely or cost-effective manner, we may not be able to maintain or increase our revenues or recoup our investments, and our business, results of operations and financial condition would be materially and adversely affected.

If we fail to maintain the compatibility of our solutions across devices, business systems and applications and physical infrastructure that we do not control, it could lead to increased integration costs and lowered customer satisfaction.

One of the most important value propositions of our solutions is the compatibility with a wide range of devices, business systems and applications and physical infrastructure. The experience of our customers depends, in part, on our ability to integrate with their existing business systems and applications, many of which may have been developed by third-party providers. In addition, the functionality of our solutions depends on the seamless integration with our customers' legacy on-premises hardware and communications infrastructure, such as third-party video-conferencing systems. Third-party services and products are constantly evolving, and we may not be able to modify our solutions to assure the compatibility with that of other third parties following development changes. Furthermore, third-party providers or manufacturers may, without prior notice, change the configuration or features of their services and products, restrict our access, or adversely alter the terms and conditions of use. Any of these changes could functionally limit or terminate our ability to use these third-party products and services in conjunction with ours, which could have a material negative impact on our business. If we fail to properly integrate our solutions with our customers' existing business systems and applications and physical infrastructure, whether developed in-house or by third parties, we may be unable to offer the functionality that is expected by our customers and is essential to our solutions, which would materially and adversely affect our business, results of operations and financial condition.

Our customers are also able to use and manage our solutions on multiple terminals, including PCs and mobile devices such as smartphones and tablets. As new smart devices and operating systems are released, we may encounter difficulties supporting these devices and operating systems, and we may need to devote significant resources to the creation, support, and upgrade of our solutions. If we experience difficulties integrating our solutions into PCs, smartphones, tablets or other devices, our reputation, results of operations and future growth could be materially and adversely affected.

We operate in a highly competitive market. If we fail to compete effectively, our business, results of operations and financial condition could be materially and adversely affected.

The cloud-based communications industry in China is rapidly evolving and highly competitive. With the introduction of new technologies and market entrants, we expect competition to continue to intensify in the future. The principal competitive factors in our market include comprehensiveness of business portfolio, innovation capabilities, brand awareness and reputation, strength of sales and marketing efforts as well as customer reach.

Some of our competitors have greater financial, technological and other resources, greater brand recognitions, larger sales and marketing budgets and larger intellectual property portfolios. As a result, certain of our competitors may be able to respond more quickly and effectively than we can to new or evolving opportunities, technologies, standards or customer requirements. In addition, some competitors may offer products or services that address one or a limited number of functions at lower prices, with greater depth than our solutions or in geographies or industry verticals where we do not operate or are less established. Our current and potential competitors may develop and market new products or services with functionality comparable to ours, which could lead to increased pricing pressures. In addition, some of our competitors have lower prices, which may be attractive to certain customers even if those products or services have different or lesser functionality. Moreover, as we expand the scope of our business, we may face additional competition. If one or more of our competitors were to merge or partner with another of our competitors, the change in the competitive landscape could also adversely affect our ability to compete effectively.

If we are unable to compete effectively or maintain favorable pricing, it could lead to reduced revenues, reduced margins, increased losses or the failure of our solutions to achieve or maintain widespread market acceptance, any of which could materially and adversely affect our business, results of operations and financial condition.

If we fail to collect contract assets and accounts receivable from our customers in a timely manner, our business, results of operations and financial condition may be materially and adversely affected.

Our contract assets represented our right to consideration for work performed but not invoiced. When our right to consideration becomes unconditional, we reclassify the contract assets to accounts receivable. We had contract assets of RMB18.3 million, RMB21.1 million and RMB50.8 million (US\$7.4 million) as of December 31, 2020, 2021 and 2022, respectively. We recorded allowance for contract assets of RMB6.7 million, RMB10.6 million and RMB12.3 million (US\$1.8 million), respectively, as of December 31, 2020, 2021 and 2022. We typically extend to our customers payments terms ranging from 60 to 180 days after our customers have been billed, resulting in accounts receivable. We had accounts receivable, net, including those due from third parties and related parties, of RMB214.6 million, RMB159.0 million and RMB133.7 million (US\$19.4 million) as of December 31, 2020, 2021 and 2022, respectively. We recorded allowance for doubtful accounts in relation to accounts receivable of RMB44.4 million, RMB57.4 million and RMB81.2 million (US\$11.8 million), respectively, as of December 31, 2020, 2021 and 2022.

We cannot assure you that we will be able to receive the full amount of contract assets as our works may not be fully accepted by our customers. We are also exposed to the risks that our customers may delay or even be unable to pay us in accordance with the payment terms included in our agreements with them. We make a credit assessment of our customers before entering into an agreement with them. Nevertheless, we cannot assure you that we are or will be able to accurately assess the creditworthiness of each customer. In particular, customers that are large enterprises generally have longer payment cycles, which may result in increased contract assets and accounts receivable. Furthermore, we also serve customers in certain rapidly evolving and competitive industries, some of which have also been highly regulated. Such customers' financial soundness is subject to changes in the industry trend or relevant laws and regulations, which are beyond our control. In particular, we experienced prolonged delivery process, extended payment cycles and delayed collection of accounts receivable as a result of the COVID-19 outbreak. Any change in our customers' business and financial conditions may affect our reclassification of contract assets and collection of accounts receivable. Any delay in payment or failed payment may adversely affect our liquidity and cash flows, which in turn may have a material adverse effect on our business, results of operations and financial condition. In addition, as our business continues to scale up, our contract assets and accounts receivable may continue to grow, which may increase our credit risk exposure.

Furthermore, we are exposed to concentration of credit risk. As of December 31, 2022, two of our customers represented 21.0% and 17.1% of our total accounts receivable, net including related party amounts and contract assets, respectively. Any substantial delay in or default of payments from these customers could materially and adversely affect our cash flows. We may also have to re-evaluate our relationship with these customers if we cannot timely obtain payment from them, which could have a negative impact on our customer base.

If we fail to maintain and enhance our brand image and generate positive publicity, our business, results of operations and financial condition could be materially and adversely affected.

We believe that maintaining and enhancing our brands including “Ronglian,” “7moor Cloud” and “RongVideo” and increasing market awareness of our company and solutions play an important role in achieving widespread acceptance as well as strengthening our relationships with existing customers and our ability to attract new customers. The successful promotion of our brands will depend largely on our continued marketing efforts, our ability to continue to offer high-quality solutions, our ability to successfully differentiate our solutions from competing products and services, and our ability to maintain market leadership. If we fail to maintain and enhance our brands, our pricing power may decline relative to competitors and we may lose existing or prospective customers, which could materially and adversely affect our business, results of operations and financial condition.

We have conducted various online and offline branding and customer acquisition activities. These activities, however, may not be successful or yield increased revenues. The promotion of our brand also requires us to make substantial expenditures, and we anticipate these expenditures to increase as the markets we address become more competitive and as we expand into new markets. To the extent that these marketing activities lead to increased revenues, the additional revenues generated could nevertheless be insufficient to offset the increased expenses we incur.

In addition, our customers may, from time to time, complain about our solutions, such as complaints about the quality of our solutions, our pricing and customer support. If we fail to handle customer complaints effectively, our brand and reputation may suffer, our customers may lose confidence in us, and they may reduce or cease their use of our solutions. In addition, many of our customers post and discuss on social media their experience with internet-based products and services, including ours. Our success depends, in part, on our ability to generate positive customer feedback and minimize negative feedback on social media channels where existing and potential customers seek and share information. If our customers are dissatisfied with any action we take or change we implement in our solutions, their online commentary to this effect could negatively affect our brand and reputation. Complaints or negative publicity about us or our solutions could materially and adversely affect our reputation and ability to attract and retain customers, and as a result, our business, results of operations and financial condition.

We may fail to optimize the prices for our solutions, and any adverse trend in pricing will impact our revenues and results of operations.

We charge our customers on a combination of pricing methods, depending on the type of solutions they use. For example, for our CPaaS solutions, we typically charge our customers usage-based fees for sending text messages and making voice calls. For our cloud-based CC solutions, we typically charge our customers a combination of subscription and usage-based fees or project-based fees. We predominately offer our cloud-based UC&C solutions on a project basis. We may fail to optimize our pricing, which is predominantly determined by the competitive landscape and market conditions. In the past, we have sometimes reduced our prices either for individual customers in connection with long-term agreements or for a particular solution or project, and have also sometimes failed to increase our pricing levels to cover increased costs and expenses or to reach desirable profit margins.

One of the challenges to our pricing is that the fees that we pay to mobile network operators over whose networks we transmit communications can vary frequently and are affected by volume and other factors that may be beyond our control and difficult to predict. This can cause us to incur increased costs that we may be unable or unwilling to pass through to our customers, which could adversely affect our business, results of operations and financial condition. Furthermore, as competitors introduce new products or services that compete with ours or reduce their prices, we may be unable to attract new customers or retain existing customers based on our historical pricing. Moreover, large enterprises, which are a primary focus of our business, may demand substantial price concessions leveraging their significant bargaining power. In addition, if the mix of solutions sold changes, we may need to, or choose to, revise our pricing. As a result, in the future we may fail to increase our pricing levels, or may even be required or choose to reduce our prices or change our pricing model, which could materially and adversely affect our business, results of operations and financial condition.

Our sales cycle can be lengthy and unpredictable and requires considerable time and expense when we seek to serve large enterprises, and we may encounter configuration, integration, implementation and customer support challenges that could cause delays in revenue recognition.

We currently derive a significant portion of our revenues from sales of our solutions to large enterprises. We generated 73.9%, 72.1% and 65.0% of our total revenues from large-enterprise customers in 2020, 2021 and 2022, respectively. We believe that increasing our sales to these customers is key to our future growth. The length of our sales cycle, which is the time between initial contact with a potential customer and the ultimate sale to that customer, is approximately four months on average and varies upon the size of potential customer and project. Based on our experience, the sales cycle for large enterprises, which generally ranges from four months to one year, is often lengthy and unpredictable, especially when we serve them with our project-based solutions. Many of our prospective customers do not have prior experience with cloud-based communications and, therefore, typically spend significant time and resources evaluating our solutions before they purchase from us. Similarly, we typically spend more time and effort determining their requirements and educating these customers about the benefits and uses of our solutions. Large enterprises also tend to demand more customizations, integrations and additional features than their smaller counterparts. As a result, we may be required to divert more sales and research and development resources to large enterprises and will have less personnel available to support other customers, or that we will need to hire additional personnel, which would increase our operating expenses. It is often difficult for us to forecast when a potential enterprise sale will close, the size of the customer's initial service order and the period over which the implementation will occur, any of which may impact the amount of revenues we recognize or the timing of revenue recognition. Large enterprises may delay their purchases as they assess their budget constraints, negotiate early contract terminations with their existing providers or wait for us to develop new features. Any delay in closing, or failure to close, a large-enterprise sales opportunity in a particular period or year could significantly harm our projected growth rates and cause the amount of new sales we book to vary significantly from period to period. We also may have to delay revenue recognition on some of these transactions until the customer's technical or implementation requirements have been met.

In addition, we have experienced, and may continue to experience, challenges in configuring, integrating and implementing our solutions and providing ongoing support when serving large enterprises. Large enterprises' networks and operational systems are often more complex than those of smaller customers, and the configuration, integration and implementation of our solutions for these customers generally require more efforts as well as participation from the customer's IT team. There can be no assurance that the customer will make available to us the necessary personnel and other resources for a successful configuration. The lack of local resources may prevent us from proper configurations, which can in turn adversely impact the quality of solutions that we deliver over our customers' networks, and/or may result in delays in the implementation of our solutions. This may create a public perception that we are unable to deliver high-quality solutions to our customers, which could harm our reputation and make it more difficult to attract new customers and retain existing customers. Moreover, large enterprises tend to require higher levels of customer support and individual attention, including periodic business reviews and training sessions, which may increase our costs. If a customer is unsatisfied with the quality of solutions and customer support we provide, we may decide to incur costs beyond the scope of our contract with the customer in order to address the situation and protect our reputation, which may in turn reduce or eliminate the profitability of our contract with the customer. In addition, negative publicity related to our customer relationships, regardless of its accuracy, could harm our reputation and make it more difficult for us to compete for new business with current and prospective customers.

If we fail to effectively execute the sale, configuration, integration, implementation and ongoing support of our solutions to large enterprises, our results of operations and our overall ability to grow our customer base could be materially and adversely affected.

We serve various levels and types of state-owned enterprises in China. Conducting business with state-owned enterprises can involve complexity that requires extra outlay of financial and managerial resources in order to comply with related laws and regulations.

We have targeted and will continue to target more sales efforts on China's state-owned enterprises. The procurement process for state-owned enterprises is in many ways more challenging than contracting in the private sector. We must comply with laws and regulations relating to the formation, administration, performance and pricing of contracts with state-owned enterprises. These laws and regulations may impose additional costs on our business or prolong or complicate our sales efforts, and failure to comply with these laws and regulations or other applicable requirements could lead to claims for damages from our customers, penalties, termination of contracts and other adverse consequences. Any such damages, penalties, disruptions or limitations in our ability to do business with state-owned enterprises could have a material adverse effect on our business, results of operations and financial condition. In addition, sales to China's state-owned enterprise often involve open tendering processes, where we face intense competition and pricing pressure and may thus suffer increased operating expenses and lowered profit margins. If we cannot succeed in our competitive tenders, our customer base may decrease, and our brand image and reputation may be adversely affected.

State-owned enterprises often require highly specialized contract terms that may differ from our standard arrangements, and often impose compliance requirements that are complicated, require preferential pricing, terms and conditions, or are otherwise time-consuming and expensive to satisfy. Compliance with these special standards or satisfaction of such requirements could complicate our efforts to obtain business or increase the costs of doing so. Even if we do meet these special standards or requirements, the increased costs associated with providing our solutions to state-owned enterprises could harm our margins.

Real or perceived errors, defects, failures, vulnerabilities, or bugs in our solutions could diminish customer demand, harm our business and results of operations and subject us to liability.

Our customers use our solutions to manage important aspects of their businesses, and any errors, defects, failures, vulnerabilities, bugs or other performance problems of our solutions could hurt our reputation and may damage our customers' businesses. Our solutions and the underlying infrastructure are highly technical and complex. There can be no assurance that our solutions will not now or in the future contain undetected errors, defects, bugs, or vulnerabilities, which may cause temporary service outages for some customers. Certain errors in our software code may not be discovered until after the code has been released. Any error, defect, bug, or vulnerability discovered in our code after release could result in damage to our reputation, loss of customers, loss of revenues, or liability for damages, any of which could adversely affect our business and financial results. We implement bug fixes and upgrades as part of our regularly scheduled operation maintenance, which may lead to system downtime. Even if we are able to implement the bug fixes and upgrades in a timely manner, any history of defects, or the loss, damage or inadvertent release of confidential customer data, could cause our reputation to be harmed, and customers may elect not to purchase or renew their agreements with us and subject us to warranty claims or other liabilities. The costs associated with any material defect or error in our solutions or other performance problems may be substantial and could materially and adversely affect our results of operations.

We may be unable to integrate acquired businesses and technologies successfully or achieve the expected benefits of such acquisitions. We may acquire or invest in companies in the future, which may divert our management's attention and result in debt or dilution to our shareholders.

We have acquired several businesses in recent years, such as Beijing Ronglian Qimo Technology Co., Ltd., or Ronglian Qimo. In addition, in March 2021, we acquired Shanghai GuoHeBing Software Technology Co., Ltd., or EliteCRM, a leading customer relationship management software provider, and issued 2,411,177 Class A ordinary shares in the form of restricted shares as equity awards to certain management members of EliteCRM. In December 2021, we acquired Zhuge Inc., or Zhuge, a user-centric intelligent data solution provider. In connection with the acquisition, we issued 468,455 Class A ordinary shares in the form of restricted shares as equity awards to certain management members of Zhuge (excluding those repurchased pursuant to performance target adjustments). These restricted shares were issued under private placements pursuant to exemption or exclusion from the registration requirements under the Securities Act, subject to certain vesting schedule and forfeiture to the extent any share remains unvested in case of early termination of employment. We may make additional acquisitions in the future.

Although we have not experienced any difficulty in integrating acquired businesses, there can be no assurance that we will be able to successfully integrate acquired businesses and, where desired, their business portfolios into ours, to realize the intended benefits in the future. If we fail to successfully integrate acquired businesses or their business portfolios, or if they fail to perform as we anticipate, our existing business and our revenues and results of operations could be adversely affected. If the due diligence of the operations and customer arrangements of acquired businesses performed by us and by third parties on our behalf is inadequate or flawed, or if we later discover unforeseen financial or business liabilities, acquired businesses and their assets may not perform as expected or we may come to realize that our initial investment was too large or unwarranted. Additionally, acquisitions could result in difficulties integrating acquired operations and, where deemed desirable, transitioning overlapping products and services into a single business line, thereby resulting in the diversion of capital and the attention of management and other key personnel away from other business issues and opportunities. We may fail to retain employees acquired through acquisitions, which may negatively impact our integration efforts. Consequently, the failure to integrate acquired businesses effectively may adversely impact our business, results of operations and financial condition.

We may make additional acquisitions or investments or enter into joint ventures or strategic alliances with other companies. Such plans may divert our management's attention, result in debt or dilution to our shareholders, or subject us to other adverse consequences.

We have been, and may be in the future, party to intellectual property rights claims and other litigation matters, which are expensive to support, and if resolved adversely, could harm our business.

There has been substantial litigation in the cloud-based communications and related industries regarding intellectual property rights. Third parties may, from time to time, claim that we are infringing, misappropriating or otherwise violating their intellectual property rights, including patents, software copyrights and other intellectual property rights. Third parties may also claim that our employees have misappropriated or divulged their former employers' trade secrets or confidential information. We have been found, and may be found in the future, to have infringed upon third party's proprietary rights. For example, due to a dispute between the former chief executive officer of the affiliated entity, Ronglian Qimo, and his former employer on non-competition matters, Ronglian Qimo and such officer were sued in 2016 for unauthorized application of a source code in a call center software previously sold by Ronglian Qimo. We believe such source code was legally possessed and used by such officer according to his agreement with the former employer; however, a local court held us liable for infringement of software copyright in 2019. We ceased to deploy such source code in our solutions since 2016 and have fully fulfilled our obligations under the court judgment.

Our broad range of proprietary technologies increases the likelihood that third parties may claim infringement by us of their intellectual property rights. Certain technologies necessary for our business may, in fact, be patented by other parties either now or in the future. If such technologies were held under a valid patent by a third party, we would have to negotiate a license for the use of that technology, which we may not be able to negotiate on commercially reasonable terms or at all. The existence of such a patent, or our inability to negotiate a license for any such technology on reasonable terms, could force us to cease using such technology and offering solutions incorporating such technology. In addition, even if we succeed in obtaining a license to continue using the relevant technology, we may incur substantial license fees, which could materially and adversely affect our business, results of operations and financial condition.

If we are found to have infringed upon the intellectual property rights of any third party in legal or other proceedings that may be asserted against us, we could be subject to material monetary liabilities for such infringement. We could also be required to refrain from using, developing or selling certain solutions incorporating the affected intellectual property rights, which could materially and adversely affect our business and results of operations. We may continue to receive, in the future, notices of claims of infringement, misappropriation or misuse of other parties' proprietary rights. There can be no assurance that we will prevail in contesting these claims or that actions alleging infringement by us of third-party intellectual property rights will not be asserted or prosecuted against us. Furthermore, legal or other proceedings involving infringement of intellectual property rights may require significant time and expense to defend, may divert management's attention away from other aspects of our operations and, upon resolution, may have a material adverse effect on our business, results of operations, financial condition and cash flows. Any negative publicity about our claimed infringement of a third party's proprietary rights could also harm our business.

We could incur substantial costs in protecting or defending our intellectual property rights, and any failure to protect our intellectual property could adversely affect our business, results of operations and financial condition.

We rely, in part, on patent, trademark, copyright, and trade secret law to protect our intellectual property in China and abroad. The intellectual property rights we have obtained may not be sufficient to provide us with a competitive advantage, and could be challenged, invalidated, infringed upon or misappropriated. In addition, we cannot assure you that any of our ongoing intellectual property registration applications will ultimately be successful or will result in registrations with adequate scope for our business, or at all. If our applications are not successful, we may have to use different intellectual property rights for affected technologies or solutions, or seek to enter into arrangements with any third party who may have prior registrations, applications or rights, which might not be available on commercially reasonable terms. We may not be able to protect our proprietary rights in China or internationally, and competitors may independently develop technologies that are similar or superior to our technology, duplicate our technology or design around any patent of ours.

We further protect our proprietary technologies and solutions by requiring our employees to enter into confidentiality agreements and business partners to enter into agreements with confidentiality clauses. These agreements and clauses may not effectively prevent unauthorized use or disclosure of our confidential information, intellectual property or technology and may not provide an adequate remedy in the event of unauthorized use or disclosure.

Litigation may be necessary in the future to enforce our intellectual property rights, to determine the validity and scope of our proprietary rights or the rights of others, or to defend against claims of infringement or invalidity. Such litigation could result in substantial costs and diversion of managerial time and resources and could have a material adverse effect on our business, results of operations and financial condition. Any settlement or adverse determination in such litigation would also subject us to significant liability.

As we expand our business internationally, we also may be required to protect our proprietary technologies and solutions in an increasing number of jurisdictions, a process that is expensive and may not be successful, or which we may not pursue in every location. In addition, effective intellectual property protection may not be available to us in every country, and the laws of some foreign countries may be different from those in China. Additional uncertainty may result from changes to intellectual property legislation enacted in China and elsewhere, and from interpretations of intellectual property laws by applicable courts and agencies. Accordingly, despite our efforts, we may be unable to obtain and maintain the intellectual property rights necessary to provide us with a competitive advantage.

If we fail to comply with laws and contractual obligations related to data privacy and protection and cybersecurity, our business, results of operations and financial condition could be materially and adversely affected.

We have access to certain data and information of enterprises which use our solutions. We may also have access to certain personal data and information of our customers' end-users. We face risks inherent in handling and protecting such large volumes of data. In particular, we face a number of challenges relating to data protection, including:

- protecting the data in and hosted on our solutions or infrastructure, including against attacks by third parties or fraudulent behaviors by our employees;
- addressing concerns related to privacy and sharing, safety, security and other factors; and
- complying with applicable laws, rules, regulations and contractual obligations relating to the collection, use, disclosure or security of personal information, including any request from regulatory and government authorities relating to such data.

Any system failure or security breach or lapse that results in the release of data of our customers or their end-users could harm our reputation and brand and, consequently, our business, in addition to exposing us to potential legal liability. In addition, our customers and business partners as well as their employees may improperly use or disclose the data we disclose to them for our operations, and we have limited control over such actions. Any failure, or perceived failure, by us, our employees, our customers and business partners, or their employees to comply with privacy policies or with any regulatory requirements or privacy protection-related laws, rules, regulations and contractual obligations owed to our customers and other third parties could result in proceedings or actions against us by regulatory agencies or private parties. These proceedings or actions may subject us to significant penalties and negative publicity, require us to change our business practices, increase our costs and severely disrupt our business.

Our practices regarding the use, retention, transfer, disclosure and security of confidential data could become the subject of enhanced regulations and increased public scrutiny in the future. The regulatory frameworks regarding privacy issues in many jurisdictions are constantly evolving and can be subject to significant changes from time to time. For instance, a growing number of legislative and regulatory bodies have adopted user notification requirements in the event of unauthorized access to or acquisition of certain types of data. The PRC regulators, including the Ministry of Industry and Information Technology, or the MIIT, and the CAC have been increasingly focused on regulation in the areas of cybersecurity and data protection and governmental authorities have enacted a series of laws and regulations to enhance the protection of privacy and data, which require certain authorization or consent from users prior to collection, use or disclosure of their personal data and also protection of the security of the personal data of such users. The MIIT issued the Order for the Protection of Telecommunications and Internet User Personal Information on July 16, 2013, requiring internet service providers to establish and publish protocols relating to the collection or use of personal information, keep any collected information strictly confidential and take technological and other measures to maintain the security of such information. Institutions and their employees are prohibited from selling or otherwise illegally disclosing a person's personal information obtained during the course of performing duties or providing services. Pursuant to the PRC Cybersecurity Law, effective on June 1, 2017, network operators are required to fulfill certain obligations to safeguard cybersecurity and enhance network information management.

Moreover, existing PRC privacy, cybersecurity and data protection-related laws and regulations are evolving and subject to potentially differing interpretations, and various legislative and regulatory bodies may expand current or enact new laws and regulations regarding privacy, cybersecurity and data protection-related matters. Furthermore, the PRC Civil Code, the PRC Cybersecurity Law, the Personal Information Protection Law and the PRC Data Security Law set general requirement on internet service providers to protect individual privacy and personal data security. Internet service providers are required to collect data in accordance with the laws and in proper manner, and obtain consent from internet users prior to the collection, use or disclosure of internet users' personal data. These developments could adversely affect our business, operating results and financial condition. Any failure or perceived failure by us, our products or our platform to comply with new or existing PRC privacy, cybersecurity or data protection laws, regulations, policies, industry standards or legal obligations, any failure to bind our suppliers and contractors to appropriate agreements or to manage their practices or any systems failure or security incident that results in the unauthorized access to, or acquisition, release or transfer of, personally identifiable information or other data relating to customers or individuals may result in governmental investigations, inquiries, enforcement actions and prosecutions, private claims and litigation, fines and penalties, adverse publicity or potential loss of business. See "Item 4. Information on the Company—B. Business Overview—Regulations—Regulations relating to cybersecurity and privacy protection." For example, on June 10, 2021, the Standing Committee of the National People's Congress, or the SCNPC, promulgated the PRC Data Security Law, which took effect on September 1, 2021. The PRC Data Security Law provides for data security and privacy obligations on entities and individuals carrying out data activities and introduces a data classification and tiered protection system based on the importance of data and the degree of impact on national security, public interests or legitimate rights and interests of individuals or organizations when such data is manipulated, destroyed, leaked or illegally acquired or used. The PRC Data Security Law also introduces a national security review procedure for those data activities which may affect national security and imposes export restrictions on certain data information. Furthermore, along with the promulgation of the Opinions on Strictly Cracking Down Illegal Securities Activities in Accordance with the Law, overseas-listed China-based companies are experiencing a heightened scrutiny over their compliance with laws and regulations regarding data security, cross-border data flow and management of confidential information from PRC regulatory authorities.

On August 20, 2021, the SCNPC issued the Personal Information Protection Law, which has been effective from November 1, 2021 and reiterates the circumstances under which a personal information processor could process personal information and the requirements for such circumstances. The Personal Information Protection Law clarifies the scope of application, the definition of personal information and sensitive personal information, the legal basis of personal information processing, and the basic requirements of notice and consent.

On November 14, 2021, the CAC issued the Administrative Regulations of Cyber Data Security (Draft for Comments), or the Draft Cyber Data Security Regulations. The Cyber Draft Data Security Regulations sets out general guidelines on a number of matters, including protection of personal information, security of important data, security management of cross-border data transfer, obligations of internet platform operators, supervision and management, and legal liabilities. Specifically, the Draft Cyber Data Security Regulations provides that data processors conducting merger, reorganization or separation of Internet platform operators that have acquired a large number of data resources related to national security, economic development or public interests affects or may affect national security shall apply for cybersecurity review. See "Item 4. Information on the Company—B. Business Overview—Regulations—Regulations relating to cybersecurity and privacy protection—Cybersecurity." However, we are not certain whether such draft measures will apply to our company, or whether the scope of financing activities that are subject to such draft measures may change in the future. Furthermore, if such draft measures are adopted into law in the future, we may become subject to enhanced cybersecurity review.

On December 28, 2021, the CAC and other 12 government authorities jointly issued the Cybersecurity Review Measures, which took effect on February 15, 2022. The Cybersecurity Review Measures provides that certain operators of critical information infrastructure purchasing network products and services or network platform operators carrying out data processing activities, which affect or may affect national security, must apply with the Cybersecurity Review Office for a cybersecurity review, and that network platform operators holding personal information of more than one million users seeking for listing in a foreign country must apply for the cybersecurity review. However, the scope of operators of "critical information infrastructure" and the interpretation for "affect or may affect national security" under the current regulatory regime remain unclear and are subject to the decisions of competent PRC regulatory authorities. As of the date of this annual report, we have not been informed by any PRC governmental authority of any requirement that we file for a cybersecurity review. If we are identified as an operator of "critical information infrastructure," we would be required to fulfill various obligations as required under PRC cybersecurity laws and other applicable laws for such operators of "critical information infrastructure" thus currently not applicable to us, including, among others, setting up a special security management organization, organizing regular cybersecurity education and training, formulating emergency plans for cybersecurity incidents and conducting regular emergency drills, and we may need to follow cybersecurity review procedure and apply with Cybersecurity Review Office before making certain purchases of network products and services. During cybersecurity review, we may be required to make significant changes to our business practices, suspend certain business, or even be prohibited from providing certain service offerings in jurisdictions in which we currently operate or in which we may operate in the future. Failure to pass the cybersecurity review could also lead to negative publicity and a diversion of time and attention of our management and our other resources. It could be costly and time-consuming for us to prepare application materials and make the applications. Furthermore, there can be no assurance that we will obtain the clearance or approval for these applications from the Cybersecurity Review Office and the relevant regulatory authorities in a timely manner, or at all. If we are found to be in violation of applicable cybersecurity requirements, the relevant governmental authorities may, at their discretion, conduct investigations, levy fines, or require us to change our business practices in a manner materially adverse to our business. Any of these actions may disrupt our operations and adversely affect our business, results of operations and financial condition.

On July 7, 2022, the CAC promulgated the Measures on Data Export Security Assessment, which came into effect on September 1, 2022. Such Measures on Data Export Security Assessment requires data processors to apply for a security assessment on data export. On February 24, 2023, the CSRC, the Ministry of Finance, the National Administration of State Secrets Protection and the National Archives Administration released the revised Provisions on Strengthening the Confidentiality and Archives Administration of Overseas Securities Offering and Listing by Domestic Companies, or the Provision on Confidentiality, which became effective on March 31, 2023.

The CAC published the Provisional Administrative Measures for AIGC services, or the AIGC Administrative Measures, on July 10, 2023 and became effective on August 15, 2023. Pursuant to the AIGC Administrative Measures, AIGC service providers must comply with a number of rules and filing in relation to AIGC content, personal data, privacy protection and intellectual property rights. In case of a breach of the rules or non-compliance with the filing requirements, the regulatory authorities will impose warning, fine and other penalties. Failure to rectify the breach or non-compliance may lead to suspension in operations. We may incur substantial costs to comply with the AIGC Administrative Measures and to establish and maintain relevant internal compliance policies.

Given that the above-mentioned laws, regulations and policies were recently promulgated or issued, their interpretation, application and enforcement are subject to substantial uncertainties. We may be required to make further adjustments to our business practices to comply with the enacted form of the laws, which may increase our compliance cost and adversely affect our business performance. We expect that there will continue to be new proposed laws, rules of self-regulatory bodies, regulations and industry standards concerning privacy, data protection and information security in the PRC, and we cannot yet determine the impact such future laws, rules, regulations and standards may have on our business. Despite our efforts to comply with applicable laws, regulations and policies relating to cybersecurity, privacy, data protection and information security, we cannot assure you that our practices, offerings, services or platform will meet all of the requirements imposed on us by such laws, regulations or policies. Any failure or perceived failure to comply with applicable laws, regulations or policies may result in inquiries or other proceedings being instituted against, or other lawsuits, decisions or sanctions being imposed on us by governmental authorities, users, consumers or other parties, including but not limited to warnings, fines, directions for rectifications, suspension of the related business and termination of our applications, as well as in negative publicity on us and damage to our reputation, any of which could have a material adverse effect on our business, results of operations, financial condition and prospects.

Moreover, we may not disclose any personal data or information, unless required by the competent PRC authorities through certain procedures required by the laws, for the purpose of, among others, safeguarding the national security, investigating crimes, investigating infringement of information network communications rights, or cooperating with the supervision and inspection of telecommunications regulatory authorities. Failure to comply with these requirements could subject us to fines and penalties.

We also may be bound by contractual obligations relating to our collection, use and disclosure of personal, financial and other data or may find it necessary or desirable to join industry or other self-regulatory bodies or other privacy, cybersecurity or data protection-related organizations that require compliance with their rules pertaining to privacy and data protection.

Further, in many cases we rely on the data processing, privacy, data protection and cybersecurity practices of our suppliers and contractors, including with regard to maintaining the confidentiality, security and integrity of data. If we fail to manage our suppliers or contractors or their relevant practices, or if our suppliers or contractors fail to meet any requirements with regard to data processing, privacy, data protection or cybersecurity required by applicable legal or contractual obligations that we face (including any applicable requirements of our clients), we may be liable in certain cases. Legal obligations relating to privacy, cybersecurity and data protection may require us to manage our suppliers and their practices and to enter into agreements with them in certain cases. We may face difficulties in binding our suppliers and contractors to these agreements and otherwise managing their relevant practices, which may subject us to claims, proceedings, and liabilities.

Security breaches and improper access to or disclosure of our data or our customers' data or other cyberattacks on our systems could result in litigation and regulatory risk and harm our reputation and our business.

Our business operations involve the storage and transmission of our customers' and their end-users' proprietary and other sensitive data, including financial information and personally identifiable information. While we have security measures in place to protect our customers and their end-users' data, our solutions and underlying infrastructure may in the future be materially breached or compromised as a result of the following:

- third-party attempts to fraudulently induce employees or customers into disclosing sensitive information such as usernames, passwords or other information to gain access to our customers' data, our data or our IT systems;
- efforts by individuals or groups of hackers and sophisticated organizations;
- cyberattacks on our internally built infrastructure;
- vulnerabilities resulting from enhancements and upgrades to our existing solutions;
- vulnerabilities in third-party infrastructure and systems and applications that our solutions operate in conjunction with or are dependent on;
- vulnerabilities existing within newly acquired or integrated technologies and infrastructure;
- attacks on, or vulnerabilities in, the many different underlying networks and services that power the internet that our solutions depend on, most of which are not under our control; and
- employee or contractor errors or intentional acts that compromise our security systems.

These risks are mitigated, to the extent possible, by our ability to maintain and improve business and data governance policies, enhanced processes and internal security controls, including our ability to escalate and respond to known and potential risks. Although we have developed systems and processes designed to protect our customers' and their end-users' proprietary and other sensitive data, we can provide no assurance that such measures will provide absolute security. For example, our ability to mitigate these risks may be affected by the following:

- frequent changes to, and growth in complexity of, the techniques used to breach, obtain unauthorized access to, or sabotage IT systems and infrastructure, which are generally not recognized until launched against a target, possibly resulting in our being unable to anticipate or implement adequate measures to prevent such techniques;
- the continued evolution of our internal IT systems as we early adopt new technologies and new ways of sharing data and communicating internally and with customers, which increases the complexity of our IT systems;
- authorization by our customers to third-party technology providers to access their data, which may lead to our customers' inability to protect their data that is stored on our servers; and
- our limited control over our customers or third-party technology providers, or the transmissions or processing of data by third-party technology providers, which may not allow us to maintain the integrity or security of such transmissions or processing.

In the ordinary course of business, we have been the target of malicious cyberattack attempts such as distributed denial-of-service attacks. To date, such identified security events have not been material or significant to us, including to our reputation or business operations, or had a material financial impact. We have implemented procedures designed to shield us against potential cyberattacks. However, there can be no assurance that future cyberattacks would not have a material adverse effect on our business operations.

Any catastrophe, including outbreaks of health pandemics and other extraordinary events, could have a negative impact on our business operations.

We are vulnerable to natural disasters and other calamities. Fire, floods, typhoons, earthquakes, power loss, telecommunications failures, wars, riots, terrorist attacks or similar events could cause severe disruption to our daily operations and may even require a temporary closure of our facilities. Our business could also be adversely affected by the effects of Ebola virus diseases, H1N1 flu, H7N9 flu, avian flu, Severe Acute Respiratory Syndrome (SARS), 2019 Coronavirus Disease (COVID-19) or other epidemics. We cannot assure you that our backup systems or other mitigating measures will be adequate to protect us from the effects of any of these events, which may give rise to server interruptions, system breakdowns or network failures, and could cause the inability to provide our services. The continuance of any of these events could increase the costs associated with our operations and reduce our ability to operate our business at intended capacities, thereby reducing revenue and profitability.

For example, the outbreak of COVID-19 has materially and adversely affected the Chinese and global economy. In response to the pandemic, the governments implemented mitigation measures from time to time to contain the spread of the pandemic. During the COVID-19 pandemic, we experienced an increase in demand for our solutions following the COVID-19 outbreak due to the nationwide quarantine measures which have resulted in many businesses requiring their employees to work from home and collaborate remotely via cloud-based communications channels. However, we nonetheless experienced significant business disruptions as a result of the outbreak. Specifically, we experienced customer loss during the outbreak, primarily due to a decrease in the number of enterprise customers of smaller sizes that were less equipped to withstand the impact of COVID-19. We also experienced delayed service delivery, extended payment cycles and delayed collection of accounts receivable. In addition, we experienced delays in establishing cooperative relationships with our customers, especially large-enterprise customers, caused by the disruptions to offline sales and marketing activities during the outbreak. Any future impact caused by the COVID-19 pandemic will depend on its subsequent development. We cannot be entirely certain as to whether its impact will be completely alleviated. To the extent that future waves of COVID-19 infections disrupt normal business operations and traveling in countries around the world, we may face disrupted market demand and operational challenges. We are closely monitoring the development of the pandemic and continuously evaluating any potential impact on our business, results of operations and financial condition.

We depend largely on the continued services of our senior management, core technical personnel, and qualified staff. Our inability to retain their services could adversely affect our business, results of operations and financial condition.

Our future success heavily depends upon the continuing services of our senior management and other key employees. In particular, we rely on the expertise, experience and vision of Mr. Changxun Sun, our founder and chief executive officer, as well as other members of our senior management team. We also rely on the technical know-how and skills of our core research and development personnel. If any of our senior management or core technical personnel becomes unable or unwilling to continue to contribute their services to us, we may not be able to replace them easily or at all. As a result, our business may be severely disrupted, our results of operations and financial condition may be materially and adversely affected, and we may incur additional expenses to recruit, train and retain key employees.

Our existing operations and future growth require a sizeable and qualified workforce. For example, the effective operation of our solutions and the underlying infrastructure depends in part on our professional employees. We also rely on experienced personnel for our business aspects of technology and solution design and development to anticipate and effectively respond to the changing customer preferences and market trends. However, our industry is characterized by high demand and intense competition for talents. In order to attract and retain talents, we may need to offer higher compensation, better trainings, more attractive career trajectory and other benefits to our employees, which may be costly and burdensome. We cannot assure you that we will be able to attract or retain qualified workforce necessary to support our future growth. We may fail to manage our relationship with our employees, and any disputes between us and our employees, or any labor-related regulatory or legal proceedings may divert managerial and financial resources, negatively impact staff morale, reduce our productivity, or harm our reputation and future recruiting efforts. In addition, as our business grows, our ability to train and integrate new employees into our operations may not meet the increasing demands of our business. Any of the above issues related to our workforce may materially and adversely affect our results of operations and future growth.

We have experienced robust growth and our recent growth rates may not be indicative of our future growth.

We have experienced robust growth, and we may not be able to sustain growth consistent with recent history or at all in future periods. Further, as we operate in a new and rapidly changing industry, widespread acceptance and use of our solutions are critical to our future growth and success. We believe our revenue growth depends on a number of factors, including our ability to:

- attract new customers;
- provide excellent customer experience;
- retain our existing customers, expand usage of our solutions, and cross-sell and up-sell to our existing customers;
- introduce and grow adoption of enhancements and new solutions we develop;
- achieve widespread acceptance and use of our solutions;
- adequately expand our sales and marketing force and other sales channels;
- maintain the security and reliability of our solutions;
- comply with existing and new applicable laws and regulations;
- price our solutions effectively so that we are able to attract and retain customers without compromising our profitability; and
- successfully compete against established companies and new market entrants; and increase awareness of our brand on a global basis and expand internationally.

If we are unable to accomplish any of these tasks, our revenue growth will be harmed. We also expect our operating expenses to increase in absolute terms as we scale, and if our revenue growth does not increase to offset these anticipated increases in our operating expenses, our business, results of operations and financial condition could be harmed, and we may not be able to achieve or maintain profitability. We have also encountered in the past, and expect to encounter in the future, risks and uncertainties frequently experienced by growing companies in rapidly evolving industries. If our assumptions regarding our projected growth and the associated risks and uncertainties, which we use to plan and operate our business, are incorrect or change, or if we do not address these risks and uncertainties successfully, our costs may rise, growth rates may slow, and our business would suffer. Further, our rapid growth may make it difficult to evaluate our future prospects.

If we fail to effectively manage our growth, our business, results of operations and financial condition could be materially and adversely affected.

Our growth has placed and may continue to place significant demands on our management and our operational and financial resources. For example, our solutions have supported a large number of customers and data. Our headcount had grown from 806 employees as of January 1, 2018 to 1,397 employees as of December 31, 2022. Additionally, our organizational structure is becoming more complex as we scale our operational, financial and managerial controls as well as our reporting systems and procedures. In particular, we have acquired several businesses, and have expanded our international operations into certain regions and areas outside China such as Japan, Philippines, Malaysia, South Korea, Singapore and Mexico. We plan to strengthen our presence in Japan and Southeast Asia.

To manage growth in our operations and personnel, we will need to continue to grow and improve our operational, financial, and managerial controls and our reporting systems and procedures, which will require significant investments and allocation of valuable managerial resources. Our expansion has placed, and our expected future growth will continue to place, a significant strain on our management, customer experience, research and development, sales and marketing, administrative, financial, and other resources. If we fail to manage our anticipated growth and change, the quality of our solutions may suffer, which could negatively affect our brand and reputation and results of operations.

In addition, as we expand our business, it is important that we continue to maintain a high level of customer support and satisfaction. We currently derive a significant portion of our revenues from sales of our solutions to large enterprises. As our customer base continues to grow and we focus more on serving large enterprises, we will need to expand our customer support and other personnel and innovate our solutions to provide personalized services as well as personalized features, integrations and capabilities. If we are not able to continue to provide high levels of customer support, our reputation, as well as our business, results of operations, and financial condition, could be harmed.

If we fail to maintain and expand sales channels, it could limit the number of customers we serve and materially and adversely affect our ability to grow and expand.

A portion of our revenues is generated through our sales and marketing team. Our future success requires continuing to develop and maintain a successful sales and marketing team that identifies and closes a significant portion of new sales opportunities. We also need to enhance our ability to cross-sell and up-sell additional features and solutions to existing customers. If our direct sales efforts are as not successful as anticipated, or any of our promotion or marketing activities violate certain applicable laws or regulations, we may be unable to meet our revenue growth targets.

A portion of our revenues is generated through indirect sales channels. Channel partners we cooperate with mainly consist of mobile network operators, distributors and system integrators. We typically have arrangements with them to distribute our solutions to their own customers, with which we do not contract or contract only to a limited extent. We expect these channels to continue to generate a considerable portion of our revenues in the future. Our sustained success requires continued efforts to develop and maintain successful relationships with these channel partners so as to increase the portion of sales opportunities that they refer to us. If we fail to do so, or if our channel partners are not successful in their sales efforts, we may be unable to grow and expand our business, and our results of operations and financial condition could be materially and adversely affected.

If we fail to offer high-quality customer support, it could adversely affect our relationships with our current and prospective customers and materially and adversely affect our business, results of operations and financial condition.

We have developed a customer support and success system designed to drive customer satisfaction and expand cross-selling and up-selling opportunities. Many of our customers depend on our customer support team to assist them in deploying or using our solutions effectively, help them resolve post-deployment issues quickly, and provide ongoing support. If we do not devote sufficient resources or are otherwise unsuccessful in assisting our customers effectively, it could adversely affect our ability to retain existing customers and could prevent prospective customers from adopting our solutions. We may be unable to respond quickly enough to accommodate short-term increases in demand for customer support. We also may be unable to modify the nature, scope and delivery of our customer support to compete with changes in the support services provided by our competitors. Increased demand for customer support, without corresponding revenues, could increase costs and adversely affect our business, results of operations and financial condition. Our business is highly dependent on our reputation and on positive recommendations from existing customers. Any failure to deliver and maintain high-quality customer support, or a market perception that we do not maintain high-quality customer support, could adversely affect our ability to attract new customers, and therefore our business, results of operations and financial condition.

We provide service level commitments under our agreements with customers. If we fail to meet these contractual commitments, we could be obligated to provide credits for future service, or face contract termination with refunds of prepaid amounts, which could harm our business and reputation.

Most of our agreements with customers contain service level commitments. If we are unable to meet the stated service level commitments, including failure to meet the uptime and other requirements under the agreements, we may be contractually obligated to provide the affected customers with service credits which could significantly affect revenue of the periods in which the uptime or delivery failure occurs and the credits are applied. We could also face customer terminations, which could significantly affect both our current and future revenue. Any service level failures could harm our business and reputation.

Our revenues are concentrated in a limited number of enterprise customers.

In 2020, 2021 and 2022, our ten largest customers in terms of revenues contributed an aggregate of 24.8%, 37.0% and 32.8% of our total revenues for the same years, respectively. The high quality of our services and the time and expenses required for switching to other qualified cloud-based communications solution providers help us retain our customers. As we typically do not have long-term contracts with our customers, they may reduce their usage at any time or terminate their adoption of our solutions upon expiration of original terms. Although we have made considerable efforts to diversify our customer base and attract new customers, if any of our large customers cease or reduce their use of our solutions, or use our solutions on less favorable terms, our business, results of operations and financial condition could be materially and adversely affected.

Our physical infrastructure which supports our ability to offer our solutions is concentrated in a few facilities. Any disruptions or system failures in these facilities could adversely affect our ability to offer reliable communications solutions.

Our physical infrastructure is subject to various points of failure. Problems with servers, routers, switches, cooling equipment, generators, uninterruptible power supply or other equipment, whether or not within our control, could result in service interruptions for our customers as well as equipment damages. Because our solutions leveraging cloud infrastructure do not require geographic proximity of our physical infrastructure to our customers, they are consolidated into a few facilities. Any failure or downtime in one of such facilities could affect a significant percentage of our customers. The total destruction or severe impairment of any of our facilities could result in significant downtime of our solutions and the loss of customer data. Because our ability to attract and retain customers depends on our ability to provide customers with highly reliable solutions, even minor interruptions could harm our reputation. Additionally, in connection with the expansion or consolidation of our existing facilities from time to time, there is an increased risk that service interruptions may occur as a result of server relocation or other unforeseen construction-related issues.

We have taken and continue to take steps to improve our infrastructure to prevent business interruptions, including on-going maintenance and upgrade. However, business interruptions continue to be a significant risk for us and could have a material adverse impact on our business. Any future interruptions could:

- cause our customers to seek damages for losses incurred;
- require us to replace existing equipment or add redundant facilities;
- affect our reputation as a reliable provider of communications solutions;

- cause existing customers to cancel or elect to not renew their contracts; or
- make it more difficult for us to attract new customers.

Any of these events could materially increase our expenses or reduce our revenues, which would have a material adverse effect on our results of operations.

We may be required to transfer our servers to new facilities if we are unable to renew our leases on acceptable terms, or at all, or the owners of the facilities decide to close their facilities or refuse to enter into lease agreements with us, and we may incur significant costs and possible service interruption in connection with doing so. In addition, any financial difficulties, such as bankruptcy or foreclosure, faced by our third-party facility operators, or any of the service providers with which we or they contract, may have negative effects on our business, the nature and extent of which are difficult to predict.

We depend on cloud infrastructure operated by third parties and any disruption of or interference with our use of such third-party services would adversely affect our business, results of operations and financial condition.

We cooperate with third-party cloud service providers to host our communications solutions. We are, therefore, vulnerable to problems experienced by these providers. We expect to experience interruptions, delays or outages with respect to our third-party cloud infrastructure in the future due to a variety of factors, including infrastructure changes, human, hardware or software errors, hosting disruptions and capacity constraints. Such issues could arise from a number of causes such as technical failures, natural disasters, fraud or security attacks. The level of service provided by these providers, or regular or prolonged interruptions in that service, could also affect the use of and our customers' satisfaction with our solutions and could harm our business and reputation. In addition, hosting costs will increase as our customer base grows, which could harm our business if we are unable to grow our revenues sufficiently to offset such increase.

Furthermore, our providers have broad discretion to change and interpret the terms of service and other policies with respect to us, and those actions may be unfavorable to our business operations. Our providers may also take actions beyond our control that could seriously harm our business, including discontinuing or limiting our access to one or more services, increasing pricing terms, terminating or seeking to terminate our contractual relationship altogether, or altering how we are able to process data in a way that is unfavorable or costly to us. Although we expect that we could obtain similar services from other third parties, if our arrangements with our current providers were terminated, we could experience interruptions in our ability to make our solutions available to customers, as well as delays and additional expenses in arranging for alternative cloud infrastructure services.

As a result, we may incur additional costs, fail to attract or retain customers, or be subject to potential liability, any of which could have an adverse effect on our business, results of operations and financial condition.

We may have insufficient transmission bandwidth, which could result in disruptions to our solutions and loss of revenue.

Our operations are dependent in part upon transmission bandwidth provided by third-party network or cloud providers. There can be no assurance that we are adequately prepared for unexpected increases in bandwidth demands by our customers. Enterprises are increasingly inclined to adopt cloud-based communications solutions, especially as a result of residing demand for remote collaboration caused by the COVID-19 outbreak, and we may experience spikes in usage from time to time. Although we believe we are able to scale our network infrastructure in response, if we fail to cost-effectively maintain and expand our network infrastructure, our business and operations could be severely disrupted, and our results of operations and financial condition could be adversely affected.

The bandwidth we have contracted to purchase may become unavailable for a variety of reasons, including service outages, payment disputes, network providers going out of business, natural disasters, pandemics, networks imposing traffic limits, or governments adopting regulations that impact network operations. We also may be unable to move quickly enough to augment capacity to reflect growing traffic or security demands. Failure to put in place the capacity we require could result in a reduction in, or disruption of, service to our customers, require us to issue credits and ultimately a loss of those customers. Such a failure could also result in our inability to acquire new customers demanding capacity not available.

For some of our solutions, we recognize revenues over the subscription term, and thus downturns or upturns in new sales and renewals are not immediately reflected in full in our results of operations.

We offer some of our solutions, such as cloud-based CC solutions deployed primarily on public cloud, on a subscription basis, and we recognize the related revenues ratably over the subscription period beginning on the date our solutions are made available to our customers. As a result, much of the revenues we report each period are the recognition of revenues generated from subscriptions entered into during previous periods. Consequently, a decline in new or renewed subscriptions in any single period may have a small impact on the revenues that we recognize for that period. However, such a decline will negatively affect our revenues in future periods. Accordingly, the effect of significant downturns in sales and potential changes in our pricing policies or rate of customer expansion or retention may not be fully reflected in our results of operations until future periods. In addition, a significant portion of our costs are expensed as incurred, while revenues are recognized over the term of the subscription. As a result, growth in the number of new customers could continue to result in our recognition of higher costs and lower revenues in the earlier periods of our subscriptions.

Our business may be subject to seasonal effects, and any disruption of business during any particular seasons could adversely affect our liquidity and results of operations.

We have experienced, and expect to continue to experience in the future, seasonality in our business, results of operations and financial condition. We believe that our quarterly sales are affected by industry buying patterns. Our customers, especially large enterprises, tend to enter into contracts with us in the second half of each year in accordance with their budget cycles. As such, we generally record higher revenues during such periods. In addition, we typically generate lower revenues in the first quarter during or around Chinese New Year holiday. Our revenues may also fluctuate due to other factors such as the general economic environment. The seasonality changes may cause fluctuations in our financial results and any occurrence that disrupts our business during any particular seasons could have a disproportionately material adverse effect on our liquidity and results of operations.

We outsource certain non-core software development activities. Any failures by outsourcing service providers to meet our standards may adversely affect our business, reputation and relationship with customers.

While we independently developed all the core features of and technologies underlying our cloud-based communications solutions, we outsource certain non-core software development activities in relation to our cloud-based UC&C solutions in order to enhance productivity and reduce labor costs. Typically, we enter into agreements with these outsourcing service providers on a project basis, pursuant to which they deliver software according to our specifications. We may experience operational difficulties because of our outsourcing service providers, including their failure to comply with software specifications, reduced capacity, insufficient quality control and failure to meet deadlines. As a result, we may fail to deliver our communications solutions to the satisfaction of our customers and in a timely manner, which may adversely affect our reputation and relationship with customers. In addition, if one or more of our outsourcing service providers experience business interruptions or are otherwise unable or unwilling to fulfill their agreements with us, we may suffer delays and additional expenses in arranging for alternative service providers meeting our requirements, and our business, results of operations and financial condition may be adversely affected.

We have incurred and may continue to incur substantial share-based compensation expenses.

We have adopted the 2016 share incentive plan, or the 2016 Plan, which permits the grant of a number of equity-linked awards, including share options and restricted shares, to directors, officers, employees and external consultants. The 2016 Plan is intended to promote our success and shareholder value by attracting, motivating and retaining selected employees and other eligible participants through the awards. The maximum aggregate number of ordinary shares which may be issued pursuant to all awards under the 2016 Plan is 29,525,465. As of the date of this annual report, options to purchase an aggregate of 26,219,285 Class A ordinary shares have been granted under the 2016 Plan, excluding those repurchased, among which (1) options to purchase 18,839,902 Class A ordinary shares granted to certain employees were exercised in January 2021, and such shares were issued in February 2021 subject to certain transfer and repurchase restrictions, (2) options to purchase 3,645,942 Class A ordinary shares granted to certain employees were subsequently exercised, and (3) options to purchase 3,733,441 Class A ordinary shares under the 2016 Plan are still outstanding.

In January 2021, we adopted the 2021 share incentive plan, or the 2021 Plan, under which the maximum aggregate number of Class A ordinary shares that may be issued pursuant to all awards under such plan is 15,144,221. As of the date of this annual report, restricted share units to purchase an aggregate of 9,783,899 Class A ordinary shares have been granted under the 2021 Plan, excluding those repurchased, among which (1) restricted share units to purchase 190,656 Class A ordinary shares were exercised, and (2) restricted share units to purchase 9,593,243 Class A ordinary shares are still outstanding. See “Item 6. Directors, Senior Management and Employees—B. Compensation—Share Incentive Plans” for more information.

In 2020, 2021 and 2022, we recorded share-based compensation expenses of RMB134.2 million, RMB277.6 million and RMB107.5 million (US\$15.6 million), respectively. For details on the measurements of our share-based compensation, See “Item 5. Operating and Financial Review and Prospects—A. Operating Results—Critical Accounting Policies and Estimates—Share-based compensation.” As of December 31, 2022, there were RMB10.3 million (US\$1.5 million) and RMB24.4 million (US\$3.5 million) of total unrecognized share-based compensation expenses related to share options and restricted shares, respectively. The related share options and restricted shares are expected to be recognized over a weighted average period of 1.70 years and 2.74 years, respectively. We expect to further recognize a substantial amount of share-based compensation expenses going forward, which we expect to have a significant impact on our results of operations. Moreover, if we grant additional share options or other equity-linked awards in the future, such as those under our share incentive plans or in connection with future acquisitions, our expenses associated with share-based compensation may increase significantly, which may materially and adversely affect our business, results of operations and financial condition.

We are expanding internationally, which could expose us to significant risks.

We established our first overseas subsidiary, Cloopen Japan Co., Ltd., in Japan in 2016 and have recently begun to generate revenues from our international operations. As of the date of this annual report, we also have overseas subsidiaries in Philippines, Malaysia, South Korea, Singapore and Mexico. We plan to strengthen our presence in Japan and Southeast Asia. Any new markets or countries into which we attempt to sell our solutions may not be receptive. For example, we may not be able to expand into certain markets if we are not able to satisfy certain government- and industry-specific requirements. In addition, our ability to manage our business and conduct our operations internationally in the future may require considerable management's attention and resources and is subject to the particular challenges of supporting a rapidly growing business in an environment of multiple languages, cultures, customs, legal and regulatory systems, alternative dispute systems and commercial markets. Future international expansion will require investment of significant funds and other resources. Operating internationally subjects us to new risks and may increase risks that we currently face, including risks associated with:

- recruiting and retaining talented and capable employees outside China and maintaining our company culture across all of our offices;
- providing our solutions and operating our business across a significant distance, in different languages and among different cultures, including the potential need to modify our solutions and features to ensure that they are culturally appropriate and relevant in different countries;
- complying with laws and regulations of the jurisdictions in which we operate, especially those in relation to our cloud-based communications solutions and business operations;
- complying with applicable international laws and regulations, including laws and regulations with respect to privacy, telecommunications requirements, data protection, consumer protection and unsolicited messages and calls, and the risk of penalties to us and individual members of management or employees if our practices are deemed to be out of compliance;

- operating in jurisdictions that have laws on the protection of intellectual property rights different from those in China, and the practical enforcement of our intellectual property rights globally;
- collaborating with partners outside China;
- compliance by us and our business partners with anti-corruption laws, import and export control laws, tariffs, trade barriers, economic sanctions and other regulatory limitations or perceptions on our ability to provide our solutions in certain international markets;
- foreign exchange controls that might require significant lead time in setting up operations in certain geographic territories and might prevent us from repatriating cash earned outside China;
- political and economic instability;
- changes in diplomatic and trade relationships, including the imposition of new trade restrictions, trade protection measures, import or export requirements, trade embargoes and other trade barriers;
- generally longer payment cycles and greater difficulty in collecting accounts receivable;
- double taxation of our international earnings and potentially adverse tax consequences due to changes in the income and other tax laws of China and the international jurisdictions in which we operate; and
- higher costs of doing business internationally, including increased accounting, travel, infrastructure and legal compliance costs.

Compliance with laws and regulations applicable to our international operations substantially increases our cost of doing business in international jurisdictions. We may be unable to keep current with changes in laws and regulations as they occur. Although we have included relevant clauses in our business contracts to support compliance with laws and regulations of the jurisdictions in which we operate, there can be no assurance that we will always maintain compliance or that all of our employees and business partners will comply. Any violations could result in enforcement actions, fines, civil and criminal penalties, damages, injunctions or reputational harm. If we are unable to comply with these laws and regulations or manage the complexity of our international operations successfully, we may need to cease operations in certain foreign jurisdictions.

Negative publicity and allegations involving us, our shareholders, directors, officers and employees may affect our reputation, and as a result, our business, results of operations and financial condition may be negatively affected.

We, our shareholders, directors, officers and employees may be subject to negative media coverage and publicity from time to time in our ordinary course of business, which could threaten the perception of our reputation as a trustworthy cloud-based communications solution provider.

In addition, to the extent we, our shareholders, directors, officers and employees were involved in any legal or administrative proceedings or violate or allegedly violate any laws or regulations, our reputation could be materially and adversely affected, which may, in turn, adversely affect our business and results of operations. For example, an employee, who is a former member of our senior management team was sued, prior to joining us, for theft of source code by one of his prior employers and was convicted of theft of trade secrets by a local Chinese court in 2010. He had disclosed his conviction to us before joining us, and has undertaken to keep confidential all the information that he obtains during his employment with us and, in the event of his termination, to return or permanently destroy all the documentation and materials he obtains during his employment with us. He also agreed that we retain the ownership over all the rights attached to the work products, designs, inventions or other intellectual properties developed or possessed individually or jointly by him during and until one year after termination of his employment with us. We have adopted internal policies and a code of ethics to help protect our intellectual properties. Nevertheless, negative publicity associated with our employees may adversely impact our business and reputation. In addition, Mr. Yipeng Li, our chief financial officer, was named as one of the defendants in an ongoing securities class action lawsuit against Sunlands Technology Group in his capacity as its then chief financial officer, together with certain then directors and executive officers of that company, originally filed on June 27, 2019 in the United States District Court for the Eastern District of New York (case number 1:19-cv-03744-FB-SMG). This class action lawsuit alleged misrepresentation contained in the registration statement in connection with such company's initial public offering. The Sunlands matter has been concluded without any determination made regarding the liability of any defendant, including Mr. Yipeng Li.

Any negative publicity or allegations may cause us to spend significant time and incur substantial costs, and we may not be able to diffuse them to the satisfaction of our customers and investors, which could materially and adversely affect our reputation, business, results of operations and financial condition and the trading price of the ADSs.

We may need additional capital, and we may be unable to obtain such capital in a timely manner or on acceptable terms, or at all.

We may require additional capital beyond those generated by our initial public offering from time to time to grow our business, including to better serve our customers, develop new features and solutions, improve our operating and technology infrastructure or conduct acquisition of complementary businesses and technologies. Accordingly, we may need to sell additional equity or debt securities or obtain a credit facility. Future issuances of equity or equity-linked securities could significantly dilute our existing shareholders, and any new equity securities we issue could have rights, preferences and privileges superior to those of holders of our ordinary shares. For example, we may issue equity securities as consideration in acquisition transactions. Such issuances will be dilutive to our then existing shareholders, and more so if the equity securities are issued at such negotiated prices lower than the investment consideration paid by our then existing shareholders. The incurrence of debt financing would result in increased debt service obligations and could result in operating and financing covenants that would restrict our operations or our ability to pay dividends to our shareholders.

Our ability to obtain additional capital is subject to a variety of uncertainties, including:

- our market position and competitiveness in China's cloud communications industry;
- our future profitability, overall results of operations, financial condition and cash flows;
- general market conditions for capital raising activities in China and globally; and
- economic, political and other conditions in China and globally.

We may be unable to obtain additional capital in a timely manner or on acceptable terms or at all, and our financing may also be subject to regulatory requirements. If we are unable to obtain adequate financing on terms satisfactory to us when we require it in the future, our ability to continue to support our business growth could be significantly impaired, and our business and prospects could be adversely affected.

Certain software we use leverages open-source codes, which, under certain circumstances, may lead to unintended consequences and, therefore, could materially adversely affect our business, results of operations and financial condition.

Our solutions incorporate open-source software, and we expect to continue to incorporate open-source software in the future. Few of the licenses applicable to open-source software have been interpreted by courts, and there is a risk that these licenses could be construed in a manner that could impose unanticipated conditions or restrictions on our ability to commercialize our solutions. Moreover, although we have implemented policies to regulate the use and incorporation of open-source software into our solutions, we cannot be certain that we have not incorporated open-source software in a manner that is inconsistent with such policies. If we fail to comply with open-source licenses, we may be subject to certain requirements, including requirements that we offer our solutions that incorporate the open source software for no cost, that we make available source code for modifications or derivative works we create based upon, incorporating or using the open source software and that we license such modifications or derivative works under the terms of applicable open source licenses. If an author or other third party that distributes such open source software were to allege that we had not complied with the conditions of one or more of these licenses, we could be required to incur significant legal expenses defending against such allegations and could be subject to significant damages, enjoined from generating revenues from customers using solutions that contained the open source software and required to comply with onerous conditions or restrictions on these solutions. In any of these events, we and our customers could be required to seek licenses from third parties in order to continue offering our solutions and to re-engineer or even discontinue offering our solutions in the event re-engineering cannot be accomplished on a timely basis. Any of the foregoing could require us to devote additional research and development resources, could result in customer dissatisfaction and may adversely affect our business, results of operations and financial condition.

Certain of our customers, such as internet finance companies, may be subject to more stringent laws and regulations, which could adversely affect their operations and therefore their IT spending levels, and in turn could cause our customer base to shrink.

Certain enterprises which deploy our solutions in their business operations are internet finance companies, which accounted for 5.0% to 10.0% of our total revenues in 2020, 2021 and 2022, respectively. Due to the relatively short history of the online consumer finance industry in China, a comprehensive regulatory framework is under development by the PRC government. Since mid-2015, the PRC government and relevant regulatory authorities have issued a number of laws and regulations, including the Interim Measure on the Internet Micro-credit Business (Draft for Comments) announced in November 2020, seeking to tighten the online consumer finance industry. These laws and regulations have imposed stringent requirements on the operation of peer-to-peer (P2P) online lending platforms. Although how these requirements will be interpreted and implemented is still unclear, it is likely that more stringent laws and regulations will be issued and adopted to further regulate related businesses. As a result of the stringent and evolving regulatory environment, online consumer finance industry is facing great challenges and shrinking in size, which has adversely affected and could continue to adversely affect our business. For example, relevant PRC authorities took stringent government measures in 2019 to regulate the operation of P2P online lending platforms, and we, after assessing potential risks, chose to voluntarily terminate certain transactions with existing customers in the online consumer finance industry to ensure compliance with relevant laws and regulations, which led to a decrease in our existing customer base and our revenues primarily related to cloud-based CC solutions that we offer on a recurring basis in such year. Furthermore, if the practice of our customers in the online consumer finance industry is deemed to violate any rules, laws or regulations, they could be forced to substantially modify their business model, face injunctions, including orders to cease illegal activities, discontinuation of operations and correction orders, fines and criminal liability, and may be exposed to other penalties as determined by the relevant government authorities, which could significantly harm their business operations and IT spending levels. As a result, our customer base may shrink, and our business, results of operations and financial condition may be adversely affected.

The estimates of market opportunity, forecasts of market growth included in this annual report may prove to be inaccurate, and any real or perceived inaccuracies may harm our reputation and negatively affect our business. Even if the market in which we compete achieves the forecasted growth, our business could fail to grow at similar rates, if at all.

Market opportunity estimates and growth forecasts included in this annual report is subject to significant uncertainty and are based on assumptions and estimates that may not prove to be accurate. The variables that go into the calculation of our market opportunity are subject to change over time, and there is no guarantee that any particular number or percentage of addressable companies or markets covered by our market opportunity estimates will deploy our solutions at all or generate any particular level of revenue for us. Even if the market in which we compete meets the size estimates and growth forecasted in this annual report, our business could fail to grow for a variety of reasons, including reasons outside of our control, such as competition in our industry.

Risks Related to Regulatory Compliance

Our business is subject to extensive regulation, and if we fail to obtain and maintain required licenses and permits, we could face government enforcement actions, fines and possibly restrictions on our ability to operate or offer certain of our solutions.

The cloud-based communications industry in China is subject to extensive regulation. Related laws and regulations are relatively new and evolving, and their interpretation and enforcement involve significant uncertainties. We are required to obtain and maintain all necessary operating licenses and permits applicable to our cloud-based communications solutions and our business operations in China. We may be required to apply for and obtain additional licenses and permits, as the interpretation and enforcement of the applicable current laws and regulations are evolving, and new laws and regulations may continue to be promulgated.

Certain of the affiliated entities have obtained licenses from the MIIT and/or its local authorities to use telecommunications network code resources and provide internet content, and the Value-Added Telecommunications Business Operating Licenses to provide domestic multi-party communications services, domestic call center services, non-internet information services and internet information services. Certain of our telecommunications network code practices may be found to be not in full compliance with relevant laws and regulations, and as a result, we may be subject to administrative measures including confiscation of pertinent revenues, penalties and withdrawal of the telecommunications network code resources. For instance, the affiliated entities may be deemed to be using the telecommunications network code resources registered under the names of other affiliated entities. As of the date of this annual report, the affiliated entities have not been subject to any legal or regulatory sanction for failure to obtain, renew or update such licenses. However, we cannot assure you that the affiliated entities can successfully obtain or maintain required licenses and permits in a timely manner or at all, and we may be subject to fines, confiscation of income and discontinuation of or restrictions on certain of our operations as a result. Moreover, if we fail to renew or update any of our current licenses and permits in a timely manner and on commercially reasonable terms or at all, our business, results of operations and financial condition could be materially and adversely affected.

As the regulatory regime for the industry in which we operate continues to evolve and the government authorities may continue to implement new laws and regulations or interpretations and applications of existing laws and regulations as applicable to us in the course of our expansion to new business operations, we may be required to obtain additional licenses and permits. For example, we do not believe our current operations of interactive voice response fall under the licensing requirements for instant information interaction services and, therefore, we do not believe we are required to obtain the related license. However, we cannot assure you that the regulators will not take a contrary position or that the regulatory regime will not evolve in a way to expand the licensing requirements. As a result, we may incur increased costs of compliance, and there can be no assurance that we will be able to obtain the related license of instant information interaction services or any additional requisite license and permit or that we will not be found in violation of any existing or new law. If our operations are no longer in compliance with existing or new laws and regulations, or if we fail to obtain any license required under such laws and regulations, we could be subject to various penalties, including fines and discontinuation of or restrictions on our operations, which could materially and adversely affect our business, results of operations and financial condition.

Our brand image, business and results of operations may be adversely affected by third-party misconduct and misuse of our solutions, many of which are beyond our control.

We store, process and transmit a large amount of data and communications in the ordinary course of business, which may be subject to improper disclosure and misappropriation by our employees, business partners and other third parties. As a result, our business may suffer and our brand image, business, results of operations and financial condition may be materially and adversely affected. We are exposed to the risk of other types of employee misconduct, including intentionally failing to comply with government regulations, engaging in unauthorized activities and misrepresentation during marketing activities, which could harm our reputation. It is not always possible to deter third-party misconduct, and the precautions we take to prevent and detect misconduct may not be effective in controlling unknown or unmanaged risks or losses, which could harm our business, results of operations and financial condition.

In addition, our customers which deploy our solutions in their business communications may misuse them to make unauthorized calls and send unauthorized text messages and other content. For example, certain customers utilized our *7moor Cloud* to make unauthorized calls in telemarketing settings, which had subjected us to negative media coverage and publicity. Such misuses may also subject us to potential risks, including liabilities or claims relating to consumer rights protection laws. As a provider of short message services, we are required to comply with relevant laws and regulations relating to internet information protections. For example, on May 19, 2015, the MIIT published the Provisions on the Administration of Short Message Services, which took effect on June 30, 2015, prohibiting the use of text messages in telemarketing or other commercial settings without consumers' proper request and consent. In addition, the CAC published the AIGC Administrative Measures pursuant to which AIGC service providers must comply with a number of rules and filing requirements in relation to AIGC content, personal data, privacy protection and intellectual property rights. In case of a breach of the rules or non-compliance with the filing requirements, the regulatory authorities will impose warning, fine and other penalties. Failure to rectify the breach or non-compliance may lead to suspension in operations. Moreover, we could also be required to comply with relevant laws and regulations regarding the control and management of unauthorized calls, including, among others, establishing forbidden call lists to prevent telemarketing calls from reaching end-users who have formerly explicitly refused to be reached by telemarketing calls of a particular industry or business, and improving technological capability and risk precautions regarding the prevention and monitoring of unauthorized calls. The scope and interpretation of relevant laws and regulations that are or may be applicable to the delivery of text messages, calls and other content are continuously evolving. See "Item 4. Information on the Company—B. Business Overview—Regulations—Regulations relating to cybersecurity and privacy protection—Unauthorized calls and text messages." We have taken certain acts to reduce unauthorized text messages and calls, such as contract restrictions in our agreements with customers. In response to the past misuses by certain of our customers, we have also been more proactive in screening business partners, prohibiting non-compliant behaviors, and conducting rigorous real-time quality inspections. However, as in practice we have little control over text messages, calls and other content delivered by our customers to their end-users, we cannot assure you that our current systems and acts will be sufficient or effective under applicable laws and regulations. If we do not comply with relevant laws and regulations or if we become liable under these laws and regulations, we could face direct liability and loss of customer confidence, which could materially harm our reputation, business, results of operations and financial condition.

The discontinuation of any of the preferential tax treatments available to us could materially and adversely affect our results of operations and financial condition.

Under PRC tax laws and regulations, enterprises are generally subject to enterprise income tax at the statutory rate of 25%, and revenues from cloud-based communications services and communications devices are generally subject to value-added tax at the rates of 6% and 13%. Preferential tax treatments are available to certain enterprises, industries and regions. For example, certain of the affiliated entities were recognized as "high and new technology enterprises," or HNTEs, and were entitled to a preferential enterprise income tax rate of 15%. The HNTE status must be reapplied every three years. During the three-year period, HNTEs must conduct a self-review each year to ensure they meet the HNTE criteria. We have renewed and intend to continue to renew our HNTE certificates upon the expiration of the three-year period. In addition, if the value-added taxes we actually paid for the sales of our qualified proprietary software exceed an amount equivalent to 3% of our revenues from such software, we are eligible to receive a refund of the excessive amount. However, if PRC government changes its tax policy of supporting new technology and software development, or if we cease to be eligible for any of these preferential tax treatments, we must pay tax at the standard rates, which would adversely affect our profitability.

Most of the lease agreements for our leased properties in China have not been registered with the relevant PRC government authorities as required by PRC law, which may expose us to potential fines.

Under PRC law, all property lease agreements are required to be registered with the local land and real estate administration bureau. Although failure to do so does not in itself invalidate the leases, the lessees may not be able to defend these leases against bona fide third parties and may also be exposed to potential fines if they fail to rectify such non-compliance within the prescribed time frame after receiving notice from the relevant PRC government authorities. The penalty ranges from RMB1,000 to RMB10,000 for each unregistered lease, at the discretion of the relevant authority. As of the date of this annual report, most of the lease agreements for our leased properties in China have not been registered with the relevant PRC government authorities. As of the same date, we have not been subject to any administrative fines or sanctions in this regard, nor have we received any rectification orders. However, there can be no assurance that relevant authorities will not in future implement measures to request us to register our leases. In the event that any fine is imposed on us for our failure to register our lease agreements, we may not be able to recover such losses from the lessors.

Our rights to use our leased properties could be challenged by property owners or other third parties, which may disrupt our operations and cause us to incur relocation costs.

We lease properties as our office premises in the ordinary course of our business. If any lessor of our leased properties in China does not have the relevant property ownership certificates or the right to lease or sublease such properties to us, the relevant lease agreements may be deemed invalid and we may be forced to vacate these properties, which could interrupt our business operations and cause us to incur relocation costs. Moreover, if third parties challenge our lease agreements, it could result in a diversion of managerial attention and cause us to incur costs associated with defending such actions, even if such challenges are ultimately determined in our favor.

Failure to make adequate contributions to social insurance and housing fund as required by PRC regulations may subject us to penalties.

In accordance with PRC Social Insurance Law and Regulations on the Administration of Housing Fund and other relevant laws and regulations, an employer is required to pay various statutory employee benefits, including pension insurance, unemployment insurance, maternity insurance, work-related injury insurance, medical insurance and housing fund to designated government agencies in accordance with the rates provided under relevant regulations and withhold the employee benefits that should be assumed by the employees.

We did not make adequate social insurance and housing fund contributions for some employees in accordance with PRC laws and regulations. We may be subject to late fees, fines and/or other penalties as a result. As of the date of this annual report, we have not received any notice from the relevant government authorities or any claim or request from these employees in this regard. We have also made adequate provision in relation to the insufficient contribution of the social insurance and housing fund in our financial statements. However, we cannot assure you that the relevant government authorities will not require us to pay the outstanding amount and impose late fees, fines and/or other penalties on us, in which case our business, results of operations and financial condition may be adversely affected.

We may be held liable for the information and content displayed on, retrieved from or linked to our websites or posted by us on third-party platforms, which could have a material and adverse effect on our business, results of operations and financial condition.

The PRC government has adopted laws and regulations governing the distribution of information over the internet. Given the broad scope of these laws and regulations and the uncertainties regarding their interpretation, there can be no assurance that all the information and content displayed on, retrieved from or linked to our websites or posted by us on third-party platforms comply or will comply with the requirements of these laws and regulations at all times. Under applicable PRC laws and regulations, the marketing of our solutions on our websites or third-party platforms may be deemed as internet advertisement, which may subject us to legal or regulatory liabilities. If we were found to violate laws or regulations governing the information and content displayed on, retrieved from or linked to our websites or posted by us on other platforms, including but not limited to the PRC Advertisement Law and the PRC Anti-unfair Competition Law, we may be subject to fines and penalties and may be required to remove the non-compliant content from our websites or refrain from distributing the non-compliant content on third-party platforms, which may materially and adversely affect our reputation, business and results of operations. For example, we were ordered to remove the non-compliant advertisement and were imposed a fine of RMB10,000 in 2018 due to the use of certain inaccurate and unclear phrases regarding our solutions in violation of the PRC Advertisement Law.

Moreover, we may also be sued by private parties for defamation, copyright or trademark infringement, invasion of privacy, personal injury or under other legal theories relating to the information or content that we create or distribute. We could incur significant costs in investigating and defending such claims, even if we are ultimately not held liable. If any of these events occurs, we could incur significant expenses and our revenues could be adversely affected.

We are subject to anti-corruption, anti-bribery, anti-money laundering, financial and economic sanctions and similar laws, and noncompliance with such laws can subject us to administrative, civil and criminal fines and penalties, collateral consequences, remedial measures and legal expenses, all of which could adversely affect our business, results of operations, financial condition and reputation.

We are subject to anti-corruption, anti-bribery, anti-money laundering, financial and economic sanctions and similar laws and regulations in various jurisdictions in which we conduct our business or sell our solutions, including the PRC anti-corruption laws and regulations, the U.S. Foreign Corrupt Practices Act, or FCPA, and other anti-corruption laws and regulations. The FCPA prohibit us and our officers, directors, employees and business partners acting on our behalf, including agents, from corruptly offering, promising, authorizing or providing anything of value to a “foreign official” for the purposes of influencing official decisions or obtaining or retaining business or otherwise obtaining favorable treatment. The FCPA also requires companies to make and keep books, records and accounts that accurately reflect transactions and dispositions of assets and to maintain a system of adequate internal accounting controls. The PRC anti-corruption laws and regulations prohibit bribery to government agencies, state or government owned or controlled enterprises or entities, to government officials or officials that work for state or government owned enterprises or entities, as well as bribery to non-government entities or individuals. There is uncertainty in connection with the implementation of PRC anti-corruption laws and regulations. A violation of these laws or regulations could adversely affect our business, results of operations, financial condition and reputation.

We have direct or indirect interactions with officials and employees of China’s government agencies and state-owned enterprises in the ordinary course of business. These interactions subject us to an increased level of compliance-related concerns. We have implemented policies and procedures designed to ensure compliance by us and our directors, officers, employees, representatives, consultants, agents and business partners with applicable anti-corruption, anti-bribery, anti-money laundering, financial and economic sanctions and similar laws and regulations. However, our policies and procedures may not be sufficient, and our directors, officers, employees, representatives, consultants, agents, and business partners could engage in improper conduct for which we may be held responsible.

Non-compliance with anti-corruption, anti-bribery, anti-money laundering or financial and economic sanctions laws could subject us to whistleblower complaints, adverse media coverage, investigations, and severe administrative, civil and criminal sanctions, collateral consequences, remedial measures and legal expenses, all of which could materially and adversely affect our business, results of operations, financial condition and reputation. In addition, changes in economic sanctions laws in the future could adversely impact our business and investments in the ADSs.

We have limited insurance coverage, which could expose us to significant costs and business disruption.

We provide social security insurance, including pension insurance, unemployment insurance, maternity insurance, work-related injury insurance and medical insurance, as well as housing fund for our employees. We also purchased additional commercial health insurance to increase insurance coverage of our employees. However, as the insurance industry in China is still in an early stage of development, insurance companies in China currently offer limited business-related insurance products. We do not maintain property insurance policies covering our equipment, systems and other property that are essential to our business operations. We do not maintain business interruption insurance or general third-party liability insurance, nor do we maintain product liability insurance or key-man insurance. We consider our insurance coverage to be in line with that of other companies in the same industry of similar size in China, but we cannot assure you that our insurance coverage is sufficient to prevent us from any loss or that we will be able to successfully claim our losses under our current insurance policies on a timely basis, or at all. If we incur any loss that is not covered by our insurance policies, or the compensated amount is significantly less than our actual loss, our business, results of operations and financial condition could be materially and adversely affected.

Risks Related to Doing Business in China

Changes in China’s economic, political or social conditions or government policies could have a material adverse effect on our business and operations.

We generate substantially all of our revenues from our operations in China. Accordingly, our business, results of operations, financial condition and prospects are influenced by economic, political and legal developments in China. Economic reforms begun in the late 1970s have resulted in significant economic growth. Although the PRC government has been pursuing economic reform policies for past decades, no assurance can be given that the PRC government will continue to pursue such policies or that such policies may not be significantly altered. As a result, while the PRC economy has experienced significant growth in the past decades, growth has still been uneven across different regions and among different economic sectors.

The PRC government exercises significant control in regulating industrial development, allocation of natural and other resources, production, pricing, management of currency, setting monetary policy and providing preferential treatment to particular industries or companies. Some of these measures may benefit the overall PRC economy, but may not benefit us. For example, our results of operations and financial condition may be adversely affected by government control over capital investments or changes in tax regulations. In addition, in the past, the PRC government has implemented certain measures, including interest rate adjustment, to control the pace of economic growth. These measures may cause decreased economic activity in China, which may adversely affect our business and results of operations. In addition, the increased global focus on social, ethical and environmental issues may lead to China's adoption of more stringent standards in these areas, which may adversely impact the operations of China-based companies including us. We cannot predict whether changes in China's economic or social conditions or government policies will adversely affect our business, results of operations and financial condition, lead to reduction in demand for our solutions, or adversely affect our competitive position.

Furthermore, we, the VIE and its subsidiaries, and our investors may face uncertainty about future actions by the government of China that could significantly affect the VIE and its subsidiaries' financial performance and operations, including the enforceability of the contractual arrangements. As of the date of this annual report, neither we nor the VIE have received or have been denied permission from Chinese authorities to list on U.S. exchanges. However, there is no guarantee that we or the VIE will receive or not be denied permission from relevant authorities to list on U.S. exchanges in the future.

We are subject to extensive and evolving legal development, non-compliance with which, or changes in which, may materially and adversely affect our business and prospects, and may result in a material change in our operations.

The PRC legal system is based on written statutes and court decisions that have limited precedential value. The PRC legal system is evolving rapidly, and therefore the interpretations and enforcement of many laws, regulations and rules may be subject to further developments and changes.

From time to time, we may have to resort to administrative and court proceedings to enforce our legal rights. However, since PRC judicial and administrative authorities have discretion in interpreting and implementing statutory and contractual terms, and prior court decisions have limited precedential value, it may be more difficult to predict the outcome of a judicial or administrative proceeding. Furthermore, the PRC legal system is based, in part, on government policies, some of which are not published in a timely manner, or at all. As a result, we may not always be aware of any potential violation of these policies and rules. These uncertainties may impede our contractual, property and procedural rights, which could adversely affect our business, results of operations and financial condition.

Any actions by the Chinese government, including any decision to intervene or influence the operations of our PRC subsidiaries or the affiliated entities or to exert oversight and control over any offering of securities conducted overseas and/or foreign investment in China-based issuers, may cause us to make material changes to the operations of our PRC subsidiaries or the affiliated entities, limit or completely hinder our ability to offer or continue to offer ADSs and/or other securities to investors, and may cause the value of such securities to significantly decline or be worthless.

The Chinese government continues to exercise significant oversight and control over virtually every sector of the Chinese economy through regulation and state ownership. The ability of our PRC subsidiaries and the affiliated entities to operate in China may be impaired by changes in its laws and regulations, including those relating to value-added telecommunications service industry, taxation, land use rights, foreign investment limitations, and other matters.

The central or local governments of China may impose new, stricter regulations or interpretations of existing regulations that would require additional expenditures and efforts on our part to ensure our PRC subsidiaries and the affiliated entities' compliance with such regulations or interpretations. As such, our PRC subsidiaries and the affiliated entities may be subject to various government actions and regulatory interference in the provinces in which they operate. They could be subject to regulation by various political and regulatory entities, including various local and municipal agencies and government sub-divisions. They may incur increased costs necessary to comply with existing and newly adopted laws and regulations or penalties for any failure to comply. Furthermore, it is uncertain when and whether we will be required to obtain permission from the PRC government in connection with our listing on a U.S. exchange in the future, and even when such permission is obtained, whether it will be later denied or rescinded.

Government actions in the future, including any decision to intervene or influence the operations of our PRC subsidiaries or the affiliated entities at any time, or to exert oversight and control over an offering of securities conducted overseas and/or foreign investment in China-based issuers, may cause us to make material changes to the operations of our PRC subsidiaries or the affiliated entities, may limit or completely hinder our ability to offer or continue to offer securities to investors, and/or may cause the value of such securities to significantly decline or be worthless. See “—The approval of and the filing with the CSRC or other PRC government authorities may be required in connection with our future offshore offerings under PRC law, and, if required, we cannot predict whether or for how long we will be able to obtain such approval or complete such filing.”

The approval of and the filing with the CSRC or other PRC government authorities may be required in connection with our future offshore offerings under PRC law, and, if required, we cannot predict whether or for how long we will be able to obtain such approval or complete such filing.

The Regulations on Mergers and Acquisitions of Domestic Companies by Foreign Investors, or the M&A Rules, adopted by six PRC regulatory agencies in 2006 and amended in 2009, include, among other things, provisions that purport to require that an offshore special purpose vehicle, formed for the purpose of an overseas listing of securities through acquisitions of PRC domestic enterprises or assets and controlled by PRC enterprises or individuals, to obtain the approval of the CSRC prior to the listing and trading of such special purpose vehicle's securities on an overseas stock exchange. On September 21, 2006, pursuant to the M&A Rules and other PRC laws, the CSRC published on its official website relevant guidance regarding its approval of the listing and trading of special purpose vehicles' securities on overseas stock exchanges, including a list of application materials. However, the M&A Rules may be subject to further interpretation and application. If the CSRC approval is required for our future offshore offerings or listing, it is uncertain whether we can or how long it will take us to obtain the approval and, even if we obtain such CSRC approval, the approval could be lawfully rescinded. Any failure to obtain or delay in obtaining the CSRC approval for any of our future offshore offerings or listing, or a rescission of such approval if obtained, would subject us to penalties imposed by the CSRC or other PRC regulatory authorities, which could include fines and penalties on our operations in China, restrictions or limitations on our ability to pay dividends outside of China, and other forms of sanctions that may materially and adversely affect our business, financial condition, and results of operations.

On July 6, 2021, the relevant PRC government authorities issued Opinions on Strictly Cracking Down Illegal Securities Activities in Accordance with the Law. These opinions emphasized the need to strengthen the administration over illegal securities activities and the supervision on overseas listings by China-based companies and proposed to take effective measures, such as promoting the construction of relevant regulatory systems to deal with the risks and incidents faced by China-based overseas-listed companies. These opinions and any related implementation rules to be enacted may subject us to additional compliance requirement in the future. We cannot assure that we will remain fully compliant with all new regulatory requirements of these opinions or any future implementation rules on a timely basis, or at all.

On February 17, 2023, the CSRC promulgated the Overseas Listing Trial Measures and five supporting guidelines, which took effect on March 31, 2023. Pursuant to the Overseas Listing Trial Measures, PRC domestic companies that directly or indirectly seek to offer or list their securities overseas are required to fulfill the filing procedure with the CSRC and report relevant information to the CSRC. At the press conference held for the Overseas Listing Trial Measures on February 17, 2023, officials from the CSRC clarified that the PRC domestic companies that had already been listed overseas on or before the effective date of the Overseas Listing Trial Measures, i.e., March 31, 2023, shall be deemed as existing issuers, or the Existing Issuers. Existing Issuers are not required to complete the filing procedures immediately but shall carry out filing procedures as required if they conduct refinancing or are involved in other circumstances that require filing with the CSRC. The officials from the CSRC also confirmed that for the PRC domestic companies that seek to list overseas with VIE structure, the CSRC would solicit opinions from relevant regulatory authorities and supplement the filing requirements for the overseas listing of companies with VIE structure which meet the compliance requirements. See “Item 4. Information on the Company—B. Business Overview—Regulations—Regulations relating to M&A Rule and overseas listing in the PRC.” As we had been listed on an overseas stock exchange prior to March 31, 2023, we are not required to make immediate filing with the CSRC in connection with such previous listing. However, we could be subject to the filing requirements with the CSRC if we conduct subsequent offerings or seek to list our securities on a stock exchange. Given that the Overseas Listing Trial Measures were recently promulgated, uncertainties remain as to the implementation and interpretation, and how they will affect our future financing. If we fail to complete the filing with the CSRC in a timely manner or at all, for any future offering or any other financing activities which are subject to the filing requirements under the Overseas Listing Trial Measures, our ability to raise or utilize funds and our operations could be materially and adversely affected.

We cannot assure you that we can complete the filing procedures, obtain the approvals or complete other compliance procedures in a timely manner, or at all, or that any completion of filings or approvals or other compliance procedures would not be rescinded. Any such failure would subject us to sanctions by the CSRC or other PRC regulatory authorities. These regulatory authorities may impose restrictions and penalties on the operations in China, significantly limit or completely hinder our ability to launch any new offering of our securities, limit our ability to pay dividends outside of China, delay or restrict the repatriation of the proceeds from future capital raising activities into China, or take other actions that could materially and adversely affect our business, results of operations, financial condition and prospects, as well as the trading price of the ADSs.

In addition, we cannot assure you that any new rules or regulations promulgated in the future will not impose additional requirements on us. If it is determined in the future that approval and filing from the CSRC or other regulatory authorities or other procedures, including the cybersecurity review under the Cybersecurity Review Measures and the CSRC filing under the Overseas Listing Trial Measures, are required for our future offering or other financing activities, it is uncertain whether we can or how long it will take us to obtain such approval or complete such filing procedures and any such approval or filing could be rescinded or rejected. Any failure to obtain or delay in obtaining such approval or completing such filing procedures for our future offering or other financing activities, or a rescission of any such approval or filing if obtained by us, may subject us to sanctions by the CSRC or other PRC regulatory authorities, which could materially and adversely affect our business, results of operations, financial condition and prospects, as well as the trading price of our securities. The CSRC or other PRC regulatory authorities also may take actions requiring us, or making it advisable for us, to halt our future offering or other financing activities before consummation. In addition, if the CSRC or other regulatory authorities later promulgate new rules or explanations requiring that we obtain their approvals or accomplish the required filing or other regulatory procedures for our prior offshore offerings, we may be unable to obtain a waiver of such approval requirements, if and when procedures are established to obtain such a waiver. Any uncertainties or negative publicity regarding such approval requirement could materially and adversely affect our business, prospects, financial condition, reputation, and the trading price of our securities.

The ADSs may be prohibited from being traded over the counter in the United States under the HFCAA if the SEC subsequently determines our audit work is performed by auditors that the PCAOB is unable to inspect or investigate completely. The prohibition from trading of the ADSs, or the threat of their being prohibited from being traded, may materially and adversely affect the value of your investment.

The HFCAA was enacted on December 18, 2020. The HFCAA states if the SEC determines that we have filed audit reports issued by a registered public accounting firm that has not been subject to inspection by the PCAOB for two consecutive years beginning in 2021, the SEC shall prohibit our shares or the ADSs from being traded on a national securities exchange or in the OTC trading market in the United States.

On August 26, 2022, the PCAOB, the CSRC and the Ministry of Finance of the PRC signed the Statement of Protocol, which establishes a specific and accountable framework for the PCAOB to conduct inspections and investigations of PCAOB-governed accounting firms in mainland China and Hong Kong. On December 15, 2022, the PCAOB announced that it was able to secure complete access to inspect and investigate PCAOB-registered public accounting firms headquartered in mainland China and Hong Kong in 2022. The PCAOB Board vacated its previous 2021 determinations that the PCAOB was unable to inspect or investigate completely registered public accounting firms headquartered in mainland China and Hong Kong. However, whether the PCAOB will continue to be able to satisfactorily conduct inspections of PCAOB-registered public accounting firms headquartered in mainland China and Hong Kong is subject to uncertainties and depends on a number of factors out of our and our auditor's control. The PCAOB continues to demand complete access in mainland China and Hong Kong moving forward and is making plans to resume regular inspections, as well as to continue pursuing ongoing investigations and initiate new investigations as needed. The PCAOB has also indicated that it will act immediately to consider the need to issue new determinations with the HFCAA if needed. If the PCAOB is unable to inspect and investigate completely registered public accounting firms located in mainland China and Hong Kong, or if we fail to, among others, meet the PCAOB's requirements, including retaining a registered public accounting firm that the PCAOB determines it is able to inspect and investigate completely, and upon two consecutive years of non-inspection under the HFCAA, our shares and the ADSs will not be permitted for trading on a national securities exchange or the OTC trading market in the United States under the HFCAA and related regulations. In that case, we cannot assure you that we will be able to list on a non-U.S. exchange or that a market for our shares will develop outside of the United States. Such a prohibition would substantially impair your ability to sell or purchase the ADSs when you wish to do so and have a negative impact on the price of the ADSs. Moreover, the HFCAA or other efforts to increase U.S. regulatory access to audit information could cause investor uncertainty for affected issuers, including us, and the market price of the ADSs could be adversely affected. Also, such a prohibition would significantly affect our ability to raise capital on terms acceptable to us, or at all, which would have a material adverse impact on our business, financial condition, and prospects.

It may be difficult for overseas regulators to conduct investigation or collect evidence within China.

Shareholder claims or regulatory investigation that are common in the United States generally are difficult to pursue as a matter of law or practicality in China. For example, in China, there are significant legal and other obstacles to providing information needed for regulatory investigations or litigations initiated outside China. Although the authorities in China may establish a regulatory cooperation mechanism with the securities regulatory authorities of another country or region to implement cross-border supervision and administration, such cooperation with the securities regulatory authorities in the United States may not be efficient in the absence of mutual and practical cooperation mechanism. Furthermore, according to Article 177 of the PRC Securities Law, which became effective in March 2020, no overseas securities regulator is allowed to directly conduct investigation or evidence collection activities within the PRC territory. In addition, the Provision on Confidentiality specifies that requests made by overseas regulators to conduct investigations, including collecting evidence for investigation purpose, and inspections in the Chinese mainland shall be carried out through cross-border regulatory cooperation mechanisms. While the detailed interpretation of or implementation rules under Article 177 or the Provision on Confidentiality have yet to be promulgated, the inability for an overseas securities regulator to directly conduct investigation or evidence collection activities within China may further increase the difficulties you face in protecting your interests. See also “—Risks Related to the ADSs—You may face difficulties in protecting your interests, and your ability to protect your rights through U.S. courts may be limited, because we are incorporated under Cayman Islands law and conduct our operations primarily in emerging markets.”

The custodians or authorized users of our controlling non-tangible assets, including chops and seals, may fail to fulfill their responsibilities, or misappropriate or misuse these assets.

Under the PRC law, legal documents for corporate transactions, including agreements and contracts are executed using the chop or seal of the signing entity or with the signature of a legal representative whose designation is registered and filed with relevant PRC market regulation administrative authorities.

In order to secure the use of our chops and seals, we have established internal control procedures and rules for using these chops and seals. In any event that the chops and seals are intended to be used, the responsible personnel will submit a formal application, which will be verified and approved by authorized employees in accordance with our internal control procedures and rules. In addition, in order to maintain the physical security of our chops, we generally have them stored in secured locations accessible only to authorized employees. Although we monitor such authorized employees, the procedures may not be sufficient to prevent all instances of abuse or negligence. There is a risk that our employees could abuse their authority, for example, by entering into a contract not approved by us or seeking to gain control of our PRC subsidiaries or the affiliated entities. If any employee obtains, misuses or misappropriates our chops and seals or other controlling non-tangible assets for whatever reason, we could experience disruption to our normal business operations. We may have to take corporate or legal action, which could involve significant time and resources to resolve and divert management from our operations, and we may not be able to recover our loss due to such misuse or misappropriation if the third party relies on the apparent authority of such employees and acts in good faith.

Fluctuations in exchange rates could have a material adverse effect on our results of operations and the value of your investment.

The value of the Renminbi against the U.S. dollar and other currencies is affected by changes in China's political and economic conditions and relevant foreign exchange policies, among other things. In 2005, the PRC government changed its decades-old policy of pegging the value of the Renminbi to the U.S. dollar, and the Renminbi appreciated more than 20% against the U.S. dollar over the following three years. Between July 2008 and June 2010, this appreciation halted and the exchange rate between Renminbi and the U.S. dollar remained within a narrow band. Since June 2010, Renminbi has fluctuated against the U.S. dollar, at times significantly and unpredictably. On November 30, 2015, the Executive Board of IMF completed the regular five-year review of the basket of currencies that make up the Special Drawing Right, or SDR, and decided that with effect from October 1, 2016, Renminbi is determined to be a freely usable currency and will be included in the SDR basket as a fifth currency, along with the U.S. dollar, the Euro, the Japanese yen and the British pound. In the fourth quarter of 2016, the Renminbi has depreciated significantly against the backdrop of a surging U.S. dollar and persistent capital outflows from China. This depreciation halted in 2017, and the Renminbi appreciated approximately 7% against the U.S. dollar during this one-year period. In 2018, a new round of Renminbi depreciation emerged under the influence of a strong U.S. dollar and the Sino-U.S. trade friction. In August 2019, Renminbi once plunged to the weakest level against the U.S. dollar in more than a decade, which raised fears of further escalation in the Sino-U.S. trade friction. With the development of the foreign exchange market and progress towards interest rate liberalization and Renminbi internationalization, the PRC government may in the future announce further changes to the exchange rate system and we cannot assure you that Renminbi will not appreciate or depreciate significantly in value against the U.S. dollar in the future. It is difficult to predict how market forces or relevant government policy may impact the exchange rate between Renminbi and the U.S. dollar in the future.

Significant revaluation of the Renminbi may have a material adverse effect on your investment. For example, to the extent that we need to convert U.S. dollars into Renminbi for our operations, appreciation of the Renminbi against the U.S. dollar would have an adverse effect on the Renminbi amount we would receive from the conversion. Conversely, if we decide to convert our Renminbi into U.S. dollars for the purpose of making payments for dividends on our ordinary shares or the ADSs or for other business purposes, appreciation of the U.S. dollar against the Renminbi would have a negative effect on the U.S. dollar amount available to us.

Very limited hedging options are available in China to reduce our exposure to exchange rate fluctuations. To date, we have not entered into any hedging transactions in an effort to reduce our exposure to foreign currency exchange risk. While we may decide to enter into hedging transactions in the future, the availability and effectiveness of these hedges may be limited, and we may not be able to adequately hedge our exposure or at all. In addition, our currency exchange losses may be magnified by relevant exchange control regulations that restrict our ability to convert Renminbi into foreign currency.

Governmental control of currency conversion may limit our ability to utilize our revenues in foreign currencies effectively and fluctuations in exchange rates may affect the value of your investment.

The PRC government established specific laws and regulations on the convertibility of the Renminbi into foreign currencies and, in certain cases, the remittance of foreign currency out of China. We receive substantially all of our revenues in Renminbi. Under our current corporate structure, our Cayman Islands holding company may rely on dividend payments from our PRC subsidiaries to fund any cash and financing requirements we may have. Under existing PRC foreign exchange regulations, payments of current account items, including profit distributions, interest payments and trade and service-related foreign exchange transactions, can be made in foreign currencies without prior approval of the State Administration of Foreign Exchange, or SAFE, by complying with certain procedural requirements. Specifically, under the existing exchange restrictions, without prior approval of SAFE, cash generated from the operations of our PRC subsidiaries and affiliated entities in China may be used to pay dividends to our company. However, approval from or registration with appropriate government authorities is required where Renminbi is to be converted into foreign currency and remitted out of China to pay capital expenses such as the repayment of loans denominated in foreign currencies.

As a result, we need to obtain SAFE approval to use cash generated from the operations of our PRC subsidiaries and affiliated entities to pay off their respective debt in a currency other than Renminbi owed to entities outside China, or to make other capital expenditure payments outside China in a currency other than Renminbi.

More restrictions and substantial vetting process are put in place by SAFE to regulate cross-border transactions falling under the capital account. If any of our shareholders regulated by such policies fails to satisfy the applicable overseas direct investment filing or approval requirement timely or at all, it may be subject to penalties from the relevant PRC authorities. The PRC government may at its discretion further restrict access in the future to foreign currencies for current account transactions. If the foreign exchange control system prevents us from obtaining sufficient foreign currencies to satisfy our foreign currency demands, or if our access to foreign currencies for current account transactions is subject to oversight, we may not be able to pay dividends in foreign currencies to our shareholders, including holders of the ADSs.

Certain PRC laws and regulations establish complex procedures for certain types of acquisitions of Chinese companies by foreign investors, which could make it more difficult for us to pursue growth through acquisitions in China.

A number of PRC laws and regulations have established additional procedures and requirements that could make merger and acquisition activities in China by foreign investors more time-consuming and complex, including requirements in some instances that the MOFCOM be notified in advance of any change-of-control transaction in which a foreign investor takes control of a PRC domestic enterprise. Moreover, the Anti-Monopoly Law requires that the MOFCOM shall be notified in advance of any concentration of undertaking if certain thresholds are triggered. In addition, the security review rules issued by the MOFCOM that became effective in September 2011 specify that mergers and acquisitions by foreign investors that raise “national defense and security” concerns and mergers and acquisitions through which foreign investors may acquire *de facto* control over domestic enterprises that raise “national security” concerns are subject to strict review by the MOFCOM, and the rules prohibit any activities attempting to bypass a security review, including by structuring the transaction through a proxy or contractual control arrangement. In the future, we may grow our business by acquiring complementary businesses. Complying with the requirements of the above-mentioned regulations and other relevant rules to complete such transactions could be time-consuming, and any required approval processes, including obtaining approval from the MOFCOM or its local counterparts may delay or inhibit our ability to complete such transactions, which could affect our ability to expand our business or maintain our market share.

PRC regulation of loans to and direct investment in PRC entities by offshore holding companies and governmental control of currency conversion may affect our ability to capitalize or otherwise fund our PRC operations.

We are an offshore holding company conducting our operations in China through our PRC subsidiaries and affiliated entities. We may make loans to our PRC subsidiaries and affiliated entities, or we may make additional capital contributions to our PRC subsidiary, or we may establish new PRC subsidiaries and make capital contributions to these new PRC subsidiaries, or we may acquire offshore entities with business operations in China in an offshore transaction.

Most of these activities are subject to PRC regulations and approvals. For example, loans by us to our wholly owned PRC subsidiaries to finance their activities cannot exceed statutory limits and must be registered with the local counterpart of SAFE. If we decide to finance our wholly owned PRC subsidiaries by means of capital contributions, these capital contributions are subject to the requirement of making necessary filings in the foreign investment comprehensive administrative system and registration with other governmental authorities in China. Due to the restrictions imposed on loans in foreign currencies extended to PRC domestic companies, we are not likely to make such loans to the affiliated entities as PRC domestic companies. Further, we are not likely to finance the activities of the affiliated entities by means of capital contributions due to regulatory restrictions relating to foreign investment in PRC domestic enterprises engaged in value-added telecommunications services and certain other businesses.

SAFE promulgated the Circular on Reforming the Management Approach regarding the Settlement of Foreign Capital of Foreign-invested Enterprise, or SAFE Circular 19, effective June 2015, in replacement of the Circular on the Relevant Operating Issues Concerning the Improvement of the Administration of the Payment and Settlement of Foreign Currency Capital of Foreign Invested Enterprises, the Notice from the State Administration of Foreign Exchange on Relevant Issues Concerning Strengthening the Administration of Foreign Exchange Businesses, and the Circular on Further Clarification and Regulation of the Issues Concerning the Administration of Certain Capital Account Foreign Exchange Businesses. According to SAFE Circular 19, the flow and use of the Renminbi capital converted from foreign currency-denominated registered capital of a foreign-invested company is regulated such that Renminbi capital may not be used for the issuance of Renminbi entrusted loans, the repayment of inter-enterprise loans or the repayment of banks loans that have been transferred to a third-party. Although SAFE Circular 19 allows Renminbi capital converted from foreign currency-denominated registered capital of a foreign-invested enterprise to be used for equity investments within China, it also reiterates the principle that Renminbi converted from the foreign currency-denominated capital of a foreign-invested company may not be directly or indirectly used for purposes beyond its business scope. Although SAFE promulgated in October 2019 the Circular on Further Promoting the Cross-border Trade and Investment Facilitation, or SAFE Circular 28, pursuant to which non-investment foreign-invested companies are allowed to conduct domestic equity investment with settled capital from foreign exchange if such investment projects are true and compliant and do not otherwise violate the existing Special Management Measures (Negative List) for Foreign Investment Access, or the Negative List, it is unclear whether SAFE will permit such capital to be used for equity investments in China in actual practice. SAFE promulgated the Circular on Reforming and Regulating Policies on the Control over Foreign Exchange Settlement of Capital Accounts, or SAFE Circular 16, effective on June 9, 2016, which reiterates some of the rules set forth in SAFE Circular 19, but changes the prohibition against using Renminbi capital converted from foreign currency denominated registered capital of a foreign-invested company to issue Renminbi entrusted loans to a prohibition against using such capital to issue loans to non-associated enterprises. Violations of SAFE Circular 19 and SAFE Circular 16 could result in administrative penalties. SAFE Circular 19 and SAFE Circular 16 may significantly limit our ability to transfer any foreign currency we hold, including the net proceeds from our initial public offering, to our PRC subsidiaries, which may adversely affect our liquidity and our ability to fund and expand our business in China.

In light of the various requirements imposed by PRC regulations on loans to and direct investment in PRC entities by offshore holding companies, we cannot assure you that we will be able to complete the necessary government registrations or obtain the necessary government approvals on a timely basis, or at all, with respect to future loans by us to our PRC subsidiaries or with respect to future capital contributions by us to our PRC subsidiaries. If we fail to complete such registrations or obtain such approvals, our ability to use the proceeds we received from initial public offering and to capitalize or otherwise fund our PRC operations may be negatively affected, which could materially and adversely affect our liquidity and our ability to fund and expand our business.

PRC regulations relating to the establishment of offshore special purpose companies by PRC residents may subject our PRC resident beneficial owners or our PRC subsidiaries to liability or penalties, limit our ability to inject capital into our PRC subsidiaries, limit our PRC subsidiaries' ability to increase their registered capital or distribute profits to us, or may otherwise adversely affect us.

SAFE promulgated the Circular of the State Administration of Foreign Exchange on Issues Concerning the Foreign Exchange Administration over the Overseas Investment and Financing and Round-trip Investment by Domestic Residents via Special Purpose Vehicles, or SAFE Circular 37, in July 2014, which replaced the Notice on Relevant Issues Concerning Foreign Exchange Administration for PRC Residents Engaging in Financing and Roundtrip Investments via Overseas Special Purpose Vehicles promulgated by SAFE in October, 2005. SAFE Circular 37 requires PRC residents or entities to register with SAFE or its local branch in connection with their establishment or control of an offshore entity established for the purpose of overseas investment or financing with such PRC residents or entities' legally owned assets or equity interests in domestic enterprises or offshore assets or interests. On February 13, 2015, SAFE issued Circular on Further Simplifying and Improving the Foreign Currency Management Policy on Direct Investment, or SAFE Circular 13, effective on June 1, 2015, pursuant to which the power to accept SAFE registration was delegated from local SAFE to local qualified banks where the assets or interest in the domestic entity was located. In addition, such PRC residents or entities must update their SAFE registrations when the offshore special purpose vehicle undergoes material events relating to any change of basic information (including change of such PRC citizens or residents, name and operation term), increases or decreases in investment amount, transfers or exchanges of shares, or mergers or divisions.

If our shareholders who are PRC residents or entities do not complete their registration with the local SAFE branches, our PRC subsidiaries may be prohibited from distributing their profits and proceeds from any reduction in capital, share transfer or liquidation to us, and we may be restricted in our ability to contribute additional capital to our PRC subsidiaries. Moreover, failure to comply with the SAFE registration described above could result in liability under PRC laws for evasion of applicable foreign exchange restrictions. In addition, our shareholders who are PRC entities shall complete their overseas direct investment filings according to applicable laws and regulations regarding the overseas direct investment by PRC entities, including filings with the MOFCOM, the NDRC, or the local branch of the MOFCOM and the NDRC based on the investment amount, invested industry or other factors thereof.

We have used our best efforts to notify PRC residents or entities who directly or indirectly hold shares in our Cayman Islands holding company and who are known to us as being PRC residents or entities to complete the foreign exchange registrations or overseas direct investment filings. However, we may not at all times be fully aware or informed of the identities of all our shareholders or beneficial owners that are required to make or update such registration or filings, and we cannot compel them to comply with SAFE registration requirements and filing requirements as set forth in SAFE, MOFCOM and NDRC regulations. As a result, we cannot assure you that all other shareholders or beneficial owners of ours who are PRC residents or entities have complied with, and will in the future make, obtain or update any applicable registrations, filings or approvals required by SAFE, MOFCOM and NDRC regulations. Failure by such shareholders or beneficial owners to comply with SAFE, MOFCOM and NDRC regulations, or failure by us to amend the foreign exchange registrations of our PRC subsidiaries, could subject us to fines or legal sanctions, restrict our overseas or cross-border investment activities, limit our PRC subsidiaries' ability to make distributions or pay dividends to us or affect our ownership structure, which could adversely affect our business and prospects.

Moreover, under existing foreign exchange regulations, circulation of foreign currencies within the territory of the PRC shall be prohibited, and no pricing and settlement shall be made in foreign currencies within the territory of the PRC, unless otherwise stipulated by the state authority. For instance, using foreign exchange to make payments that shall be made with Renminbi violates various foreign exchange regulation requirements, which may result in liabilities under PRC law for circumventing applicable foreign exchange restrictions and be construed as arbitrage of exchange. As a result, relevant foreign exchange regulatory authorities may order the violating entity to convert the foreign exchange and impose a fine of up to 30% of the illegal arbitrage amount; in serious cases, the regulatory authorities may impose a fine in excess of 30% but no more than the illegal arbitrage amount. The violating entity may also be subject to criminal liability if its act constitutes a criminal offence. We have made some acquisitions in China, and as a consideration, we have issued new shares overseas to acquired entities' direct or indirect shareholders who are PRC residents, which may subject such shareholders and us to the above-mentioned fines or criminal liability in serious cases. In addition, we cannot assure you that such shareholders have completed the necessary registrations as required by SAFE Circular 37 and other relevant SAFE regulations and rules, failure of which may subject such shareholders to fines and sanctions and adversely affect our business, results of operations and financial condition.

If we fail to comply with PRC regulations regarding the registration requirements for employee stock ownership plans or share option plans, the PRC plan participants or we could be subject to fines and other legal or administrative sanctions.

In February 2012, SAFE promulgated the Notices on Issues Concerning the Foreign Exchange Administration for Domestic Individuals Participating in Stock Incentive Plans of Overseas Publicly-Listed Companies, or SAFE Circular 7. Under SAFE Circular 7 and other relevant rules and regulations, PRC residents who participate in stock incentive plan in an overseas publicly-listed company are required to register with SAFE or its local branches and complete certain other procedures. Participants of a stock incentive plan who are PRC residents must retain a qualified PRC agent, which could be a PRC subsidiary of such overseas publicly listed company or another qualified institution selected by such PRC subsidiary, to conduct the SAFE registration and other procedures with respect to the stock incentive plan on behalf of its participants. Such participants must also retain an overseas entrusted institution to handle matters in connection with their exercise of share-based awards, the purchase and sale of corresponding shares or interests and fund transfers. In addition, the PRC agent is required to amend the SAFE registration with respect to the stock incentive plan if there is any material change to the stock incentive plan, the PRC agent or the overseas entrusted institution, or any other material changes. We and our employees who are PRC resident and have been granted share-based awards will be subject to SAFE Circular 7 and other relevant rules and regulations. Failure of our PRC share-based award holders to complete their SAFE registrations may subject these PRC residents to fines and legal sanctions and may also limit our ability to contribute additional capital into our PRC subsidiaries, limit our PRC subsidiaries' ability to distribute dividends to us, or otherwise materially adversely affect our business.

If we are classified as a PRC resident enterprise for PRC income tax purposes, such classification could result in unfavorable tax consequences to us and our non-PRC shareholders or the ADSs holders.

Under the PRC Enterprise Income Tax Law, or EIT Law, and its implementation rules, an enterprise established outside of the PRC with its “*de facto* management body” within the PRC is considered a “resident enterprise” and will be subject to PRC enterprise income tax on its global income at the rate of 25%. The implementation rules define the term “*de facto* management body” as the body that exercises full and substantial control and overall management over the business, productions, personnel, accounts and properties of an enterprise. In 2009, the State Administration of Taxation, or SAT, issued the Circular of the State Administration of Taxation on Issues Relating to Identification of PRC-controlled Overseas Registered Enterprises as Resident Enterprises in Accordance with the De Facto Standards of Organizational Management, or SAT Circular 82, which provides certain specific criteria for determining whether the “*de facto* management body” of a PRC-controlled enterprise that is incorporated offshore is located in China. Although this circular only applies to offshore enterprises controlled by PRC enterprises or PRC enterprise groups, but not to those controlled by PRC individuals or foreigners, the criteria set forth in the circular may reflect the State Administration of Taxation’s general position on how the “*de facto* management body” test should be applied in determining the tax resident status of all offshore enterprises. According to SAT Circular 82, an offshore incorporated enterprise controlled by a PRC enterprise or a PRC enterprise group will be regarded as a PRC tax resident by virtue of having its “*de facto* management body” in China and will be subject to PRC enterprise income tax on its global income only if all of the following conditions are met: (1) the primary location of the day-to-day operational management is in the PRC; (2) decisions relating to the enterprise’s financial and human resource matters are made or are subject to approval by organizations or personnel in the PRC; (3) the enterprise’s primary assets, accounting books and records, company seals, and board and shareholder resolutions, are located or maintained in the PRC; and (4) at least 50% of voting board members or senior executives habitually reside in the PRC.

We believe none of our entities outside of China is a PRC resident enterprise for PRC tax purposes. However, the tax resident status of an enterprise is subject to determination by the PRC tax authorities and uncertainties remain with respect to the interpretation of the term “*de facto* management body.” If the PRC tax authorities determine that any of our entities outside of China is a PRC resident enterprise for enterprise income tax purposes, we may be required to withhold a 10% withholding tax from dividends we pay to our shareholders that are non-resident enterprises, including the holders of the ADSs. In addition, non-resident enterprise shareholders (including the ADSs holders) may be subject to PRC tax at a rate of 10% on gains realized on the sale or other disposition of ADSs or ordinary shares, if such income is treated as sourced from within the PRC. Furthermore, if PRC tax authorities determine that we are a PRC resident enterprise for enterprise income tax purposes, dividends paid to our non-PRC individual shareholders (including the ADSs holders) and any gain realized on the transfer of ADSs or ordinary shares by such shareholders may be subject to PRC tax at a rate of 20% (which, in the case of dividends, may be withheld at source by us), if such gains are deemed to be from PRC sources. These rates may be reduced by an applicable tax treaty, but it is unclear whether non-PRC shareholders of Cloopen Group Holding Limited would be able to claim the benefits of any tax treaties between their country of tax residence and the PRC in the event that Cloopen Group Holding Limited is treated as a PRC resident enterprise. Any such tax may reduce the returns on your investment in the ADSs.

We face uncertainties with respect to indirect transfer of equity interests in PRC resident enterprises by their non-PRC holding companies.

We face uncertainties regarding the reporting on and consequences of previous private equity financing transactions involving the transfer and exchange of shares in our company by non-resident investors. In February 2015, SAT issued the Bulletin on Issues of Enterprise Income Tax on Indirect Transfers of Assets by Non-PRC Resident Enterprises, or SAT Bulletin 7. Pursuant to SAT Bulletin 7, an “indirect transfer” of PRC assets, including a transfer of equity interests in an unlisted non-PRC holding company of a PRC resident enterprise, by non-PRC resident enterprises may be re-characterized and treated as a direct transfer of the underlying PRC assets, if such arrangement does not have a reasonable commercial purpose and was established for the purpose of avoiding payment of PRC enterprise income tax. As a result, gains derived from such indirect transfer may be subject to PRC enterprise income tax, and the transferee or other person who is obligated to pay for the transfer is obligated to withhold the applicable taxes, currently at a rate of 10% for the transfer of equity interests in a PRC resident enterprise. On October 17, 2017, SAT issued the Bulletin on Issues Concerning the Withholding of Non-PRC Resident Enterprise Income Tax at Source, or SAT Bulletin 37, which came into effect on December 1, 2017. SAT Bulletin 37 further clarifies the practice and procedure of the withholding of nonresident enterprise income tax.

There is uncertainty as to the application of SAT Bulletin 37 or previous rules under SAT Bulletin 7. We face uncertainties on the reporting and consequences of private equity financing transactions, share exchanges or other transactions involving the transfer of shares in our company by investors that are non-PRC resident enterprises. Under SAT Bulletin 37 and SAT Bulletin 7, our company may be subject to filing obligations or taxes if our company is the transferor in such transactions, and may be subject to withholding obligations if our company is the transferee in such transactions.

Increases in labor costs in the PRC may adversely affect our business, results of operations and financial condition.

The PRC Labor Contract Law has reinforced the protection of employees who, under the PRC Labor Contract Law, have the right, among others, to have written employment contracts, to enter into employment contracts with no fixed term under certain circumstances, to receive overtime wages and to terminate or alter terms in labor contracts. Furthermore, the PRC Labor Contract Law sets forth additional restrictions and increases the costs involved with dismissing employees. To the extent that we need to significantly reduce our workforce, the PRC Labor Contract Law could adversely affect our ability to do so in a timely and cost-effective manner, and we could be subject to penalties or incur significant liabilities in connection with labor disputes or investigations.

In addition, we are required by PRC laws and regulations to make social insurance registration and open housing fund account with relevant governmental authorities and pay various statutory employee benefits, including pension insurance, unemployment insurance, maternity insurance, work-related injury insurance, medical insurance and housing fund to designated government agencies for the benefit of our employees. The relevant government agencies may examine whether an employer has made adequate payments of the requisite statutory employee benefits, and those employers who fail to make adequate payments may be subject to late fees, fines and/or other penalties. Our social insurance and/or housing fund policies and practices may be found to have violated the relevant laws and regulations. See “—Risks Related to Regulatory Compliance—Failure to make adequate contributions to social insurance and housing fund as required by PRC regulations may subject us to penalties.” For example, some of the affiliated entities did not make adequate social insurance and housing fund contributions or did not make social insurance registration and open housing fund account in accordance with PRC laws and regulations. As a result, we may be subject to late fees, fines and/or other penalties, and our business, results of operations and financial condition may be adversely affected.

Recent litigation and negative publicity surrounding China-based companies listed in the United States may result in increased regulatory scrutiny of us and negatively impact the trading price of the ADSs.

We believe that litigation and negative publicity surrounding companies with operations in China that are listed in the United States have negatively impacted stock prices for such companies. Certain politicians in the United States have publicly warned investors to shun China-based companies listed in the United States. The SEC and the PCAOB also issued a joint statement on April 21, 2020, reiterating the disclosure, financial reporting and other risks involved in the investments in companies that are based in emerging markets as well as the limited remedies available to investors who might take legal action against such companies. Furthermore, various equity-based research organizations have published reports on China-based companies after examining, among other things, their corporate governance practices, related party transactions, sales practices and financial statements that have led to special investigations and stock suspensions on national exchanges. Any similar scrutiny of us, regardless of its lack of merit, could result in a diversion of managerial resources, potential costs to defend ourselves against rumors, decreases and volatility in the ADS trading price, and increased directors and officers insurance premiums, and could have a material adverse effect upon our business, results of operations and financial condition.

A severe or prolonged downturn in the global economic recession and the slowdown in the Chinese economy could materially and adversely affect our business, results of operations, financial condition and prospects.

COVID-19 has had a severe and negative impact on the global and Chinese economy, and its long-term impact on global and Chinese economy is still uncertain. Even before the outbreak of COVID-19, the global macroeconomic environment was facing challenges, including the end of quantitative easing by the U.S. Federal Reserve, the economic slowdown in the Eurozone since 2014 and uncertainties over the impact of Brexit and the ongoing trade and tariffs disputes between China and the United States. The Chinese economy has shown slower growth compared to the previous decade since 2012 and the trend may continue. There is considerable uncertainty over the long-term effects of the monetary and fiscal policies adopted by the central banks and financial authorities of some of the world's leading economies, including the United States and China. In addition, the tension caused by trade friction, the drastic drop in oil prices and the U.S. Federal Reserve's fiscal policies to strengthen the market in early 2020 also create uncertainty and challenges to the development of global economic condition. Economic conditions in China are sensitive to global economic conditions, as well as changes in domestic economic and political policies, and the expected or perceived overall economic growth rate. Any prolonged slowdown in the global or Chinese economy may have a negative impact on individual disposable income and in turn our business, results of operations and financial condition, and continued turbulence in the international capital markets may adversely affect our access to capital markets to meet liquidity needs.

The tension in international trade and rising political tension, particularly between the United States and China, may adversely impact our business, results of operations and financial condition.

Our business could be materially and adversely affected by the tensions in international trade in recent years. Changes to international trade policies could adversely affect the global economic conditions. In addition, geopolitical tensions have escalated due to, among other things, trade disputes, the COVID-19 outbreak, sanctions imposed by the U.S. Department of Treasury, and the executive orders issued by the U.S. government that may prohibit transactions with certain selected Chinese companies as well as their products and services. Rising political tensions could reduce levels of trades, investments, technological exchanges, and other economic activities between the two major economies, and any such tensions or any escalation of such tensions, may negatively affect trading and business environments, which may, in turn, adversely impacting our business, results of operations and financial condition.

Risks Related to Our Corporate Structure

The PRC government may find that the contractual arrangements that establish our corporate structure for operating our business do not comply with applicable PRC laws and regulations.

Current PRC laws and regulations impose certain restrictions on foreign ownership of companies that engage in certain business operations, such as value-added telecommunications services. In June 2019, the MOFCOM and the NDRC promulgated the Negative List, which became effective on July 30, 2019, in order to amend the Guidance Catalogue of Industries for Foreign Investment. The Negative List was further amended on June 23, 2020 and became effective on July 23, 2020, and the version of the Negative List currently in force was amended in 2021 and became effective on January 1, 2022. Pursuant to the Negative List (2021 Version), foreign investment in value-added telecommunications services (except for e-commerce, domestic multi-party communications services, store-and-forward services and domestic call center services) falls within the Negative List. As a result, foreign investors can only conduct investment activities through equity or contractual joint ventures with certain shareholding requirements and approvals from competent authorities. PRC partners are required to hold the majority interests in the joint ventures and approval from MOFCOM and the MIIT, for the incorporation of the joint ventures and the business operations. The primary foreign investors must also have operating experience and a good track record in providing value-added telecommunications services overseas.

Current PRC laws and regulations impose restrictions on foreign ownership and investment in companies that engage in value-added telecommunications services. We are an exempted company incorporated in the Cayman Islands. Anxun Guantong is our wholly-owned PRC subsidiary and a foreign-invested enterprise under PRC laws. We conduct our business in China through Ronglian Yitong and its subsidiaries, or collectively the affiliated entities, in China, based on a series of contractual arrangements by and among Anxun Guantong, Ronglian Yitong and its shareholders. Our contractual arrangements allow us to (1) exercise effective control over the affiliated entities, (2) receive substantially all of the economic benefits of the affiliated entities, and (3) have an exclusive option to purchase all or part of the equity interests in the affiliated entities when and to the extent permitted by PRC law. We have been and expect to continue to be dependent on the affiliated entities to operate our business in China. As a result of these contractual arrangements, we have control over and are the primary beneficiary of the affiliated entities and consolidate their financial results under U.S. GAAP. See "Item 4. Information on the Company—Corporate History and Structure—C. Organizational Structure—Contractual Arrangements" for details.

In the opinion of our PRC counsel, CM Law Firm, (1) the ownership structures of WFOE and the VIE in China currently are not in any violation of the applicable PRC laws or regulations currently in effect; and (2) the contractual arrangements by and among WFOE, the VIE and its shareholders governed by PRC laws and regulations are currently valid, binding and enforceable, and will not result in any violation of the applicable PRC laws or regulations currently in effect. However, we have been further advised by our PRC counsel that there are substantial uncertainties regarding the interpretation and application of current or future PRC laws and regulations. Thus, the PRC government may ultimately take a view contrary to or otherwise different from the opinion of our PRC counsel. If the PRC government otherwise find that we are in violation of any existing or future PRC laws or regulations or lack the necessary permits or licenses to operate our business, the relevant governmental authorities would have broad discretion in dealing with such violation, including, without limitation:

- revoking the business and operating licenses of our company;
- discontinuing or restricting any related-party transactions between our group and the affiliated entities;
- imposing fines and penalties, confiscating the income from our company, or imposing additional requirements for our operations which we may not be able to comply with;
- requiring us to restructure our ownership structure or operations, including terminating the contractual arrangements and deregistering the share pledges of the VIE, which in turn would affect our ability to consolidate, derive economic interests from, or exercise effective control over the affiliated entities;
- restricting or prohibiting our use of the proceeds of our initial public offering to finance our business and operations in China, particularly the expansion of our business through strategic acquisitions; or
- restricting the use of financing sources by us or the affiliated entities or otherwise restricting our or their ability to conduct business.

Any of these events could cause significant disruption to our business operations and severely damage our reputation, which would in turn materially and adversely affect our business, results of operations and financial condition. If occurrences of any of these events results in our inability to direct the activities of the affiliated entities in China, and/or our failure to receive the economic benefits from the affiliated entities, we may not be able to consolidate their financial results in our consolidated financial statements in accordance with U.S. GAAP.

Any failure by the VIE or its shareholders to perform their obligations under our contractual arrangements with them would have a material adverse effect on our business.

We have relied and expect to continue to rely on the contractual arrangements with the VIE and its shareholders to operate our business in China. For a description of these contractual arrangements, See “Item 4. Information on the Company—Corporate History and Structure—C. Organizational Structure—Contractual Arrangements.”

However, these contractual arrangements may not be as effective as direct ownership in providing us with control over the affiliated entities. Any of the affiliated entities, including the VIE, and its shareholders, could breach their contractual arrangements with us by, among other things, failing to conduct their operations in an acceptable manner or taking other actions that are detrimental to our interests. In the event that the shareholders of the VIE breach the terms of these contractual arrangements and voluntarily liquidate the VIE, or the VIE declares bankruptcy and all or part of its assets become subject to liens or rights of third-party creditors, or are otherwise disposed of without our consent, we may be unable to conduct some or all of our business operations or otherwise benefit from the assets held by the affiliated entities, which could have a material adverse effect on our business, results of operations and financial condition.

Furthermore, we are a holding company incorporated in the Cayman Islands. As a holding company with no material operations of our own, we conduct substantially all of our operations through our WFOE, the VIE, and its subsidiaries in China. We control and receive the economic benefits of the VIE and its subsidiaries’ business operations through certain contractual arrangements. The ADSs listed on the OTC market represents shares of our offshore holding company instead of shares of the VIE or its subsidiaries in China. We may not be able to continue to satisfy the applicable requirements and rules with respect to such structure.

If the VIE or its shareholders fail to perform their respective obligations under the contractual arrangements, we may have to incur substantial costs and expend additional resources to enforce such arrangements. We may also have to rely on legal remedies under PRC law, including seeking specific performance or injunctive relief, and contractual remedies, which we cannot assure you will be sufficient or effective under PRC law. Our contractual arrangements are governed by PRC law and provide for the resolution of disputes through arbitration in China. Accordingly, these agreements would be interpreted in accordance with PRC law and any disputes would be resolved in accordance with relevant legal procedures, which could be time-consuming and costly and could operate to limit our abilities to enforce these contractual arrangements. Meanwhile, there are very few precedents and little formal guidance as to how contractual arrangements in the context of a consolidated variable interest entity should be interpreted or enforced under PRC law. There remain significant uncertainties regarding the ultimate outcome of such arbitration should legal action become necessary. In addition, under PRC law, rulings by arbitrators are final, parties cannot appeal the arbitration results in courts, and if the losing parties fail to carry out the arbitration awards within a prescribed time limit, the prevailing parties may only enforce the arbitration awards in PRC courts through arbitration award recognition proceedings, which would require additional expenses and delay. In the event that we are unable to enforce these contractual arrangements, or if we suffer significant delay or other obstacles in the process of enforcing these contractual arrangements, we may not be able to exert effective control over the affiliated entities, and our ability to conduct our business may be negatively affected. See “—Risks Related to Doing Business in China—We are subject to extensive and evolving legal development, non-compliance with which, or changes in which, may materially and adversely affect our business and prospects, and may result in a material change in our operations.”

The shareholders of the VIE may have actual or potential conflicts of interest with us, which may materially and adversely affect our business, results of operations and financial condition.

The shareholders of the VIE may have actual or potential conflicts of interest with us. These shareholders may breach, or cause the VIE to breach, or refuse to renew, the existing contractual arrangements we have with them and the VIE, which would have a material adverse effect on our ability to effectively control the affiliated entities and receive economic benefits from them. For example, the shareholders may be able to cause our agreements with the VIE to be performed in a manner adverse to us by, among other things, failing to remit payments due under the contractual arrangements to us on a timely basis. We cannot assure you that when conflicts of interest arise any or all of these shareholders will act in the best interests of our company or such conflicts will be resolved in our favor. Currently, we do not have any arrangements to address potential conflicts of interest between these shareholders and our company. If we cannot resolve any conflict of interest or dispute between us and these shareholders, we would have to rely on legal proceedings, which could result in disruption of our business and subject us to substantial uncertainties as to the outcome of any such legal proceedings.

Our contractual arrangements may be subject to scrutiny by the PRC tax authorities and they may determine that we or the affiliated entities owe additional taxes, which could materially and adversely affect our business, results of operations and financial condition.

Under applicable PRC laws and regulations, arrangements and transactions among related parties may be subject to audit or challenge by the PRC tax authorities. The tax authorities may impose reasonable adjustments on taxation if they have identified any related party transactions that are inconsistent with arm's length principles. We could face material and adverse tax consequences if the PRC tax authorities determine that our contractual arrangements were not entered into on an arm's length basis in such a way as to result in an impermissible reduction in taxes under applicable PRC laws, rules and regulations, and adjust income of the affiliated entities in the form of a transfer pricing adjustment. A transfer pricing adjustment could, among other things, result in a reduction of expense deductions recorded by the affiliated entities for PRC tax purposes, which could in turn increase their tax liabilities without reducing our WFOE's tax expenses. In addition, if our WFOE requests the shareholders of the affiliated entities to transfer their equity interests at nominal or no value pursuant to the contractual arrangements, such transfer could be viewed as a gift and subject WFOE to PRC income tax. Furthermore, the PRC tax authorities may impose late payment fees and other penalties on the affiliated entities for the adjusted but unpaid taxes according to the applicable regulations. Our financial position could be materially and adversely affected if the affiliated entities' tax liabilities increase or if they are required to pay late payment fees and other penalties.

Uncertainties exist with respect to the interpretation and implementation of the newly enacted Foreign Investment Law and how it may impact the viability of our current corporate structure, corporate governance, business, results of operations, financial condition and prospects.

On March 15, 2019, the National People's Congress promulgated the Foreign Investment Law, which came into effect on January 1, 2020 and replaced the trio of existing laws regulating foreign investment in China, namely, the Sino-foreign Equity Joint Venture Enterprise Law, the Sino-foreign Cooperative Joint Venture Enterprise Law and the Wholly Foreign-invested Enterprise Law, together with their implementation rules and ancillary regulations. The Foreign Investment Law embodies an expected PRC regulatory trend to rationalize its foreign investment regulatory regime in line with prevailing international practice and the legislative efforts to unify the corporate legal requirements for both foreign and domestic investments. The current Foreign Investment Law does not mention concepts such as "actual control" and "controlling PRC companies by contracts or trusts" that were included in the previous drafts, nor does it specify regulations on controlling through contractual arrangements. As a result, this regulatory topic remains uncertain under the Foreign Investment Law. However, since the Foreign Investment Law is relatively new, uncertainties still exist in relation to its interpretation and implementation, and failure to take timely and appropriate measures to cope with the regulatory-compliance challenges could result in a material adverse effect on us. For instance, though the Foreign Investment Law does not explicitly classify contractual arrangements as a form of foreign investment, it contains a catch-all provision under the definition of "foreign investment," which includes investments made by foreign investors in China through means stipulated in laws or administrative regulations or other methods prescribed by the State Council. Therefore, it still leaves leeway for future laws, administrative regulations or provisions promulgated by the State Council to provide for contractual arrangements as a form of foreign investment, at which time it will be uncertain whether our contractual arrangements will be deemed to be in violation of the market access requirements for foreign investment in the PRC and if yes, how our contractual arrangements should be dealt with. In addition, if future laws, administrative regulations or provisions prescribed by the State Council mandate further actions to be taken by companies with respect to existing contractual arrangements, we may face substantial uncertainties as to whether we can complete such actions in a timely manner, or at all. In the worst-case scenario, we may be required to unwind our existing contractual arrangements and/or dispose of the relevant business operations, which could have a material adverse effect on our current corporate structure, corporate governance, business, results of operations, financial condition and prospects.

We may rely on dividends paid by our PRC subsidiaries to fund cash and financing requirements. Any limitation on the ability of our PRC subsidiaries to pay dividends to us could have a material adverse effect on our ability to conduct our business and to pay dividends to holders of our ordinary shares, including those represented by the ADSs.

We are a holding company, and we may rely on dividends to be paid by our PRC subsidiaries for our cash and financing requirements, including the funds necessary to pay dividends and other cash distributions to holders of our ordinary shares, including those represented by the ADSs, and service any debt we may incur. If our PRC subsidiaries incur debt on their own behalf in the future, the instruments governing the debt may restrict its ability to pay dividends or make other distributions to us.

Under PRC laws and regulations, wholly foreign-owned enterprises in the PRC, such as WFOE, may pay dividends only out of their accumulated profits as determined in accordance with PRC accounting standards and regulations. In addition, a wholly foreign-owned enterprise is required to set aside at least 10% of its after-tax profits each year, after making up previous years' accumulated losses, if any, to fund certain statutory reserve funds, until the aggregate amount of such a fund reaches 50% of its registered capital. These reserve funds are not distributable as cash dividends. Any limitation on the ability of our PRC subsidiaries to pay dividends or make other distributions to us could materially and adversely limit our ability to grow, make investments or acquisitions that could be beneficial to our business, pay dividends, or otherwise fund and conduct our business.

Risks Related to Corporate Governance

We are a foreign private issuer within the meaning of the rules under the Exchange Act, and as such we are exempt from certain provisions applicable to U.S. domestic public companies.

Because we are a foreign private issuer under the Exchange Act, we are exempt from certain provisions of the securities rules and regulations in the United States that are applicable to U.S. domestic issuers, including:

- the rules under the Exchange Act requiring the filing of quarterly reports on Form 10-Q or current reports on Form 8-K with the SEC;
- the sections of the Exchange Act regulating the solicitation of proxies, consents, or authorizations in respect of a security registered under the Exchange Act;
- the sections of the Exchange Act requiring insiders to file public reports of their stock ownership and trading activities and liability for insiders who profit from trades made in a short period of time; and
- the selective disclosure rules by issuers of material nonpublic information under Regulation FD.

We are required to file an annual report on Form 20-F within four months of the end of each fiscal year. Press releases relating to financial results and material events will also be furnished to the SEC on Form 6-K. However, the information we are required to file with or furnish to the SEC will be less extensive and less timely than that required to be filed with the SEC by U.S. domestic issuers. As a result, you may not be afforded the same protections or information that would be made available to you were you investing in a U.S. domestic issuer.

We are an emerging growth company within the meaning of the Securities Act and may take advantage of certain reduced reporting requirements.

We are an “emerging growth company” as defined in the JOBS Act, and we may take advantage of certain exemptions from requirements applicable to other public companies that are not emerging growth companies including, most significantly, not being required to comply with the auditor attestation requirements of Section 404 for so long as we remain an emerging growth company. As a result, if we elect not to comply with such auditor attestation requirements, our investors may not have access to certain information they may deem important. The JOBS Act also provides that an emerging growth company does not need to comply with any new or revised financial accounting standards until such date that a private company is otherwise required to comply with such new or revised accounting standards. Further, as an emerging growth company, we have elected to use the extended transition period for complying with new or revised financial accounting standards. As such, our financial statements may not be comparable to companies that comply with public company effective dates because of the potential differences in accounting standard used. We cannot predict if investors will find the ADSs less attractive because we may rely on these provisions. If some investors find the ADSs less attractive as a result, there may be a less active trading market for the ADSs and the trading price of the ADSs may be more volatile.

We incur significant costs as a result of being a public company, particularly after we cease to qualify as an “emerging growth company.”

We incur significant legal, accounting and other expenses as a result of being a public company. The Sarbanes-Oxley Act of 2002, as well as rules subsequently implemented by the SEC, impose various requirements on the corporate governance practices of public companies. We expect these rules and regulations to increase our legal and financial compliance costs and to make some corporate activities more time-consuming and costly. As a company with less than US\$1.235 billion in revenues for our last fiscal year, we qualify as an “emerging growth company” pursuant to the JOBS Act. An emerging growth company may take advantage of specified reduced reporting and other requirements that are otherwise applicable generally to public companies. After we are no longer an emerging growth company, we expect to incur significant expenses and devote substantial management effort toward ensuring compliance with the requirements of Section 404 and the other rules and regulations of the SEC.

As a result of becoming a public company, we have increased the number of independent directors and adopted policies regarding internal controls and disclosure controls and procedures. Operating as a public company has also made it more difficult and more expensive for us to obtain and maintain director and officer liability insurance, and we may be required to accept reduced policy limits and coverage or incur substantially higher costs to obtain the same or similar coverage. In addition, we incur additional costs associated with our public company reporting requirements. It may also be more difficult for us to find qualified persons to serve on our board of directors or as executive officers. We are currently evaluating and monitoring developments with respect to these rules and regulations, and we cannot predict or estimate with any degree of certainty the amount of additional costs we may incur or the timing of such costs.

In the past, shareholders of a public company often brought securities class action lawsuits against the company following periods of instability in the market price of that company's securities. If we were involved in a class action lawsuit, it could divert a significant amount of our management's attention and other resources from our business and operations, which could harm our results of operations and require us to incur significant expenses to defend the lawsuit. Any such class action lawsuit, whether or not successful, could harm our reputation and restrict our ability to raise capital in the future. In addition, if a claim is successfully made against us, we may be required to pay significant damages, which could have a material adverse effect on our results of operations and financial condition.

Our dual-class voting structure will limit your ability to influence corporate matters and could discourage others from pursuing any change of control transactions that holders of our Class A ordinary shares and ADSs may view as beneficial.

Our authorized and issued ordinary shares have been divided into Class A ordinary shares and Class B ordinary shares. Holders of Class A ordinary shares will be entitled to one vote per share, while holders of Class B ordinary shares will be entitled to ten votes per share. Each Class B ordinary share is convertible into one Class A ordinary share at any time by the holder thereof, while Class A ordinary shares are not convertible into Class B ordinary shares under any circumstances. As of the date of this annual report, Mr. Changxun Sun beneficially owns 2,000,000 Class A ordinary shares and all of our 25,649,839 Class B ordinary shares, representing approximately 8.29% of our then total issued and outstanding share capital and 45.79% of our then aggregate voting power.

As a result of the dual-class voting structure and the concentration of ownership, Mr. Changxun Sun has considerable influence over matters such as decisions regarding mergers, consolidations and the sale of all or substantially all of our assets, election of directors and other significant corporate actions. This concentration of ownership may discourage, delay or prevent a change in control of our company, which could have the effect of depriving our other shareholders of the opportunity to receive a premium for their shares as part of a sale of our company and may reduce the price of the ADSs. This concentrated control will limit your ability to influence corporate matters and could discourage others from pursuing any potential merger, takeover or other change of control transactions that holders of Class A ordinary shares and ADSs may view as beneficial.

The dual-class structure of our ordinary shares may adversely affect the trading market for the ADSs.

Certain shareholder advisory firms have announced changes to their eligibility criteria for inclusion of shares of public companies on certain indices, including the S&P 500, to exclude companies with multiple classes of shares and companies whose public shareholders hold no more than 5% of total voting power from being added to such indices. In addition, several shareholder advisory firms have announced their opposition to the use of multiple class structures. As a result, the dual-class structure of our ordinary shares may prevent the inclusion of the ADSs representing Class A ordinary shares in such indices and may cause shareholder advisory firms to publish negative commentary about our corporate governance practices or otherwise seek to cause us to change our capital structure. Any such exclusion from indices could result in a less active trading market for the ADSs. Any actions or publications by shareholder advisory firms critical of our corporate governance practices or capital structure could also adversely affect the value of the ADSs.

Our memorandum and articles of association contain anti-takeover provisions that could have a material adverse effect on the rights of holders of our ordinary shares and the ADSs.

Our memorandum and articles of association contain provisions which could limit the ability of others to acquire control of our company or cause us to engage in change-of-control transactions. These provisions could have the effect of depriving our shareholders of an opportunity to sell their shares at a premium over prevailing market prices by discouraging third parties from seeking to obtain control of our company in a tender offer or similar transaction. Our board of directors has the authority, without further action by our shareholders, to issue preferred shares in one or more series and to fix their designations, powers, preferences, privileges, and relative participating, optional or special rights and the qualifications, limitations or restrictions, including dividend rights, conversion rights, voting rights, terms of redemption and liquidation preferences, any or all of which may be greater than the rights associated with our ordinary shares, represented by the ADS or otherwise. Preferred shares could be issued quickly with terms calculated to delay or prevent a change in control of our company or make removal of management more difficult. If our board of directors decides to issue preferred shares, the price of the ADSs may fall and the voting and other rights of the holders of our ordinary shares and ADSs may be materially and adversely affected.

Risks Related to the ADSs

The delisting of the ADSs from the New York Stock Exchange may continue to have a material adverse effect on the trading and price of the ADSs.

On October 25, 2023, we were delisted from the New York Stock Exchange, or the NYSE, when the NYSE staff filed a Form 25 Notification of Delisting. The delisting of the ADSs from the NYSE has had and may continue to have a material adverse effect on us by, among other things, causing investors to dispose of the ADSs and limiting:

- the liquidity of the ADSs;
- the market price of the ADSs;
- the number of institutional and other investors that will consider investing in the ADSs;
- the availability of information concerning the trading prices and volume of the ADSs;
- the number of broker-dealers willing to execute trades in the ADSs; and
- our ability to obtain equity or debt financing for the continuation of our operations.

The lack of an active trading market may limit the liquidity of an investment in the ADSs, meaning you may not be able to sell the ADSs you own at times, or at prices, attractive to you. Any of these factors may materially and adversely affect the price of the ADSs.

The trading price of the ADSs has been and is likely to continue to be volatile, which could result in substantial losses to investors.

The ADSs had been listed for trading on the NYSE under the symbol “RAAS” since February 8, 2021. On May 17, 2023, the NYSE suspended the trading in the ADSs and commenced delisting proceedings. Following the trading suspension, the ADSs have been quoted on the OTC market in the United States under the symbol “RAASY.” On October 25, 2023, we were delisted from NYSE when the NYSE staff filed a Form 25 Notification of Delisting. The OTC market is a significantly more limited market than the NYSE. The quotation of the ADSs on the OTC market may result in a less liquid market available for existing and potential stockholders to trade the ADSs, could depress the trading price of the ADSs and could have a long-term adverse impact on our ability to raise capital in the future.

The trading price of the ADSs has been and is likely to continue to be volatile and could fluctuate widely due to factors beyond our control. This may happen because of broad market and industry factors, like the performance and fluctuation of the market prices of other companies with business operations located mainly in China that have listed their securities in the United States. A number of Chinese companies have listed or are in the process of listing their securities on U.S. stock markets. The securities of some of these companies have experienced significant volatility, including price declines in connection with their initial public offerings. The trading performances of these Chinese companies' securities after their offerings may affect the attitudes of investors toward Chinese companies listed in the United States in general and consequently may impact the trading performance of the ADSs, regardless of our actual operating performance. In addition, any negative news or perceptions about inadequate corporate governance practices or fraudulent accounting, corporate structure or matters of other Chinese companies may also negatively affect the attitudes of investors towards Chinese companies in general, including us, regardless of whether we have conducted any inappropriate activities. Furthermore, securities markets may from time to time experience significant price and volume fluctuations that are not related to our operating performance, which may have a material and adverse effect on the trading price of the ADSs.

In addition to market and industry factors, the price and trading volume for the ADSs may be highly volatile for factors specific to our own operations, including the following:

- variations in our revenues, earnings and cash flow;
- announcements of new investments, acquisitions, strategic partnerships or joint ventures by us or our competitors;
- announcements of new solutions and expansions by us or our competitors;
- announcements of applicable new policies, rules or regulations relating to the communications industry;
- changes in financial estimates by securities analysts;
- detrimental adverse publicity about us, our solutions, our competitors or our industry;
- additions or departures of key personnel;
- fluctuations of exchange rates between the Renminbi and the U.S. dollar;
- release of lock-up or other transfer restrictions on our outstanding equity securities or sales of additional equity securities; and
- potential litigation or regulatory investigations.

Any of these factors may result in large and sudden changes in the volume and price at which the ADSs will trade.

Moreover, there have been recent instances of extreme stock price run-ups followed by rapid price declines and strong stock price volatility with a number of recent initial public offerings, particularly among companies with relatively smaller public floats. As we currently have a relatively small public float, we may experience greater stock price volatility, including aggressive price run-ups and declines, lower trading volume and less liquidity, compared with companies with larger public floats. In particular, the ADSs may be subject to rapid and substantial price volatility, low volumes of trades and large spreads in bid and ask prices. Such volatility, including any stock run-up, may be unrelated to our actual or expected operating performance, financial condition or prospects, and industry, market or economic factors, which makes it difficult for prospective investors to assess such rapidly changing value of the ADSs. In addition, if the trading volumes of the ADSs are low, persons buying or selling in relatively small quantities may easily influence prices of the ADSs. This low volume of trades could also cause the price of the ADSs to fluctuate significantly, with large percentage changes in price occurring in any trading day session. Holders of the ADSs may also not be able to readily liquidate their investment or may be forced to sell at depressed prices due to such low-volume trading. As a result of such volatility, investors may experience losses on their investment in the ADSs. Such volatility also could adversely affect our ability to issue additional ADSs or other securities and our ability to obtain additional financing in the future, as well as our ability to retain key employees, many of whom have been granted equity incentives. Furthermore, the potential extreme volatility may confuse the public investors of the value of the ADSs, distort the market perception of the price of the ADSs, and our financial performance and public image, and negatively affect the long-term liquidity of the ADSs, regardless of our actual or expected operating performance.

In the past, shareholders of public companies have often brought securities class action lawsuits against those companies following periods of instability in the market price of their securities. If we were involved in a class action lawsuit, it could divert a significant amount of our management's attention and other resources from our business and operations and require us to incur significant expenses to defend the lawsuit, which could harm our results of operations. Any such class action lawsuit, whether or not successful, could harm our reputation and restrict our ability to raise capital in the future. In addition, if a claim is successfully made against us, we may be required to pay significant damages, which could have a material adverse effect on our results of operations and financial condition.

The sale or availability for sale of substantial amounts of the ADSs could adversely affect their market price.

Sales of substantial amounts of the ADSs in the public market, or the perception that these sales could occur, could adversely affect the market price of the ADSs and could materially impair our ability to raise capital through equity offerings in the future. The ADSs are freely tradable without restriction or further registration under the Securities Act of 1933, as amended, or the Securities Act, and shares held by our existing shareholders may also be sold in the public market in the future subject to the restrictions in Rule 144 and Rule 701 under the Securities Act and the applicable lock-up agreements. There are 20,972,233 ADSs, equivalent to 125,833,398 Class A ordinary shares, outstanding as of the date of this annual report. The lock-up agreements that our directors, executive officers and then-existing shareholders signed with the underwriters of our initial public offering have expired, and these shareholders, and the remaining Class A ordinary shares are available for sale subject to volume and other restrictions under Rule 144 and Rule 701 under the Securities Act. To date, the trading volume of the ADSs has been relatively low and, therefore, sales of even relatively small amounts of the ADSs in the public market could adversely affect the market price of the ADSs. We cannot predict what effect, if any, market sales of securities held by our significant shareholders or any other shareholder or the availability of these securities for future sale will have on the market price of the ADSs.

Techniques employed by short sellers may drive down the market price of the ADSs.

Short selling is the practice of selling securities that the seller does not own but rather has borrowed from a third party with the intention of buying identical securities back at a later date to return to the lender. The short seller hopes to profit from a decline in the value of the securities between the sale of the borrowed securities and the purchase of the replacement shares, as the short seller expects to pay less in that purchase than it received in the sale. As it is in the short seller's interest for the price of the security to decline, many short sellers publish, or arrange for the publication of, negative opinions regarding the relevant issuer and its business prospects in order to create negative market momentum and generate profits for themselves after selling a security short. These short attacks have, in the past, led to selling of shares in the market.

Public companies listed in the United States that have a substantial majority of their operations in China have been the subject of short selling. Much of the scrutiny and negative publicity has centered on allegations of a lack of effective internal control over financial reporting resulting in financial and accounting irregularities and mistakes, inadequate corporate governance policies or a lack of adherence thereto and, in many cases, allegations of fraud. As a result, many of these companies are now conducting internal and external investigations into the allegations and, in the interim, are subject to shareholder lawsuits and/or SEC enforcement actions.

We may be the subject of unfavorable allegations made by short sellers in the future. Any such allegations may be followed by periods of instability in the market price of our ordinary shares and ADSs and negative publicity. If and when we become the subject of any unfavorable allegations, whether such allegations are proven to be true or untrue, we could have to expend a significant amount of resources to investigate such allegations and/or defend ourselves. While we would strongly defend against any such short seller attacks, we may be constrained in the manner in which we can proceed against the relevant short seller by principles of freedom of speech, applicable federal or state law or issues of commercial confidentiality. Such a situation could be costly and time-consuming and could distract our management from growing our business. Even if such allegations are ultimately proven to be groundless, allegations against us could severely impact our business operations and shareholders' equity, and the value of any investment in the ADSs could be greatly reduced or rendered worthless.

If securities or industry analysts do not publish research or reports about our business, or if they adversely change their recommendations regarding the ADSs, the market price for the ADSs and trading volume could decline.

The trading market for the ADSs will be influenced by research or reports that industry or securities analysts publish about our business. If one or more analysts who cover us downgrade the ADSs, the market price for the ADSs would likely decline. If one or more of these analysts cease to cover us or fail to regularly publish reports on us, we could lose visibility in the financial markets, which in turn could cause the market price or trading volume for the ADSs to decline.

Because we do not expect to pay dividends in the foreseeable future, you must rely on price appreciation of the ADSs for return on your investment.

We currently intend to retain most, if not all, of our available funds and any future earnings to fund the development and growth of our business. As a result, we do not expect to pay any cash dividends in the foreseeable future. Therefore, you should not rely on an investment in the ADSs as a source for any future dividend income.

Our board of directors has complete discretion as to whether to distribute dividends, subject to certain restrictions under Cayman Islands law, namely that our company may only pay dividends out of profits or share premium account, and provided always that in no circumstances may a dividend be paid if this would result in our company being unable to pay its debts as they fall due in the ordinary course of business. In addition, our shareholders may by ordinary resolution declare a dividend, but no dividend may exceed the amount recommended by our board of directors. Even if our board of directors decides to declare and pay dividends, the timing, amount and form of future dividends, if any, will depend on our future results of operations and cash flow, our capital requirements and surplus, the amount of distributions, if any, received by us from our subsidiaries, our financial condition, contractual restrictions and other factors deemed relevant by our board of directors. Accordingly, the return on your investment in the ADSs will likely depend entirely upon any future price appreciation of the ADSs. There is no guarantee that the ADSs will appreciate in value or even maintain the price at which you purchased the ADSs. You may not realize a return on your investment in the ADSs or even lose your entire investment in the ADSs.

You may face difficulties in protecting your interests, and your ability to protect your rights through U.S. courts may be limited, because we are incorporated under Cayman Islands law and conduct our operations primarily in emerging markets.

We are an exempted company incorporated under the laws of the Cayman Islands. Our corporate affairs are governed by our memorandum and articles of association, the Companies Act of the Cayman Islands, as amended, and the common law of the Cayman Islands. The rights of shareholders to take action against the directors, actions by minority shareholders and the fiduciary responsibilities of our directors to us under Cayman Islands law are to a large extent governed by the common law of the Cayman Islands. The common law of the Cayman Islands is derived in part from comparatively limited judicial precedent in the Cayman Islands as well as from the common law of England, the decisions of whose courts are of persuasive authority, but are not binding, on a court in the Cayman Islands. The rights of our shareholders and the fiduciary responsibilities of our directors under Cayman Islands law are not as clearly established as they would be under statutes or judicial precedent in some jurisdictions in the United States. In particular, the Cayman Islands has a less developed body of securities laws than the United States. Some U.S. states, such as Delaware, have more fully developed and judicially interpreted bodies of corporate law than the Cayman Islands. In addition, Cayman Islands companies may not have standing to initiate a shareholder derivative action in a federal court of the United States.

Shareholders of Cayman Islands exempted companies like us have no general rights under Cayman Islands law to inspect corporate records (other than the memorandum and articles of associations, our register of mortgages and charges, and special resolutions of our shareholders) or to obtain copies of lists of shareholders of these companies. Our directors have discretion under our articles of association to determine whether or not, and under what conditions, our corporate records may be inspected by our shareholders, but are not obliged to make them available to our shareholders. This may make it more difficult for you to obtain the information needed to establish any facts necessary for a shareholder motion or to solicit proxies from other shareholders in connection with a proxy contest.

Certain corporate governance practices in the Cayman Islands, which is our home country, differ significantly from requirements for companies incorporated in other jurisdictions such as the United States. If we choose to follow home country practice, our shareholders may be afforded less protection than they otherwise would under rules and regulations applicable to U.S. domestic issuers.

In addition, we conduct substantially all of our business operations in emerging markets, including China, and substantially all of our directors and senior management are based in China. The SEC, U.S. Department of Justice, or the DOJ, and other authorities often have substantial difficulties in bringing and enforcing actions against non-U.S. companies and non-U.S. persons, including company directors and officers, in certain emerging markets. Although shareholder claims that are common in the United States, including class action based on securities law and fraud claims, it may be difficult for cross-border and direct claims or regulatory investigation to be conducted within China for lack of international cooperation mechanisms. Even if competent authorities in China may establish a regulatory cooperation mechanism with the securities regulatory authorities of another country or region to implement cross-border supervision and administration, the regulatory cooperation with the securities regulatory authorities in the United States may not achieve desirable result in the absence of a mutual and practical cooperation mechanism. According to Article 177 of the PRC Securities Law which became effective in March 2020, no foreign securities regulator is allowed to directly conduct investigation or evidence collection activities within the territory of the PRC. Accordingly, without the consent of the competent PRC securities regulators and relevant authorities, no organization or individual may provide the documents and materials relating to securities business activities to foreign securities regulators.

As a result of the above, our public shareholders may have more difficulty in protecting their interests in the face of actions taken by management, members of the board of directors or controlling shareholders than they would as public shareholders of a company incorporated in the United States.

Certain judgments obtained against us by our shareholders may not be enforceable.

We are a Cayman Islands exempted company and all of our assets are located outside of the United States. Substantially all of our current operations are conducted in China. In addition, most of our current directors and officers are nationals and residents of countries other than the United States. All or a substantial portion of the assets of these persons are located outside the United States. As a result, it may be difficult or impossible for you to bring an action against us or against these individuals in the United States in the event that you believe that your rights have been infringed under the U.S. federal securities laws or otherwise. Even if you are successful in bringing an action of this kind, the laws of the Cayman Islands and of China may render you unable to enforce a judgment against us, our assets, our directors and officers or their assets.

The voting rights of holders of ADSs are limited by the terms of the deposit agreement, and you may not be able to exercise your right to vote your Class A ordinary shares.

As a holder of the ADSs, you will only be able to exercise the voting rights with respect to the Class A ordinary shares represented by your ADSs in accordance with the provisions of the deposit agreement. Under the deposit agreement, you must vote by giving voting instructions to the depositary. If we request the depositary to ask for your instructions, then upon receipt of your voting instructions, the depositary will try, as far as is practicable, to vote the underlying Class A ordinary shares which are represented by your ADSs in accordance with your instructions. If we do not request the depositary to ask for your instructions, the depositary may still vote in accordance with instructions you give, but it is not required to do so. You will not be able to directly exercise your right to vote with respect to the Class A ordinary shares represented by your ADSs unless you withdraw such shares and became the registered holder of such shares prior to the record date for the general meeting. Under our memorandum and articles of association, the minimum notice period required for convening a general meeting is ten calendar days. When a general meeting is convened, you may not receive sufficient advance notice to withdraw the Class A ordinary shares represented by your ADSs and become the registered holder of such shares to allow you to vote with respect to any specific matter. If we ask for your instructions, the depositary will notify you of the upcoming vote and will arrange to deliver our voting materials to you. We cannot assure you that you will receive the voting materials in time to ensure that you can instruct the depositary to vote your shares. In addition, the depositary and its agents are not responsible for failing to carry out voting instructions or for their manner of carrying out your voting instructions. This means that you may not be able to exercise your right to vote and you may have no legal remedy if the Class A ordinary shares represented by your ADSs are not voted as you requested.

The depositary may give us a discretionary proxy to vote our Class A ordinary shares underlying your ADSs if you do not give voting instructions, which could adversely affect your interests and the ability of our shareholders as a group to influence the management of our company.

Under the deposit agreement for the ADSs, if you do not give voting instructions to the depositary to direct how the Class A ordinary shares underlying your ADSs are voted, upon our request, the depositary will give us (or our nominee) a discretionary proxy to vote the Class A ordinary shares underlying your ADSs at shareholders' meetings if:

- we timely provided the depositary with notice of meeting and related voting materials and requested it to solicit your instructions;
- we request the depositary to give a proxy;
- we have informed the depositary that there is no substantial opposition as to a matter to be voted on at the meeting; and
- the matter subject to voting would not have a material adverse impact on shareholders.

The effect of this discretionary proxy is that if you do not give voting instructions to the depositary to direct how the Class A ordinary shares underlying your ADSs are voted, you cannot prevent the Class A ordinary shares underlying your ADSs from being voted, under the circumstances described above. This may make it more difficult for shareholders to influence the management of our company. Holders of our ordinary shares are not subject to this discretionary proxy.

You may not receive cash dividends if the depositary decides it is impractical to make them available to you.

The depositary of the ADSs has agreed to pay to you the cash dividends or other distributions it or the custodian receives on our Class A ordinary shares or other deposited securities underlying the ADSs, after deducting its fees and expenses. You will receive these distributions in proportion to the number of Class A ordinary shares your ADSs represent. However, the depositary may, at its discretion, decide that it is inequitable or impractical to make a distribution available to any holders of the ADSs. For example, the depositary may determine that it is not practicable to distribute certain property through the mail, or that the value of certain distributions may be less than the cost of mailing them. In these cases, the depositary may decide not to distribute such property to you.

We and the depositary are entitled to amend the deposit agreement and to change the rights of ADSs holders under the terms of such agreement, and we may terminate the deposit agreement, without the prior consent of the ADSs holders.

We and the depositary are entitled to amend the deposit agreement and to change the rights of the ADSs holders under the terms of such agreement, without the prior consent of the ADSs holders. We and the depositary may agree to amend the deposit agreement in any way we decide is necessary or advantageous to us. Amendments may reflect, among other things, operational changes in the ADS program, legal developments affecting ADSs or changes in the terms of our business relationship with the depositary. In the event that the terms of an amendment are disadvantageous to ADSs holders, ADSs holders will only receive 30 days' advance notice of the amendment, and no prior consent of the ADSs holders is required under the deposit agreement. Furthermore, we may decide to terminate the ADS facility at any time for any reason. For example, terminations may occur when we decide to list our shares on a non-U.S. securities exchange and determine not to continue to sponsor an ADS facility or when we become the subject of a takeover or a going-private transaction. If the ADS facility will terminate, ADSs holders will receive at least 90 days' prior notice, but no prior consent is required from them. Under the circumstances that we decide to make an amendment to the deposit agreement that is disadvantageous to ADSs holders or terminate the deposit agreement, the ADSs holders may choose to sell their ADSs or surrender their ADSs and become direct holders of the underlying Class A ordinary shares, but will have no right to any compensation whatsoever.

You may experience dilution of your holdings due to inability to participate in rights offerings.

We may, from time to time, distribute rights to our shareholders, including rights to acquire securities. Under the deposit agreement, the depositary will not distribute rights to holders of ADSs unless the distribution and sale of rights and the securities to which these rights relate are either exempt from registration under the Securities Act with respect to all holders of ADSs or are registered under the provisions of the Securities Act. The depositary may, but is not required to, attempt to sell these undistributed rights to third parties, and may allow the rights to lapse. We may be unable to establish an exemption from registration under the Securities Act, and we are under no obligation to file a registration statement with respect to these rights or underlying securities or to endeavor to have a registration statement declared effective. Accordingly, holders of ADSs may be unable to participate in our rights offerings and may experience dilution of their holdings as a result.

You may be subject to limitations on transfer of your ADSs.

Your ADSs are transferable on the books of the depositary. However, the depositary may close its books at any time or from time to time when it deems expedient in connection with the performance of its duties. The depositary may close its books from time to time for a number of reasons, including in connection with corporate events such as a rights offering, during which time the depositary needs to maintain an exact number of ADSs holders on its books for a specified period. The depositary may also close its books in emergencies, and on weekends and public holidays. The depositary may refuse to deliver, transfer or register transfers of the ADSs generally when our share register or the books of the depositary are closed, or at any time if we or the depositary thinks it is advisable to do so because of any requirement of law or of any government or governmental body, or under any provision of the deposit agreement, or for any other reason.

ADSs holders may not be entitled to a jury trial with respect to claims arising under the deposit agreement, which could result in less favorable outcomes to the plaintiff(s) in any such action.

The deposit agreement governing the ADSs representing our Class A ordinary shares provides that, to the fullest extent permitted by law, ADSs holders waive the right to a jury trial of any claim they may have against us or the depositary arising out of or relating to our shares, the ADSs or the deposit agreement, including any claim under the U.S. federal securities laws.

If we or the depositary opposed a jury trial demand based on the waiver, the court would determine whether the waiver was enforceable based on the facts and circumstances of that case in accordance with the applicable state and federal law. To our knowledge, the enforceability of a contractual pre-dispute jury trial waiver in connection with claims arising under the federal securities laws has not been finally adjudicated by the United States Supreme Court. However, we believe that a contractual pre-dispute jury trial waiver provision is generally enforceable, including under the laws of the State of New York, which govern the deposit agreement, by a federal or state court in the City of New York, which has non-exclusive jurisdiction over matters arising under the deposit agreement. In determining whether to enforce a contractual pre-dispute jury trial waiver provision, courts will generally consider whether a party knowingly, intelligently and voluntarily waived the right to a jury trial. We believe that this is the case with respect to the deposit agreement and the ADSs. It is advisable that you consult legal counsel regarding the jury waiver provision before entering into the deposit agreement.

If you or any other holders or beneficial owners of ADSs bring a claim against us or the depositary in connection with matters arising under the deposit agreement or the ADSs, including claims under federal securities laws, you or such other holder or beneficial owner may not be entitled to a jury trial with respect to such claims, which may, among other things, limit and discourage lawsuits against us and/or the depositary and lead to limited access to information and other imbalances of resources between you as ADS holders and us. If a lawsuit is brought against us and/or the depositary under the deposit agreement, it may be heard only by a judge or justice of the applicable trial court, which would be conducted according to different civil procedures and may result in different outcomes than a trial by jury would have had, including results that could be less favorable to the plaintiff(s) in any such action.

Nevertheless, if this jury trial waiver provision is not permitted by applicable law, an action could proceed under the terms of the deposit agreement with a jury trial. No condition, stipulation or provision of the deposit agreement or ADSs serves as a waiver by any holder or beneficial owner of ADSs or by us or the depository of compliance with any provision of the U.S. federal securities laws and the rules and regulations promulgated thereunder.

We were a passive foreign investment company, or PFIC, for our taxable year ended December 31, 2022, and may be a PFIC for years after our taxable year ended December 31, 2022. As such, certain adverse U.S. federal income tax consequences may apply to U.S. investors owning the ADSs or our ordinary shares.

A non-U.S. corporation, such as our company, will be considered a PFIC for any taxable year if either (1) 75% or more of its gross income for such taxable year consists of certain types of “passive” income or (2) 50% or more of the value of its assets (generally based on an average of the quarterly values of the assets) during a taxable year is attributable to assets that produce or are held for the production of passive income. Although the law in this regard is not entirely clear, we treat the VIE (and its subsidiaries) as being owned by us for U.S. federal income tax purposes because we control its management decisions and are entitled to substantially all of the economic benefits associated with it. As a result, we consolidate its results of operations in our consolidated U.S. GAAP financial statements.

Based on the market price of the ADSs and ordinary shares and the value and composition of our assets, we believe we were a PFIC for U.S. federal income tax purposes for our taxable year ended December 31, 2022, and based on the current and anticipated composition of our income, assets and operations, we believe there is significant risk that we will continue to be treated as a PFIC for future taxable years as well. However, there can be no assurances in this regard or any assurances with respect to our status as a PFIC in any future taxable year, as our status as a PFIC is a fact-intensive determination made on an annual basis. In addition, if it were determined that we are not the beneficial owner of the VIE for U.S. federal income tax purposes, we would likely be treated as a PFIC for our taxable year ended December 31, 2022, and future taxable years.

Because we believe we were a PFIC for the taxable year ended December 31, 2022, certain adverse U.S. federal income tax consequences could apply to U.S. investors with respect to any “excess distribution” received from us and any gain from a sale or other disposition of the ADSs or ordinary shares. If we are so classified during a U.S. investor’s holding period, the ADSs or ordinary shares will generally continue to be treated as shares in a PFIC for all succeeding years during which such U.S. investor holds the ADSs or ordinary shares, even if we cease to be a PFIC, unless certain elections are made. See “Item 10. Additional Information—E. Taxation—U.S. Federal Income Taxation—Passive foreign investment company rules.” U.S. investors should consult their own tax advisors with respect to their particular circumstances.

ITEM 4. INFORMATION ON THE COMPANY

A. History and Development of the Company.

We began to provide cloud-based communications solutions in 2014, and have primarily operated our business through Beijing Ronglian Yitong Information Technology Co. Ltd., or Ronglian Yitong. In January 2014, we incorporated Cloopen Group Holding Limited, our current ultimate holding company, as an exempted company with limited liability in the Cayman Islands, to facilitate our offshore financings.

In February 2014, Cloopen Limited, a subsidiary wholly-owned by Cloopen Group Holding Limited was incorporated in Hong Kong. In April 2014, Anxun Guantong (Beijing) Technology Co., Ltd., or Anxun Guantong, a subsidiary wholly-owned by Cloopen Limited, was established in China.

In July 2014, due to the restrictions imposed by current PRC laws and regulations on foreign ownership and investment in companies that engage in value-added telecommunications services, Anxun Guantong entered into a series of contractual arrangements with Ronglian Yitong and its shareholders, by which we exert control over and are the primary beneficiary of the affiliated entities and consolidate their financial results under U.S. generally accepted accounting principles, or U.S. GAAP. The contractual arrangements with Ronglian Yitong were subsequently amended and restated in 2018, 2019 and 2020. See “—Contractual Arrangements” for details.

The ADSs had been listed for trading on the NYSE under the symbol “RAAS” since February 8, 2021. We raised approximately US\$340.2 million in net proceeds from issuance of new shares for our initial public offering after deducting underwriting discounts and commissions and estimated offering expenses payable by us.

In March 2021, we acquired all the equity interests of EliteCRM, a leading customer relationship management software provider.

In September 2021, our board approved a share repurchase program to repurchase up to US\$40.0 million of our Class A ordinary shares in the form of the ADSs during a 12-month period commencing on November 22, 2021. The share repurchase program expired on November 21, 2022, and as of such date, we have repurchased 9,041,386 of the ADSs (or 3,013,795 ADSs if retroactively adjusted to reflect the ADS ratio change effected on March 15, 2023) for an aggregate purchase price of US\$17.6 million pursuant to the share repurchase program.

In December 2021, we acquired all the equity interests of Zhuge, a user-centric intelligent data solution provider.

Effective on March 15, 2023, we changed the ratio of the ADSs to Class A ordinary shares from the then ADS ratio of one ADS representing two Class A ordinary shares to a new ADS ratio of one ADS representing six Class A ordinary shares.

On May 17, 2023, the NYSE commenced delisting proceedings of the ADSs on the basis that the ADSs are not suitable for listing due to our failure to file with the SEC our annual reports on Form 20-F for the years ended December 31, 2021 and December 31, 2022 and current report on Form 6-K for the half year ended June 30, 2022 by May 17, 2023, which is the maximum time allowed under Section 802.01E of the NYSE’s Listed Company Manual. The NYSE suspended the trading in the ADSs on the same date. Following the trading suspension, the ADSs have been quoted on the OTC market in the United States under the symbol “RAASY.” We requested for a review of the delisting determination by a committee of the board of directors of the NYSE, and on October 25, 2023, we received the final delisting determination from the committee. On the same date, we were delisted from NYSE when the NYSE staff filed a Form 25 Notification of Delisting.

Our principal executive offices are located at 16/F, Tower A, Fairmont Tower, 33 Guangshun North Main Street, Chaoyang District, Beijing, the PRC. Our telephone number at this address is (86) 10-6477-5680. Our registered office in the Cayman Islands is located at Maples Corporate Services Limited, PO Box 309, Ugland House, Grand Cayman, KY1-1104, Cayman Islands.

Our website is yuntongxun.com. The information contained on our website is not a part of, and will not be incorporated by reference into, this annual report.

B. Business Overview

We are a leading multi-capability cloud-based communications solution provider in China offering a full suite of cloud-based communications solutions, covering communications platform as a service, or CPaaS, cloud-based contact centers, or cloud-based CC, and cloud-based unified communications and collaborations, or cloud-based UC&C. We serve a diverse and loyal customer base consisting of enterprises of all sizes across a variety of industries, including internet, telecommunications, financial services, industrial manufacturing and energy.

China’s cloud-based communications industry is still in the early stages of development relative to more mature markets globally, and is experiencing significant transformation driven by rapid advancements in cloud and AI technologies. Enterprises in China increasingly focus on digital solutions and are adopting new technologies to improve the efficiency and quality of their intra- and extra-organizational communications. We believe that we are well-positioned to capitalize on this great opportunity in the emerging China market and continue to contribute to the growth of this market. As an industry pioneer, we have accumulated extensive expertise, and developed a variety of proprietary products and services characterized by quality and reliability, to enable seamless connectivity across telecommunications networks.

We believe that we are well adapted to serve China's unique market dynamics, leveraging our deep-rooted experience in China's cloud-based communications industry and insights in the specific communications needs of domestic enterprises. With our comprehensive business portfolio and feature-rich solutions, we can accommodate the disparate demands of a broad range of customers across public and private clouds, from small- to medium-sized enterprises to large enterprises. We have developed a highly efficient product development ecosystem, which enables us to capture complex and evolving customer demands and develop new and enhanced features and products that continue to represent compelling value propositions across our customer base. Moreover, we have developed industry-specific solutions with targeted features and functionalities for players in a number of industries, making it efficient for us to scale expediently among enterprises within the same industries.

As of December 31, 2020, 2021 and 2022 we had an active customer base of 12,632, 11,406 and 9,980 enterprises, respectively, among which 144, 142 and 118 were large-enterprise customers, respectively. In 2020, 2021 and 2022, the dollar-based net customer retention rate in relation to solutions that we offer on a recurring basis was 87.3%, 90.2% and 61.7%, respectively, and the dollar-based net customer retention rate for active customers was 92.1%, 94.2% and 64.5%, respectively. We served 224, 274 and 229 customers for our project-based solutions in 2020, 2021 and 2022, respectively. Our revenues increased by 4.0% from RMB723.5 million in 2020 to RMB752.7 million in 2021, and decreased by 21.1% to RMB593.6 million (US\$86.1 million) in 2022, of which 74.4%, 71.2% and 64.0% were recurring revenues in the same years, respectively. In 2020, 2021 and 2022, we incurred net loss of RMB425.2 million, RMB904.5 million and RMB975.9 million (US\$141.5 million), respectively, and our adjusted EBITDA was RMB227.7 million, RMB422.8 million and RMB563.4 million (US\$81.7 million), respectively. See "Item 5. Operating and Financial Review and Prospects—A. Operating Results—Non-GAAP Financial Measure" for information on how we define and calculate the non-GAAP financial measure as well as a reconciliation of non-GAAP adjusted EBITDA to net loss.

Value Propositions to Our Customers

Our cloud-based communications solutions enable enterprises to transform their business operations with intelligent, efficient and effective intra- and extra-organizational communications. Our cloud-based communications solutions offer the following key benefits to our customers.

Convenient on-demand access to telecommunications resources. Telecommunications networks have traditionally operated independently from the internet. Enterprises with large amounts of communications needs originating from their business operations often lack efficient and expedient access to the telecommunications resources, which are managed by the various mobile network operators, each serving a separate geographical region in China. Our solutions are designed to integrate these networks by pooling the telecommunications resources in our cloud-based infrastructure, centrally managing and distributing them to enterprises upon demand, thus allowing enterprises to access these resources at lower costs and with higher efficiency.

One-stop communications solutions. Our solutions are designed to satisfy all of our customers' various communications needs from text messaging to high-quality audio and video conferencing, and from cloud-based contact centers designed for effective customer service and acquisition to large-scale, multi-format unified communications across scattered worksites. We believe our comprehensive portfolio of offerings save our customers the hassle of seeking multiple providers for different communications needs, making us the go-to one-stop destination for the disparate demands of enterprises of all sizes, industries and stages of cloud adoption.

Intelligent communications. Leveraging our robust AI capabilities, we enable intelligent communications to help save labor costs, improve communications efficiency and achieve higher customer service quality and level of satisfaction. In particular, our AI-powered solutions greatly improve customer service effectiveness by automating certain tasks of contact center agents, monitoring service quality and offering real-time assistance. Our AI technologies also help our customers establish internal knowledge bases and deliver intelligent internal helpdesk services to streamline their business operations.

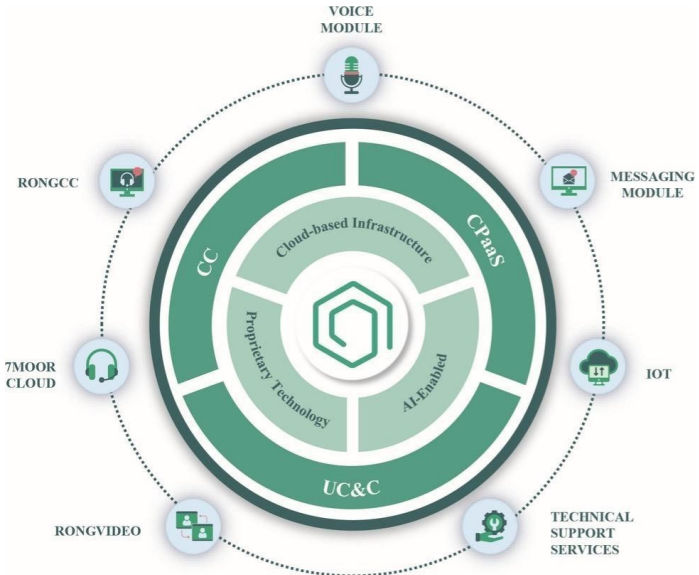
Easy, rapid and scalable deployment. Our solutions are software- and cloud-based, allowing for easy deployment and management across multiple locations and on multiple devices without substantial upfront investment in hardware and infrastructure. This software- and cloud-based nature also makes scalable deployment and upgrades possible as our customers expand their operations and communications needs.

Seamless integration and flexible configuration. Our solutions feature various APIs and SDKs to enable voice, messaging and other communications functions, which can be readily embedded into our customers' business systems and applications and physical infrastructure as building blocks. We also allow customizable options where customers may select communications functions based on their specific needs without having to purchase pre-packaged bundle of solutions.

Reliable customer experience. We have independently developed many of the core technologies underlying our solutions, which we believe enables consistently high service levels. In particular, our solutions are capable of maintaining stable and safe connections with over 99.95% uptime service level commitments even in cases of sudden spikes in the amount of simultaneous communications. In addition, our robust research and development capabilities and accumulated industry experience allow us to introduce new and enhanced features and functionalities to meet evolving customer needs amid dynamic market conditions. We also provide ongoing customer support and operation maintenance services to ensure superior customer experience.

Our Solutions

Our comprehensive solution offerings primarily include CPaaS, cloud-based CC and cloud-based UC&C. The following diagram sets forth a simplified presentation of our multi-capability solution offerings.



CPaaS solutions

Our CPaaS solutions are dedicated to allowing enterprises to access and utilize telecommunications resources with ease, efficiency and flexibility and in a way that suits their bespoke communications needs. Our customers typically have large intra- and extra-organizational communications needs, which are not often addressed efficiently under their traditional arrangements with China's mobile network operators. Provincial branches of major mobile network operators in China typically do business as separate entities, which means enterprises with nationwide business operations and communications needs often must work with a number of such provincial branches concurrently. We enter into written agreements with mobile network operators to utilize their telecommunications resources. These agreements typically have a fixed term of one year and are automatically renewable upon expiration of the original terms unless otherwise indicated. These agreements generally require monthly payments calculated based upon fixed unit prices and number of text messages and minutes of voice calls we utilize or provide pre-bundled telecommunications resources with fee caps. A smaller number of such agreements also contain minimum usage commitments.

Leveraging our close collaborations with the various mobile network operators across China, we aggregate telecommunications resources from them and offer our customers our CPaaS platform with a wide range of modules in the form of APIs and SDKs to embed voice, messaging and other communications functions into their business systems and applications. Our CPaaS platform saves customers the costs of establishing and maintaining their own network infrastructure and supports highly customizable communications experience with our feature-rich functional modules.

Voice modules

We offer various voice modules that can be readily integrated into our customers' business systems and applications or directly employed through webpages, each enabling a specific voice function. For example, with a voice module integrating a "click-to-call" function into contact centers, our customers can make and receive bulk outbound and inbound calls without leaving their in-house business platforms. Our voice modules also enable various frequently used voice functions such as call routing, call forwarding, callback, mute and three-way calling. We also offer phone menu and IVR to automate certain contact center services. Moreover, our customers can implement effective performance management and cost control leveraging our voice modules, with functions such as call history downloading, call recording, call monitoring, agent online status query and fee calculation. In addition, our customers may utilize our voice module featuring "virtual intermediary phone number" function to preserve users' privacy without compromising efficient communications. For example, a food delivery platform may integrate this voice module into its mobile application, which enables delivery riders and consumers to call each other without revealing their real phone numbers.

Messaging modules

Our messaging modules can also be readily integrated into our customers' business systems and applications, allowing them to send instantaneous authentication codes, marketing messages, text notifications and other forms of messages as needed to a large number of their customers. Our messaging modules support multiple languages and are available in a variety of communications formats with features such as international text messaging and video messaging. Characterized by quality and stability, our messaging modules are capable of initiating bulk outbound text messaging to up to millions of end customers with low latency and high delivery rate. Prompted by the emergence of 5G technology, we are also actively exploring opportunities in the field of 5G-based rich communications suite to support more communications formats with our messaging modules.

We believe our messaging modules can significantly improve the effectiveness of our customers' marketing and customer service activities.

Pursuant to our collaborative arrangements with mobile network operators, we sometimes assist and support them in establishing and operating communications service platforms and share revenues with them. We are typically responsible for the design, implementation and maintenance of the platforms under these arrangements, while the mobile network operators offer telecommunications resources and refer customers.

IoT related services

We are dedicated to connecting devices, equipment and facilities with our IoT related services. Our customers can centrally manage SIM cards supplied by China's major mobile network operators, monitor usages and modify usage plans leveraging our services. Our IoT related services also have a broad range of applications across industries. For example, our customers can integrate our services into smart watches to enable connectivity, allowing parents to communicate with their children and live track their locations. Our IoT related services can also enable collaboration among various connected devices with minimum human interference.

As of December 31, 2020, 2021 and 2022, our CPaaS solutions had approximately 6,600, 5,900 and 4,600 active customers, respectively. In 2020, 2021 and 2022, we achieved a dollar-based net customer retention rate of 82.2%, 85.3% and 42.6% for our CPaaS solutions, respectively, and our dollar-based net customer retention rate for active customers in relation to CPaaS solutions was 86.9%, 86.5% and 44.6%, respectively. We experienced decreased dollar-based net customer retention rate in 2022, primarily because we strategically downsized our CPaaS business, including our text messaging services and voice call services with relatively lower gross profit margin. We charge our customers generally based on the number of text messages and call minutes facilitated through our CPaaS solutions.

Cloud-based CC solutions

Our cloud-based CC solutions empower enterprises with highly efficient and effective customer service and acquisition capabilities. Our cloud-based CC solutions include *RongCC* and *7moor Cloud*.

RongCC

RongCC aims to replace large enterprises' legacy on-premises contact centers with cloud-based contact center solutions featuring enhanced agility, efficiency and compatibility. In addition to accommodating diverse customer service and acquisition interactions, *RongCC* serves as an integral part of an enterprise's overall business management capability, empowered by AI and big data technologies, to streamline human labor as well as collect and analyze operational data to enable informed decision-making.

RongCC enables enterprises, freed from cumbersome tasks associated with configuring, integrating, maintaining and upgrading their contact centers, to focus on what matters most to them - their customers and business operations. We offer *RongCC* in the form of pre-built readily available functional modules, which can be configured based on our customers' needs, to achieve easy delivery and rapid deployment. *RongCC* improves enterprises' customer service through the following ways.

- We operate our own data centers and deploy our centrally-managed computing and storage resources and hosting and network equipment to ensure *RongCC*'s stability and security. We have also made *RongCC* readily deployable by supporting the cloud computing platforms from China's major internet infrastructure service providers and providing abundant telecommunications resources to make on-demand access possible.
- To address our customers' considerations of costs and information security, we offer different cloud deployment options for *RongCC*. Our customers may choose private cloud deployment to achieve enhanced information security while leaving ample room for customization. In addition, having no need of sharing resources with other enterprises, private cloud deployment enables contact centers with significant capacity and a large number of agents. We also support proprietary cloud deployment, through which our customers are able to leverage our cloud infrastructure to access exclusive but scalable computing resources in a cost-effective manner. To a lesser extent, we offer public cloud deployment for enterprises with relatively limited business scale and operation and maintenance capabilities.

As market demands and competitive landscape continue to evolve, enterprises need integrated solutions that are able to tackle both customer services and marketing tasks. We have developed *RongCC* with a portfolio of functional modules including data intelligence, multi-channel contact center, and customer relationship management, or the CRM, which form a closed-loop customer services and marketing solution and enable enterprises to optimize marketing strategies, drive sales and enhance operational efficiency.

- Our data intelligence module analyzes customer needs and behaviors to empower enterprises with digital marketing. We gather data on user and sales behaviors across all channels and along the purchasing decision-making process by event tracking, and label users into different groups to create comprehensive user profiling. We also provide an intelligent marketing canvas for enterprises, which allows for flexible and customized marketing strategies for different user groups. Enterprises can then reach target customers across all channels leveraging our multi-channel contact center module, and track and review various metrics in real time to evaluate their marketing effectiveness.
- Our multi-channel contact center module allows enterprises to manage customer services across various platforms and channels, including phone calls, emails, social media platforms and live chats, and to efficiently and conveniently communicate with customers. We support various communications formats, such as text, audio, video, emoji, graphic, document, or a combination of these formats.
- Our CRM module assists enterprises in enhancing their internal collaboration and efficiency and resolving legacy issues with cross-platform operation. Through our unified customer identification and ticket tracking system, enterprises can effectively streamline their customer service process by locating the service requests of a customer and accomplishing all steps needed to resolve the requests, such as to address and assign the inquiries or complaints, to supervise the execution of attempted solutions, and to carry out follow-ups.

Utilizing the large model capability of generative AI, we empower the multi-channel contact center and CRM to improve sales performance and customer experience. In the real-time communications with users, we enable various intelligent value-added functions for customer service or sales agents such as AI-generated talking point suggestion, automatic extraction of large model labels, knowledge-based recommendation, customer intention recognition, customer emotion recognition, and real-time quality inspection, improving operational efficiency while expediting the trial-and-error process for new agents. Leveraging big data mining and analysis capabilities, we also assist enterprises in understanding their customers through each interaction. Specifically, we help create customer profiling, analyze customer needs and collect customer feedback, to identify changes and grasp business opportunities with targeted and informed strategies for marketing, product optimization, and customer experience enhancement.

We offer certain *RongCC* solutions deployed on private clouds on a project basis, for which customers pay us by installment in accordance with agreed-upon project milestones. In 2020, 2021 and 2022, *RongCC* served 111, 141 and 125 enterprises, respectively, on a project basis. We also offer certain *RongCC* solutions on a recurring basis for a combination of subscription and usage. We offer different subscription fee packages according to capacity and number of functional modules embedded. We also charge customers based on the number of call minutes facilitated. As of December 31, 2020, 2021 and 2022, *RongCC* had 65, 154 and 154 active customers, respectively, on a recurring basis.

7moor Cloud

7moor Cloud is a standardized cloud-based contact center solution that strategically focuses on serving small- to medium-sized enterprises, many of which do not have a well-maintained contact center system. Centrally hosted on public clouds, our *7moor Cloud* requires minimal upfront investments and can be deployed expediently, equipping small- to medium-sized enterprises with ready-to-use contact center capabilities without excessive costs.

Consisting of mostly standard functional modules, *7moor Cloud* enables omni-channel access and multi-format communications through its intuitive user interface which presents a unified display of various functions, including personal work record, ticket tracking, customer profile and knowledge base, allowing an enterprise's contact center agents to navigate with ease through various customer service and telemarketing issues. *7moor Cloud* also offers various composable functional modules, such as business intelligence system and text-based customer service AI robots which includes general-purpose *X-Bots* and *E-Bots* specially tailored for e-commerce settings.

7moor Cloud, targeting enterprises that often lack independent business process management systems, is also a comprehensive solution with capabilities beyond contact center services. For example, enterprise can implement effective management of customer relations and sales and procurement leveraging *7moor Cloud*. Catering to the needs of small- to medium-sized enterprises which often do not employ programming specialists, we have invested in the Application Platform as a Service version of *7moor Cloud*, to empower non-specialists to customizably develop their own *7moor Cloud* with pre-built toolkits.

We primarily offer *7moor Cloud* on a recurring basis for a combination of subscription and usage. As of December 31, 2020, 2021 and 2022, *7moor Cloud* had approximately 6,000, 5,400 and 5,200 active customers, respectively, on a recurring basis.

In 2020, 2021 and 2022, we achieved a dollar-based net customer retention rate of 80.8%, 100.1% and 90.9%, respectively, for cloud-based CC solutions that we offer on a recurring basis, i.e., those deployed primarily on public cloud and for which we charge a combination of seat subscription fees and related resource usage fees. The dollar-based net customer retention rate for cloud-based CC solutions that we offer on a recurring basis increased from 80.8% in 2020 to 100.1% in 2021, primarily as we devoted more resources to our cloud-based CC solutions, especially through our enhanced cross-selling and up-selling efforts. The dollar-based net customer retention rate decreased to 90.9% in 2022, primarily due to a decrease in the usage of our cloud-based CC solutions caused by the regional resurgence of COVID-19 outbreak. In 2020, 2021 and 2022, our dollar-based net customer retention rate for active customers in relation to cloud-based CC solutions that we offer on a recurring basis was 85.4%, 102.4% and 93.9%, respectively.

Cloud-based UC&C solutions

Our cloud-based UC&C solutions consist of primarily *RongVideo* as applied in a variety of settings and use cases, designed to satisfy the needs for reliable and interactive intra-organizational communications and collaboration through instant messaging and video conferencing. Leveraging our enterprise-grade video capability, *RongVideo* can support stable, smooth and high-quality video experience even in remote areas with weak network connections, enabling new use cases across various industries.

In addition to standardized solutions embedding basic features, *RongVideo* supports customization and private cloud deployment to better serve large enterprises' heightened requirements on compatibility, stability and information security.

Our *RongVideo* is predominantly project-based, for which customers pay us by installment in accordance with agreed-upon project milestones. In 2020, 2021 and 2022, *RongVideo* served 75, 94 and 49 enterprises, respectively. The delivery cycle for project-based *RongVideo* typically ranges from three to 12 months, due to the amount of efforts required in configuration, integration and additional customization. Projects with higher customization levels usually require more substantial upfront investment from us and have lower profit margins. However, once we complete a project for an enterprise in a particular industry, subsequent projects for other enterprises in the same industry typically require less investment as we are able to achieve greater economies of scale by replicating certain basic industry-specific features.

We also offer software development and other technical support services to large enterprises in the telecommunications and financial services industries, which allows us to initiate business collaboration with prospective customers and maintain stable business rapport with existing customers.

Our Customers

We serve a diverse and loyal customer base consisting of enterprises of all sizes and across a variety of industries, such as internet, telecommunications, financial services, industrial manufacturing and energy. As of December 31, 2020, 2021 and 2022, we had an active customer base of 12,632, 11,406 and 9,980 enterprises, respectively, among which 144, 142 and 118 were large-enterprise customers, respectively. We believe our capabilities in attracting and retaining these large-enterprise customers rest on our ability to develop and offer industry-specific features and functionalities that satisfy their disparate needs and complex internal deployment and integration requirements. We also serve small- to medium-sized enterprises leveraging our comprehensive business portfolio and ready-to-use solution deployment.

We have implemented a “land and expand” strategy to encourage existing customers to explore and expand into other solutions leveraging our multi-capability offering mix. For example, we initiated our business collaboration with a financial institution customer by satisfying its basic instant messaging needs and, as our relationship deepens, up-sold our video-enabled solutions to provide them with capabilities in multi-format internal communications and a novel use case in real-time financial transaction monitoring. For solutions that we offer on a recurring basis, such as CPaaS and cloud-based CC solutions deployed primarily on public cloud, we achieved a dollar-based net customer retention rate of 87.3%, 90.2% and 61.7% in 2020, 2021 and 2022, respectively. In 2020, 2021 and 2022, our dollar-based net customer retention rate for active customers was 92.1%, 94.2% and 64.5%, respectively. We believe these solutions present significant cross-selling and up-selling potential as customers tend to stay with us due to the critical role our solutions play in their business operations.

We have developed a full-coverage customer support and success system for large enterprises designed to drive customer satisfaction and expand cross-selling and up-selling opportunities. We place great emphasis on improving customer experience at each step. We provide pre-sale consultation, onboarding implementation support and training at the initial stage. With ongoing 24/7/365 live chat and phone support, we help customers configure and use our solutions. We also offer operation maintenance services to ensure reliable performance. For smaller customers, our intuitive user interfaces serve to reduce our customers’ need for human support, and we offer various self-service options on our websites, including a complimentary knowledge base with detailed documentation and sample code. We believe high customer satisfaction and close customer relationship can keep us posted of their honest feedback and evolving communications needs, which drives innovation and facilitates more targeted services to further increase customer loyalty.

We are also able to rapidly scale our business among customers within the same industry. For certain industry-specific solutions, as we serve more customers from the same industry, we are able to minimize marginal costs and achieve greater economies of scale leveraging replicable technology infrastructure and experience. For example, since we first applied *RongVideo* to build a “virtual counter” for a regional bank customer in China in 2019, we have offered similar solutions to several financial institutions. As we accumulate our knowledge in financial institutions’ business process and compliance requirements, over time we have standardized *RongVideo* in this use case and have shortened the delivery cycle from over six months to about two months and expanded our coverage from regional banks to large nationwide banks. To date, we have accumulated extensive experience in serving enterprises from various industries, including internet, telecommunications, financial services, industrial manufacturing and energy.

Research and Development

We have developed many core technologies underlying our cloud-based communications solutions in-house. We have established our second research and development center in Wuhan, China in addition to the primary research and development center at our Beijing headquarters. As of December 31, 2022, we had a stable and dedicated research and development team of 652 members, accounting for 46.7% of our total employees. We have received numerous awards and recognitions in recent years for our research and development capabilities. In 2018, we were recognized as an “Artificial Intelligence Innovative Enterprise” by the Institute of Electrical and Electronics Engineers in China. In 2019, we were recognized as one of the “Top Ten Enterprise Cloud Technology Vendors,” ranking first in the field of cloud-based communications, by iFenxi. In 2020, our proprietary voice-based AI robot was recognized as a “Reliable AI Product” by China Academy of Information and Communications Technology. In 2021, we were recognized as one of the “Top 100 Industry Digitalization Enterprises,” one of the “Top 20 Cloud Computing Big Data Enterprises,” and the “Leading Intelligent Communications Enterprise in the Financial Sector” by China Center for Information Industry Development, and one of the “Top 100 Private Enterprises of Scientific and Technological Innovation” by the United Front Work Department of Beijing Municipal and Beijing Federation of Industry and Commerce. In 2022, we jointly released the Research Report on Intelligent Technology and Application of Customer Service Center with the China Academy of Information and Communication Research. In 2023, we were awarded with the “Co-Innovation Award” and “Best Support Award” by Guangfa Bank Credit Card Center. In 2024, our Chitu Big Model was selected as a leading industry big model in People’s Daily Big Model Report.

We are committed to continually innovating our technologies and solutions to stay ahead of our customers' rapidly evolving communications needs. We have developed a highly efficient product development ecosystem, which enables us to capture complex and evolving customer demands and develop new and enhanced features and products that continue to represent compelling value propositions across our customer base. Specifically, our research and development team work closely with our customer-facing sales team to collect and analyze latest customer feedback and design new features and functionalities that cater to the evolving customer needs. We also actively communicate with customers from a variety of industry verticals to identify and address industry-specific communications needs with targeted services. Our research and development team are also dedicated to refining our solutions and technology infrastructure to ensure high-quality services at all times.

Sales and Marketing

Our various sales and marketing efforts have played a critical role in customer acquisition and retention.

Branding and customer acquisition

We have invested in establishing a comprehensive online presence and developing various online branding and customer acquisition channels, such as search engine marketing, customized newsfeed advertisements, and advertorials. We believe our online branding and customer acquisition efforts have contributed to our brand awareness and reputation, and have generated a steady stream of user traffic to our websites, through which our prospective customers, especially small- to medium-sized enterprises seeking relatively standardized products, can learn about our solution offerings and make informed purchases based on their specific needs all on a self-service basis.

We have also organized or participated in various industry events for brand building and customer acquisition purposes. For example, in April 2019, we organized the "Cloud Communications through China" event in Shanghai and invited over 100 existing customers and channel partners to initiate and reinforce business collaborations. In addition, we have actively participated in industry events hosted by third parties with a focus on financial services industry. In 2020, 2021 and 2022, we participated in over 100 online and offline industry events to explore business opportunities with a broad range of enterprises. These events have broadened our access to potential customers and have furnished us with valuable opportunities for in-person communications.

We believe our online and offline branding and customer acquisition efforts have contributed to our brand awareness and reputation and effectively fueled our business growth.

Direct sales

We have built a sales and marketing team well-versed in China's cloud-based communications industry. As of December 31, 2022, we had a sales and marketing team of 405 members with an average of approximately nine years of relevant experience. Our sales and marketing team is generally responsible for contacting prospective customers, renewing existing subscriptions, and maintaining customer relationships. Leveraging their sales expertise, thorough knowledge of our business and dedication to customer support, our sales and marketing team focuses primarily on large enterprises in key industry verticals with complex communications requirements and has a strong cross-selling and up-selling track record. We have offered competitive compensation schemes to motivate our sales and marketing personnel, under which we grant them bonuses when their sales achieve the financial targets.

As part of our go-to-market strategy, we had established sales representative offices in 19 cities distributed across China as of December 31, 2022 to expand our sales network. We believe such offices enable us to stay closer to our potential customers, and capture and accommodate specific needs and customs in different localities more effectively. In addition, leveraging such sales representative offices, we are able to recruit experienced sales personnel with first-hand customer resources locally and build collaborative relationships with mobile network operators' local branches, both of which will contribute to our ability to establish a nationwide business network.

Indirect sales

We leverage mobile network operators, distributors and system integrators to reach a wider market without incurring significant costs. We collaborate with all three major mobile network operators in China and have entered into business agreements with a number of provincial branches of these operators, whose business operations cover all geographical areas in China. Through our collaborations, we can capitalize on their nationwide sales and marketing capabilities. In addition, we sell certain solutions that require minimal customization, such as *7moor Cloud*, through distributors, and work with various system integrators, which incorporate our solutions into theirs to better serve end customers.

Data Privacy and Protection

See “Item 16K. Cybersecurity” for details.

Competition

China’s cloud-based communications industry is highly competitive and rapidly evolving due to the fast-growing market and technological developments. Our ability to compete successfully depends on many factors, including:

- comprehensiveness of business portfolio;
- innovation capabilities;
- brand awareness and reputation;
- strength of sales and marketing efforts; and
- customer reach.

As a multi-capability provider that offers a full suite of cloud-based communications solutions and serves a diverse and loyal customer base consisting of enterprises of all sizes across a variety of industries, we believe that we compete favorably on the basis of the foregoing factors.

We compete directly and indirectly with various industry participants including SMS-focused vendors, CC-focused vendors, VC-focused vendors, AI-based vendors, ICT vendors, internet companies and other communications vendors. Some of our competitors have greater financial, technological and other resources, greater brand recognitions, larger sales and marketing budgets and larger intellectual property portfolios. As a result, certain of our competitors may be able to respond more quickly and effectively than we can to new or evolving opportunities, technologies, standards or customer requirements. In addition, some competitors may offer products or services that address one or a limited number of functions at lower prices, with greater depth than our solutions or in geographies where we do not operate. We expect competition to intensify in the future, with the introduction of new products and services and market entrants. Moreover, as we expand the scope of our business, we may face additional competition.

Intellectual Property

To protect our proprietary rights in our software, patents, trademarks and other intellectual property, we depend upon a combination of trade secret, misappropriation, copyright, trademark, computer fraud and other laws; registration of patents, copyrights and trademarks; nondisclosure, noncompetition and other contractual provisions with employees; and technical measures.

We are the registered holder of 142 trademarks, 75 patents, 514 software copyrights and 37 domain names in the PRC as of the date of this annual report. We also hold 12 pending software copyright applications in the PRC as of the same date.

Insurance

We provide social security insurance, including pension insurance, unemployment insurance, maternity insurance, work-related injury insurance and medical insurance, as well as housing fund for our employees. We also purchased additional commercial health insurance to increase insurance coverage of our employees. However, we did not make adequate contributions to social security insurance and housing fund. See “Item 3. Key Information—D. Risk Factors—Risks Related to Regulatory Compliance—Failure to make adequate contributions to social insurance and housing fund as required by PRC regulations may subject us to penalties.”

We do not maintain property insurance policies covering our equipment, systems and other property that are essential to our business operations to safeguard against risks and unexpected events. We do not maintain business interruption insurance or general third-party liability insurance, nor do we maintain product liability insurance or key-man insurance. We consider our insurance coverage to be sufficient for our business operations. See “Item 3. Key Information—D. Risk Factors—Risks Related to Regulatory Compliance—We have limited insurance coverage, which could expose us to significant costs and business disruption.”

Regulations

Regulations relating to foreign investment

Company Law

The Company Law of the PRC, as amended in December 29, 2023, has become effective on July 1, 2024, which provides that the amount of capital contributions subscribed for by all the shareholders shall be fully paid up by shareholders within five years as of the date of establishment and the shareholder may forfeit its equities for which the capital contribution has not been paid. Aforementioned new version also provides specific regulations on organization structure of company and duty of diligence of directors and supervisors.

Foreign Investment Law

The Foreign Investment Law, promulgated by the National People’s Congress on March 15, 2019, has come into effect on January 1, 2020 and has replaced the major existing laws and regulations governing foreign investment in the PRC, including the Sino-foreign Equity Joint Ventures Enterprises Law, the Sino-foreign Co-operative Enterprises Law, the Wholly Foreign-invested Enterprise Law, and together with their implementation rules and ancillary regulations. Pursuant to Foreign Investment Law, the existing foreign invested enterprises established prior to the effective of the Foreign Investment Law may keep their corporate organization forms within five years after the effective of the Foreign Investment Law before such existing foreign invested enterprise change their organization forms, organization structures, and their activities of foreign-invested enterprises in accordance with the Company Law, the Partnership Enterprise Law and other laws. According to the Foreign Investment Law, “foreign-invested enterprises” thereof refers to enterprises that are wholly or partly invested by foreign investors and registered within China under the PRC laws, “foreign investment” thereof refers to any foreign investor’s direct or indirect investment in China, including: (1) establishing foreign-invested enterprises in China either individually or jointly with other investors; (2) obtaining stock shares, stock equity, property shares, other similar interests in Chinese domestic enterprises; (3) investing in new projects in China either individually or jointly with other investors; and (4) making investment through other means provided by laws, administrative regulations, or State Council provisions.

Investments conducted by foreign investors in the PRC are subject to the Catalogue of Industries for Encouraging Foreign Investment, or the Catalogue, and the Negative List, which were jointly issued by the NDRC and the MOFCOM. The version of the Catalogue currently in force was amended in 2022 and became effective on January 1, 2023, and the version of the Negative List currently in force was amended in 2021 and became effective on January 1, 2022, both of which further reduce restrictions on the foreign investment. The Catalogue of Industries for Encouraged Foreign Investment (2022 Version), or the Encouraging Catalogue 2022, replaced the catalogue promulgated in 2020. Pursuant to the Encouraging Catalogue 2022, foreign-invested projects are categorized as encouraged, restricted and prohibited. Foreign-invested projects that are not listed in the Negative List are permitted foreign-invested projects. According to the Negative List, industries such as Value-Added Telecommunications Services (excluding e-commerce, domestic multi-party communications services, store-and-forward services, and contact center services) fall into restricted category, where the shareholding percentage of the foreign investors in the joint venture enterprises shall not exceed 50%.

On December 26, 2019, the State Council issued Implementation Regulations for the Foreign Investment Law, or the Implementation Regulations which came into effect on January 1, 2020. According to the Implementation Regulations, in the event of any discrepancy between the Foreign Investment Law, the Implementation Regulations and relevant provisions on foreign investment promulgated prior to January 1, 2020, the Foreign Investment Law and the Implementation Regulations shall prevail. The Implementation Regulations also indicated that foreign investors that invest in sectors on the Negative List in which foreign investment is restricted shall comply with special management measures with respect to shareholding, senior management personnel and other matters in the Negative List. On December 30, 2019, MOFCOM and the SAMR jointly issued the Measures for Reporting of Foreign Investment Information, or the Foreign Investment Information Measures, which became effective on January 1, 2020 and replaced the Interim Administrative Measures for the Record-filing of the Establishment and Modification of Foreign-invested Enterprises. Since January 1, 2020, for foreign investors carrying out investment activities directly or indirectly in the PRC, foreign investors or foreign-invested enterprises shall submit investment information through the Enterprise Registration System and the National Enterprise Credit Information Publicity System operated by the SAMR. Foreign investors or foreign-invested enterprises shall disclose their investment information by submitting reports for their establishments, modifications and cancellations and their annual reports in accordance with the Foreign Investment Information Measures. If a foreign-invested enterprise investing in the PRC has submitted its reports for its establishment, modifications and cancellation and its annual reports, the relevant information will be shared by the competent market regulation department to the competent commercial department, and such foreign-invested enterprise is not required to submit the reports to the two departments separately.

Foreign investment in the value-added telecommunications industry

The Regulations for the Administration of Foreign-Invested Telecommunications Enterprises (2022 revision), which was promulgated by the State Council on December 11, 2001 and amended on September 10, 2008 and February 6, 2016 and last amended on March 29, 2022, require foreign-invested value-added telecommunications enterprises in China to be established with the foreign investors owning no more than 50% of the equity interests of such enterprise, except as otherwise stipulated by the state. In addition, the Regulations for the Administration of Foreign-Invested Telecommunications Enterprises (2022 revision) canceled the qualification requirement on the primary foreign investor in a foreign invested value-added telecommunications enterprise for demonstrating a good track record and sound experience in the value-added telecommunications industry as stipulated in the previous version. However, the primary foreign investor still shall have obtained a basic telecommunications services permit from the country or region where it is registered.

On January 13, 2015, the MIIT issued the Circular on Loosening the Restrictions on Shareholding by Foreign Investors in Online Data Processing and Transaction Processing Business (for profit E-commerce), according to which, a foreign investor is allowed to hold 100% of the equity interest in a PRC entity that provides online data processing and transaction processing services (for profit E-commerce) in China (Shanghai) Pilot Free Trade Zone. On June 19, 2015, the MIIT issued the Circular on Loosening the Restrictions on Shareholding by Foreign Investors in Online Data Processing and Transaction Processing Business (for-profit E-commerce), which expanded the designated districts from China (Shanghai) Pilot Free Trade Zone to the whole country.

In June 2016, the MIIT issued Notice of the Ministry of Industry and Information Technology on Issues Relating to Hong Kong and Macau Service Providers Engaging in Telecommunications Business in Mainland China, or Notice 222, according to which, (1) Hong Kong and Macau service providers are allowed to establish wholly-owned enterprises or joint venture enterprises in Mainland China with no restriction on shareholding percentage for provision of the value-add telecommunications businesses with respect to online data processing and transactions processing (limited to for profit E-commerce), domestic multi-party communications services (under the Classification Catalogue of Telecommunications Services), store-and-forward services, and contact center services, internet access services business (limited to providing internet access services for online users) and information services business (limited to application stores), and (2) Hong Kong and Macau service providers are allowed to establish joint venture enterprises in Mainland China with the shareholding percentage of Hong Kong and Macau investors in the joint venture enterprises not exceeding 50%, for provision of the value-add telecommunications businesses with respect to online data processing and transactions processing (excluding for profit E-commerce), domestic internet virtual private network business (under the Classification Catalogue of Telecommunications Services), internet data center business, internet access services business (except for providing internet access services for online users), and information services business (except for application stores). Hong Kong and Macau service providers referred to in above Notice 222 shall be subject to relevant provisions in the Mainland and Hong Kong Closer Economic Partnership Arrangement or the Mainland and Macau Closer Economic Partnership Arrangement and its relevant supplements.

Due to the lack of interpretative guidance from the relevant PRC governmental authorities, there are uncertainties regarding whether PRC governmental authorities would consider our corporate structure and contractual arrangements to constitute foreign ownership of a value-added telecommunications business. See “Item 3. Key Information—D. Risk Factors—Risks Related to Our Corporate Structure.” If our current ownership structure is found to be in violation of current or future PRC laws, rules or regulations regarding the legality of foreign investment in value-added telecommunications services and other types of businesses in which foreign investment is restricted or prohibited, we could be subject to severe penalties.

Regulations relating to value-added telecommunications services

Value-added telecommunications services

An extensive regulatory scheme governing telecommunications services, including value-added telecommunications services and infrastructure telecommunications services, is promulgated by the State Council, MIIT, and other relevant government authorities. Value-added telecommunications service operators may be required to obtain additional licenses and permits in addition to those that they currently have given new laws and regulations may be adopted from time to time. In addition, substantial uncertainties exist regarding the interpretation and implementation of current and any future PRC laws and regulations applicable to the telecommunications activities.

On September 25, 2000, the State Council promulgated the Telecommunications Regulation of the People’s Republic of China, or the Telecommunications Regulations, as last amended on February 6, 2016, to regulate telecommunications activities in China. According to the Telecommunications Regulations, there are two categories of telecommunications activities, namely “infrastructure telecommunications services” and “value-added telecommunications services.” Pursuant to the Telecommunications Regulations, operators of value-added telecommunications services, or VATS, shall be approved by MIIT, or its provincial level counterparts, and obtain a license for value-added telecommunications business, or VAT License. The Measures for the Administration of Telecommunications Business Licensing, or the Licenses Measures, issued on March 1, 2009 and most recently amended on July 3, 2017 for the purpose of strengthening the administration of telecommunications business licensing, which set forth more specific provisions regarding the types of licenses required to operate VATS and the application for and the approval, use and administration of a telecommunications business permit. According to the Licenses Measures and Telecommunications Regulations, any entity conducting VATS without obtaining the VAT License or conducting business beyond the authorized scope on the VAT License may be subject to correction, confiscation of the illegal income, a fine ranging from three to five times the amount of the illegal income (where there is no illegal income, or the illegal income is less than RMB50,000, a fine ranging from RMB100,000 to RMB1 million), and suspension of business operation.

Under the Licenses Measures, where any entity conducting VATS change the name, legal representative or registered capital within the validity period of its VAT License, it shall file an application for updating the VAT License to the competent authority within thirty days immediately after the registration or filing with the State Administration for Market Regulation. Any entity conducting VATS who fail to comply with the required procedures may be ordered to make rectifications, warned or imposed a fine of RMB5,000 to RMB30,000 by the relevant authorities. MIIT issued the Interim Administrative Measures on Telecommunications Services Quality Supervision on January 11, 2001, as amended on September 23, 2014, which apply to the supervision and administration of the licensed telecommunications operators within the territory of the PRC. According to the Interim Administrative Measures on Telecommunications Services Quality Supervision, MIIT supervises and administers the quality of the telecommunications service provided by telecommunications service providers pursuant to applicable laws and regulations. Where a telecommunications operator violates the telecom service standards and injures the lawful rights and interests of the users, such telecommunications operator may be subject to a rectification order, a warning or fines ranging from RMB500 to RMB10,000.

The Classification Catalogue of Telecommunications Services (2015 Version), as last amended on June 6, 2019, defines (1) “domestic multi-party communications services” as real-time interactive or on-demand voice and image communication services realized domestically between two points or among multiple points by virtue of a multi-party communication platform, public communication network or the internet; (2) “contact center services” as business consultation, information consultation and data query services provided to users through the public communication network, by utilizing database technology and call center system which is connected to the public communication network or the internet, and by establishing an information base after information collection, processing and storage; (3) “information services” as the information services provided for users through public communications networks or internet by means of information gathering, development, processing and the construction of the information platform, which include, among others, internet information services and non-internet information service; (4) “internet data center services” as the services including the placement, proxy maintains, system configuration and management services provided for users’ servers or other internet/network-related equipment, the lease of equipment such as database systems or servers and lease of their storage spaces, rental agency service of telecommunications line and export bandwidth and other application services, which are in a form of outsource lease by utilizing corresponding engine room equipment; and (5) “store-and-forward services” as message sending services provided for users based on the store-and-forward mechanism, which include the services of voice mail, e-mail, store-and-forward of fax, etc.

Internet information services

The Administrative Measures on Internet Information Services, or the ICP Measures, promulgated by the PRC State Council on September 25, 2000 and amended on January 8, 2011, set forth more specific rules on the provision of internet information services, or the ICP Service. According to the ICP Measures, internet information services are classified into two categories: profit-making ICP Services and non-profit-making ICP Services, among which, the profit-making ICP Services generally refers to the provision of specific information content, online advertising, web page construction and other online application services through the internet for profit-making purpose. According to the ICP Measures, a profit-making ICP Services provider shall apply for and obtain a permit for the operation of value-added telecom services of internet information services, while a non-profit-making ICP Services provider shall apply for and obtain relevant record-filing. Any ICP Service provider who does not obtain such permit or does not go through the record-filing formalities shall not engage in ICP Services.

Telecommunications network information service

Measures for Management of Telecommunications Network Code Number Resources, together with the Catalog of the Telecom Code Number Resources under Classified Administration, was issued by MIIT on January 29, 2003 and amended on September 23, 2014, or the Telecommunications Network Code Numbers Measures, according to which, code resources shall be owned by the State, and any telecommunications network information service providers and call center service providers who need to use telecommunications network code numbers shall be approved by MIIT or its provincial level counterparts to use telecommunications network code numbers to provide relevant services, and the time limit and scope of such approval shall be identical with that of the VAT License or other related approval documents obtained by such entity. The approved telecommunications network code numbers users shall enter into a required agreement with the competent infrastructure telecommunications service operators, and file with the competent counterparts of MIIT. Telecommunications network code number users shall commence using telecommunications network code numbers allocated to them within the specified time limit and reach the minimum scale if any or the expected service capability if there is no such minimum scale requirement. In addition, no telecommunications network code number user is permitted to assign or lease telecommunications network code number, nor to use beyond the scope or in more than one local network. Any entity using telecommunications network code numbers without approval or beyond the authorized scope or time limit or assigning or leasing telecommunications network code number without approval may be subject to correction, confiscation of the illegal income, fine ranging from three to five times the amount of the illegal income (where there is no illegal income, or the illegal income is less than RMB50,000, a fine ranging from RMB50,000 to RMB1 million). On January 1, 2005, the Interim Administrative Measures on Telecommunications Network Code Number Resource Occupation Fee and the Standard of Telecommunications Network Code Number Resource Occupation Fee, jointly enacted by the NDRC, the MOF and the MIIT, entered into force. According to the Interim Administrative Measures on Telecommunications Network Code Number Resource Occupation Fee, telecommunications network code numbers are state property and the telecommunications service operators occupying or using telecom code numbers shall pay occupation fee accordingly to the applicable governmental authorities.

On May 19, 2015, the MIIT published the Provisions on the Administration of Short Message Services, or the Short Message Provisions. Pursuant to the Short Message Provisions, short message service operators, like us, shall obtain the telecommunications business licenses in accordance with the law.

While most of the affiliated entities have obtained the requisite licenses from MIIT and/or its local authorities, certain of the affiliated entities are in the process of obtaining, renewing or updating the license, including, among others, the VAT License. We cannot assure you that these affiliated entities can successfully obtain or maintain required license and permits in a timely manner or at all. See “Item 3. Key Information—D. Risk Factors—Risks Related to Regulatory Compliance—Our business is subject to extensive regulation, and if we fail to obtain and maintain required licenses and permits, we could face government enforcement actions, fines and possibly restrictions on our ability to operate or offer certain of our solutions.”

Regulations relating to cybersecurity and privacy protection

Cybersecurity

On December 28, 2000, the SCNPC enacted the Decision on the Protection of Internet Security, as amended on August 27, 2009, which provides that the following activities conducted through the internet are subject to criminal liabilities: (1) gaining improper entry into any of the computer information networks relating to state affairs, national defensive affairs, or cutting-edge science and technology; (2) violation of relevant provisions of the State in the form of unauthorized interruption of any computer network or communication service, as a result of which the computer network or communication system cannot function normally; (3) spreading rumor, slander or other harmful information via the internet for the purpose of inciting subversion of the state political power; (4) stealing or divulging state secrets, intelligence or military secrets via internet; (5) spreading false or inappropriate commercial information; or (6) infringing on the intellectual property.

On December 13, 2005, the Ministry of Public Security issued the Provisions on the Technical Measures for Internet Security Protection, which took effect on March 1, 2006. These regulations require internet service providers to take proper measures including anti-virus, data back-up, keeping records of certain information such as the login-in and exit time of users, and other related measures, and to keep records of certain information about their users for at least 60 days. On June 22, 2007, the Ministry of Public Security, State Secrecy Bureau, State Cryptography Administration and the Information Office of the State Council jointly promulgated the Administrative Measures for the Multi-level Protection of Information Security, under which the security protection grade of an information system may be classified into five grades. Companies operating and using information systems shall protect the information systems and any system equal to or above level II as determined in accordance with these measures, a record-filing with the competent authority is required.

The Cybersecurity Law, as adopted by the National People’s Congress on November 7, 2016, has come into force on June 1, 2017. Regarded as the fundamental law in the area of cybersecurity in China, the Cybersecurity Law regulates network operators and others from the following perspectives: the principle of Cyberspace sovereignty, security obligations of network operators and providers of network products and services, protection of personal information, protection of critical information infrastructure, data use and cross-border transfer, network interoperability and standardization. Network operators shall, according to the requirements of the rules for graded protection of cybersecurity, fulfill security protection obligations, so as to ensure that the network is free from interference, damage or unauthorized access, and prevent network data from being divulged, stolen or falsified. In addition, any network operator to collect personal information shall follow the principles of legitimacy, rationality and necessity and shall not collect or use any personal information without due authorization of the person whose personal information is collected. Each individual is entitled to require a network operator to delete his or her personal information if he or she finds that collection and use of such information by such operator violate the laws, administrative regulations or the agreement by and between such network operator and such individual; and is entitled to require any network operator to make corrections if he or she finds errors in such information collected and stored by such network operator. Such network operator shall take measures to delete the information or correct the error.

On December 28, 2021, the CAC and other 12 regulatory authorities jointly revised and promulgated the Cybersecurity Review Measures, which became effective on February 15, 2022 and replaced the Measures for Cybersecurity Review promulgated in 2020. The Cybersecurity Review Measures stipulates that (1) critical information infrastructure operators purchasing network products and services and network platform operators carrying out data processing activities, which affect or may affect national security, are subject to the cybersecurity review by the Cybersecurity Review Office, and (2) network platform operators holding personal information of more than one million users seeking for listing in a foreign country must apply for the cybersecurity review. In addition, the relevant PRC governmental authorities may conduct a cybersecurity review against the operators if the authorities believe that network products, services or data processing activities of such operators affect or may affect national security.

The SCNPC promulgated the PRC Data Security Law on June 10, 2021, which came into effect on September 1, 2021. According to the PRC Data Security Law, data collection shall be conducted in a legitimate and proper manner, while theft or illegal collection of data shall be prohibited. In addition, enterprises conducting data processing activities shall establish and improve their data security management systems, organize data security trainings and adopt corresponding technical measures and other necessary measures to guard data security. The State shall establish a data security system to administer data protection at different levels and by different categories, and impose specific compliance obligations on processors of important data, including specifying the person and institution of data security protection responsibilities, conducting regular risk assessment, fulfilling the regulatory requirements for transmitting important data overseas. Any organization or individual carrying out data processing activities that violates the PRC Data Security Law shall bear the corresponding civil, administrative or criminal liability depending on specific circumstances. Where the national core data management system is violated, which endangers national sovereignty, security, and development interests, the relevant competent authority shall impose a fine ranging from RMB2 million to RMB10 million, and order suspension of the related business, suspension of business for rectification, revocation of the related business permit or business license according to the circumstance.

On November 14, 2021, the CAC issued the Draft Cyber Data Security Regulations, which provides that data processors conducting the following activities shall apply for cybersecurity review: (1) merger, reorganization or separation of internet platform operators that have acquired a large number of data resources related to national security, economic development or public interests that affect or may affect national security, (2) data processors that process personal information of over one million users and that intend to list abroad; (3) listing in Hong Kong which affects or may affect national security; (4) other data processing activities that affect or may affect national security. The processors of important data or data processors who are listed overseas shall conduct data security assessments by themselves or by entrusted data security service agencies every year, and submit the data security assessment report of the previous year to the local branch of CAC before January 31 of each year.

AIGC services

On November 25, 2022, the CAC, MIIT and Ministry of Public Security jointly issued the Administrative Provisions on Deep Synthesis of Internet Information Services, or the Provisions on Deep Synthesis Services, which took effect on January 10, 2023. According to the Provisions on Deep Synthesis Services, deep synthesis technology refers to any technology that utilizes deep learning, virtual reality or any other generative or synthetic algorithm to produce text, images, audio, video, virtual scenes or other network information. The Provisions on Deep Synthesis Services emphasize that the providers of deep synthesis services, as the primary entities responsible for the information security, should not use deep synthesis services to engage in activities prohibited by laws and regulations.

On July 10, 2023, the CAC issued the AIGC Administrative Measures, which became effective on August 15, 2023, which imposes compliance requirements for providers of generative AI services. The AIGC Administrative Measures provides, among other things, that individuals or organizations that provide generative AI services of text, image or sound shall assume the responsibilities as the producers of such AI-generated content and shall apply for security assessment and complete the filing formalities of algorithms in accordance with the applicable laws and regulations before providing such services to the public.

Privacy protection

On December 29, 2011, the MIIT promulgated the Several Provisions on Regulating the Market Order of Internet Information Services, which became effective on March 15, 2012. On December 28, 2012, the SCNPC promulgated the Decision on Strengthening Network Information Protection to enhance the legal protection of information security and privacy on the internet. The Provisions on Protection of Personal Information of Telecommunications and Internet Users promulgated by the MIIT on July 16, 2013 contains detailed requirements on the use and collection of personal information as well as the security measures to be taken by internet service providers. Specifically, (1) the users' personal information shall not be collected without prior consent; (2) the personal information shall not be collected other than those necessary for internet service providers to provide services; (3) the personal information shall be kept strictly confidential; and (4) a series of detailed measures shall be taken to prevent any divulge, damage, tamper or loss of personal information of users.

Pursuant to the Notice of the Supreme People's Court, the Supreme People's Procuratorate and the Ministry of Public Security on Legally Punishing Criminal Activities Infringing upon the Personal Information of Citizens, issued in April 2013, and the Interpretation of the Supreme People's Court and the Supreme People's Procuratorate on Several Issues regarding Legal Application in Criminal Cases Infringing upon the Personal Information of Citizens, which was issued on May 8, 2017 and took effect on June 1, 2017, the following activities may constitute the crime of infringing upon a citizen's personal information: (1) providing a citizen's personal information to specified persons or releasing a citizen's personal information online or through other methods in violation of relevant national provisions; (2) providing legitimately collected information relating to a citizen to others without such citizen's consent (unless the information is processed, not traceable to a specific person and not recoverable); (3) collecting a citizen's personal information in violation of applicable rules and regulations when performing a duty or providing services; or (4) collecting a citizen's personal information by purchasing, accepting or exchanging such information in violation of applicable rules and regulations. In addition, on May 28, 2020, the National People's Congress of the PRC approved the PRC Civil Code, which took effect on January 1, 2021. Pursuant to the PRC Civil Code, the collection, storage, use, process, transmission, provision and disclosure of personal information shall follow the principles of legitimacy, properness and necessity.

On August 20, 2021, the SCNPC promulgated the Personal Information Protection Law, which came into effect on November 1, 2021. The law aims at protecting the rights and interests of personal information, regulating the processing of personal information and promoting the reasonable use of personal information. With respect to personal information processing, the Personal Information Protection Law defines certain important concepts. First, "personal information" refers to all kinds of information related to identified or identifiable natural persons recorded by electronic or other means, excluding anonymized information. Second, "processing of personal information" includes the collection, storage, use, processing, transmission, provision, disclosure, deletion, etc. of personal information. Personal information processing shall be for a clear and reasonable purpose, directly related to the processing purpose and in a manner that has the minimum impact on the rights and interests of individuals. Collection of personal information shall be limited to the minimum scope necessary for achieving the processing purpose and shall not be excessive. Where the personal information processor entrusts others with processing of personal information, the personal information processor shall agree with the agent on substantial matters like purpose, method of entrusted processing, type of information and protection measures, as well as supervise the processing activities of the agent. In addition, the law provides rules for cross-border provision of personal information. In particular, it is provided that the personal information processors that process personal information up to the number prescribed by the national cyberspace administration shall store personal information collected and generated within the PRC. If it is necessary to provide such personal information overseas, they shall pass the security assessment organized by the national cyberspace administration, except as otherwise stipulated by laws, administrative regulations and the national cyberspace administration. Any processor in violation of this law may be subject to administrative penalties including rectifications, warnings, fines, confiscation of illegal gains, suspension of the apps illegally processing personal information or suspension of the relevant business, revocation of business operation permits or business licenses, civil liabilities or even criminal liabilities.

Unauthorized calls and text messages

We could also be required to comply with rules and regulations regarding the control and management of unauthorized calls, including the Notice on the Special Campaign Program for Comprehensive Action against Unauthorized Calls, issued on July 18, 2018 and the Work Plans for Promoting the Special Campaign Program for Comprehensive Action against Unauthorized Calls issued by MIIT issued and came into effect on October 27, 2018. According to the aforementioned regulations, enterprises including basic telecommunications service providers and call center service providers shall coordinate with the MIIT and its local authorities to control and rectify unauthorized calls, and call center service provider like us shall strictly control the channels for unauthorized calls, including but not limit to (1) establish forbidden call lists so that the telemarketing calls could not reach those end-users who have explicitly refused to be reached by telemarketing calls of a particular industry or business, (2) strictly control the timing and frequency of active call-out and reserve the record of such call within a certain period of time (generally not less than 30 days), and (3) improve technical abilities regarding prevention and monitoring of unauthorized calls and risk precaution.

In addition, the Short Message Provisions also impose similar requirement on short message service providers and short message content providers, and without the consumers' consent or request, they shall not send commercial text messages or shall cease to send such text messages to consumers when the latter explicitly present their refusal after their early consent. Where any consumer explicitly rejects to receive commercial text messages or do not reply, the short message service providers or short message content providers may not send them the text messages of the same or similar contents once again. Besides, short message service providers and short message content providers are also required to explicitly indicate the names of the corresponding content providers in the commercial text messages.

While we have established certain systems and take certain acts to control the unauthorized calls and text messages, we cannot assure you that our current systems and acts will be sufficient or effective under applicable laws and regulations. See "Item 3. Key Information—D. Risk Factors—Risks Related to Regulatory Compliance—Our brand image, business and results of operations may be adversely affected by third-party misconduct and misuse of our solutions, many of which are beyond our control."

The regulatory frameworks regarding privacy issues in many jurisdictions are constantly evolving and can be subject to significant changes from time to time. Any failure to comply with applicable regulations could result in regulatory enforcement actions against us and materially and adversely affect our business, results of operations and financial condition. See "Item 3. Key Information—D. Risk Factors—Risks Related to Our Business and Industry—If we fail to comply with laws and contractual obligations related to data privacy and protection, our business, results of operations and financial condition could be materially and adversely affected." Pursuant to the PRC Civil Code, if one intentionally infringes upon the intellectual property rights of others and the circumstance is severe, the infringed party is entitled to request for the corresponding punitive compensation.

Regulations relating to intellectual property

Patent

Patents in the PRC are principally protected under the Patent Law of the PRC promulgated by the SCNPC in 1984 and then respectively amended in 1992, 2000 and 2008 and on October 17, 2020, with the latest amendment to take effect from June 1, 2021, and its implementation rules, which was last amended on December 11, 2023 by the State Council, and became effective on January 20, 2024. According to these regulations, patents are divided into three categories, i.e., invention patent, utility model patent and design patent. Novelty, inventiveness and practicality are three essential ingredients of patents in the PRC. The protection period is 20 years for an invention patent and ten years for a utility model patent and a design patent, commencing from their respective application dates.

Copyright

The PRC Copyright Law, promulgated in 1990 and amended in 2001 and 2010, or the Copyright Law, and its related implementing regulations, promulgated in 2002 and then respectively amended in 2013 and on November 11, 2020, with the latest amendment to take effect from June 1, 2021, are the principal laws and regulations governing copyright related matters. The Copyright Law provides that Chinese citizens, legal persons, or other organizations shall, whether published or not, enjoy copyright of their works, which includes, among others, works of literature, art, natural science, social science, engineering technology and computer software. Under the Copyright Law, the term of protection for copyrighted software is 50 years. The Regulation on the Protection of the Right to Communicate Works to the Public over Information Networks, which was most recently amended on January 30, 2013, provides specific rules on fair use, statutory license, and a safe harbor for use of copyrights and copyright management technology and specifies the liabilities of various entities for violations, including copyright holders, libraries and internet service providers.

Trademark

The PRC Trademark Law was adopted in 1982 and then amended in 1993, 2001, 2013 and 2019 respectively. The implementation rules of the PRC Trademark Law was adopted in 2002 and amended in 2014. Registered trademarks are protected under the Trademark Law of the PRC and related rules and regulations. The Trademark Office of National Intellectual Property Administration handles trademark registrations and grants a protection term of ten years to registered trademarks. Where registration is sought for a trademark that is identical or similar to another trademark which has already been registered or given preliminary examination and approval for use in the same or similar category of commodities or services, the application for registration of this trademark may be rejected. Trademark registrations are effective for a renewable ten-year period, unless otherwise revoked.

Domain name

The MIIT, promulgated the Administrative Measures on Internet Domain Name, or the Domain Name Measure on August 24, 2017 to protect domain names. According to the Domain Name Measures, domain name applicants are required to duly register their domain names with domain name registration service institutions. The applicants will become the holder of such domain names upon the completion of the registration procedure. The permits for registered domain names are effective for five years, which are subject to renewals, cancellations or revocations.

Trade secrets

According to the PRC Anti-Unfair Competition Law, promulgated by the SCNPC in September 1993, as amended in November 4, 2017 and April 23, 2019 respectively, the term “trade secrets” refers to technical and business information that is unknown to the public, has utility, may create business interests or profits for its legal owners or holders, and is maintained as a secret by its legal owners or holders. Under the PRC Anti-Unfair Competition Law, business persons are prohibited from infringing others’ trade secrets by: (1) obtaining the trade secrets from the legal owners or holders by any unfair methods such as theft, bribery, fraud, coercion, electronic intrusion, or any other illicit means; (2) disclosing, using or permitting others to use the trade secrets obtained illegally under item (1) above; or (3) disclosing, using or permitting others to use the trade secrets, in violation of any contractual agreements or any requirements of the legal owners or holders to keep such trade secrets in confidence. Pursuant to the PRC Civil Code, if one intentionally infringes upon the intellectual property rights of others and the circumstance is severe, the infringed party is entitled to request for the corresponding punitive compensation.

Regulations relating to employment

According to the Labor Law promulgated on July 5, 1994 and amended on August 27, 2009 and December 29, 2018, the PRC Labor Contract Law promulgated on June 29, 2007 and amended on December 28, 2012, and the Implementing Regulations of the Employment Contracts Law of the PRC promulgated by the State Council on September 18, 2008, employers must execute written labor contracts with full-time employees and employers have obligation to sign an unfix-term labor contract with any employee who has worked for the employer for ten consecutive years. In addition, all employers must comply with local minimum wage standards. The employers must establish a system for labor safety and sanitation, strictly abide by State rules and standards, provide education regarding labor safety and sanitation to its employees, provide employees with labor safety and sanitation conditions and necessary protection materials in compliance with State rules, and carry out regular health examinations for employees engaged in work involving occupational hazards.

According to the Law on Social Insurance of the PRC promulgated by SCNPC on October 28, 2010 and amended on December 29, 2018, and the Regulations on the Administration of Housing Funds promulgated by the State Council on April 3, 1999 and amended on March 24, 2002 and March 24, 2019, employers in China must provide employees with welfare schemes covering pension insurance, unemployment insurance, maternity insurance, work-related injury insurance, medical insurance and housing fund. An enterprise must provide social insurance by going through social insurance registration with local social insurance authorities or agencies and shall pay or withhold relevant social insurance premiums for or on behalf of employees. On July 20, 2018, the General Office of the State Council issued the Plan for Reforming the State and Local Tax Collection and Administration Systems, which stipulated that the State Administration of Taxation of the PRC, or SAT, become solely responsible for collecting social insurance premiums.

Regulations relating to dividend distribution

The principal laws and regulations regulating the dividend distribution of dividends by foreign invested enterprises in the PRC include the Company Law of the PRC, as amended in August 2004, October 2005, December 2013, October 2018 and December 2023, the Law of Wholly Foreign-owned Enterprises promulgated in April 1986 and amended in October 2000 and September 2016 and its implementation regulations promulgated in December 1990 and subsequently amended in April 2001 and February 2014, the Sino-Foreign Equity Joint Venture Law of the PRC promulgated in July 1979 and subsequently amended in April 1990, March 2001 and September 2016 and its implementation regulations promulgated in September 1983 and subsequently amended in January 1986, December 1987, July 2001, January 2011, February 2014 and March 2019, and the Sino-Foreign Cooperative Joint Venture Law of the PRC promulgated in April 1988 and amended in October 2000, September 2016 and November 2017 and its implementation regulations promulgated in September 1995 and amended in March 2014, March 2017 and November 2017 respectively. The Wholly Foreign-owned Enterprise Law, the Sino-Foreign Equity Joint Venture Law of the PRC and the Sino-Foreign Cooperative Joint Venture Law of the PRC were replaced by the

Foreign Investment Law on January 1, 2020. Under the current regulatory regime in the PRC, foreign-invested enterprises in the PRC may pay dividends only out of their retained earnings, if any, determined in accordance with PRC accounting standards and regulations. A PRC company is required to set aside as statutory reserve funds at least 10% of its after-tax profit, until the cumulative amount of such reserve funds reaches 50% of its registered capital unless laws regarding foreign investment provide otherwise. A PRC company shall not distribute any profits until any losses from prior fiscal years have been offset. Profits retained from prior fiscal years may be distributed together with distributable profits from the current fiscal year.

According to the Notice on Improving the Check of Authenticity and Compliance to Further Promote Foreign Exchange Control promulgated by the SAFE, on January 26, 2017, (1) under the principle of genuine transaction, banks shall check board resolutions regarding profit distribution, the original version of tax filing records and audited financial statements; and (2) domestic entities shall hold income to account for previous years' losses before remitting the profits. Moreover, domestic entities shall make detailed explanations of sources of capital and utilization arrangements, and provide board resolutions, contracts and other proof when completing the registration procedures in connection with an outbound investment.

Regulations relating to foreign exchange

Regulations on foreign currency exchange

The principal regulations governing foreign currency exchange in China are the Foreign Exchange Administration Regulations, as last amended on August 1, 2008, or the FEA Regulations. Pursuant to the FEA Regulations, international payments in foreign exchange and the transfer of foreign exchange under the current account items shall not be subject to any state control or restriction when complying with certain procedural requirements. In contrast, the conversion of Renminbi into foreign currencies and remittance of the converted foreign currency outside the PRC for the purpose of capital account items, such as direct equity investments, loans and repatriation of investment, requires prior approval from SAFE or its local branches.

According to the Circular of SAFE on Further Improving and Adjusting the Foreign Exchange Policies on Direct Investment and its appendix, the Operating Rules for Foreign Exchange Issues with Regard to Direct Investment under Capital Account, promulgated on November 19, 2012 and amended on May 4, 2015, foreign exchange control measures related to foreign direct investment are improved, such as (1) the open of and payment into the foreign exchange account related to direct investment are no longer subject to approval by SAFE; (2) reinvestment with legal income of foreign investors in China is no longer subject to approval by SAFE; (3) purchase and external payment of foreign exchange related to foreign direct investment are no longer subject to approval by SAFE. Later, on February 13, 2015, SAFE issued the Circular on Further Simplifying and Improving Foreign Exchange Administration Policies in Respect of Direct Investment, or Circular 13, effective from June 1, 2015, providing that the bank, instead of SAFE, can directly handle the foreign exchange registration and approval for foreign direct investment and SAFE and its branches.

SAFE released the Notice of the State Administration of Foreign Exchange on Reforming the Mode of Management of Settlement of Foreign Exchange Capital of Foreign Invested Enterprises, or Circular 19, on March 30, 2015, which came into force on June 1, 2015. Under Circular 19, a foreign-invested enterprise, within the registered scope of business, may settle their foreign exchange capital following a principal of authenticity on a discretionary basis according to the actual needs of their business operation, and the Renminbi capital so converted can be used for equity investments within the PRC, which will be regarded as the reinvestment of foreign-invested enterprise, provided that such foreign invested enterprises are not registered as an enterprises mainly engaged in investment business, including foreign investment companies, foreign funded venture capital enterprises and foreign funded equity investment enterprises. The Renminbi converted from the foreign exchange capital will be kept in a designated account and is not allowed to be used directly or indirectly for purposes beyond its business scope or used to provide Renminbi entrusted loans (unless permitted within its registered business scope), repayment of inter-company loans (including third-party advances), and repayment of bank Renminbi loans that have been re-loaned to third parties, and other uses expressly forbidden under Circular 19.

The Circular of the SAFE on Reforming and Regulating Policies on the Control over Foreign Exchange Settlement of Capital Accounts, or the SAFE Circular No. 16, was promulgated and became effective on June 9, 2016 and was amended on December 4, 2023. According to the SAFE Circular No. 16, enterprises registered in PRC may also convert their foreign debts from foreign currency into Renminbi on self-discretionary basis. The SAFE Circular No. 16 provides an integrated standard for conversion of foreign exchange under capital account items (including but not limited to foreign currency capital and foreign debts) on self-discretionary basis, which applies to all enterprises registered in the PRC. The SAFE Circular No. 16 reiterates the principle that Renminbi converted from foreign currency-denominated capital of a company may not be directly or indirectly used for purposes beyond its business scope and may not be used for investments in securities or other investment excluding banks' principal-secured financing products within the PRC unless otherwise specifically provided. Besides, the converted Renminbi shall not be used to make loans for non-affiliated enterprises unless it is permitted within the business scope or to build or to purchase any real estate that is not for the enterprise's own use unless it is a real estate enterprise.

On October 23, 2019, SAFE issued SAFE Circular 28, which was amended on December 4, 2023. The SAFE Circular 28 cancels the restrictions on domestic equity investments by capital fund of non-investment foreign invested enterprises and allows non-investment foreign-invested enterprises to use their capital funds to lawfully make equity investments in China, provided that such investments do not violate the Negative List and the target investment projects are genuine and in compliance with laws. The interpretation and implementation in practice of Circular 28 are still subject to substantial uncertainties given it is a newly issued regulation.

Regulations on foreign exchange registration of overseas investment by PRC domestic residents

On July 4, 2014, SAFE issued Circular on Relevant Issues Concerning Foreign Exchange Control on Domestic Residents' Offshore Investment and Financing and Roundtrip Investment Through Special Purpose Vehicles, or SAFE Circular 37, to regulate foreign exchange matters in relation to the use of Special Purpose Vehicles, or SPVs, by PRC residents or entities to seek offshore investment and financing or conduct round trip investment in China.

Pursuant to SAFE Circular 37, an SPV refers to an overseas enterprise directly formed or indirectly controlled for investment or financing purposes by a domestic resident (domestic institution or domestic individual resident) with the assets or interests it legally holds overseas or in a domestic enterprise, while "round trip investment" refers to the direct investments made in China by domestic residents directly or indirectly through SPVs, namely, the behavior of establishing foreign invested enterprises or projects, or foreign-funded enterprises, in China by formation, acquisition, merger, or any other means, and acquiring interests, such as ownership, control, or operating right, in them. SAFE Circular 37 provides that, before making contribution into an SPV, PRC residents are required to complete foreign exchange registration with SAFE or its local branch according to SAFE Circular 37 and applicable currently effective SAFE regulations including the Administration of Foreign Exchange in Foreign Direct Investments by Foreign Investors. According to the Circular 13, local banks, instead of SAFE, will examine and handle foreign exchange registration for overseas direct investment, including the initial foreign exchange registration and amendment registration.

Failure to comply with the registration procedures set forth in SAFE Circular 37 and the subsequent notice, or making misrepresentation on or failure to disclose controllers of the foreign invested enterprise that is established through round-trip investment, may result in restrictions being imposed on the foreign exchange activities of the relevant foreign invested enterprise, including payment of dividends and other distributions, such as proceeds from any reduction in capital, share transfer or liquidation, to its offshore parent or affiliate, and the capital inflow from the offshore parent, and may also subject relevant PRC residents or entities to penalties under PRC foreign exchange administration regulations.

We have used our best efforts to notify PRC residents (domestic institution or domestic individual resident) who directly or indirectly hold shares in our Cayman Islands holding company and who are known to us as being PRC residents to complete the foreign exchange registrations. However, we may not at all times be fully aware or informed of the identities of all our shareholders or beneficial owners, and we cannot compel them to comply with SAFE registration requirements. See “Item 3. Key Information—D. Risk Factors—Risks Related to Doing Business in China—PRC regulations relating to the establishment of offshore special purpose companies by PRC residents may subject our PRC resident beneficial owners or our PRC subsidiaries to liability or penalties, limit our ability to inject capital into our PRC subsidiaries, limit our PRC subsidiaries’ ability to increase their registered capital or distribute profits to us, or may otherwise adversely affect us.”

Regulations on stock incentive plans

Pursuant to the Notice on Issues Concerning the Foreign Exchange Administration for Domestic Individuals Participating in Stock Incentive Plan of Overseas Publicly Listed Company, issued by SAFE on February 15, 2012, employees, directors, supervisors and other senior management participating in any stock incentive plan of an overseas publicly listed company who are PRC citizens or who are non PRC citizens residing in China for a continuous period of not less than one year, subject to a few exceptions, are required to register with SAFE through a domestic qualified agent, which could be a PRC subsidiary of such overseas listed company, and complete certain other procedures. Failure to complete the SAFE registrations may subject them to fines and legal sanctions and may also limit our ability to contribute additional capital into our wholly foreign owned subsidiaries in China and limit these subsidiaries’ ability to distribute dividends to us. The PRC agents shall, on behalf of the PRC residents who have the right to exercise the employee share options, apply to SAFE or its local branches for an annual quota for the payment of foreign currencies in connection with the PRC residents’ exercise of the employee share options. The foreign exchange proceeds received by the PRC residents from the sale of shares under the stock incentive plans granted and dividends distributed by the overseas listed companies must be remitted into the bank accounts in the PRC established by the PRC agents before distribution to such PRC residents. In addition, the PRC agents shall quarterly submit the form for record-filing of information of the Domestic Individuals Participating in the Stock Incentive Plans of Overseas Listed Companies with SAFE or its local branches. We and our PRC citizen employees who have been granted share options, or PRC optionees, are subject to the Stock Option Rules. If we or our PRC optionees fail to comply with the Individual Foreign Exchange Rule or the Stock Option Rules, we and our PRC optionees may be subject to fines and other legal sanctions. In addition, the PRC agents are required to amend the SAFE registration with respect to the stock incentive plan if there is any material change to the stock incentive plan. Moreover, the SAFE Circular 37 provides that PRC residents who participate in a share incentive plan of an overseas unlisted special purpose company may register with local branches of SAFE before exercising rights.

In addition, the Ministry of Finance and the SAT have jointly issued circulars concerning individual income tax on employee share options, under which our employees working in the PRC who exercise share options will be subject to PRC individual income tax. Our PRC subsidiaries and affiliated entities have obligations to file documents related to employee share options with relevant tax authorities and to withhold individual income taxes of those employees who exercise their share options. If our employees fail to pay or if we fail to withhold their income taxes as required by relevant laws and regulations, we may face sanctions imposed by the PRC tax authorities or other PRC government authorities.

Regulations relating to M&A Rule and overseas listing in the PRC

MOFCOM, China Securities Regulatory Commission, or CSRC, SAFE and three other PRC governmental and regulatory agencies promulgated the Rules on Acquisition of Domestic Enterprises by Foreign Investors on August 8, 2006, as later amended on June 22, 2009, or the M&A Rules, governing the mergers and acquisitions of domestic enterprises by foreign investors. The M&A Rules, among other things, require that if a domestic company, domestic enterprise, or a domestic individual, through an overseas company established or controlled by it/him/her, acquires a domestic company which is affiliated with it/him/her, an approval from the MOFCOM is required. The M&A Rules further requires that an SPV that is controlled directly or indirectly by the PRC companies or individuals and that has been formed for overseas listing purposes through acquisitions of PRC domestic interest held by such PRC companies or individuals, shall obtain the approval of CSRC prior to overseas listing and trading of such SPV’s securities on an overseas stock exchange. Moreover, if foreign investors merge a domestic enterprise and obtain the actual control over the enterprise, and if such merger involves any critical industry, affects or may affect the security of national economy, or causes transference of actual control over the domestic enterprise who possesses a resound trademark or PRC time-honored brand, the parties to the merger shall file an application to MOFCOM.

The CSRC promulgated the Overseas Listing Trial Measures and five related guidelines on February 17, 2023, which came into effect on March 31, 2023. The Overseas Listing Trial Measures provide that Chinese companies must file with the CSRC within three business days for its follow-on offering of securities after it is listed in an overseas market either in direct or indirect means. Such companies must also follow the relevant reporting requirements within three working days upon the occurrence and public disclosure of any specified circumstances provided thereunder, including (1) change of control, (2) investigations or sanctions imposed by overseas securities regulatory agencies or other relevant competent authorities, (3) change of listing status or transfer of listing segment, and (4) voluntary or mandatory delisting. In addition, where the main business of an issuer undergoes material change after overseas offering and listing, and is therefore beyond the scope of business stated in the filing documents, such issuer shall submit to the CSRC an ad hoc report and a relevant legal opinion issued by a domestic law firm within three working days after occurrence of the changes. In case of any violations of the foregoing requirements, competent Chinese authorities may impose administrative regulatory measures, such as orders for correction, warnings, fines, and may pursue legal liability in accordance with law.

The CSRC and other three relevant government authorities promulgated the Provision on Confidentiality, which came into effect on March 31, 2023. According to the Provision on Confidentiality, Chinese companies that directly or indirectly conduct overseas offerings and listings, shall strictly abide by relevant laws and regulations on confidentiality when providing or publicly disclosing, either directly or through their overseas listed entities, documents and materials to securities service providers such as securities companies, securities service institutions, overseas regulatory authorities and other entities and individuals in the process of their overseas offering and listing. In the event such documents or materials contain state secrets or working secrets of government agencies, the Chinese companies shall first obtain approval from competent authorities according to law, and file with the secrecy administrative department at the same level with the approving authority. In the event that such documents or materials, if leaked, will be detrimental to national security or public interest, the Chinese companies shall strictly fulfill relevant procedures stipulated by applicable national regulations. Chinese companies shall also provide a written statement of the specific state secrets and sensitive information that are contained in the documents and materials provided to securities companies and securities service providers, and the securities companies and securities service providers shall properly retain such written statements for inspection. The working papers formed within the territory of the PRC by the securities companies and securities service institutions that provide related services for the overseas offering and listing of Chinese companies shall be kept within the territory of the PRC. Cross-border transferring of such working papers shall go through the examination and approval formalities in accordance with the relevant regulations.

Regulations relating to taxation

Dividend withholding tax

The National People's Congress enacted the Enterprise Income Tax Law, which became effective on January 1, 2008 and last amended on December 29, 2018. According to Enterprise Income Tax Law and the Regulation on the Implementation of the Enterprise Income Tax Law, or the Implementing Rules, which became effective on January 1, 2008 and further amended on April 23, 2019, dividends generated after January 1, 2008 and payable by a foreign-invested enterprise in China to its foreign enterprise investors are subject to a 10% withholding tax, unless any such foreign enterprise investor's jurisdiction of incorporation has a tax treaty with China that provides for a preferential withholding arrangement. According to the Arrangement between Mainland China and the Hong Kong Special Administrative Region for the Avoidance of Double Taxation and Prevention of Fiscal Evasion with Respect to Taxes on Income, or Double Tax Avoidance Arrangement, the withholding tax rate in respect of the payment of dividends by a PRC enterprise to a Hong Kong enterprise may be reduced to 5% from a standard rate of 10% if the Hong Kong enterprise directly holds at least 25% of the PRC enterprise and certain other conditions are met, including: (1) the Hong Kong enterprise must directly own the required percentage of equity interests and voting rights in the PRC resident enterprise; and (2) the Hong Kong enterprise must have directly owned such required percentage in the PRC resident enterprise throughout the 12 months prior to receiving the dividends. However, based on the Circular on Certain Issues with Respect to the Enforcement of Dividend Provisions in Tax Treaties issued on February 20, 2009 by the SAT, if the relevant PRC tax authorities determine, in their discretion, that a company benefits from such reduced income tax rate due to a structure or arrangement that is primarily tax-driven, such PRC tax authorities may adjust the preferential tax treatment; and based on the Announcement on Certain Issues with Respect to the "Beneficial Owner" in Tax Treaties issued by the SAT on February 3, 2018 and effective from April 1, 2018, if an applicant's business activities do not constitute substantive business activities, it could result in the negative determination of the applicant's status as a "beneficial owner," and consequently, the applicant could be precluded from enjoying the above-mentioned reduced income tax rate of 5% under the Double Tax Avoidance Arrangement.

Enterprise income tax

The Enterprise Income Tax Law and the Implementing Rules impose a uniform 25% enterprise income tax rate to both foreign invested enterprises and domestic enterprises, except where tax incentives are granted to special industries and projects. Among other tax incentives, the preferential tax treatment continues as long as an enterprise can retain its “High and New Technology Enterprise” status.

Under the PRC Enterprise Income Tax Law, an enterprise established outside China with “*de facto* management bodies” within China is considered a “resident enterprise” for PRC enterprise income tax purposes and is generally subject to a uniform 25% enterprise income tax rate on its worldwide income. A circular issued by the SAT in April 2009 and amended in 2017 regarding the standards used to classify certain Chinese invested enterprises controlled by Chinese enterprises or Chinese enterprise groups and established outside of China as “resident enterprises,” which also clarified that dividends and other income paid by such PRC “resident enterprises” will be considered PRC source income and subject to PRC withholding tax, currently at a rate of 10%, when paid to non PRC enterprise shareholders. This circular also subjects such PRC “resident enterprises” to various reporting requirements with the PRC tax authorities. Under the implementing rules, a “*de facto* management body” is defined as a body that has material and overall management and control over the manufacturing and business operations, personnel and human resources, finances and properties of an enterprise.

On October 17, 2017, the SAT issued the SAT Bulletin 37, which replaced the Notice on Strengthening Administration of Enterprise Income Tax for Share Transfers by Non-PRC Resident Enterprises, issued by the SAT, on December 10, 2009, and partially replaced and supplemented by the rules under the SAT Bulletin 7, issued by the SAT, on February 3, 2015. Under SAT Bulletin 7, an “indirect transfer” of assets, including equity interests in a PRC resident enterprise, by non-PRC resident enterprises may be re-characterized and treated as a direct transfer of PRC taxable assets, if such arrangement does not have a reasonable commercial purpose and was established for the purpose of avoiding payment of PRC enterprise income tax. As a result, gains derived from such indirect transfer may be subject to PRC enterprise income tax. In respect of an indirect offshore transfer of assets of a PRC establishment, the relevant gain is to be regarded as effectively connected with the PRC establishment and therefore included in its enterprise income tax filing, and would consequently be subject to PRC enterprise income tax at a rate of 25%. Where the underlying transfer relates to the immovable properties in China or to equity investments in a PRC resident enterprise, which is not effectively connected to a PRC establishment of a non-resident enterprise, a PRC enterprise income tax at 10% would apply, subject to available preferential tax treatment under applicable tax treaties or similar arrangements, and the party who is obligated to make the transfer payments bears the withholding obligation. Pursuant to SAT Bulletin 37, the withholding party shall declare and pay the withheld tax to the competent tax authority in the place where such withholding party is located within 7 days from the date of occurrence of the withholding obligation. Both SAT Bulletin 37 and SAT Bulletin 7 do not apply to transactions of sale of shares by investors through a public stock exchange where such shares were acquired from a transaction through a public stock exchange.

Value-added tax

The Provisional Regulations of the PRC on Value-added Tax were promulgated by the State Council on December 13, 1993 and came into effect on January 1, 1994 which were subsequently amended in 2008, 2016 and 2017, or the VAT Regulation.

The Detailed Rules for the Implementation of the Provisional Regulations of the PRC on Value-added Tax (Revised in 2011) was promulgated by the MOF on December 25, 1993 and subsequently amended on December 15, 2008 and October 28, 2011, and together with the VAT Regulation, or the VAT Law. The PRC State Council approved, and the SAT and the MOF officially launched a pilot value-added tax reform program starting from January 1, 2012, or the Pilot Program, applicable to businesses in selected industries. Businesses in the Pilot Program would pay value-added tax instead of business tax. The Pilot Program was initiated in Shanghai, then further applied to ten additional regions such as Beijing and Guangdong province. On November 19, 2017, the State Council promulgated the Decisions on Abolishing the Provisional Regulations of the PRC on Business Tax and Amending the Provisional Regulations of the PRC on Value-added Tax, or the Order 691.

On April 4, 2018, Adjustment to Value-added Tax Rates issued by the Ministry of Finance and the SAT, which came into effect on May 1, 2018, or the Bulletin 32. According to Bulletin 32, the VAT tax rates of 17% and 11% are changed to 16% and 10%, respectively. On March 20, 2019, the Ministry of Finance, State Taxation Administration and General Administration of Customs jointly promulgated the Announcement on Policies for Deepening the VAT Reform or Notice 39, which came into effect on April 1, 2019. Notice 39 further changes the VAT tax rates of 16% and 10% to 13% and 9%, respectively.

The following diagram illustrates our simplified corporate structure, including our principal subsidiaries, the VIE and other principal affiliated entities in China, as of the date of this annual report.

(3) As of the date of this annual report, Ronglian Yitong is owned as to 72.1% by Mr. Changxun Sun, our founder and chief executive officer, 26.9% by Mr. Jianhong Zhou, and 1.0% by Dazi Heye Investment Management Co., Ltd. (formerly known as Lhasa Heye Investment Management Co., Ltd.).

(4) Includes 17 wholly-owned subsidiaries and three non-wholly owned subsidiaries of the VIE, all of which are individually immaterial.

Contractual Arrangements

Current PRC laws and regulations impose restrictions on foreign ownership and investment in companies that engage in value-added telecommunications services. We are an exempted company incorporated in the Cayman Islands. Anxun Guantong, or WFOE, is our wholly-owned PRC subsidiary and a foreign-invested enterprise under PRC laws. We conduct our business in China through Ronglian Yitong, or the VIE, and its subsidiaries, or collectively the affiliated entities, in China, based on a series of contractual arrangements by and among WFOE, the VIE and its shareholders.

Our contractual arrangements allow us to (1) exercise effective control over the affiliated entities, (2) receive substantially all of the economic benefits of the affiliated entities, and (3) have an exclusive option to purchase all or part of the equity interests in the affiliated entities when and to the extent permitted by PRC law.

As a result of our direct ownership in WFOE and the contractual arrangements with the VIE, we have control over and are the primary beneficiary of the affiliated entities, and, therefore, have consolidated the financial results of the VIE and its subsidiaries in our consolidated financial statements in accordance with U.S. GAAP.

The following is a summary of the currently effective contractual arrangements by and among WFOE, the VIE and its shareholders.

Agreements that provide us with effective control over the VIE

Powers of Attorney. Pursuant to each of the powers of attorney dated March 28, 2019, August 28, 2019 or November 3, 2020 executed and issued by the respective shareholders of the VIE, each of them irrevocably appointed and authorized WFOE or its designee(s) to act on their respective behalf as exclusive agent and attorney, to the extent permitted by PRC law, with respect to all matters concerning all equity interests held by each of these shareholders in the VIE, including but not limited to the power to (1) attend shareholders' meetings, (2) exercise all shareholders' rights and shareholders' voting rights that it is entitled under relevant PRC laws and regulations and the articles of association of the VIE, including but not limited to the right to sell, transfer, pledge or dispose of all the equity interests held in part or in whole, (3) sign minutes and resolutions and filing documents with the companies registry, and (4) designate and appoint on their respective behalf the legal representative, directors, supervisors, chief executive officer and other senior management members of the VIE. Each power of attorney agreement is irrevocable and continuously effective from the execution date.

Share Pledge Agreements. Under each of the share pledge agreements dated March 28, 2019 or November 3, 2020 entered into by and among WFOE, the VIE and each of its shareholders, each of the VIE's shareholders will pledge all of its equity interests in the VIE to WFOE as security for performance of the respective obligations of the VIE and each of its shareholders hereunder and under the exclusive option agreements, the powers of attorney and the exclusive business cooperation agreement, and for payment of all the losses and losses of anticipated profits suffered by WFOE as a result the VIE or its shareholders' defaults. If any of the VIE or its shareholders breach their contractual obligations, WFOE, as the pledgee, may, upon issuing written notice, exercise certain remedy measures, including but not limited to being paid in priority with all pledged equity interests based on monetary evaluation or from the proceeds from auction or sale. Without WFOE's prior written consent, the shareholders of the VIE shall not transfer the pledged equity interests or place or permit the existence of any security interests or other encumbrances over the pledged equity interest. WFOE may assign all or any of its rights and obligations under any of the share pledge agreements to its designee(s) at any time. The pledge will become effective on the date the pledged equity interests are registered with the relevant local branch of State Administration for Market Regulation, and will remain in effect until the fulfillment of all the obligations hereunder and under the exclusive option agreements, the powers of attorney and the exclusive business cooperation agreement and the full payment of all the losses and losses of anticipated profits suffered by the WFOE as a result the VIE or its shareholders' default. As of the date of this annual report, we have completed the registration of all the pledged equity interests in the VIE with the relevant local branch of State Administration for Market Regulation.

Spousal Consent. Pursuant to the spousal consent dated August 28, 2019 executed and provided by the spouse of the largest shareholder of the VIE, the signing spouse (1) unconditionally and irrevocably agreed to the execution of the share pledge agreements, the exclusive option agreement and the powers of attorney and to the disposal of the individual shareholder's equity interests in the VIE in accordance with these agreements, and (2) confirmed that the individual shareholder of the VIE can perform and further amend or terminate these agreements absent her authorization or consent and that his equity interests do not constitute her communal property or inheritable property, and (3) undertook to not to make any assertions in connection with the individual shareholder's equity interests in the VIE. The spouse further undertook to execute all necessary documents and take all necessary actions to ensure the appropriate performance of the agreements described herein and agreed to be subject to the obligations under the contractual arrangements in the event any equity interests in the VIE will be held by her.

Agreements that allow us to receive economic benefits from the VIE

Exclusive Business Cooperation Agreement. Pursuant to the exclusive business cooperation agreement dated November 3, 2020 entered into by and between WFOE and the VIE, WFOE has the exclusive right, during the term of the exclusive business cooperation agreement, to provide or designate its affiliates to provide complete business support and technical and consulting services to the VIE, which may include all or part of the services within the business scope of the VIE as may be determined from time to time by WFOE. In exchange, the VIE shall pay WFOE on a monthly basis service fees equal to 100% of its net income, which may be adjusted by WFOE in its sole discretion. WFOE shall have exclusive and proprietary rights and interests in all rights, ownership, interests and intellectual properties arising out of or created during the performance of this agreement. This agreement shall remain effective for ten years from the execution date and may be extended by WFOE at its sole discretion if confirmed in writing.

Agreements that grant us the option to purchase equity interests in and assets of the VIE

Exclusive Option Agreements. Under each of the exclusive option agreements dated March 28, 2019, August 28, 2019 or November 3, 2020 entered into by and between WFOE, the VIE and its shareholders, each of the shareholders of the VIE irrevocably granted WFOE or its designee(s) an exclusive right to purchase all of their equity interests in the VIE at any time in part or in whole at the sole and absolute discretion of WFOE to the extent permitted by PRC law and at a purchase price of RMB10. In addition, the VIE irrevocably granted WFOE or its designee(s) an exclusive right to purchase all of its assets at any time in part or in whole at the sole and absolute discretion of WFOE to the extent permitted by PRC law after satisfaction of required procedures and at a purchase price of RMB10. Without the prior written consent of WFOE, the shareholders and/or the VIE shall not, among others (1) sell, transfer, mortgage, or dispose of in any other manner any legal or beneficial interests in the equity interests of such shareholders in the VIE, or allow any encumbrances thereon, except for the interest placed in accordance with the share pledge agreements and power of attorney, (2) amend the VIE's articles of association, (3) sell, transfer, mortgage, or dispose of in any other manner any material assets of the VIE or any legal or beneficial interests in the material business or revenues of the VIE of more than RMB500,000, or allow any encumbrances thereon of any security interests, (4) allow the VIE to incur, inherit, guarantee or permit any debts, except for those payables incurred in the ordinary or usual course of business but not incurred by way of borrowing, (5) cause the VIE to enter into any major contracts or terminate any material contracts with a value of more than RMB500,000 to which the VIE is a party, except for those in the ordinary course of business, (6) allow the VIE to provide loan or credit to any person, (7) merger, consolidate with, acquire or invest in any person, (8) declare or distribute dividends, or (9) dissolve or liquidate or terminate the VIE. The shareholders of the VIE and the VIE also agree to, among other, appoint the directors and supervisors designed by WFOE as its directors or supervisors. If the shareholders of the VIE shall receive any profits, interest, dividends or proceeds of liquidation from the VIE or if such shareholders shall receive any monies in connection with a transfer of their equity interests in the VIE, they shall promptly donate to WFOE or its designee(s) to the extent permitted under the applicable PRC law. This agreement shall become effective on the execution date and remain in effect until all equity interests in the VIE have been transferred or assigned to WFOE or its designee(s).

In the opinion of CM Law Firm, our PRC counsel:

- (1) the ownership structures of the VIE and WFOE, currently are not in any violation of the applicable PRC laws or regulations currently in effect; and
- (2) the contractual arrangements between WFOE, the VIE and its shareholders governed by PRC laws and regulations are currently valid, binding and enforceable, and will not result in any violation of applicable PRC laws and regulations currently in effect.

However, we have been further advised by our PRC counsel that there are substantial uncertainties regarding the interpretation and application of current PRC laws and regulations. Thus, the PRC government may ultimately take a view contrary to or otherwise different from the opinion of our PRC counsel. It is uncertain whether any new PRC laws or regulations relating to variable interest entity structures will be adopted or if adopted, what they would provide. If we or the VIE is found to be in violation of any existing or future PRC laws or regulations, or fail to obtain or maintain any of the required permits or approvals, the relevant PRC regulatory authorities would have broad discretion to take action in dealing with such violations or failures. See “Item 3. Key Information—D. Risk Factors—Risks Related to Our Corporate Structure—The PRC government may find that the contractual arrangements that establish our corporate structure for operating our business do not comply with applicable PRC laws and regulations.”

D. Property, Plant and Equipment

Our principal executive offices are in Beijing, China, where we lease approximately 2,768 square meters of office space that are currently in use. We also maintain other leased offices in cities across China totaling approximately 4,269 square meters that are currently in use. We opened Malaysia office in December 2020, which has approximately 181 square meters of office space. Our Japan office has approximately 274 square meters of office space, and our office in South Korea has approximately 84 square meters of office space. In addition, we own approximately 759 square meters of office premises in Shanghai. We believe our existing premises are adequate for our current business operations and that additional space can be obtained on commercially reasonable terms to accommodate our future expansion plans.

ITEM 4A. UNRESOLVED STAFF COMMENTS

None.

ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

You should read the following discussion and analysis of our results of operations and financial condition together with the consolidated financial statements and related notes included elsewhere in this annual report. This discussion contains forward-looking statements based upon current plans, expectations and beliefs that involve risks and uncertainties. Our actual results may differ materially from those anticipated in these forward-looking statements as a result of various factors, including those set forth in the section of this annual report captioned “Item 3. Key Information—D. Risk Factors” and in other parts of this annual report. Our fiscal year ends on December 31.

A. Operating Results

Overview

We are a leading multi-capability cloud-based communications solution provider in China offering a full suite of cloud-based communications solutions, covering CPaaS, cloud-based CC and cloud-based UC&C. We serve a diverse and loyal customer base consisting of enterprises of all sizes across a variety of industries, including internet, telecommunications, financial services, industrial manufacturing and energy.

We generate our revenues primarily from our CPaaS, cloud-based CC and cloud-based UC&C solutions. We generally charge our customers using our CPaaS solutions on a recurring basis, based on the monthly number of text messages and call minutes facilitated. We charge our customers using our cloud-based CC solutions deployed on public cloud on a recurring basis, with a combination of seat subscription fees and related resource usage fees. We generally charge our customers using our cloud-based CC solution deployed on private cloud and cloud-based UC&C solutions on a project basis. We plan to promote solutions that we offer on a recurring basis to lower customer acquisition costs, which we expect would favorably contribute to our profit margins.

As of December 31, 2020, 2021 and 2022, we had an active customer base of 12,632, 11,406 and 9,980 enterprises, respectively, among which 144, 142 and 118 were large-enterprise customers, respectively. In 2020, 2021 and 2022, the dollar-based net customer retention rate in relation to solutions we offer on a recurring basis was 87.3%, 90.2% and 61.7%, respectively, and the dollar-based net customer retention rate for active customers was 92.1%, 94.2% and 64.5%, respectively. We served 224, 274 and 229 customers for our project-based solutions in 2020, 2021 and 2022, respectively. Our revenues increased by 4.0% from RMB723.5 million in 2020 to RMB752.7 million in 2021, and decreased by 21.1% to RMB593.6 million (USD\$86.1 million) in 2022, of which 74.4%, 71.2% and 64.0% were recurring revenues in the same years, respectively. In 2020, 2021 and 2022, we incurred net loss of RMB425.2 million, RMB904.5 million and RMB975.9 million (US\$141.5 million), respectively, and our adjusted EBITDA was RMB227.7 million, RMB422.8 million and RMB563.4 million (US\$81.7 million), respectively. See “—Non-GAAP Financial Measure” for information on how we define and calculate the non-GAAP financial measure as well as a reconciliation of non-GAAP adjusted EBITDA to net loss.

Factors Affecting Our Results of Operations

Our business and results of operations are affected by China’s overall economic conditions and structural transformations, especially the development of telecommunications industry and cloud-based communications industry, as well as the following industry- and company-specific factors.

Capturing market opportunity

Our ability to capture market opportunity is critical to our growth prospects. Compared to more developed regions such as the North America and Western Europe, enterprises in China are still in the early stages of adopting cloud-based technologies, which presents significant growth opportunity. The maturity level of China’s network and related infrastructure for cloud computing also provides a solid foundation for rapid adoption of cloud technologies in China.

In addition, China’s communications industry is highly fragmented, consisting primarily of many local players. The software-based nature and scalability of cloud-based communications solutions are well-suited to allow easy deployment across different geographical locations and industries. We focus on applying cloud-based technologies to enterprise communications, leveraging our established partnerships with multiple regional mobile network operators. Equipped with such established business relationships as well as our solutions and proprietary technologies in AI and video communications, we believe we are well-positioned to capture the significant market opportunity to consolidate China’s cloud-based communications industry. Meanwhile, in order to achieve a larger market share, we will need to devote more managerial attention and financial and other resources to address the potential challenges faced by a rapidly growing business in an evolving industry.

Improving customer acquisition, retention and lifetime value

Our results of operations are highly dependent on the total number and the lifetime value of our customers. We have cultivated a large and diverse customer base of enterprises of all sizes and various industries, including internet, telecommunications, financial services, industrial manufacturing and energy. As of December 31, 2020, 2021 and 2022, we had an active customer base of 12,632, 11,406 and 9,980 enterprises, respectively, among which 144, 142 and 118 were large-enterprise customers, respectively. To retain and grow our customer base, we need to predict future market acceptance and customer demand and continue to invest in sales and marketing to penetrate into more industry verticals and second- and lower-tier cities and further promote our brand image and recognition in China's cloud-based communications industry. We also plan to expand our cross-selling and up-selling efforts to existing customers.

Introducing new features and solutions

To capitalize on the opportunities from the fast-evolving communications needs of China's enterprises of all sizes, we believe it is critical to continuously develop and introduce new features and solutions that optimize communication efficiency and efficacy and enhance operational productivity. We believe our capabilities of developing and offering a comprehensive portfolio of industry-specific solutions that satisfy disparate needs and complex internal integration and deployment requirements contribute to the success of our business operations. We must continue to invest in research and development with a focus on AI and video technologies and incorporate these technologies to develop more innovative features and solutions. We will also need to enhance the interaction of product development and sales activities and actively seek and analyze customer feedback in order to design new features and solutions catering to customer demands.

Optimizing product offering mix

Our ability to manage our product offering mix affects our results of operations, especially our overall profit margin. For example, our cloud-based CC and cloud-based UC&C solutions typically carry higher gross profit margins, as these solutions are more technologically advanced and, therefore, give us greater pricing power. To improve our overall profit margin and achieve higher financial scalability, we will need to continue to shift our focus toward offering solutions with higher profit margins. We also plan to selectively promote solutions that we offer on a recurring basis to lower customer acquisition costs, which we expect would favorably contribute to our profit margins. In addition, we need to serve more customers in targeted industries to lower the incremental industry customization costs and to achieve greater economies of scale and higher profit margins from the industries we more broadly serve.

Controlling costs and expenses

One of the largest costs we incur during our business operations, particularly for our CPaaS solutions and cloud-based CC solutions that we offer on a recurring basis, is service fees paid for telecommunications resources. In 2020, 2021 and 2022, costs paid for telecommunications resources represented 72.2%, 65.3% and 51.6% of our total cost of revenues, respectively. Mobile network operators in China typically adjust the unit prices for resources, such as text messages and voice calls, once every several years based on government recommendations. A sudden adjustment by major mobile network operators would likely negatively affect our results of operations in current contract periods because we may not be able to pass on the impact to our customers as a result of fixed unit resource price throughout the current contract periods. On the other hand, we are generally able to pass on the impact from such unit price adjustment to customers relatively quickly due to our relatively short contract periods, which enable us to adjust our resource usage fees from time to time. Additionally, we may also benefit from the increase in the unit resource price in the long term because such price increase could eliminate weaker market players and strengthen our market leadership position.

In addition, staff costs and expenses incurred to attract and retain a team of talented staff is a major component of our overall costs and expenses. While we strive to optimize our compensation and incentive structure, we remain mindful that investment in human resources plays a significant role in maintaining our competitive position. As a significant portion of our overall costs and expenses, our ability to control our staff costs and expenses without compromising our competitiveness is critical to our results of operations.

Managing development cycle

Our ability to manage the overall development cycle of our project-based solutions affects our revenues and profit margin in specific periods. We generally incur a significant amount of upfront investment and costs in developing new solutions and serving customers in new industries to meet their complex communications needs, implementation requirements and industry-specific customizations. We have also historically undertaken smaller projects with lower profit margins to enter into the markets for project-based solutions, such as for our cloud-based UC&C solutions. These initial development costs and investments may increase our costs and expenses and decrease our overall profit margins in certain periods. We are generally able to replicate our initial solution development and achieve economies of scale quickly after we deliver our industry-specific projects to more customers within the same industry or build upon our existing projects to develop similar solutions for more customers from other industries. As we continue to standardize our industry-specific solutions for more customers in diverse industries, we expect to manage the upfront investment at reasonable level and optimize our development cycle.

Strategic investment and acquisitions

We have made, and intend to continue to make, strategic acquisitions to solidify our current market presence and expand into new industries. For example, in March 2021, we acquired all the equity interests of EliteCRM, a leading customer relationship management software provider, and in December 2021, we acquired all the equity interests of Zhuge, a user-centric intelligent data solution provider. We intend to selectively pursue strategic alliances and investments to further strengthen our competitiveness. We expect to evaluate and execute alliance, investment and acquisition opportunities that complement and scale up our business, optimize our profitability, help us expand into adjacent industries and add new capabilities to our cloud-based solutions. Our strategic alliances, investments and acquisitions would likely impact our business, results of operations and financial condition.

Seasonality

Our business is subject to seasonal fluctuations. We believe that our quarterly sales are affected by industry buying patterns. Our customers, especially large enterprises, tend to enter into contracts with us in the second half of each year in accordance with their budget cycles. As such, we generally record higher revenues during such periods. In addition, we typically generate lower revenues in the first quarter during or around Chinese New Year holiday. Changes in seasonal trends may cause fluctuations in our results of operations and financial condition.

Key Operating Metrics

	As of/For the Year Ended December 31,		
	2020	2021	2022
Number of active customers	12,632	11,406	9,980
Number of large-enterprise customers	144	142	118
Percentage of revenue contribution by large-enterprise customers	73.9%	72.1%	65.0%
Dollar-based net customer retention rate	87.3%	90.2%	61.7%

* The operating metrics as of/for the year ended December 31, 2021 include the operating metrics of EliteCRM since the second quarter of 2021, which we acquired in March 2021, and exclude the operating metrics of Zhuge, which we acquired in December 2021. The operating metrics of EliteCRM and Zhuge are included in the operating metrics as of/for the year ended December 31, 2022, except that the dollar-based net customer retention rate does not include the operating results of Zhuge in 2022 due to the lack of data for calculation in 2021.

Our dollar-based net customer retention rate increased from 87.3% in 2020 to 90.2% in 2021, primarily as (1) we devoted more resources to our cloud-based CC solutions, and (2) our overseas business increased rapidly. Our dollar-based net customer retention rate decreased to 61.7% in 2022, as we strategically downsized our business of CPaaS solutions. In 2020, 2021 and 2022, our dollar-based net customer retention rate for active customers was 92.1%, 94.2% and 64.5%, respectively.

We expect that, as the applicable regulatory framework becomes more established and China's economy recovers from the COVID-19 pandemic, and as we continuously optimize our existing solutions and develop new features and solutions, our dollar-based net customer retention rate will remain stable at a relatively high level.

Non-GAAP Financial Measure

To supplement our consolidated financial statements which are presented in accordance with U.S. GAAP, we also use non-GAAP net loss and adjusted EBITDA as additional non-GAAP financial measures. We present the non-GAAP financial measures because they are used by our management to evaluate our operating performance. We also believe that the non-GAAP financial measures provide useful information to investors and others in understanding and evaluating our consolidated results of operations in the same manner as our management and in comparing financial results across accounting periods and to those of our peer companies.

We define non-GAAP net loss as net loss excluding share-based compensation, change in fair value of warrant liabilities, change in fair value of long-term investments, (gain)/loss from disposal of subsidiaries, net, (gain) from disposal of long-term investments, impairment loss of long-term investments, impairment loss of intangible assets, impairment loss of goodwill, provision for U.S. class action, and other operating expenses. We define adjusted EBITDA as net loss excluding depreciation and amortization, interest expenses, net, income tax expense, share-based compensation, investment income, impairment loss of long-term investments, impairment loss of intangible assets, impairment loss of goodwill, provision for U.S. class action, other operating expenses, (gain)/loss from disposal of subsidiaries, net, (gain) from disposal of long-term investments, share of losses of equity method investments, change in fair value of warrant liabilities, change in fair value of long-term investments, and foreign currency exchange (gains)/losses, net. We believe that non-GAAP financial measures provide useful information to investors and others in understanding and evaluating our operating results. The non-GAAP financial measures adjust for the impact of items that we do not consider indicative of the operational performance of our business and should not be considered in isolation or construed as an alternative to net loss or any other measure of performance or as an indicator of our operating performance. Investors are encouraged to compare the historical non-GAAP financial measures with the most directly comparable GAAP measures. The non-GAAP financial measures presented here may not be comparable to similarly titled measures presented by other companies. Other companies may calculate similarly titled measures differently, limiting their usefulness as comparative measures to our data. We encourage investors and others to review our financial information in its entirety and not rely on a single financial measure.

The following table sets forth a reconciliation of our non-GAAP financial measures to net loss for the years indicated.

	Year Ended December 31,			
	2020	2021	2022	
	RMB	RMB	RMB	US\$
	(in thousands)			
Net loss	(425,237)	(904,452)	(975,899)	(141,490)
Add:				
Share-based compensation	134,263	277,616	107,462	15,581
Change in fair value of warrant liabilities	61,454	29,011	—	—
Change in fair value of long-term investments	(11,614)	(47,247)	—	—
Loss/(gain) from disposal of subsidiaries, net	7,275	(2,899)	2,739	397
(Gain) from disposal of long-term investments	—	—	(5,138)	(745)
Impairment loss of long-term investments	—	6,603	7,400	1,073
Impairment loss of intangible assets	—	136	28,011	4,061
Impairment loss of goodwill	—	149,092	107,407	15,573
Provision for U.S class action	—	—	83,575	12,117
Other operating expenses	—	51,354	70,417	10,210
Non-GAAP net loss	(233,859)	(440,786)	(574,026)	(83,223)
Net loss	(425,237)	(904,452)	(975,899)	(141,490)
Add:				
Depreciation and amortization	8,616	10,504	13,893	2,014
Interest expenses, net	2,499	(10,978)	(14,199)	(2,059)
Income tax expense/(benefit)	1,127	11,120	(342)	(50)
EBITDA:	(412,995)	(893,806)	(976,547)	(141,585)
Adjust:				
Share-based compensation	134,263	277,616	107,462	15,581
Investment income	(12)	—	(340)	(49)
Impairment loss of long-term investments	—	6,603	7,400	1,073
Impairment loss of intangible assets	—	136	28,011	4,061
Impairment loss of goodwill	—	149,092	107,407	15,573
Provision for U.S class action	—	—	83,575	12,117
Other operating expenses	—	51,354	70,417	10,210
Loss/(gain) from disposal of subsidiaries, net	7,275	(2,899)	2,739	397
(Gain) from disposal of long-term investments	—	—	(5,138)	(745)
Share of losses of equity method investments	—	596	1,969	285
Change in fair value of warrant liabilities	61,454	29,011	—	—
Change in fair value of long-term investments	(11,614)	(47,247)	—	—
Foreign currency exchange (gains)/losses, net	(6,115)	6,696	9,666	1,401
Adjusted EBITDA	(227,744)	(422,848)	(563,379)	(81,681)

Key Components of Our Results of Operations
Revenues

We generate revenue primarily from the sales of our CPaaS, cloud-based CC and cloud-based UC&C solutions. In 2020, 2021 and 2022, our revenues were RMB723.5 million, RMB752.7 million and RMB593.6 million (US\$86.1 million), respectively. The following table sets forth the breakdown of our total revenues both in absolute amount and as a percentage of total revenues in the years indicated.

	Year Ended December 31,					
	2020		2021		2022	
	RMB	%	RMB	%	RMB	US\$
(in thousands, except for percentages)						
CPaaS						
Text messaging	244,445	33.8	235,842	31.3	119,416	17,314
Voice calls	81,574	11.3	56,892	7.6	25,953	3,763
Jointly-operated CPaaS	22,919	3.2	22,546	3.0	27,591	4,000
IoT	35,902	5.0	30,467	4.0	13,268	1,924
Others	598	0.1	3,122	0.4	5,936	860
Subtotal	385,438	53.3	348,869	46.3	192,164	27,861
Cloud-based CC						
Recurring(1)	152,872	21.1	186,684	24.8	187,693	27,213
Project	74,678	10.3	89,442	11.9	123,072	17,844
Subtotal	227,550	31.5	276,126	36.7	310,765	45,057
Cloud-based UC&C	107,378	14.8	125,358	16.7	89,350	12,955
Other services	3,087	0.4	2,335	0.3	1,355	196
Total revenues	723,453	100.0	752,688	100.0	593,634	86,069

(1) Includes cloud-based CC solutions deployed primarily on public cloud, for which we charge a combination of seat subscription fees and related resource usage fees.

Our revenues from CPaaS solutions primarily include usage-based fees for sending text messages and making voice calls. We generally charge our customers on a recurring basis, based on the monthly number of text messages and call minutes facilitated through our CPaaS solutions. We also assist and support mobile network operators in establishing and operating communications service platforms, and recognize revenues pursuant to the revenue sharing arrangements. In addition, we recognize revenues from IoT related services on a net basis.

Our revenues from cloud-based CC solutions primarily consist of seat subscription fees and related resource usage fees, and to a lesser extent, software license fees and related service fees. We charge customers using our cloud-based CC solutions deployed on public cloud a combination of seat subscription fees and related resource usage fees that are determined according to the capacity and number of functional modules embedded as well as the number of texts and call minutes facilitated through our solutions. In 2020, 2021 and 2022, solutions that we offer on a recurring basis generated 67.2%, 67.6% and 60.4% of our revenues from cloud-based CC solutions, respectively. We generally charge customers using our solutions deployed on private cloud software license fees and related customized service fees that are negotiated on a project basis and recognize revenues in accordance with the agreed-upon project milestones. The delivery cycle of our project-based cloud-based CC solutions typically ranges from three to 12 months.

Our revenues from cloud-based UC&C solutions primarily consist of software license fees and related services fees from individual projects, and to a lesser extent, service fees relating to maintenance and upgrade services. We negotiate these fees with customers on a project basis and charge them in accordance with the agreed-upon project milestones. The delivery cycle of our project-based cloud-based UC&C solutions typically ranges from three to 12 months. Additionally, we also generate revenues from software development and other technical support service fees charged on a project basis.

Our revenues from other services primarily consist of revenues generated from mobile network operator services and cloud-based value-added services.

Cost of revenues

Our cost of revenues primarily consists of (1) costs paid for telecommunications resources, (2) outsourcing costs, (3) infrastructure and equipment costs, and (4) staff costs related to solution delivery. In 2020, 2021 and 2022, our cost of revenues was RMB478.1 million, RMB480.8 million and RMB367.3 million (US\$53.3 million), respectively. The following table sets forth the breakdown of our cost of revenues by nature both in absolute amount and as a percentage of total cost of revenues in the years indicated.

	Year Ended December 31,					
	2020		2021		2022	
	RMB	%	RMB	%	US\$	%
	(in thousands, except for percentages)					
Costs of telecommunications resources	344,999	72.2	313,912	65.3	189,376	51.6
Outsourcing costs	60,876	12.7	85,174	17.7	99,608	27.1
Infrastructure and equipment costs	39,183	8.2	40,633	8.5	41,656	11.3
Staff costs	28,390	5.9	35,415	7.4	33,266	9.1
Rentals and others	4,670	1.0	5,621	1.2	3,428	0.9
Total cost of revenues	478,118	100.0	480,755	100.0	367,334	100.0

Costs of telecommunications resources represent fees we pay to mobile network operators based on the number of texts and minutes of voice calls we subscribed for. We typically enter into annual contracts with mobile network operators which set forth the unit price for each text message and every minute of voice call. In 2020, 2021 and 2022, costs of telecommunications resources represented the largest portion of our cost of revenues, representing 72.2%, 65.3% and 51.6% of our total cost of revenues, respectively. We also outsource certain parts of the solution delivery and incur outsourcing costs. Infrastructure and equipment costs relate to our use of servers and our purchase of hardware and equipment to support our solutions. Staff costs represent compensation paid to employees who primarily deliver solution customization and perform other services to customers. Rentals and others primarily consists of rental costs related to our leases.

The following table sets forth the breakdown of our cost of revenues by service type both in absolute amount and as a percentage of total cost of revenues in the years indicated.

	Year Ended December 31,					
	2020		2021		2022	
	RMB	%	RMB	%	RMB	US\$
	(in thousands, except for percentages)					
CPaaS						
Text messaging	232,857	48.7	221,065	46.0	111,999	16,238
Voice calls	62,146	13.0	44,872	9.3	24,133	3,499
Jointly-operated CPaaS	928	0.2	572	0.1	281	41
IoT	—	—	—	—	—	—
Others	0	0.0	3,935	0.8	2,968	430
Subtotal	295,931	61.9	270,444	56.3	139,381	20,208
Cloud-based CC						
Recurring(1)	73,910	15.5	88,843	18.5	95,260	13,811
Project	39,585	8.3	47,337	9.8	70,851	10,272
Subtotal	113,495	23.7	136,180	28.3	166,111	24,083
Cloud-based UC&C	66,264	13.9	73,346	15.3	60,936	8,836
Other services	2,428	0.5	785	0.2	906	131
Total cost of revenues	478,118	100.0	480,755	100.0	367,334	53,258

(1) Includes cloud-based CC solutions deployed primarily on public cloud, for which we charge a combination of seat subscription fees and related resource usage fees.

Gross profit

Our gross profit was RMB245.3 million, RMB271.9 million and RMB226.3 million (US\$32.8 million) in 2020, 2021 and 2022, respectively. Our overall gross profit margin was 33.9%, 36.1% and 38.1%, respectively. The following table sets forth a breakdown of our gross profit and gross profit margin.

	Year Ended December 31,					
	2020		2021		2022	
	RMB	%	RMB	%	RMB	US\$
	(in thousands, except for percentages)					
CPaaS	89,507	23.2	78,425	22.5	52,783	7,653
Cloud-based CC(1)	114,055	50.1	139,946	50.7	144,654	20,974
Cloud-based UC&C	41,114	38.3	52,012	41.5	28,414	4,119
Other services	659	21.4	1,550	66.4	449	65
Total	245,335	33.9	271,933	36.1	226,300	32,811

(1) The gross profit margin for cloud-based CC solutions that we offer on a recurring basis was 51.7%, 52.4 % and 49.2% in 2020, 2021 and 2022, respectively.

The gross profit margin of our CPaaS solutions and cloud-based CC solutions that we offer on a recurring basis is primarily affected by the costs of telecommunications resources we paid to mobile network operators, which represented a majority of the costs for these solutions in 2020, 2021 and 2022. See “—Factors Affecting our Results of Operations—Controlling costs and expenses” for details of the impacts.

The gross profit margin of our cloud-based CC solutions on a project basis and cloud-based UC&C solutions is affected primarily by the maturity and complexity of a specific project. See “—Factors Affecting our Results of Operations—Managing development cycle” for details of the impacts.

Operating expenses

The following table sets forth our operating expenses, both in absolute amount and as a percentage of our total operating expenses, for the years indicated.

	Year Ended December 31,					
	2020		2021		2022	
	RMB	%	RMB	%	RMB	US\$
	(in thousands, except for percentages)					
Research and development expenses	174,192	28.3	297,360	30.3	326,513	47,340
Selling and marketing expenses	200,410	32.5	300,043	30.5	265,304	38,465
General and administrative expenses	241,356	39.2	385,498	39.2	319,217	46,282
Total	615,958	100.0	982,901	100.0	911,034	132,087

Research and development expenses

Our research and development expenses were RMB174.2 million, RMB297.4 million and RMB326.5 million (US\$47.3 million) in 2020, 2021 and 2022, respectively, primarily representing (1) compensation paid to our research and development staff and (2) technology service expenses paid to outsourcing service providers for the development of certain non-core features and functions in cloud-based UC&C solutions.

Selling and marketing expenses

Our selling and marketing expenses were RMB200.4 million, RMB300.0 million and RMB265.3 million (US\$38.5 million) in 2020, 2021 and 2022, respectively, primarily representing (1) compensation paid to our sales and marketing staff, (2) our spending on online advertisement and other online promotional events to reach more customers, and (3) participation and organization of offline events to boost our brand image.

General and administrative expenses

Our general and administrative expenses were RMB241.4 million, RMB385.5 million and RMB319.2 million (US\$46.3 million) in 2020, 2021 and 2022, respectively, primarily representing (1) compensation paid to our administrative staff and management team, including share-based compensation expenses, (2) professional services fees, rentals and certain administrative expenses, and (3) provision for doubtful accounts.

Results of Operations

The following table sets forth a summary of our consolidated results of operations for the years indicated, both in absolute amount and as a percentage of our revenues. You should read this information together with our consolidated financial statements and related notes included elsewhere in this annual report. The results of operations in any period are not necessarily indicative of the results that may be expected for any future periods.

	Year Ended December 31,					
	2020		2021		2022	
	RMB	%	RMB	%	RMB	US\$
	(in thousands, except for percentages)					
Revenues	723,453	100.0	752,688	100.0	593,634	86,069
Cost of revenues	(478,118)	(66.1)	(480,755)	(63.9)	(367,334)	(53,258)
Gross profit	245,335	33.9	271,933	36.1	226,300	32,811
Operating expenses:						
Selling and marketing expenses	(200,410)	(27.7)	(300,043)	(39.9)	(265,304)	(38,465)
General and administrative expenses	(241,356)	(33.4)	(385,498)	(51.2)	(319,217)	(46,282)
Impairment loss of goodwill	—	—	(149,092)	(19.8)	(107,407)	(15,573)
Impairment loss of intangible assets	—	—	(136)	(0.0)	(28,011)	(4,061)
Provision for U.S class action	—	—	—	—	(83,575)	(12,117)
Other operating expenses	—	—	(51,354)	(6.8)	(70,417)	(10,210)
Research and development expenses	(174,192)	(24.1)	(297,360)	(39.5)	(326,513)	(47,340)
Total operating expenses	(615,958)	(85.1)	(1,183,483)	(157.2)	(1,200,444)	(174,048)
Operating loss	(370,623)	(51.2)	(911,550)	(121.1)	(974,144)	(141,237)
Interest expenses	(3,477)	(0.5)	(366)	(0.0)	(428)	(62)
Interest income	978	0.1	11,344	1.5	14,627	2,121
Investment income	12	0.0	—	—	340	49
Share of losses of equity method investments	—	—	(596)	(0.1)	(1,969)	(285)
Gain from disposal of long-term investments	—	—	—	—	5,138	745
Change in fair value of long-term investment	11,614	1.6	47,247	6.28	—	—
Impairment loss of long-term investments	—	—	(6,603)	(0.9)	(7,400)	(1,073)
Change in fair value of warrant liabilities	(61,454)	(8.5)	(29,011)	(4)	—	—
(Loss)/gain from disposal of subsidiaries, net	(7,275)	(1.0)	2,899	0.4	(2,739)	(397)
Foreign currency exchange gains/(losses), net	6,115	0.8	(6,696)	(0.9)	(9,666)	(1,401)
Loss before income taxes	(424,110)	(58.6)	(893,332)	(118.7)	(976,241)	(141,540)
Income tax benefit/(expense)	(1,127)	(0.2)	(11,120)	(1.5)	342	50
Net loss	(425,237)	(58.8)	(904,452)	(120.2)	(975,899)	(141,490)

Year Ended December 31, 2022 Compared to Year Ended December 31, 2021

Revenues

Our revenues decreased by 21.1% from RMB752.7 million in 2021 to RMB593.6 million (US\$86.1 million) in 2022, primarily due to the following.

- Revenues from our CPaaS solutions decreased by 44.9% from RMB348.9 million in 2021 to RMB192.2 million in (US\$27.9 million) in 2022, primarily due to (1) a 49.4% decrease in revenues generated from our text messaging services from RMB235.8 million in 2021 to RMB119.4 million (US\$17.3 million) in 2022, (2) a 54.4% decrease in revenues generated from our voice call services from RMB56.9 million in 2021 to RMB 26.0 million (US\$3.8 million) in 2022, and (3) a 56.5% decrease in revenues generated from our IoT services from RMB30.5 million in 2021 to RMB 13.3 million (US\$1.9 million) in 2022, all of which were due to our strategic adjustment of business and the impact of local outbreaks of COVID-19.
- Revenues from our cloud-based CC solutions increased by 12.5% from RMB276.1 million in 2021 to RMB310.8 million (US\$45.1 million) in 2022. Our recurring revenues increased by 0.5% from RMB186.7 million in 2021 to RMB187.7 million (US\$27.2 million) in 2022, primarily because we acquired Zhuge in December 2021 and devoted more resources to our cloud-based CC solutions, which contributed to our business growth, partially offset by decreased usage of certain enterprise customers as they were affected by the continued impact from COVID-19 outbreak. Our project-based revenues increased by 37.6% from RMB89.4 million in 2021 to RMB123.1 million (US\$17.8 million) in 2022, primarily due to an increase in the number of projects as a result of our business expansion.
- Revenues from our cloud-based UC&C solutions decreased by 28.7% from RMB125.4 million in 2021 to RMB89.4 million (US\$13.0 million) in 2022, primarily due to the impact of local outbreaks of COVID-19 on our business development and project delivery.

Cost of revenues

Our cost of revenues decreased by 23.6% from RMB480.8 million in 2021 to and RMB367.3 million (US\$53.3 million) in 2022, respectively, primarily due to the following.

- Cost of revenues from our CPaaS solutions decreased by 48.5% from RMB270.4 million in 2021 to RMB139.4 (US\$20.2 million) in 2022, primarily due to (1) a 49.4% decrease in costs related to text messaging from RMB221.1 million in 2021 to RMB112.0 million (US\$16.2 million) in 2022, and (2) a 46.2% decrease in costs related to voice call services from RMB44.9 million in 2021 to RMB24.1 million (US\$3.5 million) in 2022, both of which were mainly due to the decreased usages of text messages and voice calls.
- Cost of revenues from our cloud-based CC solutions increased by 22.0% from RMB136.2 million in 2021 to RMB166.1 million (US\$24.1 million) in 2022, primarily due to (1) a 49.7% increase in cost of revenues from our project-based cloud-based CC solutions from RMB47.3 million in 2021 to RMB70.9 million (US\$10.3 million) in 2022 primarily as a result of increased business scale, and (2) 7.2% increase in cost of revenues from our subscription-based cloud-based CC solutions from RMB88.8 million in 2021 to RMB95.3 million (US\$13.8 million) in 2022 primarily as a result of increased business scale, to which our acquisition of Zhuge also contributed.
- Cost of revenues from our cloud-based UC&C solutions decreased by 16.9% from RMB73.3 million in 2021 to RMB60.9 million (US\$8.8 million) in 2022, primarily due to the decrease in the number of projects delivered.

Gross profit

As a result of the foregoing, our gross profit decreased by 16.5% from RMB271.9 million in 2021 to RMB226.3 million (US\$32.8 million) in 2022. Our gross profit margin increased from 36.1% in 2021 to 38.1% in 2022, primarily due to a greater portion of revenues generated from our cloud-based CC solutions, which typically have higher profit margins as compared to CPaaS solutions.

Operating expenses

- Research and development expenses. Our research and development expenses increased by 9.8% from RMB297.4 million in 2021 to RMB326.5 million (US\$47.3 million) in 2022, primarily due to (1) a 29.7% increase in the R&D staff expenses of RMB63.3 million (US\$9.2 million) as we recruited highly regarded experts in the second half of 2021 to develop core features and functions for our cloud-based CC solutions and cloud-based UC&C solutions, (2) a 28.4% increase in the lease expenses of RMB3.1 million (US\$0.5 million), which was in line with the increased number of R&D staff, partially offset by (i) a significant decrease in the share-based compensation expenses of RMB24.5 million (US\$3.6 million) due to the departure of certain R&D staff in the second half of 2022, and (ii) a 35.0% decrease in the technology service expenses paid to the outsourcing service providers of RMB15.1 million (US\$2.2 million) as an increased proportion of our R&D activities was carried out by our enlarged in-house R&D team.
- Selling and marketing expenses. Our selling and marketing expenses decreased by 11.6% from RMB300.0 million in 2021 to RMB265.3 (US\$38.5 million) in 2022, primarily due to (1) a 26.8% decrease in spending on advertising campaigns and marketing activities of RMB19.3 million (US\$2.8 million) as a result of the impact of local outbreaks of COVID-19, (2) a 97.6% decrease in share-based compensation expenses of RMB20.6 million (US\$3.0 million) due to the departure of certain sales and marketing staff in the second half of 2022, partially offset by a 4.2% increase in staff expenses of RMB7.5 million (US\$1.1 million) due to the increase in the number of highly compensated employees as we recruited more talents in the second half of 2021 to achieve business growth.
- General and administrative expenses. Our general and administrative expenses decreased by 17.2% from RMB385.5 million in 2021 to RMB319.2 million (US\$46.3 million) in 2022, primarily due to a 52.2% decrease in share-based compensation expenses of RMB123.9 million (US\$18.0 million) due to the departure of certain general and administrative staff in the second half of 2022, partially offset by (i) a significant increase in the service fees paid to third parties of RMB37.4 million (US\$5.4 million), and (ii) a 31.2% increase in staff expenses of RMB20.3 million (US\$2.9 million) primarily due to the increase in the number of highly compensated employees as we recruited more talents in the second half of 2021 to improve our administrative efficiency.
- Impairment loss of goodwill. We recorded impairment loss of goodwill of RMB107.4 million (US\$15.6 million) in 2022, as compared to RMB149.1 million in 2021, primarily due to the fair value of reporting unit is less than the carrying amount.
- Other operating expenses. We recorded other operating expenses of RMB70.4 million (US\$10.2 million) in 2022, as compared to RMB51.4 million in 2021, primarily because we expensed the prepayments as we concluded that there is a possibility that such amounts may not be fully recovered in the future according to the conservatism principle of accounting.

Operating loss

As a result of the foregoing, our operating loss increased from RMB911.6 million in 2021 to RMB974.1 million (US\$141.2 million) in 2022.

Other income and expenses

- Interest expenses. Our interest expenses increased by 16.9% from RMB0.4 million in 2021 to RMB0.4 million (US\$62,000) in 2022, primarily due to an increase in average borrowings.
- Interest income. Our interest income increased by 28.9% from RMB11.3 million in 2021 to RMB14.6 million (US\$2.1 million) in 2022, primarily due to an increase in average deposit interest rate.
- Investment income. We recorded investment income of RMB0.3 million (US\$49,000) in 2022, as compared to nil in 2021, primarily relating to our short-term investments.
- Share of losses of equity method investments. Our share of losses of equity method investments increased significantly from RMB0.6 million in 2021 to RMB2.0 million (US\$0.3 million) in 2022, primarily due to the losses incurred by an equity investee we invested in in December 2021.
- Gain from disposal of long-term investments. We recorded gain from disposal of long-term investments of RMB5.1 million (US\$0.7 million) in 2022, as compared to nil in 2021, primarily as we disposed of our interests in an equity investee.
- Impairment loss of long-term investments. We incurred impairment loss of long-term investments of RMB7.4 million (US\$1.1 million) in 2022, as compared to RMB6.6 million in 2021, primarily due to a non-temporary impairment of long-term investments.
- Change in fair value of long-term investments. We recorded change in fair value of long-term investments of nil in 2022, as compared to RMB47.2 million in 2021, primarily due to the fair value change of our other equity investments with an observable price in 2021.
- Change in fair value of warrant liabilities. We recorded change in fair value of warrant liabilities of nil in 2022, as compared to RMB29.0 million in 2021, primarily due to the fair value change of Series C warrant, Series E warrant and Series F warrant, which was exercised in March 2021, November 2020, and January 2021, respectively.
- Gain/(loss) from disposal of subsidiaries, net. We recorded loss from disposal of subsidiaries of RMB2.7 million (US\$0.4 million) in 2022, as compared to gain from disposal of subsidiaries of RMB2.9 million in 2021.
- Foreign currency exchange gains/(losses), net. We recorded foreign currency exchange losses of RMB9.7 million (US\$1.4 million) in 2022, as compared to foreign currency exchange loss of RMB6.7 million in 2021, primarily due to fluctuations in exchange rate between U.S. dollars and Renminbi.

Income tax benefit/(expense)

We incurred income tax expense of RMB11.1 million and income tax benefit of RMB0.3 million (US\$50,000) in 2021 and 2022, respectively.

Net loss

As a result of the foregoing, our net loss increased by 7.9% from RMB904.5 million in 2021 to RMB975.9 million (US\$141.5 million) in 2022.

Year Ended December 31, 2021 Compared to Year Ended December 31, 2020

Revenues

Our revenues increased by 4.0% from RMB723.5 million in 2020 to RMB752.7 million (US\$118.1 million) in 2021, primarily due to the following.

- Revenues from our CPaaS solutions decreased by 9.5% from RMB385.4 million in 2020 to RMB348.9 million (US\$54.7 million) in 2021, primarily due to (1) a 30.3% decrease in revenues generated from our voice call services from RMB81.6 million in 2020 to RMB56.9 million (US\$8.9 million) in 2021 as a result of decreased customer demands caused by new regulations on K-12 after-school tutoring in China, (2) a 15.1% decrease in revenues generated from our IoT services from RMB35.9 million in 2020 to RMB30.5 million (US\$4.8 million) in 2021 due to the negative impact from COVID-19 outbreak on our business operations in Japan, and (3) a 3.5% decrease in revenues generated from our text messaging services from RMB244.4 million in 2020 to RMB235.8 million (US\$37.0 million) in 2021 due to the negative impact of COVID-19 outbreak and our strategic adjustment of business operations to engage more direct selling customers with higher gross profit margin.
- Revenues from our cloud-based CC solutions increased by 21.3% from RMB227.6 million in 2020 to RMB276.1 million (US\$43.3 million) in 2021. Our recurring revenues increased by 22.1% from RMB152.9 million in 2020 to RMB186.7 million (US\$29.3 million) in 2021, primarily because we devoted more resources to our cloud-based CC solutions, partially offset by decreased usage of certain enterprise customers as they were affected by the continued impact from COVID-19 outbreak. Our project-based revenues increased by 19.8% from RMB74.7 million in 2020 to RMB89.4 million (US\$14.0 million) in 2021, primarily due to an increase in the number of projects as a result of our business expansion and acquisition of EliteCRM.
- Revenues from our cloud-based UC&C solutions increased by 16.7% from RMB107.4 million in 2020 to RMB125.4 million (US\$19.7 million) in 2021, primarily due to the increase in project scale of new customers in 2021.

Cost of revenues

Our cost of revenues remained relatively stable at RMB478.1 million and RMB480.8 million (US\$75.4 million) in 2020 and 2021, respectively, primarily due to the following.

- Cost of revenues from our CPaaS solutions decreased by 8.6% from RMB295.9 million in 2020 to RMB270.4 million (US\$42.4 million) in 2021, primarily due to (1) a 27.8% decrease in costs related to voice call services from RMB62.1 million in 2020 to RMB44.9 million (US\$7.0 million) in 2021, and (2) a 5.1% decrease in costs related to text messaging from RMB232.9 million in 2020 to RMB221.1 million (US\$34.7 million) in 2021, both of which were mainly due to the decreased usages of text messages and voice calls.
- Cost of revenues from our cloud-based CC solutions increased by 20.0% from RMB113.5 million in 2020 to RMB136.2 million (US\$21.4 million) in 2021, primarily due to (1) a 20.2% increase in cost of revenues from our subscription-based cloud-based CC solutions from RMB73.9 million in 2020 to RMB88.8 million (US\$14.0 million) in 2021 primarily as a result of increased business scale and an increase in the number of minutes of voice calls we facilitated through our solutions, and (2) a 19.6% increase in cost of revenues from our project-based cloud-based CC solutions from RMB39.6 million in 2020 to RMB47.3 million (US\$7.4 million) in 2021 primarily as a result of increased business scale.
- Cost of revenues from our cloud-based UC&C solutions increased by 10.7% from RMB66.3 million in 2020 to RMB73.3 million (US\$11.5 million) in 2021, primarily due to increased outsourcing costs for certain projects we undertook.

Gross profit

As a result of the foregoing, our gross profit increased by 10.8% from RMB245.3 million in 2020 to RMB271.9 million (US\$42.7 million) in 2021. Our gross profit margin increased from 33.9% in 2020 to 36.1% in 2021, primarily due to a greater portion of revenues generated from our cloud-based CC solutions, which typically have higher profit margins as compared to CPaaS solutions.

Operating expenses

- Research and development expenses. Our research and development expenses increased by 70.7% from RMB174.2 million in 2020 to RMB297.4 million (US\$46.7 million) in 2021, primarily due to (1) a 65.1% increase in the R&D staff expenses of RMB84.1 million (US\$13.2 million) as we recruited highly-regarded experts to develop core features and functions for our cloud-based CC solutions and cloud-based UC&C solutions, (2) a significant increase in the share-based compensation expense of RMB17.7 million (US\$2.8 million) to retain and incentivize our R&D personnel, and (3) a 59.6% increase in technology service expenses of RMB16.1 million (US\$2.5 million) for outsourcing service providers to develop certain non-core features and functions in our cloud-based UC&C solutions and cloud-based CC solutions.
- Selling and marketing expenses. Our selling and marketing expenses increased by 49.7% from RMB200.4 million in 2020 to RMB300.0 million (US\$47.1 million) in 2021, primarily due to (1) a 43.6% increase in staff expenses of RMB54.2 million (US\$8.5 million) as we continued to scale our business to reach a wider customer base, (2) a 44.9% increase in spending on advertising campaigns and marketing activities of RMB22.3 million (US\$3.5 million) to boost our brand image, and (3) a significant increase in share-based compensation expenses of RMB17.7 million (US\$2.8 million) to retain and incentivize our sales and marketing team members.
- General and administrative expenses. Our general and administrative expenses increased by 59.7% from RMB241.4 million in 2020 to RMB385.5 million (US\$60.5 million) in 2021, primarily due to (1) a 75.5% increase in share-based compensation expenses of RMB108.2 million (US\$17.0 million) to retain and incentivize our management and administrative personnel, and (2) a 45.3% increase in staff costs of RMB20.3 million (US\$3.2 million) as we continued to build our team and as we enjoyed a social insurance premium deduction in 2020 as a result of the government relief policies during the COVID-19 outbreak that was not available in 2021, partially offset by a 22.0% decrease in the provision for doubtful accounts of RMB7.5 million (US\$1.2 million) resulting from our strengthened efforts in collecting accounts receivable.
- Impairment loss of goodwill. We recorded impairment loss of goodwill of RMB149.1 million (US\$23.4 million) in 2021, as compared to nil in 2020, primarily due to the fair value of reporting unit is less than the carrying amount.
- Other operating expenses. We recorded other operating expenses of RMB51.4 million (US\$8.1 million) in 2021, as compared to nil in 2020, primarily because we expensed the prepayments as we concluded that there is a possibility that such amounts may not be fully recovered in the future according to the conservatism principle of accounting.

Operating loss

As a result of the foregoing, our operating loss increased significantly from RMB370.6 million in 2020 to RMB911.6 million (US\$143.0 million) in 2021.

Other income and expenses

- Interest expenses. Our interest expenses decreased by 89.3% from RMB3.4 million in 2020 to RMB0.4 million (US\$57,000) in 2021, primarily due to a decrease in average borrowings.
- Interest income. Our interest income increased significantly from RMB1.0 million in 2020 to RMB11.3 million (US\$1.8 million) in 2021, primarily due to an increase in average cash and term deposits.

- Impairment loss of long-term investments. We incurred impairment loss of long-term investments of RMB6.6 million (US\$1.0 million) in 2021, as compared to nil in 2020, primarily due to a non-temporary impairment of equity method investments in 2021.
- Change in fair value of long-term investments. Our change in fair value of long-term investments increased significantly from RMB11.6 million in 2020 to RMB47.2 million (US\$7.4 million) in 2021, primarily due to the fair value change of our other equity investments with an observable price in 2021.
- Change in fair value of warrant liabilities. Our change in fair value of warrant liabilities decreased from negative RMB61.5 million in 2020 to negative RMB29.0 million (US\$4.6 million) in 2021, primarily due to the fair value change of Series C warrant, Series E warrant and Series F warrant, which was exercised in March 2021, November 2020, and January 2021, respectively.
- Gain/(loss) from disposal of subsidiaries, net. We recorded gain from disposal of subsidiaries of RMB2.9 million (US\$0.5 million) in 2021, as compared to loss of RMB7.3 million in 2020.
- Foreign currency exchange gains/(losses), net. We recorded foreign currency exchange losses of RMB6.7 million (US\$1.1 million) in 2021, as compared to foreign currency exchange gain of RMB6.1 million in 2020, primarily due to fluctuations in exchange rate between U.S. dollars and Renminbi.

Income tax expense

We incurred income tax expense of RMB1.1 million and RMB11.1 million (US\$1.7 million) in 2020 and 2021, respectively.

Net loss

As a result of the foregoing, our net loss increased significantly from RMB425.2 million in 2020 to RMB904.5 million (US\$141.9 million) in 2021.

B. Liquidity and Capital Resources

In 2020, 2021 and 2022, we incurred net loss of RMB425.2 million, RMB904.5 million and RMB975.9 million (US\$141.5 million), and our net cash used in operating activities was RMB216.5 million, RMB238.1 million and RMB567.3 million (US\$82.2 million) in the same years, respectively. In 2020, 2021 and 2022, cash flow from financing activities, such as cash generated from issuance of preferred shares and long-term borrowings, and proceeds from our initial public offering, have been our principal sources of liquidity. In 2020 and 2021, net cash provided by financing activities amounted to RMB457.6 million and RMB2,444.7 million, respectively. In 2022, net cash used in financing activities was RMB52.8 million (US\$7.7 million). We recorded net cash used in investing activities of RMB95.8 million and RMB1,814.6 million in 2020 and 2021, respectively. In 2022, net cash provided by investing activities was RMB351.6 million (US\$51.0 million).

Based upon service type and our assessment of customers' credit and ongoing relationships, our payment terms typically range from 60 to 180 days after our customers have been billed. Days sales outstanding, calculated by gross accounts receivable outstanding as of the year end divided by revenues for the year and multiplied by the number of days in such year, were 130 days, 105 days and 132 days for 2020, 2021 and 2022, respectively. Our days sales outstanding increased from 105 days in 2021 to 132 days in 2022, primarily due to the extended payment cycles caused by the local outbreaks of COVID-19. We will closely monitor our outstanding accounts receivable and follow up with relevant customers on a continuous basis in order to collect overdue balances.

In February 2016, Ronglian Yitong entered into a two-year credit facility with SPD Silicon Valley Bank, or SPD, to borrow up to RMB40.0 million. In December 2017, the credit line was decreased from RMB40.0 million to RMB20.0 million, and Ronglian Yitong entered into another one-year credit facility with SPD to borrow up to RMB20.0 million. In December 2018, Ronglian Yitong entered into an additional two-year credit facility with SPD to borrow up to RMB40.0 million to support our working capital. These facilities were pledged by accounts receivable - third parties of Ronglian Yitong. As of December 31, 2019, accounts receivable - third parties and other receivables of Ronglian Yitong of RMB124.3 million, RMB8.5 million, respectively, were restricted as they were served as pledged securities to such bank borrowings under these credit facilities. The secured bank loans matured and were paid off in full in December 2020 and the accounts receivable - third parties and other receivables of Ronglian Yitong were released from pledge in the meantime. In June 2020, Beijing Ronglian Guanghui Technology Co., Ltd., Ronglian Qimo, and Beijing Ronglian Huitong Technology Information Co., Ltd., all of which are the affiliated entities in China, entered into a one-year credit facility with Bank of Beijing to borrow up to RMB3.0 million, RMB4.0 million and RMB3.0 million, respectively. In August 2020, Ronglian Yitong obtained unsecured short-term bank borrowings in the amount of RMB10.0 million from Bank of Beijing. Such bank borrowings from Bank of Beijing were paid off in full in 2021. In December 2021, we obtained secured bank loans of RMB5.5 million (US\$0.9 million) from the business acquisition of Zhuge, which were secured by the founder of Zhuge. As of December 31, 2022, we did not have short-term bank borrowings.

As of December 31, 2022, 66.7% of our cash and cash equivalents were held in China, and 19.3% were held by the VIE and denominated in Renminbi. Although we consolidate the results of the affiliated entities, we do not have direct access to the cash and cash equivalents or future earnings of the affiliated entities. However, a portion of the cash balances of the affiliated entities will be paid to us pursuant to our contractual arrangements with the affiliated entities. For restrictions and limitations on liquidity and capital resources as a result of our corporate structure, see “Item 5. Operating and Financial Review and Prospects—B. Liquidity and Capital Resources—Holding Company Structure.”

We believe that our existing cash and cash equivalents and anticipated cash flows from operating and financing activities will be sufficient to meet our anticipated working capital requirements, and capital expenditures in the ordinary course of business for the next 12 months. We may, however, require additional cash resources due to changing business conditions or other future developments, including acquisitions or investments we may decide to selectively pursue. If our existing cash resources are insufficient to meet our requirements, we may seek to issue equity or debt securities or obtain credit facilities. The issue of additional equity securities would result in further dilution to our shareholders. The incurrence of indebtedness would result in increased fixed obligations and could result in operating covenants that would restrict our operations. We cannot assure you that financing will be available in the amounts we need or on terms acceptable to us, if at all. If we are unable to obtain additional equity or debt financing as required, our business operations and prospects may suffer. See “Item 3. Key Information—D. Risk Factors—Risks Related to Our Business and Industry—We may need additional capital, and we may be unable to obtain such capital in a timely manner or on acceptable terms, or at all.”

The following table sets forth a summary of our cash flows for the years indicated.

	Year Ended December 31,			
	2020	2021	2022	
	RMB	RMB	RMB	US\$
	(in thousands)			
Net cash used in operating activities	(216,521)	(238,079)	(567,270)	(82,245)
Net cash (used in)/provided by investing activities	(95,800)	(1,814,560)	351,628	50,980
Net cash provided by/(used in) financing activities	457,641	2,444,749	(52,765)	(7,650)
Effect of foreign currency exchange rate changes on cash	(10,719)	(36,235)	138,795	20,123
Net increase/(decrease) in cash and restricted cash	134,601	355,875	(129,612)	(18,792)
Cash and restricted cash at the beginning of the year	166,401	301,002	656,877	95,238
Cash and restricted cash at the end of the year	301,002	656,877	527,265	76,446

Operating activities

Net cash used in operating activities was RMB567.3 million (US\$82.2 million) in 2022, primarily due to net loss of RMB975.9 million (US\$141.5 million), adjusted primarily by (1) non-cash items including share-based compensation of RMB107.5 million (US\$15.6 million), impairment loss of goodwill of RMB107.4 million (US\$15.6 million), provision for U.S class action of RMB83.6 million (US\$12.1 million), impairment loss of intangible asset of RMB28.0 million (US\$4.1 million) and allowance for doubtful accounts of RMB25.6 million (US\$3.7 million), (2) changes in working capital that negatively affected operating cash flow, including an increase in contract assets of RMB31.4 million (US\$4.6 million), an increase in operating lease right-of-use assets of RMB25.2 million (US\$3.6 million) primarily as we adopted new accounting policies for operating leases in January 2022 and recognized right-of-use assets and lease liabilities based on the present value of the lease payments over the lease term, and a decrease in accounts payable of RMB24.6 million (US\$3.6 million) primarily due to the decrease in advances to mobile network operators for telecommunications resources, which was in line with the decrease in our CPaaS business, and (3) changes in working capital that positively affected operating cash flow, including an increase in contract liabilities of RMB61.9 million (US\$9.0 million) primarily as a result of the increase in cash received from customers, and an decrease in prepayments and other current assets of RMB27.6 million (US\$4.0 million).

Net cash used in operating activities was RMB238.1 million in 2021, primarily due to net loss of RMB904.5 million, adjusted primarily by (1) non-cash items including share-based compensation of RMB277.6 million, impairment of goodwill of RMB149.1 million, change in fair value of long-term investments of RMB47.2 million, and change in fair value of warrant liabilities of RMB29.0 million, (2) changes in working capital that negatively affected operating cash flow, including an increase in prepayments and other current assets of RMB15.5 million primarily in relation to advances to mobile network operators for telecommunications resources, and (3) changes in working capital that positively affected operating cash flow, including an increase in contract liabilities of RMB95.0 million primarily as a result of the increase in cash received from customers, an increase in accrued expenses and other current liabilities of RMB59.3 million primarily relating to the fee recoupment by the depository bank and receipt of individual option exercise payments, a decrease in accounts receivable from third parties of RMB34.3 million primarily due to the increase in collections from customers, and an increase in accounts payable of RMB28.2 million.

Net cash used in operating activities was RMB216.5 million in 2020, primarily due to net loss of RMB425.2 million, adjusted primarily by (1) non-cash items including share-based compensation of RMB134.3 million, change in fair value of warrant liabilities of RMB61.5 million, allowance for doubtful accounts of RMB34.1 million, and change in fair value of long-term investments of RMB11.6 million, (2) changes in working capital that negatively affected operating cash flow, including an increase in accounts receivable from third parties of RMB52.9 million primarily resulting from our business growth, an increase in prepayments and other current assets of RMB23.5 million primarily in relation to advances to mobile network operators for telecommunications resources, and an increase in contract assets of RMB8.5 million, and (3) changes in working capital that positively affected operating cash flow, including an increase in contract liabilities of RMB55.6 million primarily as a result of the increase in cash received from customers, and an increase in accrued expenses and other current liabilities of RMB16.5 million.

Investing activities

Net cash provided by investing activities was RMB351.6 million (US\$51.0 million) in 2022, primarily due to cash received from maturity of term deposits of RMB5,040.3 million (US\$730.8 million), cash received from disposal of long-term investments of RMB65.0 million (US\$9.4 million) and cash received from sale of short-term investments of RMB64.8 million (US\$9.4 million), partially offset by cash paid for term deposits of RMB4,345.9 million (US\$630.1 million) and cash paid for purchase of short-term investments of RMB349.4 million (US\$50.7 million).

Net cash used in investing activities was RMB1,814.6 million in 2021, primarily due to cash paid for term deposits of RMB3,375.9 million, cash paid for business combination of RMB203.1 million, cash paid for purchase of short-term investments of RMB127.5 million, cash paid for purchase of equity method investments of RMB21.9 million and cash paid for purchase of other equity investments of RMB20.0 million, partially offset by cash received from maturity of term deposits of RMB1,926.4 million and cash received from consolidation of subsidiaries of RMB10.9 million.

Net cash used in investing activities was RMB95.8 million in 2020, primarily due to cash paid for term deposits of RMB160.3 million, partially offset by cash received from maturity of term deposits of RMB69.8 million.

Financing activities

Net cash used in financing activities was RMB52.8 million (US\$7.7 million) in 2022, primarily due to repurchase of treasury stock of RMB39.3 million (US\$5.7 million), repayment of long-term borrowings of RMB8.0 million (US\$1.2 million), and repayment for short-term bank borrowings of RMB5.5 million (US\$0.8 million).

Net cash used in financing activities was RMB2,444.7 million in 2021, primarily due to proceeds from our initial public offering of RMB2,195.8 million, subscription amounts received for Series C and E redeemable convertible preferred shares of RMB336.2 million and proceeds from the exercise of Series F warrant of RMB219.7 million, partially offset by the payables to a shareholder of the VIE of RMB230.1 million and repurchase of treasury shares of RMB68.9 million.

Net cash provided by financing activities was RMB457.6 million in 2020, primarily due to proceeds from issuance of Series F redeemable convertible preferred shares of RMB598.7 million and proceeds from short-term bank borrowings of RMB20.0 million, partially offset by repayment for long-term borrowing of RMB106.1 million, repayment for short-term bank borrowings of RMB26.8 million and cash paid to acquire subsidiaries' equity interests held by non-controlling shareholders of RMB16.1 million.

Capital Expenditures

Our capital expenditures are incurred primarily in connection with purchase of property and equipment such as computer, software and office equipment and purchase of intangible assets including software copyrights and telecommunication business licenses. Our capital expenditures were RMB6.1 million, RMB8.7 million and RMB6.8 million (US\$1.0 million) in 2020, 2021 and 2022, respectively. We intend to fund our future capital expenditures with our existing cash balance.

Holding Company Structure

We conduct our operations primarily through our subsidiaries and the affiliated entities in China. As a result, our ability to pay dividends depends upon dividends paid by our subsidiaries and fees paid by the affiliated entities. If our subsidiaries or any newly formed subsidiaries incur debt on their own behalf in the future, the instruments governing their debt may restrict their ability to pay dividends to us.

In addition, our subsidiaries in China are permitted to pay dividends to us only out of their retained earnings, if any, as determined in accordance with the Accounting Standards for Business Enterprise as promulgated by the MOF, or PRC GAAP. Under PRC law, each of our PRC subsidiaries and the affiliated entities is required to set aside at least 10% of its after-tax profits each year, if any, to fund a statutory surplus reserve until such reserve reaches 50% of its registered capital. In addition, our subsidiaries in China may allocate a portion of their after-tax profits based on PRC GAAP to enterprise expansion funds as well as staff bonus and welfare funds at its discretion, and the affiliated entities may allocate a portion of their after-tax profits based on PRC GAAP to a discretionary surplus fund at their discretion. Although the statutory reserves can be used, among other ways, to increase the registered capital and eliminate future losses in excess of retained earnings of the respective companies, the statutory reserve funds are not distributable as cash dividends.

As an offshore holding company, we are permitted under PRC laws and regulations to provide funding from the proceeds of our offshore fundraising activities to our PRC subsidiaries only through loans or capital contributions, and to the affiliated entities only through loans, in each case subject to the satisfaction of the applicable government registration and approval requirements. See "Item 3. Key Information—D. Risk Factors—Risks Related to Doing Business in China—PRC regulation of loans to and direct investment in PRC entities by offshore holding companies and governmental control of currency conversion may affect our ability to capitalize or otherwise fund our PRC operations." As a result, there is uncertainty with respect to our ability to provide prompt financial support to our PRC subsidiaries and the affiliated entities in China when needed.

Financial Information Related to the VIE

The following tables present the consolidating schedule of financial information relating to Cloopen Group Holding Limited, or the Parent, consolidated affiliated entities and non-VIE consolidated entities as of and for the years ended December 31, 2020, 2021 and 2022.

Selected consolidated statements of comprehensive loss data

Year ended December 31, 2020					
	Parent	Consolidated affiliated entities	Non-VIE consolidated entities (RMB in thousands)	Inter-company elimination	Group consolidated
Total revenues	—	699,218	198,289	(174,054)	723,453
Cost of revenues	—	(481,800)	(71,298)	74,980	(478,118)
Gross profit	—	217,418	126,991	(99,074)	245,335
Operating expenses	(120,816)	(450,107)	(147,662)	102,627	(615,958)
Operating loss	(120,816)	(232,689)	(20,671)	3,553	(370,623)
Loss before income taxes	(181,267)	(226,543)	(19,807)	3,507	(424,110)
Net loss	(181,267)	(227,670)	(19,806)	3,506	(425,237)

Year ended December 31, 2021					
	Parent	Consolidated affiliated entities	Non-VIE consolidated entities (RMB in thousands)	Inter-company elimination	Group consolidated
Total revenues	—	639,139	156,521	(42,972)	752,688
Cost of revenues	—	(427,786)	(72,085)	19,116	(480,755)
Gross profit	—	211,353	84,436	(23,856)	271,933
Operating expenses	(280,773)	(819,753)	(122,756)	39,799	(1,183,483)
Operating loss	(280,773)	(608,400)	(38,320)	15,943	(911,550)
Loss before income taxes	(280,773)	(692,550)	(12,371)	92,363	(893,331)
Net loss	(280,773)	(699,152)	(16,905)	92,379	(904,451)

Year ended December 31, 2022

	Parent	Consolidated affiliated entities	Non-VIE consolidated entities (RMB in thousands)	Inter-company elimination	Group consolidated
Total revenues	—	636,320	52,911	(95,597)	593,634
Cost of revenues	—	(324,465)	(137,686)	94,817	(367,334)
Gross profit	—	311,855	(84,775)	(780)	226,300
Operating expenses	(238,074)	(860,969)	(109,776)	8,375	(1,200,444)
Operating loss	(238,074)	(549,114)	(194,551)	7,595	(974,144)
Loss before income taxes	(238,074)	(548,206)	(194,782)	4,821	(976,241)
Net loss	(238,074)	(544,042)	(198,605)	4,822	(975,899)

Selected consolidated balance sheets data

As of December 31, 2020

	Parent	Consolidated affiliated entities	Non-VIE consolidated entities (RMB in thousands)	Inter-company elimination	Group consolidated
Total current assets	161,852	376,751	903,024	(644,626)	797,001
Total non-current assets	305,094	65,000	9,380	(309,653)	69,821
Total assets	466,946	441,751	912,404	(954,279)	866,822
Total current liabilities	273,738	1,249,590	129,515	(981,933)	670,910
Total non-current liabilities	9,644	185	—	6	9,835
Total liabilities	283,382	1,249,775	129,515	(981,927)	680,745
Total mezzanine equity	2,789,401	—	—	—	2,789,401
Total shareholders' deficit attributable to Cloopen Group Holding Limited	(2,605,837)	(804,670)	777,022	27,648	(2,605,837)
Non-controlling interests	—	(3,354)	5,867	—	2,513
Total liabilities, mezzanine equity and shareholders' deficit	466,946	441,751	912,404	(954,279)	866,822

As of December 31, 2021

	Parent	Consolidated affiliated entities	Non-VIE consolidated entities (RMB in thousands)	Inter-company elimination	Group consolidated
Total current assets	1,512,815	776,119	2,287,193	(1,865,062)	2,711,065
Total non-current assets	850,554	312,531	1,350	(849,261)	315,174
Total assets	2,363,369	1,088,650	2,288,543	(2,714,323)	3,026,239
Total current liabilities	57,033	1,977,013	1,215,603	(2,548,902)	700,747
Total non-current liabilities	—	14,883	2,004	3,334	20,221
Total liabilities	57,033	1,991,896	1,217,607	(2,545,568)	720,968
Total shareholders' deficit attributable to Cloopen Group Holding Limited	2,306,336	(902,181)	1,070,936	(168,755)	2,306,336
Non-controlling interests	—	(1,065)	—	—	(1,065)
Total liabilities and shareholders' equity	2,363,369	1,088,650	2,288,543	(2,714,323)	3,026,239

As of December 31, 2022

	Parent	Consolidated affiliated entities	Non-VIE consolidated entities (RMB in thousands)	Inter-company elimination	Group consolidated
Total current assets	840,910	562,506	2,919,642	(2,175,169)	2,147,889
Total non-current assets	857,362	526,144	419,965	(1,638,269)	165,202
Total assets	1,698,272	1,088,650	3,339,607	(3,813,438)	2,313,091
Total current liabilities	135,054	2,558,058	(488,308)	(1,460,298)	744,506
Total non-current liabilities	—	6,262	2,381	—	8,643
Total liabilities	135,054	2,564,320	(485,927)	(1,460,298)	753,149
Total shareholders' deficit attributable to Cloopen Group Holding Limited	1,563,218	1,091,926	1,261,214	(2,353,140)	1,563,218
Non-controlling interests	—	—	—	—	(3,276)
Total liabilities and shareholders' equity	—	1,088,650	3,339,607	(3,813,438)	2,313,091

Selected consolidated statements of cash flows data

Year ended December 31, 2020

	Parent	Consolidated affiliated entities	Non-VIE consolidated entities (RMB in thousands)	Inter-company elimination	Group consolidated
Net cash used in operating activities	(1,574)	(20,582)	(315,020)	120,655	(216,521)
Net cash used in investing activities	(598,404)	(32,260)	—	534,864	(95,800)
Net cash provided by financing activities	602,202	(6,838)	438,749	(576,472)	457,641

Year ended December 31, 2021

	Parent	Consolidated affiliated entities	Non-VIE consolidated entities (RMB in thousands)	Inter-company elimination	Group consolidated
Net cash used in operating activities	(13,099)	(174,049)	(644,927)	593,998	(238,077)
Net cash used in investing activities	(1,397,584)	(275,719)	(267,779)	126,520	(1,814,562)
Net cash provided by financing activities	2,685,674	579,690	1,371,923	(2,192,537)	2,444,750

Year ended December 31, 2022

	Parent	Consolidated affiliated entities	Non-VIE consolidated entities (RMB in thousands)	Inter-company elimination	Group consolidated
Net cash used in operating activities	(290,137)	(574,227)	(215,296)	512,390	(567,270)
Net cash provided by investing activities	(335,194)	26,940	(15,224)	675,106	351,628
Net cash used in financing activities	(47,474)	437,759	148,688	(591,738)	(52,765)

Off-Balance Sheet Arrangements

We have not entered into any financial guarantees or other commitments to guarantee the payment obligations of any third parties. We have not entered into any derivative contracts that are indexed to our shares and classified as shareholder's equity or that are not reflected in our consolidated financial statements. Furthermore, we do not have any retained or contingent interest in assets transferred to an unconsolidated entity that serves as credit, liquidity or market risk support to such entity. We do not have any variable interest in any unconsolidated entity that provides financing, liquidity, market risk or credit support to us or engages in leasing, hedging or product development services with us.

Commitments

The following table sets forth our contractual obligations as of December 31, 2022.

	Total		Year Ending December 31,	
	RMB	US\$	2023	2024 and tereafter
			RMB	RMB
			(in thousands)	
Purchase commitments*	16,681	2,419	14,945	1,736

* Relates to purchase of software and equipment. The purchase commitments are contracted but not yet reflected in the consolidated financial statements as of December 31, 2022.

Save as disclosed above, we did not have any significant capital or other commitments, long term obligations or guarantees as of December 31, 2022.

C. Research and Development, Patents and Licenses, etc.

See “Item 4. Information on the Company—B. Business Overview—Research and Development” and “Item 4. Information on the Company—B. Business Overview—Intellectual Property.”

D. Trend Information

Other than as disclosed in this annual report, we are not aware of any trend, uncertainty, demand, commitment or event for the year of 2022 that are reasonably likely to have a material adverse effect on our revenues, income, profitability, liquidity or capital resources, or that caused the disclosed financial information to be not necessarily indicative of future operating results or financial condition.

E. Critical Accounting Estimates

We prepared the consolidated financial statements in accordance with U.S. GAAP. When reviewing our financial statements, you should consider our selection of critical accounting policies, our judgments and other uncertainties affecting our applications of those policies and the sensitivity of reported results to changes of such policies, judgments and uncertainties. We believe the following accounting policies involve the most significant judgments and estimates used in the preparation of our financial statements. You should read the following descriptions of critical accounting policies, judgments and estimates in conjunction with our consolidated financial statements and other disclosures included in this annual report.

Revenue recognition

We account for our revenue contracts in accordance with ASC Topic 606, Revenue from Contracts with Customers (ASC 606). According to ASC 606, revenue is recognized when control of the promised goods or services is transferred to the customers, in an amount that reflects the consideration we expect to be entitled to in exchange for those goods or services. We determine revenue recognition through the following steps: (1) identify the contract(s) with a customer, (2) identify the performance obligations in the contract, (3) determine the transaction price, (4) allocate the transaction price to the performance obligations in the contract, and (5) recognize revenue when (or as) the entity satisfies a performance obligation.

We generate substantially all of our revenues from the following services and products:

- 1) CPaaS, which allows customers to send text messages and place voice calls using our cloud-based platform;
- 2) Cloud-based CC, with which customers can operate their virtual contact centers and access related value-added services using our cloud-based platform; and
- 3) Cloud-based UC&C, where we create customized communications software on customers’ private clouds to meet their specific needs and deliver the software licenses to customers.

We recognize revenue upon the transfer of control of promised products or services provided to our customers, in the amount of consideration we expect to receive for those products or services (excluding sales taxes collected on behalf of government authorities). Our revenue contracts generally do not include a right of return in relation to the delivered products or services.

The timing of revenue recognition may differ from the timing of invoicing to our customers. We record a contract asset when revenue is recognized prior to invoicing, and a contract liability when payment is received from a customer in advance of revenue recognition. We generally issue invoices based on contract terms, which may be when the services are completed, upon customer acceptance of our deliverables or at preset milestones. Payments are due with standard payment terms which are generally not more than 90 days from invoice issuance.

CPaaS revenues

We account for revenue from customers' usage of text message and voice call services on our CPaaS platform as two separate performance obligations. Our service fees are determined by applying the contractual unit price to the monthly usage volume of text messages sent or minutes of voice calls placed and a contractual monthly fixed charge per subscriber multiplied by the number of subscribers recorded by our CPaaS platform where relevant. The cloud-based services to send text messages and place voice calls are sold separately to customers with observable standalone selling prices.

We also provide services as an agent in provision of CPaaS platforms to customers. We have identified one performance obligation and recognized the revenues, on a monthly basis, at the amount equal to the difference between the amount charged to the customers and the amount charged by telecommunication operators.

The service contracts are generally with a length between three and 12 months and renewable at the latest fee rates of the renewed contract services on the contract renewal date. The option of renewal does not provide the customer with a material right that it otherwise could not obtain without entering into that contract, therefore the renewal option was not recognized as a separate performance obligation in the contract. The service contracts do not grant us or customers a unilateral right to terminate the contracts before completion.

Cloud-based CC revenues

Customers subscribe to our basic cloud-based CC services at a fixed monthly fee and pay for other value-added services on a usage basis. We recognize the monthly service fees ratably over the contract period during which we are obligated to grant customers continuous access to those basic cloud-based CC services. Revenue for other value-added services on top of the basic subscription is determined by applying the contractual unit price to the monthly usage volume and recognized when the related services are provided to customers. The basic subscription is sold to customers at the same price with or without the value-added services, so the transaction price is allocated on the basis of observable stand-alone selling prices.

The service contracts are generally with a length between three and 12 months and renewable at the latest fee rates of the renewed contract services on the contract renewal date. The option of renewal does not provide customers with a material right that it otherwise could not obtain without entering into that contract, therefore the renewal option was not recognized as a separate performance obligation in the contract. The service contracts do not grant us or customers a unilateral right to terminate the contracts before completion.

We also offer customized cloud-based CC solutions to customers with tailored functionalities and interfacing capabilities suitable to their complicated IT environment. We have identified that the nature of our overall promise to customers as the provision of an appropriately customized and interfaced software solution comprising the customized CC license and other highly interdependent and interrelated services, and have accounted for the promise as one combined performance obligation. We apply an iterative process to design, test and implement the software in customers' IT environment and recognizes revenue for this performance obligation over a period of time during which the control of the customized cloud-based CC solution is progressively transferred to the customers. We use an input method to estimate progress, based on the proportion of the labor hours incurred relative to the estimated total labor hours. We also offer standard or non-complex cloud-based CC solutions to customers, and have identified one performance obligation in the agreement and recognized revenue upon delivery of standard software. Our cloud-based CC contracts generally include a standard assurance-type warranty.

Cloud-based UC&C revenues

We offer customized cloud-based UC&C solutions to customers with tailored functionalities and interfacing capabilities suitable to their complicated IT environment. We have identified that the nature of our overall promise to customers as the provision of an appropriately customized and interfaced software solution comprising the customized UC&C license and other highly interdependent and interrelated services, and have accounted for the promise as one combined performance obligation. We apply an iterative process to design, test and implement the software in customers' IT environment and recognize revenue for this performance obligation over a period of time during which the control of the customized UC&C solution is progressively transferred to the customers. We use an input method to estimate progress, based on the proportion of the labor hours incurred relative to the estimated total labor hours. We also offer standard or non-complex cloud-based UC&C solutions to customers, and have identified one performance obligation in the agreement and recognized revenue upon delivery of standard software. Our cloud-based UC&C contracts generally include a standard assurance-type warranty.

Share-based compensation

Share-based awards granted to the founders and employees in the form of restricted shares are measured at the grant date fair value of the awards, and are recognized as compensation expense using the graded-vesting schedules over the requisite service period for each separately vesting portion (or tranche) of the award. We elect to recognize the effect of forfeitures in compensation cost when they occur. To the extent the required vesting conditions are not met resulting in the forfeiture of the share-based awards, previously recognized compensation expense relating to those awards is reversed.

Share-based compensation in relation to the restricted ordinary shares is measured based on the fair value of our ordinary shares at the award grant date, which is estimated using the income approach and equity allocation method. Estimating the fair value of our ordinary shares involves significant assumptions that might not be observable in the market, and a number of complex and subjective variables, discount rate, risk-free interest rate and subjective judgments regarding our projected financial and operating results, our unique business risks, the liquidity of our ordinary shares and our operating history and prospects at the time of the grant. Share-based compensation in relation to the share options is estimated using the binomial option pricing model. The determination of the fair value of share options is affected by the price of our ordinary shares as well as the assumptions regarding a number of complex and subjective variables, including the expected share price volatility, risk-free interest rate, exercise multiple and expected dividend yield. The fair value of these awards was determined by our management with the assistance from a valuation report prepared by an independent valuation firm using our management's estimates and assumptions.

In January 2017, we adopted the 2016 Plan. Under the 2016 Plan, we granted 7,700,228, 5,355,499 and nil share options to our directors, officers and employees for 2020, 2021 and 2022, respectively. In January 2021, we adopted the 2021 Plan, under which restricted share units to purchase 9,783,899 Class A ordinary shares have been granted as of the date of this annual report, excluding those repurchased. See "Item 6. Directors, Senior Management and Employees—B. Compensation—Share Incentive Plans" for more information in respect of the key terms of the 2016 Plan and the 2021 Plan and the outstanding options granted under such plans as of the date of this annual report. Further, in connection with the acquisition of EliteCRM in March 2021, we issued 2,411,177 Class A ordinary shares in the form of restricted shares as equity awards to certain management members of EliteCRM. In addition, in connection with the acquisition of Zhuge in December 2021, we issued 468,455 Class A ordinary shares in the form of restricted shares as equity awards to certain management members of Zhuge (excluding those repurchased pursuant to performance target adjustments). These restricted shares were issued under a private placement pursuant to an exemption or exclusion from the registration requirements under the Securities Act, subject to certain vesting schedule and forfeiture to the extent any share remains unvested in case of early termination of employment.

The weighted average grant date fair value of the share options granted was US\$2.24, US\$6.19 and nil for 2020, 2021 and 2022, respectively. The fair values of the options granted are estimated on the dates of grant using the binomial option pricing model with the following assumptions used.

	Year Ended December 31,	
	2020	2021
Risk-free rate of return(1)	0.61%-1.88%	1.06%-1.57%
Volatility(2)	48.21%-49.36%	48.76%-49.21%
Expected dividend yield(3)	0%	0%
Exercise multiple(4)	2.20	2.20
Fair value of underlying ordinary share	US\$1.30- US\$3.12	US\$1.45- US\$16.70
Expiration terms(5)	10 years	10 years

- (1) We estimate risk-free interest rate based on the yield to maturity of U.S. treasury bonds denominated in U.S. dollars for a term consistent with the expected term of our options in effect at the option valuation date.
- (2) We estimate expected volatility based on the historical volatility of comparable peer public companies with a time horizon close to the expected term of our options.
- (3) Expected dividend yield is zero as we do not anticipate any dividend payments in the foreseeable future.
- (4) We estimate the expected exercise multiple as the average ratio of the stock price to the exercise price of when our employees will decide to voluntarily exercise their vested options. As we did not have sufficient information of past employee exercise history, it was estimated by referencing to a widely-accepted academic research publication.
- (5) Expiration term is the contract life of the options.

In 2020, 2021 and 2022, we recorded share-based compensation expenses of RMB134.2 million, RMB277.6 million and RMB107.5 million (US\$15.6 million) related to our share options, restricted shares, ordinary shares issued to management employees to acquire their equity interests in majority-owned subsidiaries and waiver of subscription receivable due from Mr. Changxun Sun. The following table sets forth the breakdown of our share-based compensation expenses both in absolute amount and as a percentage of total share-based compensation expenses in the years indicated.

	Year Ended December 31,					
	2020		2021		2022	
	RMB	%	RMB	%	US\$	%
	(in thousands, except for percentages)					
Cost of revenues	761	0.6	507	0.2	(621)	(0.6)
Research and development expenses	909	0.7	18,564	6.7	(5,953)	(5.5)
Selling and marketing expenses	3,467	2.6	21,150	7.6	510	0.5
General and administrative expenses	129,126	96.2	237,395	85.5	113,526	105.6
Total	134,263	100.0	277,616	100.0	107,462	100.0

Recent Accounting Pronouncements

For detailed discussion on recent accounting pronouncements, see Note 2(kk) to our consolidated financial statements included elsewhere in this annual report.

Taxation

Cayman Islands

We are incorporated in the Cayman Islands. The Cayman Islands currently levies no taxes on individuals or corporations based upon profits, income, gains or appreciation and there is no taxation in the nature of inheritance tax or estate duty. There are no other taxes likely to be material to us levied by the government of the Cayman Islands except for stamp duties which may be applicable on instruments executed in, or after execution, brought within the jurisdiction of the Cayman Islands. In addition, the Cayman Islands does not impose withholding tax on dividend payments.

Hong Kong

Under the current Hong Kong Inland Revenue Ordinance, our Hong Kong subsidiary is subject to Hong Kong Special Administrative Region profits tax at the rate of 16.5% on its taxable income generated from the operations in Hong Kong. Payments of dividends by the Hong Kong subsidiary to the Company is not subject to withholding tax in Hong Kong. A two-tiered profits tax rates regime was introduced in 2018 where the first HK\$2.0 million of assessable profits earned by a company will be taxed at half of the current tax rate at 8.25%, whilst the remaining profits will continue to be taxed at 16.5%. There is an anti-fragmentation measure where each group will have to nominate only one company in the group to benefit from the progressive rates. No provision for Hong Kong profits tax has been made in the financial statements as the subsidiary in Hong Kong has no assessable profits for the years ended December 31, 2020, 2021 and 2022.

Japan

Our Japan subsidiary, Cloopen Japan Co., Ltd., is subject to Japanese corporation tax (including national corporation tax, local enterprise tax and other income-based taxes) on its worldwide income. The statutory effective tax rate is approximately 30% to 34%, depending on the size of the company.

Dividends paid by a Japanese company are generally subject to Japanese withholding tax. If the Japanese company paying dividends is a non-listed company and the payee is a non-resident of Japan, the rate of such withholding tax is 20.42% under Japanese tax law. We enjoy preferential withholding tax rate of 10% under Japan-China tax treaty.

PRC

Our PRC subsidiaries and affiliated entities are subject to the EIT Law and are taxed at the statutory income tax rate of 25%, unless otherwise specified. Certain of the affiliated entities were recognized as HNTEs and were entitled to a preferential enterprise income tax rate of 15%. The HNTE status is subject to annual evaluation and a requirement that relevant entities re-apply for HNTE status every three years.

Our PRC subsidiaries and affiliated entities are subject to value added tax, or VAT. Revenues from providing cloud communication services and communication devices sales are generally subject to VAT at the rate of 6% and 13% since April 1, 2019, or 6% and 16% between May 1, 2018 and April 1, 2019, or 6% and 17% before May 1, 2018, and subsequently paid to PRC tax authorities after netting input VAT on purchases. The excess of output VAT over input VAT is reflected in accrued expenses and other current liabilities, and the excess of input VAT over output VAT is reflected in prepayments and other current assets in the consolidated balance sheets.

The EIT law imposes a withholding income tax of 10% on dividends distributed by a foreign investment enterprise, or FIE, to its immediate holding company outside of China, if such immediate holding company is considered as a non-resident enterprise without any establishment or place within China or if the received dividends have no connection with the establishment or place of such immediate holding company within China, unless such immediate holding company's jurisdiction of incorporation has a tax treaty with China that provides for a different withholding arrangement. The Cayman Islands, where we are incorporated, does not have such tax treaty with China. According to the arrangement between Mainland China and Hong Kong Special Administrative Region on the Avoidance of Double Taxation and Prevention of Fiscal Evasion in August 2006, dividends paid by an FIE in China to its immediate holding company in Hong Kong will be subject to withholding tax at a rate of no more than 5% if the immediate holding company in Hong Kong owns directly at least 25% of the shares of the FIE and could be recognized as a beneficial owner of the dividend from PRC tax perspective. We did not record any dividend withholding tax, as our PRC subsidiaries and affiliated entities have not retained earnings in any of the periods presented.

The EIT Law also provides that an enterprise established under the laws of a foreign country or region but whose “*de facto* management body” is located in the PRC be treated as a resident enterprise for PRC tax purposes and consequently be subject to the PRC income tax at the rate of 25% for its global income. The Implementing Rules of the EIT Law define the location of the “*de facto* management body” as “the place where the exercising, in substance, of the overall management and control of the production and business operation, personnel, accounting, property, etc., of a non-PRC enterprise is located.” Based on a review of surrounding facts and circumstances, we believe that our operations outside the PRC will unlikely be considered a “resident enterprise” for PRC tax purposes. If our holding company in the Cayman Islands or any of our subsidiaries outside of China were deemed to be a “resident enterprise” under the EIT Law, it would be subject to enterprise income tax on its worldwide income at a rate of 25%. See “Item 3. Key Information—D. Risk Factors—Risks Related to Doing Business in China—If we are classified as a PRC resident enterprise for PRC income tax purposes, such classification could result in unfavorable tax consequences to us and our non-PRC shareholders or the ADSs holders.”

ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES

A. Directors and Executive Officers

In May 2022, each of Mr. Ching Chiu and Mr. Yunhao Liu resigned as an independent director of our company. In the meantime, Mr. Adam J. Zhao and Mr. Tim Yimin Liu agreed to be and were appointed as successor independent directors to serve on our board.

In November 2023, each of Mr. Changxun Sun, Mr. Yipeng Li, Mr. Xiegang Xiong, Mr. Kui Zhou and Mr. Qingsheng Zheng resigned as a director of our company, and Mr. Pengfei Yuan, Mr. Ye Yuan, Mr. Lei Du, Mr. Yuanqi Wang, Mr. Ming Zhao and Mr. Zi Yang agreed to be and were appointed as new directors to serve on our board.

In August 2024, Mr. Lei Du resigned as a director of our company, and Mr. Qingsheng Zheng agreed to be and was appointed as a new director to serve on our board.

The following table sets forth information regarding our directors and executive officers as of the date of this annual report.

Directors and Executive Officers	Age	Position/Title
Changxun Sun	48	Chief executive officer
Yipeng Li	47	Chief financial officer
Xiegang Xiong	54	Chief product officer and chief technology officer
Cheng Luo	41	Chairman of the board, director and chief executive officer assistant
Pengfei Yuan	41	Director and financial director
Qingsheng Zheng	47	Director
Ye Yuan	42	Director
Yuanqi Wang	31	Director
Ming Zhao	49	Director
Zi Yang	39	Director
Adam J. Zhao	56	Independent director
Tim Yimin Liu	48	Independent director
Ziguang Gao	42	Independent director

Changxun Sun is our founder and has served as our chief executive officer since our inception. Mr. Sun served as our chairman of board of directors from our inception to November 2023. Prior to founding our company, Mr. Sun served as the chief engineer and vice president of research and development of Beijing Hisunray Information Technology Co., Ltd. from August 2000 to August 2013. From July 1998 to August 2000, Mr. Sun served as a software engineer at the research and development center of PCI-Suntek Technology Co. Ltd. (SHEX: 600728). Mr. Sun received his bachelor’s degree in mathematics from Huazhong University of Science and Technology in 1998, and an MBA from Tsinghua University in 2009.

Yipeng Li has served as our chief financial officer since May 2020. Mr. Li served as our director from February 2021 to November 2023. Mr. Li has also served as an independent director and chairman of audit committee of the board of Lizhi Inc. (Nasdaq: LIZI) since January 2020. Prior to joining us, Mr. Li served as the chief financial officer of Sunlands Technology Group (NYSE: STG) from September 2017 to April 2020. Mr. Li served as the chief financial officer of Alibaba Health Information Technology Limited (HKEx: 241), a subsidiary of Alibaba Group, from September 2015 to September 2017. Prior to that, he was the chief financial officer at Jiuxian.com, a leading online platform for alcohol offerings from March 2015 to August 2015. From June 2010 to February 2015, Mr. Li served as the vice president of iQIYI, Inc. (Nasdaq: IQ), in charge of its financial and legal department. Mr. Li received his bachelor's degree in accounting from Simon Fraser University in 2002. Mr. Li is a member of Chinese Institution of Certified Public Accountants.

Xiegang Xiong has served as our chief product officer since November 2018 and our chief technology officer since May 2020. Mr. Xiong served as our director from February 2021 to November 2023. Prior to joining us, Mr. Xiong served as the chief technology officer of Avaya Greater China from April 2012 to October 2018. From May 2000 to March 2012, Mr. Xiong served as a product director at the UC&C product department of Cisco China. From April 1999 to April 2000, Mr. Xiong served as a system engineer manager of Lucent Technologies, Inc. Mr. Xiong received his bachelor's degree in exploration engineering from Chengdu University of Technology in July 1992, and his master's degree in exploration engineering from China University of Geosciences in July 1995.

Cheng Luo has served as our director since February 2021 and our chairman of the board of directors since November 2023. Mr. Luo has served as our chief executive officer assistant since June 2015. Prior to joining us, Mr. Luo served various positions at Jinlao Group, Linkus Digiwork, Attention Communication Group and ZenithOptimedia, focusing on brand and public relations management. Mr. Luo received his bachelor's degree in law from Peking University in June 2004.

Pengfei Yuan has served as our financial director since November 2014 and as our director since November 2023. Prior to joining us, Mr. Yuan served as the financial manager at the finance department of Dongtian Fashion (Beijing) Culture Communications Co., Ltd. from December 2013 to November 2014. Mr. Yuan served as the budget director at the finance department of China Putian Information Industry Co., Ltd. from October 2011 to November 2013. Mr. Yuan also served as a senior consultant at CaseWare Software Development (Beijing) Co., Ltd. from August 2010 to September 2011, and a senior auditor at Baker Tilly China Certified Public Accountants from November 2005 to August 2010. Mr. Yuan received his bachelor's degree in accounting from Beijing Forestry University in July 2006. Mr. Yuan is a member of Chinese Institution of Certified Public Accountants.

Qingsheng Zheng has served as our director since August 2024. Mr. Zheng previously served as our director since February 2015 to November 2023. Mr. Zheng has served as a partner at HongShan since October 2014, focusing on investments in consumer internet and enterprise. Prior to joining HongShan, Mr. Zheng served as a partner and director of Trustbridge from 2007 to 2014. Mr. Zheng also worked for Shanda Interactive, BearingPoint, IBM and PwC from 1999 to 2007. Mr. Zheng received his bachelor's degree in economics from Fudan University in 1999.

Ye Yuan has served as our director since November 2023. He has served as a vice president at HongShan since October 2019. Prior to joining HongShan, Mr. Yuan worked as a managing director at Zhongrong International Trust Co. Ltd. from October 2013 to October 2019. From July 2011 to October 2013, Mr. Yuan served as a vice investment director at JD Capital. Mr. Yuan received his master's degree in financial economics from Erasmus Universiteit Rotterdam in the Netherlands in 2008.

Yuanqi Wang has served as our director since November 2023. He has served as a director of cross-border operations of Hunan Hisun Mobile Pay IT Limited since March 2023. From December 2021 to February 2023, Mr. Wang served as a product manager of Beijing Hisunray Information Technology Co., Ltd. Prior to that, Mr. Wang served as a research and development specialist at Houghton Street Media Co., Ltd. from March to November 2021. From July 2018 to March 2021, Mr. Wang served as an investment associate at JIC Huawei Investment Limited. Mr. Wang received his bachelor's degree in economics from Peking University in July 2015, and his master's degree in management from Tsinghua University in July 2018.

Ming Zhao has served as our director since November 2023. He has served in various positions at Hi Sun Advanced Business Solutions (BJ) Ltd. since January 2003, with his current role as the chairman of the board of directors. Prior to that, Mr. Zhao served as a branch general manager at the Shenzhen Branch of Aude Computer Systems Co., Ltd. from June 2000 to January 2003. Mr. Zhao also served as an independent director of China Science Publishing & Media Ltd. (SHEX: 601858) from February 2018 to February 2023. Mr. Zhao received his bachelor's degree in engineering from Anhui University in July 2000, master's degree in management science and engineering from Chinese Academy of Science in July 2012, and doctorate degree in management science and engineering from Chinese Academy of Science in July 2016.

Zi Yang has served as our director since November 2023. He has served as a legal counsel of Trustbridge Partners since March 2018. Prior to joining Trustbridge, Mr. Yang served as a senior associate of Fangda Partners from August 2014 to March 2018. From June 2013 to August 2014, Mr. Yang served as an in-house legal counsel of Green Woods Assets. Mr. Yang also served as a lawyer of JunHe Law Offices from September 2011 to June 2013. Mr. Yang served as our director from July 2019 to February 2021. Mr. Yang received his bachelor's degree in law in 2008 and master's degree in law in 2011 from East China University of Political Science and Law, and his LL.M from University of Wisconsin-Madison in 2010.

Adam J. Zhao has served as our independent director since May 2022. Mr. Zhao served as the chief financial officer and board secretary of PapayaMobile from January 2015 to February 2021. Prior to joining PapayaMobile, Mr. Zhao served as the chief financial officer and board secretary of Country Style Cooking Restaurant Chain Co., Ltd., a prior NYSE-listed company, from January 2012 to November 2014. Prior to that, Mr. Zhao served as a vice president of Ninetowns Internet Technology Group Company Limited, a prior Nasdaq-listed company, from August 2007 to December 2011. From 2004 to 2007, Mr. Zhao was the chief financial officer of Digital Media Group, which was acquired by VisionChina Media Inc., a prior Nasdaq-listed company. Mr. Zhao's earlier experiences included portfolio management positions at New Hope Capital and serving as an investment director at a Hong Kong investment company. Mr. Zhao also served as an independent director of Jumei International Holding Limited, a prior NYSE-listed company, from 2015 to 2020, and an independent director of eLong, Inc, a prior Nasdaq-listed company, from 2015 to 2018. Mr. Zhao received his bachelor's degree in economics from Beijing International Studies University in 1989 and his MBA from University of Illinois at Chicago in 2003.

Tim Yimin Liu has served as our independent director since May 2022. Mr. Liu has served as a partner at Global Law Office since July 2020. Before joining Global Law Office, Mr. Liu served as a partner of Beijing DHH Law Firm from May 2018 to June 2020. From September 2013 to May 2018, Mr. Liu served as an in-house legal counsel of the China subsidiary of Accenture plc (NYSE: ACN). Mr. Liu worked with Morrison & Foerster, Clifford Chance, Nixon Peabody and Mori Hamada & Matsumoto in his early years of legal practice. Mr. Liu received his bachelor's degree in English Language and Literature from Sichuan International Studies University in 1999. Mr. Liu received his LL.B. degree in Chinese laws from Tsinghua University in 2002, his LL.M. degree in corporate laws from New York University School of Law in 2007. Mr. Liu went to Cheung Kong Graduate School of Business for MBA in Finance program in 2011.

Ziguang Gao has served as our independent director since May 2021. Mr. Gao has served various positions at Xiaomi Corporation (HKEX: 1810), including vice president, since February 2014. Prior to that, Mr. Gao served various positions at Tencent (HKEX: 700) from August 2004 to January 2014, including engineer, expert engineer and project manager, focusing on products including QQ, Soso, Tencent Weibo and WeSee. Mr. Gao received his bachelor's degree in computer science and technology from Xi'an Jiaotong University in July 2004 and an MBA from Tsinghua University in July 2010.

The business address of our directors and executive officers is 16/F, Tower A, Fairmont Tower, 33 Guangshun North Main Street, Chaoyang District, Beijing, the PRC. No family relationship exists between any of our directors and executive officers.

B. Compensation

Compensation of Directors and Executive Officers

For 2022, the aggregate cash compensation to directors and executive officers was approximately RMB10.2 million (US\$1.5 million). This amount consisted only of cash and did not include any share-based compensation or benefits in kind. Each of our directors and officers is entitled to reimbursement for all necessary and reasonable expenses properly incurred in the course of employment or service. We have not set aside or accrued any amount to provide pension, retirement or other similar benefits to our executive officers and directors, except that our PRC subsidiaries, the VIE and its subsidiaries are required by law to make contributions equal to certain percentages of each employee's salary for his or her pension insurance, unemployment insurance, maternity insurance, work-related injury insurance and medical insurance, as well as housing fund. Our board of directors may determine compensation to be paid to the directors and the executive officers. The compensation committee will assist the directors in reviewing and approving the compensation structure for the directors and the executive officers.

For information regarding share awards granted to our directors and officers, See “—Share Incentive Plans.”

Share Incentive Plans

2016 share incentive plan

In January 2017, our board of directors approved and adopted the 2016 share incentive plan, or the 2016 Plan. The 2016 Plan is intended to promote our success and shareholder value by attracting, motivating and retaining selected employees and other eligible participants through the awards.

The maximum aggregate number of Class A ordinary shares which may be issued pursuant to all awards under the 2016 Plan is 29,525,465. As of the date of this annual report, options to purchase an aggregate of 26,219,285 Class A ordinary shares have been granted under the 2016 Plan, excluding those repurchased, among which

- options to purchase 18,839,902 Class A ordinary shares granted to certain employees were exercised on January 25, 2021, which may be repurchased by our company in case of termination of employment;
- options to purchase 3,645,942 Class A ordinary shares granted to certain employees were subsequently exercised; and
- options to purchase 3,733,441 Class A ordinary shares are still outstanding, with exercise prices ranging from US\$0.147 to US\$0.38 per share.

The 18,839,902 Class A ordinary shares issued upon exercise of the options on January 25, 2021 include options granted to certain management members to purchase 6,410,750 Class A ordinary shares, and are subject to restrictions on transfer during their respective original vesting periods and may be repurchased by our company at the original exercise price to the extent any remains unvested in case of termination of employment.

As of the date of this annual report, among 18,839,902 Class A ordinary shares issued upon exercise of the options, (1) 70,630 Class A ordinary shares are still subject to restrictions and will remain in effect subject to the original vesting schedule, and (2) all the remaining 18,769,272 Class A ordinary shares have become unrestricted under their respective original vesting schedules as of the date of this annual report.

For discussions of our accounting policies and estimates for awards granted pursuant to the 2016 Plan, See “Item 5. Operating and Financial Review and Prospects—A. Operating Results—Critical Accounting Policies and Estimates—Share-based compensation.”

The following paragraphs summarize the principal terms of the 2016 Plan.

Types of awards. The 2016 Plan permits the award of options, or restricted shares.

Eligibility. The 2016 Plan provides for the grant of awards to, among others, employees, directors or consultants of our company, or employees, directors or consultants of our related entities, such as a subsidiary corporation.

Administration. Subject to the terms of the 2016 Plan, the 2016 Plan will be administered by our board of directors, or one or more committees as appointed by our board of directors, comprising at least one member of the board of directors.

Award agreements. Awards granted under the 2016 Plan are evidenced by an award agreement that sets forth terms, conditions and limitations for each award, which may include the term of the award, the provisions applicable in the event that the grantee's employment or service terminates, and our authority to unilaterally or bilaterally amend, modify, suspend, cancel or rescind the award.

Vesting schedule and price. In general, the plan administrator determines the vesting schedule, which is specified in the relevant award agreement. The plan administrator will have sole discretion in approving and amending the terms and conditions of awards including, among others, exercise or purchase prices, the number of shares granted, vesting and exercise schedules and acceleration provisions, as applicable, which are stated in the award agreement.

Compliance with law. An award may not be exercised nor may any shares be issued thereunder unless the exercise and issuance comply with all applicable laws.

Transferability. An award may not be transferred, except provided in the 2016 Plan, such as transfers by will or by laws of descent or distribution, or as provided in the relevant award agreement or otherwise determined by the plan administrator.

Changes to capitalization. In the event of share splits, combinations, exchanges and other specified changes in our capital structure not involving the receipt of consideration by us, the 2016 Plan provides for the proportional adjustment of the number and class of shares reserved under the 2016 Plan and the number, class and price of shares, if applicable, of all outstanding awards.

Merger or change in control transactions. In the event of a change in control, as defined in the 2016 Plan, each outstanding and unvested award will be treated as the plan administrator deems appropriate, including that the awards may be assumed or substituted, or fully cancelled for no consideration, and each outstanding and vested award will be treated, at the discretion of the plan administrator, in one or more of the manners including assumed or substituted with options or shares of the surviving company or cancelled for cash at the amount equal to the excess of fair value of the underlying shares over the exercise price, otherwise, such outstanding vested awards will be terminated.

Amendment and termination. The 2016 Plan has a term of ten years commencing from the date of the board approval, unless terminated earlier in accordance with its terms. Our board of directors has the authority to terminate, amend or modify the 2016 Plan. However, no amendment or termination of the 2016 Plan may affect any shares previously issued or any options previously granted to a participant and certain changes may require shareholder approval, including if it materially changes the category of persons who are eligible for the grant of options or the restricted shares.

2021 share incentive plan

In January 2021, our shareholders and board of directors adopted our 2021 share incentive plan, or the 2021 Plan, to motivate attract and retain the best available personnel, provide additional incentives to employees, directors and consultants and promote the success of our business. Under the 2021 Plan, the maximum aggregate number of Class A ordinary shares which may be issued pursuant to all awards under such plan is 15,144,221, or the award pool, which constitutes 5% of the total issued and outstanding shares of our company on a fully-diluted basis as of the date of adoption. In addition, the maximum number of Class A ordinary shares under the award pool which may be issued pursuant to all awards under the plan shall be no greater than 40%, 60%, 80% and 100%, respectively, of the award pool on or prior to the first anniversary, second anniversary, third anniversary and fourth anniversary of the effective date of the plan, respectively.

As of the date of this annual report, restricted share units to purchase an aggregate of 9,783,899 Class A ordinary shares are granted under the 2021 Plan, excluding those repurchased, among which (1) restricted share units to purchase 190,656 Class A ordinary shares were exercised, and (2) restricted share units to purchase 9,593,243 Class A ordinary shares are still outstanding.

The following paragraphs summarize the principal terms of the 2021 Plan.

Types of awards. The 2021 Plan permits the awards of options, restricted shares, restricted share units or any other type of awards approved by our board of directors or compensation committee of the board, or the committee.

Plan administration. Our board of directors or the committee administers the 2021 Plan. The board or the committee determines, among other things, the participants to receive awards, the type and number of awards to be granted to each participant, and the terms and conditions of each award grant.

Award agreement. Awards granted under the 2021 Plan are evidenced by an award agreement that sets forth terms, conditions and limitations for each award, which may include the term of the award, the provisions applicable in the event of the grantee's employment or service terminates, and our authority to unilaterally or bilaterally amend, modify, suspend, cancel or rescind the award.

Eligibility. We may grant awards to our employees, directors and consultants.

Vesting schedule. In general, the plan administrator determines the vesting schedule, which is specified in the relevant award agreement.

Exercise of awards. The exercise price per share subject to an option is determined by the plan administrator and set forth in the award agreement, which may be a fixed price or a variable price related to the fair market value of the shares. The vested portion of option will expire if not exercised prior to the time as the plan administrator determines at the time of its grant.

Transfer restrictions. Awards may not be transferred in any manner by the eligible participant other than in accordance with the limited exceptions, such as transfers to our company or a subsidiary of ours, transfers to the immediate family members of the participant by gift, the designation of a beneficiary to receive benefits if the participant dies, permitted transfers or exercises on behalf of the participant by the participant's duly authorized legal representative if the participant has suffered a disability, or, subject to the prior approval of the plan administrator or our executive officer or director authorized by the plan administrator, transfers to one or more natural persons who are the participant's family members or entities owned and controlled by the participant and/or the participant's family members, including but not limited to trusts or other entities whose beneficiaries or beneficial owners are the participant and/or the participant's family members, or to such other persons or entities as may be expressly approved by the plan administrator, pursuant to such conditions and procedures as the plan administrator may establish.

Termination and amendment. Unless terminated earlier, the 2021 Plan has a term of ten years. Our board of directors may terminate, amend or modify the plan, subject to the limitations of applicable laws. However, no such action may adversely affect in any material way any award previously granted without prior written consent of the participant.

The following table summarizes, as of the date of this annual report, the outstanding options and restricted shares granted to our directors and executive officers and other individuals as a group.

Name	Class A Ordinary Shares Underlying Outstanding Options	Exercise Price (US\$/ Share)	Class A Ordinary Shares Underlying Restricted Share Units	Date of Grant	Date of Expiration(1)
Changxun Sun	-	-	-	-	-
Yipeng Li	-	-	-	-	-
Xiegang Xiong	*	0.38	*	November 30, 2022, January 29, 2024	January 29, 2034
Cheng Luo	-	-	*	April 1, 2024	-
Pengfei Yuan	-	-	*	April 1, 2024	-
Kui Zhou(2)	-	-	-	-	-
Qingsheng Zheng	-	-	-	-	-
Ye Yuan	-	-	-	-	-
Lei Du (3)	-	-	-	-	-
Yuanqi Wang	-	-	-	-	-
Ming Zhao	-	-	-	-	-
Zi Yang	-	-	-	-	-
Adam J. Zhao	-	-	-	-	-
Tim Yimin Liu	-	-	-	-	-
Ziguang Gao	-	-	-	-	-
All directors and executive officers as a group	1,000,000		2,900,000		

* Represents less than 1% of our total outstanding shares on an as converted basis.

- (1) Not applicable to restricted share units.
- (2) Mr. Kui Zhou ceased to be our director since November 2023.
- (3) Mr. Lei Du ceased to be our director since August 2024.

As of the date of this annual report, other grantees as a group held options to purchase an aggregate of 2,733,441 Class A ordinary shares, with exercise prices ranging from US\$0.147 per share to US\$0.38 per share, and restricted shares units to purchase an aggregate of 6,693,243 Class A ordinary shares.

C. Board Practices

Board of Directors

Our board of directors consists of ten directors. A director is not required to hold any shares in our company to qualify to serve as a director. A director may vote with respect to any contract, proposed contract or arrangement notwithstanding that he may be interested, whether directly or indirectly, therein, and if he does so his vote shall be counted and he may be counted in the quorum at any meeting of our directors at which any such contract or proposed contract or arrangement is considered, provided (1) such director has declared the nature of his interest at the earliest meeting of the board at which it is practicable for him to do so, either specifically or by way of a general notice and (2) if such contract or arrangement is a transaction with a related party, such transaction has been approved by the audit committee. Our directors may from time to time at their discretion exercise all the powers of the company to borrow money, mortgage or charge its undertaking, property and assets (present or future) and uncalled capital or any part thereof, and issue debentures, debenture share, bonds or other securities whether outright or as collateral security for any obligation of the company or of any third party. None of our directors has a service contract with us that provides for benefits upon termination of service.

Committees of the Board of Directors

We have established three committees under the board of directors including an audit committee, a compensation committee and a nominating and corporate governance committee. We have adopted a charter for each of the three committees. Each committee's members and functions are described below.

Audit committee

Our audit committee consists of Mr. Adam J. Zhao, Mr. Tim Yimin Liu and Mr. Ziguang Gao. Mr. Adam J. Zhao is the chairman of our audit committee. We have determined that each of Mr. Adam J. Zhao, Mr. Tim Yimin Liu and Mr. Ziguang Gao meets the independence standards under Rule 10A-3 under the Exchange Act. Our board of directors has also determined that Mr. Adam J. Zhao qualifies as an "audit committee financial expert" within the meaning of the SEC rules.

The audit committee oversees our accounting and financial reporting processes and the audits of our financial statements. The audit committee is responsible for, among other things:

- selecting our independent registered public accounting firm and pre-approving all auditing and non-auditing services performed by our independent registered public accounting firm;
- reviewing with the independent registered public accounting firm any audit problems or difficulties and management's response;
- reviewing and approving proposed related-party transactions, as defined in Item 404 of Regulation S-K under the Securities Act;
- discussing the annual audited financial statements with management and our independent registered public accounting firm;
- reviewing major issues as to the adequacy of our internal controls and any special audit steps adopted in light of material control deficiencies;
- annually reviewing and reassessing the adequacy of our audit committee charter;
- meeting separately and periodically with management and our independent registered public accounting firms;
- monitoring compliance with our code of business conduct and ethics, including reviewing the adequacy and effectiveness of our procedures to ensure proper compliance; and reporting regularly to the board of directors.

Compensation committee

Our compensation committee consists of Mr. Cheng Luo, Mr. Ye Yuan and Mr. Adam J. Zhao. Mr. Cheng Luo is the chairman of our compensation committee.

The compensation committee assists the board in reviewing and approving the compensation structure, including all forms of compensation, relating to our directors and executive officers. Our chief executive officer may not be present at any committee meeting during which his compensation is deliberated. The compensation committee is responsible for, among other things:

- reviewing and approving, or recommending to the board for its approval, the compensation for our chief executive officer and other executive officers;
- reviewing and recommending to the board for determination with respect to the compensation of our non-employee directors;
- reviewing periodically and approving any incentive compensation or equity plans, programs or similar arrangements, annual bonuses, employee pension and welfare benefit plans; and
- selecting compensation consultant, legal counsel or other adviser only after taking into consideration all factors relevant to that person's independence from management.

Nominating and corporate governance committee

Our nominating and corporate governance committee consists of Mr. Cheng Luo, Mr. Adam J. Zhao and Mr. Tim Yimin Liu. Mr. Cheng Luo is the chairman of our nominating and corporate governance committee.

The nominating and corporate governance committee assists the board of directors in selecting directors and in determining the composition of our board and board committees. The nominating and corporate governance committee is responsible for, among other things:

- identifying and recommending nominees for election or re-election to our board of directors, or for appointment to fill any vacancy;
- reviewing annually with our board of directors its composition in light of the characteristics of independence, age, skills, experience and availability of service to us;
- selecting and recommending to the board the names of directors to serve as members of the audit committee and the compensation committee, as well as of the nominating and corporate governance committee itself;
- developing and reviewing the corporate governance principles adopted by the board and advising the board with respect to significant developments in the law and practice of corporate governance and our compliance with such laws and practices; and
- evaluating the performance and effectiveness of the board as a whole.

Terms of Directors and Officers

Our directors may be appointed by a resolution of our board of directors, or by an ordinary resolution of our shareholders, pursuant to the memorandum and articles of association of our company. Our directors are not subject to a term of office and hold office until such time as they are removed from office by ordinary resolution of the shareholders (unless he has sooner vacated office) or upon any specified event or after any specified period in a written agreement between our company and the director, if any; but no such term shall be implied in the absence of an express provision. A director will cease to be a director if, among other things, the director (1) becomes bankrupt or makes any arrangement or composition with his creditors; (2) dies or is found by our company to be or becomes of unsound mind; (3) resigns his office by notice in writing to the company; (4) without special leave of absence from our board, is absent from three consecutive board meetings and our board of directors resolve that his office be vacated; or (5) is removed from office pursuant to any other provision of our third amended and restated memorandum and articles of association. Our officers are appointed by and serve at the discretion of the board of directors.

Duties of Directors

Under Cayman Islands law, our directors owe to us fiduciary duties, including a duty of loyalty, a duty to act honestly and a duty to act in what they consider in good faith to be in our best interests. Our directors must also exercise their powers only for a proper purpose. Our directors also have a duty to exercise the skill they actually possess and such care and diligence that a reasonably prudent person would exercise in comparable circumstances. It was previously considered that a director need not exhibit in the performance of his duties a greater degree of skill than what may reasonably be expected from a person of his knowledge and experience. However, English and Commonwealth courts have moved towards an objective standard with regard to the required skill and care, and these authorities are likely to be followed in the Cayman Islands. In fulfilling their duty of care to us, our directors must ensure compliance with our memorandum and articles of association, as amended and restated from time to time. Our company may have the right to seek damages if a duty owed by our directors is breached. A shareholder may in certain limited exceptional circumstances have the right to seek damages in our name if a duty owed by our directors is breached.

Our board of directors has all the powers necessary for managing, and for directing and supervising, our business affairs. The functions and powers of our board of directors include, among others:

- convening shareholders' annual general meetings and reporting its work to shareholders at such meetings;
- declaring dividends and distributions;
- appointing officers and determining the term of office of officers;
- exercising the borrowing powers of our company and mortgaging the property of our company; and
- approving the transfer of shares of our company, including the registering of such shares in our share register.

Employment Agreements

We have entered into employment agreements with our executive officers. Each of our executive officers is employed for a specified time period, which will be automatically extended for successive one-year terms unless either party gives the other party a prior written notice to terminate employment. We may terminate the employment for cause, at any time, without advance notice or remuneration, for certain acts of the executive officer, including conviction or pleading of guilty to a felony, fraud, misappropriation or embezzlement, negligent or dishonest act to our detriment, misconduct or failure to perform his or her duty, disability, or death. An executive officer may terminate his or her employment at any time with a one-month prior written notice if there is a material and substantial reduction in such executive officer's existing authority and responsibilities or at any time if the termination is approved by our board of directors.

Each executive officer has agreed to hold, both during and after the employment agreement expires or is earlier terminated, in strict confidence and not to use, except for our benefit, any confidential information. Each executive officer has also agreed to assign to us all his or her all inventions, improvements, designs, original works of authorship, formulas, processes, compositions of matter, computer software programs, databases, mask works and trade secrets.

Each executive officer has agreed that, during his or her term of employment and for a period of two years after terminating employment with us, such executive officer will not, without our prior written consent, (1) approach our suppliers, clients, customers or contacts or other persons or entities introduced to the executive officer in his or her capacity as a representative of us for the purpose of doing business with such persons or entities that will harm our business relationships with these persons or entities; (2) assume employment with or provide services to any of our competitors, or engage, whether as principal, partner, licensor or otherwise, any of our competitors, without our express consent; or (3) seek directly or indirectly, to solicit the services of, or hire or engage any of our employees who is employed by us on or after the date of the executive officer's termination, or in the year preceding such termination, without our express consent.

Indemnification Agreements

We have entered into indemnification agreements with each of our directors and executive officers. Under these agreements, we agree to indemnify our directors and executive officers against all liabilities and expenses incurred by such persons in connection with claims made by reason of their being a director or officer of our company to the fullest extent permitted by law with certain limited exceptions.

D. Employees

As of December 31, 2022, we had a total of 1,397 employees. The following table sets forth the breakdown of our employees as of December 31, 2022 by function.

Function	Number of Employees	% of Total
Research and development	652	46.7
Sales and marketing	405	29.0
Project execution	235	16.8
General administration	105	7.5
Total	1,397	100.0

We believe we offer our employees competitive compensation packages and a dynamic work environment that encourages initiative and is based on merit. As a result, we have generally been able to attract and retain qualified personnel and maintain a stable core management team. We plan to hire additional experienced and talented employees in areas such as research and development and sales and marketing as we expand our business.

We believe that we maintain a good working relationship with our employees, and we have not experienced any major labor disputes. None of our employees is represented by labor unions.

E. Share Ownership

The following table sets forth information concerning the beneficial ownership of our ordinary shares, as of the date of this annual report, for:

- each of our directors and executive officers; and
- each person known to us to beneficially own 5% or more of our ordinary shares.

The percentage of beneficial ownership in the table below is calculated based on 333,703,515 ordinary shares, comprising 308,053,676 Class A ordinary shares (excluding treasury shares) and 25,649,839 Class B ordinary shares outstanding as of the date of this annual report. To our knowledge, except as indicated in the footnotes to the following table, the persons named in the table have sole voting and investment power with respect to all ordinary shares beneficially owned by them.

Beneficial ownership is determined in accordance with the rules and regulations of the SEC. In computing the number of shares beneficially owned by a person and the percentage ownership of that person, we have included shares that the person has the right to acquire within 60 days of the date of this annual report, including through the exercise of any option, warrant or other right or the conversion of any other security. These shares, however, are not included in the computation of the percentage ownership of any other person.

	Class A ordinary shares	Class B ordinary shares	Total ordinary shares on an as- converted basis	% of total ordinary shares on an as- converted basis††	% of aggregate voting power†††
Directors and Executive Officers†					
Changxun Sun(1)	2,000,000	25,649,839	27,649,839	8.29	45.79
Yipeng Li(2)	*	-	*	*	*
Xiegang Xiong(2)	*	-	*	*	*
Cheng Luo(2)	*	-	*	*	*
Pengfei Yuan(2)	*	-	*	*	*
Kui Zhou(3)	-	-	-	-	-
Qingsheng Zheng	-	-	-	-	-
Ye Yuan	-	-	-	-	-
Lei Du(4)	-	-	-	-	-
Yuanqi Wang	-	-	-	-	-
Ming Zhao	-	-	-	-	-
Zi Yang	-	-	-	-	-
Adam J. Zhao	*	-	*	*	*
Tim Yimin Liu	-	-	-	-	-
Ziguang Gao	*	-	*	*	*
All directors and executive officers as a group	7,889,978	25,649,839	33,539,817	10.02	46.75
Principal Shareholders:					
Main Access Limited(5)	55,677,341	-	55,677,341	16.68	9.86
HSG CV IV Holdco, Ltd and Max Honest Limited(6)	53,580,097	-	53,580,097	16.06	9.49
Trustbridge Partners V, L.P.(7)	38,474,611	-	38,474,611	11.53	6.82
Cloopen Co., Ltd.	-	25,649,839	25,649,839	7.69	45.43

* Represents less than 1% of our total outstanding shares on an as converted basis.

† Except as indicated otherwise below, the business address of our directors and executive officers is 16/F, Tower A, Fairmont Tower 33 Guangshun North Main Street, Chaoyang District, Beijing, People's Republic of China.

†† Beneficial ownership information disclosed herein represents direct and indirect holdings of entities owned, controlled or otherwise affiliated with the applicable holder as determined in accordance with the rules and regulations of the SEC.

††† For each person or group included in this column, percentage of total voting power represents voting power based on both Class A and Class B ordinary shares held by such person or group with respect to all outstanding shares of our Class A and Class B ordinary shares as a single class. Each holder of our Class A ordinary shares is entitled to one vote per share. Each holder of our Class B ordinary shares is entitled to ten votes per share. Our Class B ordinary shares are convertible at any time by the holder into Class A ordinary shares on a one-for-one basis, while Class A ordinary shares are not convertible into Class B ordinary shares under any circumstances.

(1) Represents (1) 25,649,839 Class B ordinary shares held by Cloopen Co., Ltd., a company wholly-owned by Mr. Changxun Sun, and (2) 2,000,000 Class A ordinary shares held by Flawless Success Limited, a nominee of an employee incentive trust that holds such shares for and on behalf of the grantees under our share incentive plans issued due to exercise of options under the 2016 Plan. The registered address of Cloopen Co., Ltd. is Sertus Chambers, P.O. Box 905, Quastisky Building, Road Town, Tortola, British Virgin Islands. The registered address of Flawless Success Limited is Sertus Chambers, P.O. Box 905, Quastisky Building, Road Town, Tortola, British Virgin Islands.

- (2) Represents Class A ordinary shares held by Flawless Success Limited, a nominee of an employee incentive trust that holds such shares for and on behalf of the grantees under our share incentive plans, and Class A ordinary shares the person has the right to acquire within 60 days of the date of this annual report. The registered address of Flawless Success Limited is Sertus Chambers, P.O. Box 905, Quastisky Building, Road Town, Tortola, British Virgin Islands.
- (3) Excludes shares held by Max Honest Limited. See footnote (5). Mr. Kui Zhou ceased to be our director since November 2023.
- (4) Mr. Lei Du ceased to be our director since August 2024.
- (5) Represents 55,677,341 Class A ordinary shares held by Main Access Limited, a company incorporated in British Virgin Islands, as reported in the Schedule 13G filed with the SEC on February 9, 2022. Main Access Limited is a wholly-owned subsidiary of Turbo Speed Technology Limited, which is a wholly-owned subsidiary of Success Bridge Limited, which is a wholly-owned subsidiary of Hi Sun Technology (China) Limited, a company listed on The Stock Exchange of Hong Kong Limited (Stock Code: 818). There is no ultimate controlling person of Main Access limited. Turbo Speed Technology Limited, Success Bridge Limited and Hi Sun Technology (China) Limited disclaim beneficial ownership of the securities other than to the extent of any pecuniary interest they may have therein. The registered office of Main Access Limited is at Vistra Corporate Services Centre, Wickhams Cay II, Road Town, Tortola, VG1110, British Virgin Islands.
- (6) Represents (1) 27,528,456 Class A ordinary shares held by HSG CV IV Holdco, Ltd., a company incorporated in Cayman Islands with limited liability, and (2) 26,051,641 Class A ordinary shares held by Max Honest Limited, as reported in the Schedule 13G filed with the SEC on February 14, 2022. The sole shareholder of HSG CV IV Holdco, Ltd. is HSG CV IV Senior Holdco, Ltd. The sole shareholder of HSG CV IV Senior Holdco, Ltd. is HongShan Capital Venture Fund IV, L.P., the general partner of which is HSG Venture IV Management, L.P., whose general partner is HSG Holding Limited. HSG Holding Limited is wholly owned by SNP China Enterprises Limited, which in turn is wholly owned by Mr. Neil Nanpeng Shen. The registered office of HSG CV IV Holdco, Ltd. is at PO Box 309, Ugland House, Grand Cayman, KY1-1104, Cayman Islands. The sole shareholder of Max Honest Limited is Beijing HongShan Mingde Equity Investment Center Company (L.P.), or, Mingde, whose general partner is Beijing HongShan Kunde Investment Management Center Limited Partnership, or Kunde. The general partner of Kunde is Shanghai Huanyuan Investment Management Limited, or Huanyuan. Huanyuan is wholly owned by Mr. Kui Zhou and Ms. Xin Fu. The investment committee of Mingde, which includes Mr. Neil Nanpeng Shen and Mr. Kui Zhou, manages the decisions taken by Mingde to vote or to direct a vote, or to dispose, or direct the disposition of, the shares held by Mingde. As the management power is vested in the investment committee of which Mr. Neil Nanpeng Shen and Mr. Kui Zhou are members, Mr. Shen and Mr. Zhou may be deemed to share voting and dispositive power over the shares held by Mingde. The registered office of Max Honest Limited is at PO Box 309, Ugland House, Grand Cayman, KY1-1104, Cayman Islands.
- (7) Represents 38,474,611 Class A ordinary shares, including 1,921,164 ADSs, held by Trustbridge Partners V, L.P., as reported in the Schedule 13G/A filed with the SEC on February 5, 2024. Trustbridge Partners V, L.P. is a Cayman registered private equity fund. The registered office of Trustbridge Partners V, L.P. is at PO Box 309, Ugland House, Grand Cayman, KY1-1104, Cayman Islands.

To our knowledge, as of the date of this annual report, a total of 125,833,398 Class A ordinary shares are held by one record holder in the United States, which was the Bank of New York Mellon, the depository of the ADSs, representing approximately 37.71% of our total outstanding shares. None of our shareholders has informed us that it is affiliated with a registered broker-dealer or is in the business of underwriting securities. We are not aware of any arrangement that may, at a subsequent date, result in a change of control of our company.

F. Disclosure of a Registrant's Action to Recover Erroneously Awarded Compensation

Not applicable.

ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS

A. Major Shareholders

See “Item 6. Directors, Senior Management and Employees—E. Share Ownership.”

B. Related Party Transactions

Transactions with Certain Related Parties

Transactions with certain managements

In June 2016, Mr. Changxun Sun entered into a loan agreement with us to obtain an interest-free loan of approximately US\$6.4 million for the subscription of 27,862,642 ordinary shares. In February 2017, we repurchased 10,879,664 ordinary shares, which reduced the amount of such loan to US\$3.7 million. Mr. Changxun Sun had repaid approximately US\$1,698, and our shareholders resolved on November 3, 2020 to waive the remaining approximately US\$3,672,678 in recognition of his past performance and contribution to our company.

We leased an office space for one of the affiliated entities through Beijing Puhui Sizhong Technology Limited Company, a company controlled by Mr. Changxun Sun, as a result of which, we paid rental expenses of RMB0.2 million, nil and nil to this company in 2020, 2021 and 2022, respectively.

In 2020, 2021 and 2022, we provided certain interest-free loans of RMB2.6 million, nil and nil, respectively, to three management members of our company, including Mr. Changxun Sun, and collected interest-free loans of RMB4.2 million, RMB0.9 million and nil, respectively. As of December 31, 2020, 2021 and 2022, the amount due from such management members were RMB0.9 million, nil and nil, respectively. We received full repayment of the outstanding amount in cash in January 2021.

Transitions with entities affiliated with a principal shareholder

We provided cloud-based UC&C solutions to subsidiaries of Hi Sun Technology (China) Limited, or Hi Sun Technology, an entity affiliated with Main Access Limited, which is one of our principal shareholders. See “Item 6. Directors, Senior Management and Employees—E. Share Ownership.” We generated revenues of RMB30.4 million, RMB5.2 million, and nil in 2020, 2021 and 2022, respectively. The amounts due from Hi Sun Technology, which were recorded under accounts receivable - related parties, net, were RMB12.1 million, nil and nil as of December 31, 2020, 2021 and 2022, respectively. Deposits paid by us for performance guarantee were RMB3.9 million, nil and nil as of December 31, 2020, 2021 and 2022, respectively.

We also engaged subsidiaries of Hi Sun Technology for outsourcing services in relation to project development, and recognized cost of revenues of RMB0.4 million, nil and nil in 2020, 2021 and 2022, respectively. We also engaged subsidiaries of Hi Sun Technology for outsourcing services in relation to research and development, and recognized research and development expenses of RMB5.7 million, RMB2.0 million and nil in 2020, 2021 and 2022, respectively. The amounts due to Hi Sun Technology were RMB3.4 million, nil and nil as of December 31, 2020, 2021 and 2022, respectively.

Transactions with certain unconsolidated affiliates

In 2020, we provided office rental services to Beijing Jingu Shitong Technology Co., Ltd., or Beijing Jingu, an unconsolidated affiliate, and generated rental income of RMB0.3 million. In 2020, we also provided certain interest-free loans of RMB1.4 million to Beijing Jingu, which were repaid in January 2021. In addition, we recorded revenues of RMB0.2 million, RMB99,000 and nil from CPaaS services to Beijing Jingu in 2020, 2021 and 2022, respectively. Amounts due from Beijing Jingu were RMB38,000, nil and nil as of December 31, 2020, 2021 and 2022, respectively, which were recorded under accounts receivable - related parties, net.

We recorded revenues of RMB2.3 million, RMB0.2 million and nil from CPaaS services to Beijing Lianxinzhahui Technology Co., Ltd., or Beijing Lianxinzhahui, in 2020, 2021 and 2022, respectively. Amounts due from Beijing Lianxinzhahui were RMB0.3 million, RMB3,000 and nil as of December 31, 2020, 2021 and 2022, respectively, which were recorded under accounts receivable - related parties, net.

We recorded revenues of RMB0.1 million, RMB0.5 million and RMB1.3 million (US\$0.2 million) from CPaaS services to Shenyang Yunrongxin Technology Co., Ltd. or Shenyang Yunrongxin, in 2020, 2021 and 2022, respectively. Amounts due from Shenyang Yunrongxin were RMB40,000, RMB0.1 million and RMB0.1 million (US\$14,000) as of December 31, 2020, 2021 and 2022, respectively, which were recorded under accounts receivable - related parties, net. In addition, we engaged subsidiaries of Shenyang Yunrongxin for outsourcing services in relation to project development, and recognized cost of revenues of RMB1.0 million, nil and nil in 2020, 2021 and 2022, respectively. Amounts due from Shenyang Yunrongxin were RMB0.9 million, RMB0.7 million and RMB0.7 million (US\$0.1 million) as of December 31, 2020, 2021 and 2022, respectively, which were recorded under amounts due from related parties.

We recorded revenues of RMB3,000, RMB5,000 and RMB2,000 (US\$300) from CPaaS services to Shenzhen City Yunjitong Technology Co., Ltd. or Shenzhen City Yunjitong, in 2020, 2021 and 2022, respectively. Amounts due to Shenzhen City Yunjitong were RMB6,000, RMB5,000 and RMB5,000 (US\$700), as of December 31, 2020, 2021 and 2022, respectively, which were received in advance for CPaaS services and were recorded under amounts due to related parties.

In November 2021, we acquired 20% of the equity interest in Shanghai Keshen Information Technology Co., Ltd. or Shanghai Keshen, and significant influence over it through board representation. Accordingly, we regarded it as one of our related parties since then. We provided cloud-based UC&C services to subsidiaries of Shanghai Keshen. In 2022, we recorded revenues of RMB34,000 (US\$5,000). Amounts due from Shanghai Keshen were RMB0.2 million and nil as of December 31, 2021 and 2022, respectively, which were recorded under accounts receivable - related parties, net. We purchased project development services from Shanghai Keshen. Amounts due to Shanghai Keshen were RMB58,000 and RMB53,000 (US\$8,000) as of December 31, 2021 and 2022, respectively, which were recorded under amounts due to related parties. We also recorded amounts due from related party of RMB0.1 million (US\$15,000) relating to prepayment of project development service fee as of December 31, 2022.

Contractual Arrangements

See “Item 4. Information on the Company—C. Organizational Structure—Contractual Arrangements.”

Private Placements

See “Item 4. Information on the Company—A. History and Development of the Company.”

Shareholders Agreement

In November 2020, we entered into a shareholders agreement (as amended) and a right of first refusal and co-sale agreement (as amended) with all of our existing shareholders and warrant holders, or collectively, the shareholders agreements. The shareholders agreements provide for certain shareholders’ rights, including information and inspection rights, preemptive rights, right of first refusal and co-sale rights, director nomination rights and provisions governing corporate governance matters. The special rights and the corporate governance provisions has automatically terminated upon the completion of our initial public offering.

Registration rights

We have granted certain registration rights to our shareholders. Set forth below is a description of the registration rights granted under the shareholders agreement.

Demand registration rights. At any time or from time to time after six months following the closing of the initial public offering, holders of at least 20% of the registrable securities (including shares issued to our investors) then outstanding have the right to demand that we file a registration statement of all registrable securities that the holders request to be registered and included in such registration statement by written notice. Other than required by the underwriter(s) in connection with our initial public offering, not more than 75% of the registrable securities requested by the holders to be included in such underwriting and registration shall be excluded by the underwriters and shall only be excluded after excluding all other equity securities from the registration and underwritten offering first and so long as the number of shares to be included on behalf of the non-excluded holders is allocated among all holders in proportion to the respective amounts of registrable securities requested by such holders to be included. We have the right to defer filing of a registration statement for a period of not more than 90 days after the receipt of the request of the initiating holders if we furnish to the holders requesting registration a certificate signed by our chief executive officer stating that in the good faith judgment of our board of directors, it would be materially detrimental to us and our shareholders for such registration statement to be filed at such time. However, we cannot exercise the deferral right more than once in any 12-month period. We are obligated to effect no more than three demand registrations, other than demand registration to be effected pursuant to registration statement on Form F-3, for which an unlimited number of demand registrations shall be permitted.

Piggyback registration rights. If we propose to file a registration statement for a public offering of our securities, we must offer the holders of registrable securities an opportunity to include in the registration statement all or any part of the registrable securities held by such holders. If the managing underwriters of any underwritten offering determine in good faith that marketing factors require a limitation of the number of shares to be underwritten, the underwriters may exclude up to all of the registrable securities requested to be registered in connection with the initial public offering and up to 75% of the registrable securities requested to be registered in connection with any other public offering, but in any case only after first excluding all other equity securities (except for securities sold for the account of the company) from the registration and underwriting and so long as the registrable securities to be included in such registration on behalf of any non-excluded holders are allocated among all holders in proportion, as nearly as practicable, to the respective amounts of registrable securities requested by such holders to be included.

Form F-3 registration rights. Our shareholders may request us in writing to file an unlimited number of registration statements on Form F-3. We shall effect the registration of the securities on Form F-3 as soon as practicable, except in certain circumstances.

Expenses of registration. We will bear all registration expenses (other than underwriting discounts and commissions in connection with sale of registrable securities) and expenses incurred by holders upon our or an underwriters' request in connection with any demand, piggyback or Form F-3 registration. We will not, however, be required to pay for any expenses of any registration proceeding begun pursuant to demand registration rights, whether or not on Form F-3/S-3, if the registration request is subsequently withdrawn by the holders of no less than a majority of the voting power of the registrable securities requested to be registered, subject to certain exceptions.

Termination of registration rights. Our shareholders' registration rights will terminate upon the earlier of (1) the fifth anniversary of the completion of a qualified public offering, (2) the termination, liquidation, dissolution of our company or a liquidation event, and (3) as to any shareholder when the shares subject to registration rights held by such shareholder can be sold without registration in any 90-day period pursuant to Rule 144 promulgated under the Securities Act.

Employment Agreements and Indemnification Agreements

See "Item 6. Directors, Senior Management and Employees—C. Board Practices—Employment Agreements and Indemnification Agreements."

Share Incentive Plans

See "Item 6. Directors, Senior Management and Employees—B. Compensation—Share Incentive Plans."

C. Interests of Experts and Counsels

Not applicable.

ITEM 8. FINANCIAL INFORMATION

A. Consolidated Statements and Other Financial Information

We have appended consolidated financial statements filed as part of this annual report.

Legal and Other Proceedings

From time to time, we may become a party to various legal or administrative proceedings arising in the ordinary course of our business, including actions with respect to intellectual property infringement, breach of contract and labor and employment claims. See “Item 3. Key Information—D. Risk Factors—Risks Related to Our Business and Industry—We have been, and may be in the future, party to intellectual property rights claims and other litigation matters, which are expensive to support, and if resolved adversely, could harm our business.” We are currently not a party to, and are not aware of any threat of, any legal or administrative proceedings that, in the opinion of our management, are likely to have any material and adverse effect on our business, results of operations and financial condition.

On April 19, 2021, we and certain of our current and former directors and officers, the underwriters in our initial public offering and our agent for service of process in the United States were named as defendants in a securities class action filed in the Supreme Court of the State of New York, New York County (captioned *Sonny St. John v. Cloopen Group Holding Limited et al.*, Index No. 652617/2021 (N.Y. Sup. Ct. N.Y. Cnty.)). The plaintiff alleged that our registration statement on Form F-1 in connection with our initial public offering contained material misstatements and omissions in violation of the U.S. federal securities laws, including those relating to our estimates on financial results of the fourth quarter of 2020. On December 3, 2021, defendants in the *Sonny St. John* action filed a motion to dismiss the complaint, and on August 10, 2022, the Supreme Court of the State of New York denied that motion to dismiss. On December 10, 2021, we and certain of our current and former directors and officers, the underwriters in our initial public offering and our agent for service of process in the United States were named as defendants in a securities class action filed in the United States District Court for the Southern District of New York (captioned *Dong v. Cloopen Group Holding Limited et al.*, Case No. 1:21-cv-10610-JGK-RWL (S.D.N.Y.)), which also arose out of certain public disclosures made in connection with our initial public offering. On July 15, 2022, defendants in the *Dong* action filed a motion to dismiss the complaint, and on March 16, 2023, the United States District Court for the Southern District of New York denied that motion to dismiss. On June 5, 2023, we, as well as all parties to the above-mentioned class action lawsuits, executed a binding term sheet for the settlement of both class action lawsuits. On June 6, 2023, the parties informed the courts that they had reached an agreement-in-principle to settle the claims in the class action lawsuits, and, the same day, the United States District Court for the Southern District of New York discontinued and closed the *Dong* action. On August 16, 2023, we entered into a stipulation of settlement with all parties to the suits reflecting the terms of the settlement. The settlement required us to pay a total of US\$12.0 million in cash to the plaintiff class. We and the other defendants received full releases of claims pursuant to the terms of the settlement. On October 5, 2023, the Supreme Court of the State of New York preliminarily approved the settlement of the class action lawsuits. On January 23, 2024, the Supreme Court of the State of New York issued an order granting final approval of the settlement and dismissing the claims in the *Sonny St. John* action.

In addition, we issued a press release on May 3, 2022 regarding the formation of the Special Committee to investigate the employee misconduct and transaction irregularities. We also notified the SEC of the Independent Investigation by the Special Committee, and the SEC subsequently initiated an investigation. We have since cooperated with the SEC and voluntarily provided information. On February 6, 2024, we reached a settlement with the SEC regarding the employee misconduct and transaction irregularities. Under the terms of the settlement, we, without admitting or denying the findings of the SEC, consented to the entry of an order by the SEC that we shall cease and desist from committing or causing any violations and any future violations of certain federal securities laws, including Section 10(b) of the Exchange Act. In settling this matter, the SEC considered our prompt self-reporting to the SEC staff, and the substantial cooperation provided by us throughout its investigation. The SEC also considered the prompt remedial measures undertaken by us, including, among others, terminating or disciplining the people involved in the fraudulent scheme, reorganizing the departments engaged in the misconduct, strengthening our accounting controls, and recruiting new finance and accounting staff with expertise in U.S. GAAP. The SEC did not impose civil penalties against us because of our self-reporting, cooperation and remediation.

Dividend Policy

We have not declared or paid any dividends. We do not have any present plan to pay any cash dividends on our ordinary shares in the foreseeable future. We currently intend to retain most, if not all, of our available funds and any future earnings to operate and expand our business. Our board of directors has complete discretion in deciding the payment of any future dividends, subject to certain requirements of Cayman Islands law. In addition, our shareholders may by ordinary resolution declare a dividend, but no dividend may exceed the amount recommended by our board of directors. Under Cayman Islands law, a Cayman Islands company may pay a dividend out of either profits or share premium account, provided that in no circumstances may a dividend be paid if this would result in the company being unable to pay its debts as they fall due in the ordinary course of business. The declaration and payment of dividends will depend upon, among other things, our future operations and earnings, capital requirements and surplus, our financial condition, contractual restrictions, general business conditions and other factors as our board of directors may deem relevant.

We are a holding company incorporated in the Cayman Islands. We may rely on dividends from our PRC subsidiaries for our cash requirements, including any payment of dividends to our shareholders. PRC regulations may restrict the ability of our PRC subsidiaries to pay dividends to us or of the affiliated entities to pay cash dividend payments to us. See “Item 3. Key Information—D. Risk Factors—Risks Related to Our Corporate Structure—We may rely on dividends paid by our PRC subsidiaries to fund cash and financing requirements. Any limitation on the ability of our PRC subsidiaries to pay dividends to us could have a material adverse effect on our ability to conduct our business and to pay dividends to holders of our ordinary shares, including those represented by the ADSs.”

If we pay any dividends, we will pay those dividends which are payable in respect of the Class A ordinary shares underlying the ADSs to the depositary, as the registered holder of such Class A ordinary shares, and the depositary then will pay such amounts to the ADS holders in proportion to the Class A ordinary shares underlying the ADSs held by such ADS holders, subject to the terms of the deposit agreement, including the fees and expenses payable thereunder. Cash dividends on our Class A ordinary shares, if any, will be paid in U.S. dollars.

B. Significant Changes

Except as disclosed elsewhere in this annual report, we have not experienced any significant changes since the date of our audited consolidated financial statements included in this annual report.

ITEM 9. THE OFFER AND LISTING

A. Offer and Listing Details

The ADSs had been listed for trading on the NYSE under the symbol “RAAS” since February 8, 2021. Effective on March 15, 2023, we changed the ratio of the ADSs to Class A ordinary shares from the then ADS ratio of one ADS representing two Class A ordinary shares to a new ADS ratio of one ADS representing six Class A ordinary shares.

On May 17, 2023, the NYSE suspended the trading in the ADSs and commenced delisting proceedings. Following the trading suspension, the ADSs have been quoted on the OTC market in the United States under the symbol “RAASY.” On October 25, 2023, we were delisted from NYSE when the NYSE staff filed a Form 25 Notification of Delisting.

B. Plan of Distribution

Not applicable.

C. Markets

The ADSs have been quoted on the OTC market in the United States under the symbol “RAASY.”

D. Selling Shareholders

Not applicable.

E. Dilution

Not applicable.

F. Expenses of the Issue

Not applicable.

ITEM 10. ADDITIONAL INFORMATION

A. Share Capital

Not applicable.

B. Memorandum and Articles of Association

We incorporate by reference into this annual report our eighth amended and restated memorandum and articles of association filed as Exhibit 1.1 to this annual report and description of securities filed as Exhibit 2.6 to this annual report.

C. Material Contracts

Material contracts other than in the ordinary course of business are described in “Item 4. Information on the Company” and “Item 7. Major Shareholders and Related Party Transactions” or elsewhere in this annual report.

D. Exchange Controls

See “Item 4. Information on the Company—B. Business Overview—Regulations—Regulations relating to foreign exchange.”

E. Taxation

Cayman Islands Taxation

As advised by Maples and Calder (Hong Kong) LLP, our Cayman Islands counsel, the Cayman Islands currently levies no taxes on individuals or corporations based upon profits, income, gains or appreciation and there is no taxation in the nature of inheritance tax or estate duty. There are no other taxes likely to be material to us levied by the government of the Cayman Islands except for stamp duties which may be applicable on instruments executed in, or after execution brought within the jurisdiction of the Cayman Islands. The Cayman Islands is not party to any double tax treaties applicable to payments to or by our company. There are no exchange control regulations or currency restrictions in the Cayman Islands.

Payments of dividends and capital in respect of the shares will not be subject to taxation in the Cayman Islands and no withholding will be required on the payment of a dividend or capital to any holder of the Shares, nor will gains derived from the disposal of the shares be subject to Cayman Islands income or corporation tax.

Pursuant to Section 6 of the Tax Concessions Act (As Revised) of the Cayman Islands, we have obtained an undertaking from the Financial Secretary of the Cayman Islands that:

- no law which is enacted in the Cayman Islands imposing any tax to be levied on profits or income or gains or appreciation shall apply to us or our operations; and
- the aforesaid tax or any tax in the nature of estate duty or inheritance tax shall not be payable on or in respect of our shares, debentures or other obligations, or by way of the withholding in whole or in part of any relevant payment as defined in the Tax Concessions Act.

The abovementioned concessions shall be for a period of 30 years from April 5, 2020.

PRC Taxation

Under the EIT Law and its implementation rules, an enterprise established outside of the PRC with a “*de facto* management body” within the PRC is considered a resident enterprise and will be subject to the enterprise income tax at the rate of 25% on its global income. The implementation rules define the term “*de facto* management body” as the body that exercises full and substantial control over and overall management of the business, productions, personnel, accounts and properties of an enterprise. In April 2009, SAT issued SAT Circular 82, which provides certain specific criteria for determining whether the “*de facto* management body” of a PRC-controlled enterprise that is incorporated offshore is located in China. Although SAT Circular 82 only applies to offshore enterprises controlled by PRC enterprises or PRC enterprise groups, not those controlled by PRC individuals or foreigners, the criteria set forth in SAT Circular 82 may reflect the general position of SAT on how the “*de facto* management body” test should be applied in determining the tax resident status of all offshore enterprises. According to SAT Circular 82, an offshore incorporated enterprise controlled by a PRC enterprise or a PRC enterprise group will be regarded as a PRC tax resident by virtue of having its “*de facto* management body” in China only if all of the following conditions are met: (1) the primary location of the day-to-day operational management is in the PRC; (2) decisions relating to the enterprise’s financial and human resource matters are made or are subject to approval by organizations or personnel in the PRC; (3) the enterprise’s primary assets, accounting books and records, company seals, and board and shareholder resolutions, are located or maintained in the PRC; and (4) at least 50% of voting board members or senior executives habitually reside in the PRC.

We do not believe that our Cayman Islands holding company meets all of the conditions above. Our Cayman Islands holding company is not a PRC resident enterprise for PRC tax purposes. As a holding company, its key assets are its ownership interests in its subsidiaries, and its key assets are located, and its records (including the resolutions of its board of directors and the resolutions of its shareholders) are maintained, outside the PRC. For the same reasons, we believe our other entities outside of China are not PRC resident enterprises either. However, the tax resident status of an enterprise is subject to determination by the PRC tax authorities and uncertainties remain with respect to the interpretation of the term “*de facto* management body.” Therefore, there can be no assurance that the PRC government will ultimately take a view that is consistent with ours.

CM Law Firm, our legal counsel as to PRC law, has advised us that if the PRC tax authorities determine that our Cayman Islands holding company is a PRC resident enterprise for enterprise income tax purposes, we may be required to withhold a 10% withholding tax from dividends we pay to our shareholders that are non-resident enterprises, including the holders of the ADSs. In addition, non-resident enterprise shareholders (including the ADS holders) may be subject to a 10% PRC tax on gains realized on the sale or other disposition of ADSs or ordinary shares, if such income is treated as sourced from within the PRC. It is unclear whether our non-PRC individual shareholders (including the ADS holders) would be subject to any PRC tax on dividends or gains obtained by such non-PRC individual shareholders in the event we are determined to be a PRC resident enterprise. If any PRC tax were to apply to such dividends or gains, it would generally apply at a rate of 20% unless a reduced rate is available under an applicable tax treaty. However, it is also unclear whether non-PRC shareholders of our Cayman Islands holding company would be able to claim the benefits of any tax treaties between their country of tax residence and the PRC in the event that our Cayman Islands holding company is treated as a PRC resident enterprise.

Provided that our Cayman Islands holding company is not deemed to be a PRC resident enterprise, holders of the ADSs and ordinary shares who are not PRC residents will not be subject to PRC income tax on dividends distributed by us or gains realized from the sale or other disposition of our shares or ADSs. However, under SAT Circular 7, where a non-resident enterprise conducts an “indirect transfer” by transferring taxable assets, including, in particular, equity interests in a PRC resident enterprise, indirectly by disposing of the equity interests of an overseas holding company, the non-resident enterprise, being the transferor, or the transferee or the PRC entity which directly owned such taxable assets may report to the relevant tax authority such indirect transfer. Using a “substance over form” principle, the PRC tax authority may disregard the existence of the overseas holding company if it lacks a reasonable commercial purpose and was established for the purpose of reducing, avoiding or deferring PRC tax. As a result, gains derived from such indirect transfer may be subject to PRC enterprise income tax, and the transferee obligated to withhold the applicable taxes, currently at a rate of 10% for the transfer of equity interests in a PRC resident enterprise. We and our non-PRC resident investors may be at risk of being required to file a return and being taxed under SAT Circular 7, and we may be required to expend valuable resources to comply with SAT Circular 7, or to establish that we should not be taxed thereunder. See “Item 3. Key Information—D. Risk Factors—Risks Related to Doing Business in China—If we are classified as a PRC resident enterprise for PRC income tax purposes, such classification could result in unfavorable tax consequences to us and our non-PRC shareholders or the ADSs holders.”

U.S. Federal Income Taxation

The following discussion is a summary of U.S. federal income tax considerations relating to the ownership and disposition of the ADSs or ordinary shares by a U.S. Holder, as defined below, that holds the ADSs or ordinary shares as “capital assets” (generally, property held for investment) under the United States Internal Revenue Code of 1986, as amended, or the Code.

This discussion is based upon existing United States federal income tax law, which is subject to differing interpretations or change, possibly with retroactive effect. No ruling has been sought from the Internal Revenue Service, or the IRS, with respect to any United States federal income tax consequences described below, and there can be no assurance that the IRS or a court will not take a contrary position.

This discussion does not address all aspects of U.S. federal income taxation that may be important to particular investors in light of their individual circumstances, including investors subject to special tax rules, including:

- financial institutions;
- insurance companies;
- regulated investment companies;
- real estate investment trusts;
- broker-dealers;
- traders in securities or other persons that elect mark-to-market treatment;
- partnerships or other pass-through entities and their partners or investors;
- tax-exempt organizations (including private foundations);
- investors that own (directly, indirectly, or constructively) 10% or more of our stock by vote or value;
- investors that hold their ADSs or ordinary shares as part of a straddle, hedge, conversion, constructive sale or other integrated transaction;
- investors that have a functional currency other than the U.S. dollar; or
- investors required to accelerate the recognition of any item of gross income with respect to the ADSs or Class A ordinary shares as a result of such income being recognized on an applicable financial statement.

In addition, this discussion does not address any state or local, alternative minimum tax, or non-U.S. tax considerations, or the Medicare contribution tax on net investment income. Each potential investor is urged to consult its tax advisor regarding the U.S. federal, state or local and non-U.S. income and other tax considerations of an investment in the ADSs or ordinary shares.

General

For purposes of this discussion, a “U.S. Holder” is a beneficial owner of the ADSs or ordinary shares that is, for United States federal income tax purposes, (1) an individual who is a citizen or resident of the United States, (2) a corporation (or other entity treated as a corporation for United States federal income tax purposes) created in, or organized under the laws of, the United States or any state thereof or the District of Columbia, (3) an estate the income of which is includible in gross income for United States federal income tax purposes regardless of its source, or (4) a trust (a) the administration of which is subject to the primary supervision of a United States court and which has one or more United States persons who have the authority to control all substantial decisions of the trust or (b) that has otherwise elected to be treated as a United States person under the Code.

If a partnership (or other entity treated as a partnership for U.S. federal income tax purposes) is a beneficial owner of the ADSs or ordinary shares, the tax treatment of a partner in the partnership will depend upon the status of the partner and the activities of the partnership. Partnerships and partners of a partnership holding the ADSs or ordinary shares are urged to consult their tax advisors regarding an investment in the ADSs or ordinary shares.

For U.S. federal income tax purposes, a U.S. Holder of ADSs will generally be treated as the beneficial owner of the underlying shares represented by the ADSs. Accordingly, deposits or withdrawals of ordinary shares for ADSs will generally not be subject to U.S. federal income tax.

Passive foreign investment company considerations

A non-U.S. corporation, such as our company, will be classified as a “passive foreign investment company,” or PFIC, for U.S. federal income tax purposes, if, in the case of any particular taxable year, either (1) 75% or more of its gross income for such taxable year consists of certain types of “passive” income or (2) 50% or more of the value of its assets (generally based on an average of the quarterly values of the assets) during such taxable year is attributable to assets that produce or are held for the production of passive income. For this purpose, cash is categorized as a passive asset and the company’s unbooked intangibles associated with active business activities may generally be classified as active assets. Passive income generally includes, among other things, dividends, interest, rents, royalties, and gains from the disposition of passive assets. We will be treated as owning our proportionate share of the assets and earning our proportionate share of the income of any other non-U.S. corporation in which we own, directly or indirectly, 25% or more (by value) of the stock.

Although the law in this regard is unclear, we treat the affiliated entities, as being owned by us for U.S. federal income tax purposes, not only because we exercise effective control over the operation of such entities but also because we are entitled to substantially all of their economic benefits, and, as a result, we consolidate their operating results in our consolidated financial statements. Based on the market price of the ADSs and ordinary shares and the value and composition of our assets, we believe we were a PFIC for U.S. federal income tax purposes for our taxable year ended December 31, 2022, and based on the current and anticipated composition of our income, assets and operations, we believe there is significant risk that we will continue to be treated as a PFIC for future taxable years as well. However, there can be no assurances in this regard or any assurances with respect to our status as a PFIC in any future taxable year, as our status as a PFIC is a fact-intensive determination made on an annual basis. In addition, if it were determined that we are not the beneficial owner of the VIE for U.S. federal income tax purposes, we would likely be treated as a PFIC for our taxable year ended December 31, 2022, and future taxable years.

The determination of whether we will be or become a PFIC is a factual determination made annually that will depend, in part, upon the composition of our income (which may differ from our historical results and current projections) and assets and the value of our assets from time to time, including, in particular the value of our goodwill and other unbooked intangibles (which may depend upon the market value of the ADSs or ordinary shares from time-to-time and may be volatile). Among other matters, if our market capitalization continues to decline, there is a significant risk that we will be classified as a PFIC for future taxable years. It is also possible that the IRS may challenge our classification or valuation of our goodwill and other unbooked intangibles, which may result in our company being, or becoming classified as, a PFIC for the current or future taxable years.

The determination of whether we will be or continue to be a PFIC may also depend, in part, on how, and how quickly, we use our liquid assets, including any remaining cash raised in our initial public offering. Under circumstances where we retain significant amounts of liquid assets, or if the affiliated entities were not treated as owned by us for U.S. federal income tax purposes, our risk of continuing to be classified as a PFIC may substantially increase. Because there are uncertainties in the application of the relevant rules and PFIC status is a factual determination made annually after the close of each taxable year, there can be no assurance that we will not be a PFIC for the current taxable year or any future taxable year.

If we are classified as a PFIC for any year during which a U.S. Holder held the ADSs or ordinary shares, we generally would continue to be treated as a PFIC for all succeeding years during which such U.S. Holder held the ADSs or ordinary shares.

The U.S. federal income tax rules that apply if we are classified as a PFIC for the current taxable year or any subsequent taxable year are discussed below under “—Passive foreign investment company rules.”

Dividends

Subject to the PFIC rules described below, any cash distributions (including constructive distributions and the amount of any PRC tax withheld) paid on the ADSs or ordinary shares out of our current or accumulated earnings and profits, as determined under U.S. federal income tax principles, will generally be includible in the gross income of a U.S. Holder as dividend income on the day actually or constructively received by the U.S. Holder, in the case of ordinary shares, or by the depository bank, in the case of ADSs. Because we do not intend to determine our earnings and profits on the basis of U.S. federal income tax principles, any distribution will generally be treated as a “dividend” for U.S. federal income tax purposes. Dividends received on the ADSs or ordinary shares will not be eligible for the dividends received deduction allowed to corporations under the Code.

Under current law, a non-corporate recipient of a dividend from a “qualified foreign corporation” will generally be subject to tax on the dividend income at the lower applicable net capital gains rate rather than the marginal tax rates generally applicable to ordinary income provided that certain holding period and other requirements are met. A non-U.S. corporation (other than a corporation that is classified as a PFIC for the taxable year in which the dividend is paid or the preceding taxable year) will generally be considered to be a qualified foreign corporation (1) if it is eligible for the benefits of a comprehensive tax treaty with the United States which the Secretary of Treasury of the United States determines is satisfactory for purposes of this provision and which includes an exchange of information program, or (2) with respect to any dividend it pays on stock (or ADSs in respect of such stock) which is readily tradable on an established securities market in the United States. The ADSs are currently quoted and tradeable on the OTC market, which we do not believe is considered to be an established securities market in the United States, and therefore we do not believe that we are a qualified foreign corporation with respect to dividends paid on the ADSs. Since we do not expect that our ordinary shares will be listed on established securities markets, dividends that we pay on our ordinary shares that are not backed by ADSs will not meet the conditions required for the reduced tax rate. Regardless, as discussed above under “—Passive foreign investment company considerations,” we believe we are classified as a PFIC for our taxable year ended December 31, 2022. Accordingly, we do not expect that dividends paid on the ADSs or ordinary shares will meet the conditions required for such reduced tax rates.

For U.S. foreign tax credit purposes, dividends paid on the ADSs or ordinary shares will generally be treated as income from foreign sources and will generally constitute passive category income. In the event that we are deemed to be a PRC resident enterprise under the EIT Law, a U.S. Holder may be subject to PRC withholding taxes on dividends paid, if any, on the ADSs or ordinary shares. A U.S. Holder may be eligible, subject to a number of complex limitations, to claim a foreign tax credit in respect of any foreign withholding taxes imposed on dividends received on the ADSs or ordinary shares. A U.S. Holder who does not elect to claim a foreign tax credit for foreign tax withheld may instead claim a deduction for U.S. federal income tax purposes in respect of such withholding, but only for a year in which such holder elects to do so for all creditable foreign income taxes. The rules governing the foreign tax credit are complex. U.S. Holders are urged to consult their tax advisors regarding the availability of the foreign tax credit under their particular circumstances.

Sale or other disposition of ADSs or ordinary shares

Subject to the PFIC rules discussed below, a U.S. Holder will generally recognize capital gain or loss, if any, upon the sale or other disposition of ADSs or ordinary shares in an amount equal to the difference between the amount realized upon the disposition and the holder’s adjusted tax basis in such ADSs or ordinary shares. Any capital gain or loss will be long-term gain or loss if the ADSs or ordinary shares have been held for more than one year and will generally be U.S. source gain or loss for U.S. foreign tax credit purposes. Long-term capital gains of non-corporate taxpayers are currently eligible for reduced rates of taxation. In the event that we are treated as a PRC resident enterprise under the EIT Law, and gain from the disposition of the ADSs or ordinary shares is subject to tax in the PRC, such gain may be treated as PRC source gain for foreign tax credit purposes under the United States-PRC income tax treaty. The deductibility of a capital loss may be subject to limitations. U.S. Holders are urged to consult their tax advisors regarding the tax consequences if a foreign tax is imposed on a disposition of the ADSs or ordinary shares, including the availability of the foreign tax credit under their particular circumstances.

Passive foreign investment company rules

If we are classified as a PFIC for any taxable year during which a U.S. Holder holds the ADSs or ordinary shares, unless the U.S. Holder makes a mark-to-market election (as described below), the U.S. Holder will, except as discussed below, be subject to special tax rules that have a penalizing effect, regardless of whether we remain a PFIC, on (1) any excess distribution that we make to the U.S. Holder (which generally means any distribution paid during a taxable year to a U.S. Holder that is greater than 125% of the average annual distributions paid in the three preceding taxable years or, if shorter, the U.S. Holder's holding period for the ADSs or ordinary shares), and (2) any gain realized on the sale or other disposition, including, under certain circumstances, a pledge, of ADSs or ordinary shares. Under the PFIC rules:

- the excess distribution and/or gain will be allocated ratably over the U.S. Holder's holding period for the ADSs or ordinary shares;
- the amount of the excess distribution or gain allocated to the taxable year of the distribution or disposition and any taxable years in the U.S. Holder's holding period prior to the first taxable year in which we are classified as a PFIC, or a pre-PFIC year, will be taxable as ordinary income; and
- the amount of the excess distribution or gain allocated to each taxable year other than the taxable year of the distribution or disposition or a pre-PFIC year, will be subject to tax at the highest tax rate in effect applicable to such U.S. Holder, and the interest charge generally applicable to underpayments of tax will be imposed on the resulting tax attributable to each such year.

If we are classified as a PFIC for any year during which a U.S. Holder held ADSs or ordinary shares, we generally would continue to be treated as a PFIC for all succeeding years during which such U.S. Holder held ADSs or ordinary shares. If we are a PFIC for any taxable year during which a U.S. Holder holds the ADSs or ordinary shares and any of our non-United States subsidiaries is also a PFIC, such U.S. Holder would be treated as owning a proportionate amount (by value) of the shares of the lower-tier PFIC for purposes of the application of these rules. Each U.S. Holder is advised to consult its own tax advisors regarding the application of the PFIC rules to any of our subsidiaries.

Based on the market price of the ADSs and ordinary shares and the value and composition of our assets, we believe we were a PFIC for U.S. federal income tax purposes for our taxable year ended December 31, 2022, and based on the current and anticipated composition of our income, assets and operations, we believe there is significant risk that we will continue to be treated as a PFIC for future taxable years as well. However, there can be no assurances in this regard or any assurances with respect to our status as a PFIC in any future taxable year, as our status as a PFIC is a fact-intensive determination made on an annual basis. In addition, if it were determined that we are not the beneficial owner of the VIE for U.S. federal income tax purposes, we would be treated as a PFIC for our taxable year ended December 31, 2022, and future taxable years.

If we are a PFIC at any time when a U.S. Holder holds the ADSs or ordinary shares, we will generally continue to be treated as a PFIC with respect to the U.S. Holder for all succeeding years during which the U.S. Holder holds the ADSs or ordinary shares even if we cease to be a PFIC. However, if we cease to be a PFIC, a U.S. Holder can avoid the continuing impact of the PFIC rules by making a special election, a "Purging Election", to recognize gain in the manner described above as if the ADSs or ordinary shares had been sold on the last day of the last taxable year during which we were a PFIC. In addition, for a U.S. Holder making such an election, a new holding period would be deemed to begin for the ADSs or ordinary shares for purposes of the PFIC rules. After the Purging Election, the ADSs or ordinary shares with respect to which the Purging Election was made will not be treated as shares in a PFIC, and, as a result, the U.S. Holder will not be subject to the rules described above with respect to any "excess distribution" the U.S. Holder receives from us or any gain from an actual sale or other disposition of the ADSs or ordinary shares, unless we subsequently become a PFIC.

If the ADSs were “regularly traded” on a “qualified exchange,” as defined in applicable Treasury Regulations, a U.S. Holder could make a mark-to-market election that would result in tax treatment different from the general tax treatment for PFICs described in the preceding paragraph. However, because the prices of the ADSs are currently quoted on the OTC market, we do not believe mark-to-market treatment of the ADSs is available for as long as the ADSs continue to be delisted from, or not regularly traded on, the NYSE or any other qualified stock exchange. U.S. Holders that made (or wish to make) a mark-to-market election with respect to a taxable year for which the election may be available should consult their tax advisers regarding the availability and advisability of making the election in their particular circumstances and the effect the election would have on their income inclusion with respect to, and the tax basis in, their ADSs.

If a mark-to-market election is able to be made and is made, the U.S. Holder will generally (1) include as ordinary income for each taxable year that we are a PFIC the excess, if any, of the fair market value of ADSs held at the end of the taxable year over the adjusted tax basis of such ADSs and (2) deduct as an ordinary loss the excess, if any, of the adjusted tax basis of the ADSs over the fair market value of such ADSs held at the end of the taxable year, but only to the extent of the net amount previously included in income as a result of the mark-to-market election. The U.S. Holder’s adjusted tax basis in the ADSs would be adjusted to reflect any income or loss resulting from the mark-to-market election. If a U.S. Holder makes an effective mark-to-market election, in each year that we are a PFIC, any gain recognized upon the sale or other disposition of the ADSs will be treated as ordinary income and loss will be treated as ordinary loss, but only to the extent of the net amount previously included in income as a result of the mark-to-market election. Because our ordinary shares are not listed on a stock exchange, U.S. Holders will not be able to make a mark-to-market election with respect to our ordinary shares.

If a U.S. Holder makes a mark-to-market election in respect of a corporation classified as a PFIC and such corporation ceases to be classified as a PFIC, the U.S. Holder will not be required to take into account the mark-to-market gain or loss described above during any period that such corporation is not classified as a PFIC.

Because a mark-to-market election cannot be made for any lower-tier PFICs that a PFIC may own, a U.S. Holder who makes a mark-to-market election with respect to the ADSs may continue to be subject to the general PFIC rules with respect to such U.S. Holder’s indirect interest in any of our non-United States subsidiaries (including the VIE and any of its subsidiaries) that is classified as a PFIC.

We do not intend to provide information necessary for U.S. Holders to make qualified electing fund elections, which, if available, would result in tax treatment different from the general tax treatment for PFICs described above.

In addition, if a U.S. Holder owns the ADSs or ordinary shares during any taxable year that we are a PFIC, the holder must file an annual information return with the IRS. Each U.S. Holder is urged to consult its tax advisor concerning the U.S. federal income tax consequences of holding and disposing ADSs or ordinary shares if we are or become a PFIC, including the possibility of making a mark-to-market election and the unavailability of the qualified electing fund election.

Information reporting and backup withholding

Certain U.S. Holders are required to report information to the IRS relating to an interest in “specified foreign financial assets,” including shares issued by a non-United States corporation, for any year in which the aggregate value of all specified foreign financial assets exceeds US\$50,000 (or a higher dollar amount prescribed by the IRS), subject to certain exceptions (including an exception for shares held in custodial accounts maintained with a United States financial institution). These rules also impose penalties if a U.S. Holder is required to submit such information to the IRS and fails to do so.

In addition, U.S. Holders may be subject to information reporting to the IRS and backup withholding with respect to dividends on and proceeds from the sale or other disposition of the ADSs or ordinary shares. Information reporting will apply to payments of dividends on, and to proceeds from the sale or other disposition of, ordinary shares or ADSs by a paying agent within the United States to a U.S. Holder, other than U.S. Holders that are exempt from information reporting and properly certify their exemption. A paying agent within the United States will be required to withhold at the applicable statutory rate, currently 24%, in respect of any payments of dividends on, and the proceeds from the disposition of, ordinary shares or ADSs within the United States to a U.S. Holder (other than U.S. Holders that are exempt from backup withholding and properly certify their exemption) if the holder fails to furnish its correct taxpayer identification number or otherwise fails to comply with applicable backup withholding requirements. U.S. Holders who are required to establish their exempt status generally must provide a properly completed IRS Form W-9.

Backup withholding is not an additional tax. Amounts withheld as backup withholding may be credited against a U.S. Holder's U.S. federal income tax liability. A U.S. Holder generally may obtain a refund of any amounts withheld under the backup withholding rules by filing the appropriate claim for refund with the IRS in a timely manner and furnishing any required information. Each U.S. Holder is advised to consult with its tax advisor regarding the application of the United States information reporting rules to its particular circumstances.

F. Dividends and Paying Agents

Not applicable.

G. Statement by Experts

Not applicable.

H. Documents on Display

We have previously filed with the SEC our registration statement on Form F-1 (File No. 333-252205), as amended, and a prospectus under the Securities Act with respect to our Class A ordinary shares represented by the ADSs.

We are subject to the periodic reporting and other informational requirements of the Exchange Act. Under the Exchange Act, we are required to file reports and other information with the SEC. Specifically, we are required to file annually a Form 20-F within four months after the end of each fiscal year. Copies of reports and other information, when so filed, may be inspected without charge and may be obtained at prescribed rates at the public reference facilities maintained by the SEC at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. The public may obtain information regarding the Washington, D.C. Public Reference Room by calling the SEC at 1-800-SEC-0330. The SEC also maintains a website at www.sec.gov that contains reports, proxy and information statements, and other information regarding registrants that make electronic filings with the SEC using its EDGAR system.

As a foreign private issuer, we are exempt from the rules of the Exchange Act prescribing the furnishing and content of quarterly reports and proxy statements, and our executive officers, directors and principal shareholders are exempt from the reporting and short-swing profit recovery provisions contained in Section 16 of the Exchange Act. In addition, we are not required under the Exchange Act to file periodic reports and financial statements with the SEC as frequently or as promptly as U.S. companies whose securities are registered under the Exchange Act.

We will furnish the Bank of New York Mellon, the depositary, with our annual reports, which include a review of operations and annual audited consolidated financial statements prepared in conformity with U.S. GAAP, and all notices of shareholders' meeting and other reports and communications that are made generally available to our shareholders. The depositary makes such notices, reports and communications available to holders of ADSs and, upon our request, mails to all record holders of ADSs the information contained in any notice of a shareholders' meeting received by the depositary from us.

I. Subsidiary Information

Not applicable.

J. Annual Reports to Security Holders

Not applicable.

ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Concentration Risk

No customers individually represented greater than 10.0% of our total revenues in 2020, 2021 and 2022. No suppliers individually represented greater than 10.0% of our total purchases in 2020 and 2021. One of our suppliers represented 11.1% of our total purchases in 2022.

One of our customers represented 17.4% of our total accounts receivable, net including related party amounts and contract assets as of December 31, 2021. Two of our customers represented 21.0% and 17.1% of our total accounts receivable, net including related party amounts and contract assets as of December 31, 2022, respectively.

Two of our suppliers represented 12.7% and 10.5% of our total accounts payable as of December 31, 2021, respectively. Two of our suppliers represented 11.2% and 11.1% of our total accounts payable as of December 31, 2022, respectively.

One of our customers represented 11.4% of our total contract liabilities as of December 31, 2021, and no customers of us individually represented greater than 10.0% of our total contract liabilities as of December 31, 2022.

Two of our suppliers represented 26.1% and 13.9% of our prepayments and other current assets excluding related party amounts as of December 31, 2021, respectively, and one of our suppliers represented 21.5% of our prepayments and other current assets excluding related party amounts as of December 31, 2022.

Credit Risk

Financial instruments that potentially expose us to concentrations of credit risk consist principally of cash, restricted cash, term deposits, short-term investments and accounts receivable. The total amount of these financial instruments was RMB2,553.3 million and RMB1,988.8 million (US\$288.4 million) as of December 31, 2021 and 2022. Our investment policy requires cash, restricted cash, term deposits and short-term investments to be placed with high-quality financial institutions and to limit the amount of credit risk from any one issuer. We regularly evaluate the credit standing of the counterparties or financial institutions.

We conduct credit evaluations on our customers prior to delivery of goods or services. The assessment of customer creditworthiness is primarily based on historical collection records, research of publicly available information and customer on-site visits by senior management. Based on this analysis, we determine what credit terms, if any, to offer to each customer individually. If the assessment indicates a likelihood of collection risk, we will not deliver the services or sell the products to the customer or require the customer to pay cash, post letters of credit to secure payment or to make significant down payments.

Interest Rate Risk

Our short-term bank borrowings bear interests at fixed rates. If we were to renew these loans, we might be subject to interest rate risk.

Foreign Currency Risk

Our reporting currency is Renminbi. The functional currency of us and our subsidiary incorporated in Hong Kong is the U.S. dollar. The functional currency of our subsidiary incorporated in Japan is Japanese Yen. The functional currency of our PRC subsidiaries, the VIE and the VIE's subsidiaries is Renminbi.

Transactions denominated in currencies other than the functional currency are remeasured into the functional currency at the exchange rates prevailing at the dates of the transactions. Monetary assets and liabilities denominated in a foreign currency are remeasured into the functional currency using the applicable exchange rates at the balance sheet dates. The resulted exchange differences are recorded as foreign currency exchange gains (losses), net in the consolidated statements of comprehensive loss.

The financial statements of us, our subsidiary incorporated in Hong Kong and our subsidiary incorporated in Japan are translated from the functional currency into Renminbi. Assets and liabilities are translated into Renminbi using the applicable exchange rates at the balance sheet dates. Equity accounts other than earnings (deficits) generated in the current period are translated into Renminbi using the appropriate historical rates. Revenues, expenses, gains and losses are translated into Renminbi using the average exchange rates for the relevant period. The resulted foreign currency translation adjustments are recorded as a component of other comprehensive loss in the consolidated statements of comprehensive loss, and the accumulated foreign currency translation adjustments are recorded as a component of accumulated other comprehensive loss in the consolidated statements of changes in shareholders' deficit.

Renminbi is not a freely convertible currency. The PRC State Administration for Foreign Exchange, under the authority of the PRC government, controls the conversion of Renminbi to foreign currencies. The value of Renminbi is subject to changes of central government policies and international economic and political developments affecting supply and demand in the PRC foreign exchange trading system market.

ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES

A. Debt Securities

Not applicable.

B. Warrants and Rights

Not applicable.

C. Other Securities

Not applicable.

D. American Depositary Shares

Fees and Expenses the ADS Holders May Have to Pay

The Bank of New York Mellon, as depositary, will register and deliver American Depositary Shares, also referred to as ADSs. Each ADS will represent six Class A ordinary shares (or a right to receive Class A ordinary shares) deposited with The Hongkong and Shanghai Banking Corporation Limited, as custodian for the depositary in Hong Kong. Each ADS will also represent any other securities, cash or other property that may be held by the depositary. The deposited shares together with any other securities, cash or other property held by the depositary are referred to as the deposited securities. The depositary's office at which the ADSs will be administered and its principal executive office are located at 240 Greenwich Street, New York, New York 10286.

Persons depositing or withdrawing shares or ADS holders must pay:	For:
US\$5.00 (or less) per 100 ADSs (or portion of 100 ADSs)	Issuance of ADSs, including issuances resulting from a distribution of shares or rights or other property
US\$0.05 (or less) per ADS	Cancellation of ADSs for the purpose of withdrawal, including if the deposit agreement terminates
A fee equivalent to the fee that would be payable if securities distributed to you had been shares and the shares had been deposited for issuance of ADSs	Any cash distribution to ADS holders
US\$0.05 (or less) per ADS per calendar year	Distribution of securities distributed to holders of deposited securities (including rights) that are distributed by the depositary to ADS holders
Registration or transfer fees	Depository services
Expenses of the depositary	Transfer and registration of shares on our share register to or from the name of the depositary or its agent when you deposit or withdraw shares
Taxes and other governmental charges the depositary or the custodian has to pay on any ADSs or shares underlying ADSs, such as stock transfer taxes, stamp duty or withholding taxes	Cable (including SWIFT) and facsimile transmissions (when expressly provided in the deposit agreement)
Any charges incurred by the depositary or its agents for servicing the deposited securities	Converting foreign currency to U.S. dollars
	As necessary

The depositary collects its fees for delivery and surrender of ADSs directly from investors depositing shares or surrendering ADSs for the purpose of withdrawal or from intermediaries acting for them. The depositary collects fees for making distributions to investors by deducting those fees from the amounts distributed or by selling a portion of distributable property to pay the fees. The depositary may collect its annual fee for depositary services by deduction from cash distributions or by directly billing investors or by charging the book-entry system accounts of participants acting for them. The depositary may collect any of its fees by deduction from any cash distribution payable (or by selling a portion of securities or other property distributable) to ADS holders that are obligated to pay those fees. The depositary may generally refuse to provide fee-attracting services until its fees for those services are paid.

In performing its duties under the deposit agreement, the depositary may use brokers, dealers, foreign currency dealers or other service providers that are owned by or affiliated with the depositary and that may earn or share fees, spreads or commissions.

The depositary may convert currency itself or through any of its affiliates, or the custodian or we may convert currency and pay U.S. dollars to the depositary. Where the depositary converts currency itself or through any of its affiliates, the depositary acts as principal for its own account and not as agent, advisor, broker or fiduciary on behalf of any other person and earns revenue, including, without limitation, transaction spreads, that it will retain for its own account. The revenue is based on, among other things, the difference between the exchange rate assigned to the currency conversion made under the deposit agreement and the rate that the depositary or its affiliate receives when buying or selling foreign currency for its own account. The depositary makes no representation that the exchange rate used or obtained by it or its affiliate in any currency conversion under the deposit agreement will be the most favorable rate that could be obtained at the time or that the method by which that rate will be determined will be the most favorable to ADS holders, subject to the depositary's obligation to act without negligence or bad faith. The methodology used to determine exchange rates used in currency conversions made by the depositary is available upon request. Where the custodian converts currency, the custodian has no obligation to obtain the most favorable rate that could be obtained at the time or to ensure that the method by which that rate will be determined will be the most favorable to ADS holders, and the depositary makes no representation that the rate is the most favorable rate and will not be liable for any direct or indirect losses associated with the rate. In certain instances, the depositary may receive dividends or other distributions from us in U.S. dollars that represent the proceeds of a conversion of foreign currency or translation from foreign currency at a rate that was obtained or determined by us and, in such cases, the depositary will not engage in, or be responsible for, any foreign currency transactions and neither it nor we make any representation that the rate obtained or determined by us is the most favorable rate and neither it nor we will be liable for any direct or indirect losses associated with the rate.

Fees and Other Payments Made by the Depositary to Us

From time to time, the depositary may make payments to us to reimburse us for costs and expenses generally arising out of establishment and maintenance of the ADS program, waive fees and expenses for services provided to us by the depositary or share revenue from the fees collected from ADS holders. In 2022, we did not receive any reimbursement from the depositary.

PART II

ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES

Not applicable.

ITEM 14. MATERIAL MODIFICATIONS TO THE RIGHTS OF SECURITY HOLDERS AND USE OF PROCEEDS

Material Modifications to the Rights of Security Holders

See “Item 10. Additional Information” for a description of the rights of shareholders, which remain unchanged.

Use of Proceeds

The following “Use of Proceeds” information relates to the registration statement on Form F-1 (File No. 333-252205), as amended, in relation to our initial public offering of 23,000,000 ADSs (reflecting the exercise of the over-allotment option by the underwriters to purchase an additional 3,000,000 ADSs) representing 46,000,000 Class A ordinary shares, at an initial offering price of US\$16.00 per ADS (or 7,666,666 ADSs at an initial offering price of US\$48.00 per ADS if retroactively adjusted to reflect the ADS ratio change effected on March 15, 2023). The registration statement was declared effective by the SEC on February 8, 2021. Our initial public offering closed on February 11, 2021. Goldman Sachs (Asia) L.L.C., Citigroup Global Markets Inc. and China International Capital Corporation Hong Kong Securities Limited were the representatives of the underwriters for our initial public offering.

We received net proceeds of approximately US\$340.2 million from our initial public offering, including the exercise of over-allotment option. Our expenses incurred and paid to others in connection with the issuance and distribution of the ADSs in our offering totaled US\$27.8 million, which included US\$25.8 million for underwriting discounts and commissions and US\$2.0 million for other expenses. None of the transaction expenses included payments to directors or officers of our company or their associates, persons owning more than 10% or more of our equity securities or our affiliates. None of the net proceeds we received from the initial public offering were paid, directly or indirectly, to any of our directors or officers or their associates, persons owning 10% or more of our equity securities or our affiliates.

As of the date of this annual report, we used approximately US\$166.9 million of the net proceeds received from our initial public offering to fund our strategic investments and acquisitions, enhancement and upgrade of our existing solutions and introduction of new ones, investment in technologies and working capital and general corporate purposes. We intend to use the remainder of the net proceeds from our initial public offering as disclosed in our registration statements on Form F-1.

ITEM 15. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures

Our management, with the participation of our chief executive officer and our chief financial officer, has performed an evaluation of the effectiveness of our disclosure controls and procedures, as defined in Rule 13a-15(e) under the Exchange Act, as of December 31, 2022.

Based upon that evaluation, our management has concluded that, as of December 31, 2022, our disclosure controls and procedures were ineffective due to the outstanding material weaknesses detailed under the below section.

Management's Annual Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rule 13a-15(f) under the Exchange Act. Our internal control system was designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation and fair presentation of our published consolidated financial statements. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

As required by Section 404 and related rules promulgated by the SEC, our management assessed the effectiveness of our internal control over financial reporting as of December 31, 2022. In making this assessment, our management used the criteria established in the Internal Control—Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this assessment, our management has concluded that, as of December 31, 2022, our internal control over financial reporting was ineffective due to the material weaknesses identified below.

As defined in the standards established by the PCAOB, a “material weakness” is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim consolidated financial statements will not be prevented or detected on a timely basis.

The material weaknesses identified relate to: (1) insufficient accounting personnel with appropriate U.S. GAAP knowledge for accounting of complex transactions, presentation and disclosure of financial statements in accordance with U.S. GAAP and SEC reporting requirements, (2) lack of rigorous implementation of controls on financial closing policies and procedures, (3) lack of sufficient procedures on recognizing revenue on a gross basis or a net basis, (4) insufficient controls and reporting procedures on monitoring the past due status of customer to assess the revenue recognition and provision of accounts receivable, (5) insufficient authorization, monitoring or review controls in the revenue and the purchase processes, (6) lack of systematic process controls over the filing and registration of the sales and purchase agreements, (7) improper approval and timely review on certain system user's authorization relating to general information technology control, and (8) insufficient acceptance control of systems (or subsystems) developed by external subcontractors.

To remedy the identified material weaknesses, we have begun to, and will continue to, improve our internal control over financial reporting, including, among others: (1) recruiting more qualified personnel equipped with relevant U.S. GAAP and SEC reporting experience and qualifications to strengthen the financial reporting function and to set up a financial and system control framework, (2) implementing regular and continuous U.S. GAAP accounting and financial reporting training programs for our accounting and financial reporting personnel, (3) enhancing oversight over and clarifying reporting requirements for, non-recurring and complex transactions to ensure consolidated financial statements and related disclosures are accurate, complete and in compliance with U.S. GAAP and SEC reporting requirements, (4) enhancing guidance and manuals on financial closing policies and procedures to improve the quality and accuracy of period-end financial closing process, especially on recognizing a gross or net basis revenue and monitoring the past due status of customer to assess the revenue recognition and provision of accounts receivable, (5) enhancing systematic management and review process controls over the acceptance check of outsource services and labor cost of project-based revenue, (6) enhancing systematic process controls over the filing and registration of the sales and purchase agreements, (7) enhancing authorization or review controls in the revenue and the purchase processes to ensure the existence, reasonableness and accuracy of the transactions, (8) enhancing background check controls of the customers and suppliers, (9) implementing regular review on staff to self-disclose conflicts of interest on a yearly basis, (10) enhancing approval, documentation and regular log review procedures relating to database, and (11) enhancing approval and regular review procedures relating to access authorization to operating system. Because such remedial measures had not been fully implemented as of December 31, 2022, our management concluded that the material weaknesses still existed as of such date.

We cannot assure you that we will remediate our material weaknesses in a timely manner. See “Item 3. Key Information—D. Risk Factors—Risks Related to the Independent Investigation and Restatement of Consolidated Financial Statements—If we fail to implement and maintain an effective system of internal control over financial reporting, we could be unable to accurately report our results of operations, meet our reporting obligations or prevent fraud, and investor confidence and the market price of the ADSs may be materially and adversely affected.”

Attestation Report of the Registered Public Accounting Firm

As a company with less than US\$1.235 billion in revenue for our last fiscal year, we qualify as an “emerging growth company” pursuant to the JOBS Act. An emerging growth company may take advantage of specified reduced reporting and other requirements that are otherwise applicable generally to public companies. Specifically, our independent registered public accounting firm is not required to formally attest to the effectiveness of our internal control over financial reporting until after we are no longer an “emerging growth company.” As such, this annual report on Form 20-F does not include an attestation report of our registered public accounting firm.

Changes in Internal Control over Financial Reporting

Other than as described above, there were no changes in our internal control over financial reporting during the fiscal year of 2022 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 16A. AUDIT COMMITTEE FINANCIAL EXPERT

Our board of directors has determined that Mr. Adam J. Zhao qualifies as an “audit committee financial expert” within the meaning of the SEC rules, and that he meets the independence standards under Rule 10A-3 under the Exchange Act.

ITEM 16B. CODE OF ETHICS

Our board of directors has adopted a code of business conduct and ethics that applies to all of our directors, officers and employees. We have filed our code of business conduct and ethics as Exhibit 99.1 to our registration statement on Form F-1 (File No. 333-252205), initially filed with the SEC on January 19, 2021, as amended, and posted a copy of our code of business conduct and ethics on our website at *ir.yuntongxun.com*.

ITEM 16C. PRINCIPAL ACCOUNTANT FEES AND SERVICES

The following table sets forth the aggregate fees by categories specified below in connection with certain professional services rendered by KPMG, Yu Certified Public Accountant, P.C., or Yu CPA, and ARK Pro CPA & Co, our previous and incumbent independent registered public accounting firms, for the years indicated. Save as disclosed below, we did not pay any other fees to our independent registered public accounting firm during the periods indicated below.

	2021	2022	
	RMB	RMB	US\$
		(in thousands)	
Audit fees*	19,282	7,354	1,038

* Audit fees represent the aggregate fees billed for each of the fiscal years listed for professional services rendered by our principal auditor for the audit of our annual consolidated financial statements, and audit services that are normally provided by the principal audit in connection with regulatory filings or engagements for those fiscal years.

Our audit committee is responsible for pre-approving all audit and non-audit services provided by our independent registered public accounting firm.

ITEM 16D. EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES

Not applicable.

ITEM 16E. PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURASERS

In September 2021, our board announced a share repurchase program pursuant to which we would repurchase up to US\$40.0 million of our Class A ordinary shares in the form of the ADSs during a 12-month period commencing on November 22, 2021. The share repurchase program expired on November 21, 2022, and as of such date, we had repurchased 9,041,386 of the ADSs (or 3,013,795 ADSs if retroactively adjusted to reflect the ADS ratio change effected on March 15, 2023) for an aggregate purchase price of approximately US\$17.6 million, pursuant to the share repurchase program.

The table below is a summary of the shares repurchased by us pursuant to the share repurchase program, which is presented based on the then ADS ratio of one ADS representing two Class A ordinary shares prior to the ADS ratio change effected on March 15, 2023. All ADSs were repurchased in the open market pursuant to the share repurchase program.

	Total Number of ADSs Purchased	Average Price Paid per ADS (US\$)	Total Number of ADSs Purchased as Part of Publicly Announced Program	Approximate Dollar Value of ADSs that May Yet Be Purchased Under the Program (US\$)
November 2021	478,896	4.02	478,896	38,076,220
December 2021	3,430,327	3.17	3,909,223	27,200,386
January 2022	-	-	3,909,223	27,200,386
February 2022	-	-	3,909,223	27,200,386
March 2022	25,873	1.49	3,935,096	27,161,947
April 2022	200,300	1.07	4,135,396	26,946,673
May 2022	1,257,654	0.78	5,393,050	25,971,532
June 2022	1,021,424	0.98	6,414,474	24,971,669
July 2022	472,432	1.05	6,886,906	24,474,942
August 2022	664,013	1.02	7,550,919	23,796,747
September 2022	662,771	0.93	8,213,690	23,177,080
October 2022	608,539	0.96	8,822,229	22,592,157
November 2022	219,157	1.00	9,041,386	22,373,663

ITEM 16F. CHANGE IN REGISTRANT'S CERTIFYING ACCOUNTANT

On July 18, 2022, we engaged Yu CPA as our independent registered public accounting firm. Yu CPA replaced KPMG, who resigned on April 29, 2022. The engagement of our independent registered public accounting firm was made after careful consideration and evaluation process and was approved by our board of directors and our audit committee.

Prior to its resignation, KPMG advised us that its audit opinions on the consolidated financial statements as of and for the years ended December 31, 2018, 2019 and 2020, and as of and for the nine-month period ended September 30, 2020 should not be relied upon.

During the two fiscal years ended December 31, 2020 and 2021 and the subsequent interim period through April 29, 2022, there were no (1) disagreements as defined in Item 16F(a)(1)(iv) of Form 20-F and the related instructions thereto between us and KPMG on any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedure, which disagreements, if not resolved to the satisfaction of KPMG, would have caused KPMG to make reference to the subject matter of the disagreements in connection with its reports on the consolidated financial statements, or (2) reportable events as defined in Item 16F(a)(1)(v) of Form 20-F, except the following: (i) KPMG advised us of the following material weaknesses: (a) insufficient accounting personnel with appropriate U.S. GAAP knowledge for accounting of complex transactions, presentation and disclosure of financial statements in accordance with U.S. GAAP and SEC reporting requirements, (b) lack of sufficient documented financial closing policies and procedures, and (c) insufficient authorization or review controls in the revenue and the purchase processes, and (ii) the Internal Investigation. KPMG had not completed its audit of our consolidated financial statements as of and for the year ended December 31, 2021 at the time of its resignation.

We provided KPMG with a copy of the foregoing disclosure and requested that KPMG furnish us with a letter addressed to the SEC stating whether it agrees with the above statements and, if not, stating the respects in which it does not agree. A copy of the letter from KPMG, dated February 27, 2024, is attached as Exhibit 16.1 to this annual report on Form 20-F.

During the two fiscal years ended December 31, 2020 and 2021 and the subsequent interim period through July 18, 2022, the date of engagement of Yu CPA, neither we nor anyone acting on our behalf consulted Yu CPA regarding any of the matters or events set forth in Item 16F(a)(2)(i) and (ii) of Form 20-F.

On February 3, 2023, we engaged ARK Pro CPA & Co, as our independent registered public accounting firm to replace Yu CPA. The change of our independent registered public accounting firm was made after careful consideration and evaluation process and was approved by our board of directors and our audit committee.

From July 18, 2022, the date we engaged Yu CPA as our independent registered public accounting firm, to February 3, 2023, there were no (1) disagreements as defined in Item 16F of Form 20-F, or (2) reportable events as defined in Item 16F of Form 20-F.

We provided Yu CPA with a copy of the above paragraphs and requested that Yu CPA furnish us with a letter addressed to the SEC stating whether it agrees with the above paragraphs and, if not, stating the respects in which it does not agree. A copy of the letter from Yu CPA, dated February 27, 2024, is attached as Exhibit 16.2 to this annual report on Form 20-F.

Prior to the engagement of ARK Pro CPA & Co, neither we nor anyone acting on our behalf consulted ARK Pro CPA & Co regarding any of the matters or events set forth in Item 16F(a)(2)(i) and (ii) of Form 20-F.

ITEM 16G. CORPORATE GOVERNANCE

We are a foreign private issuer within the meaning of the rules under the Exchange Act, and as such we are exempt from certain provisions of the securities rules and regulations that are applicable to U.S. domestic issuers. Moreover, the information we are required to file with or furnish to the SEC will be less extensive and less timely compared to that required to be filed with the SEC by U.S. domestic issuers. As a Cayman Islands company previously listed on the NYSE, we were subject to the NYSE corporate governance listing standards. However, we were permitted to adopt certain home country practices in relation to corporate governance matters that differ significantly the NYSE corporate governance listing standards. To the extent that we choose to follow home country practice in the future, our shareholders may be afforded less protection than they otherwise would enjoy under the NYSE corporate governance listing standards applicable to U.S. domestic issuers.

On May 17, 2023, the NYSE suspended the trading in the ADSs and commenced delisting proceedings. Following the trading suspension, the ADSs have been quoted on the OTC market in the United States under the symbol "RAASY." On October 25, 2023, we were delisted from NYSE when the NYSE staff filed a Form 25 Notification of Delisting.

ITEM 16H. MINE SAFETY DISCLOSURE

Not applicable.

ITEM 16I. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

ITEM 16J. INSIDER TRADING POLICIES

We have adopted an insider trading policy to promote compliance with applicable securities laws and regulations, including those that prohibit insider trading. This policy applies to all officers, directors, employees and consultants of our company, or each an Affiliate, and extends to all activities within and outside an individual's duties at our company. The insider trading policy establishes guidelines and procedures for the following:

- **No Trading:** No Affiliate may purchase or sell any type of security or enter into a binding security trading plan in compliance with Rule 10b5-1 under the Exchange Act, as amended, while in possession of material non-public information. Affiliates in possession of such information may not purchase or sell our securities until the later of (1) the expiration of a 48-hour waiting period following public disclosure of the material information by us, and (2) the lapse of one full trading day following such public disclosure. Additionally, Affiliates may not trade during limited trading periods, regardless of the possession of material information. All transactions of securities by officers, directors, and key employees must be pre-approved by our compliance officer.
- **Trading Window:** The insider trading policy establishes a trading window for Affiliates, during which they can trade our securities or enter into a trading plan. The trading window begins at the close of business on the second trading day following the public disclosure of our financial results for the previous fiscal year or quarter and ends on the last day of each fiscal quarter. Trading during the trading window does not provide a safe harbor, and Affiliates must comply with all policies.
- **No Tipping:** No Affiliate may directly or indirectly disclose any material information to anyone who trades in our securities.
- **Confidentiality:** No Affiliate may communicate any material information to anyone outside our company under any circumstances unless approved by the compliance officer in advance, or to anyone within our company other than on a need-to-know basis.
- **No Comment:** No Affiliate may discuss any internal matters or developments of our company with anyone outside our company, except as required in the performance of regular corporate duties. Unless expressly authorized to do otherwise, if an Affiliate receives any inquiries about us or our securities from any press, investment analyst, investor or other outsiders, or any requests for comments or interviews, they should decline to comment and direct the inquiry or request to the compliance officer or any other office designated by the chief executive officer.
- **Corrective Action:** If any information that may be considered material information is inadvertently disclosed, any Affiliate with knowledge of the disclosure should notify the compliance officer immediately.

We are committed to maintaining the highest standards of ethical conduct and have implemented these insider trading policies and procedures to ensure compliance with applicable securities laws and to protect the interests of our shareholders.

ITEM 16K. CYBERSECURITY

Risk Management and Strategy

We have access to certain data and information of enterprises which use our solutions. We may also have access to certain personal data and information of our customers' end-users. Specifically, for our solutions deployed on public cloud, data and information are safely encrypted and stored in cloud servers, where customers can access on demand only with appropriate authorization. We do not have access to data and information of customers which use our solutions deployed on private cloud.

We are committed to protecting our customers' data and privacy and have designed strict protocols on data collection, transmission, storage and usage to ensure compliance with applicable laws and regulations. In addition, our agreements with customers generally include a confidentiality clause under which we are obligated not to disclose or otherwise misappropriate the data and information of our customers or their end-users.

We take safety precautions to maintain our technological infrastructure and protect our data and information. We have implemented detailed policies regarding system operation and maintenance, information security and management, and data backup and disaster recovery. Our technological infrastructure applies safeguards such as web application firewalls to ensure data security. As a general principle, data and information in relation to our business operations can only be accessed by our employees with designated authorization level. We enter into confidentiality agreements with our employees who have access to our data and information. The confidentiality agreements provide that, among others, these employees are legally obligated not to disclose or otherwise misappropriate confidential data and information in possession as a result of their employment. Such employees are also legally obligated to surrender all confidential data and information in possession upon resigning and to maintain their confidentiality obligations afterwards. They bear compensation liability if they breach their confidentiality obligations or otherwise commit misconduct resulting in leakage of our confidential data and information. Furthermore, our agreements with business partners generally include a confidentiality clause under which they are legally obligated not to disclose or misappropriate confidential data and information in possession as a result of their relationship with us.

As of the date of this annual report, we have not received any claim from any third party against us on the ground of infringement of such party's right to data protection as provided by applicable laws and regulations in China and other jurisdictions. As of the same date, we have not experienced any cybersecurity incidents that resulted in an interruption to our operations, known losses of any critical data or otherwise had a material impact on our business strategy, results of operations or financial condition. However, the scope and impact of any future incidents cannot be predicted. See "Item 3. Key Information — D. Risk Factors" for more information on how material cybersecurity incidents may impact our business.

Governance

Our board of directors acknowledges the significance of robust cybersecurity management programs and actively participates in overseeing and reviewing our cybersecurity risk profile and exposures.

Our chief technology officer leads the overall assessment, identification and management of risks related to cybersecurity threats. He works collaboratively within our Group and receives regular briefings on cybersecurity matters, such as report on cybersecurity incidents and responses and remedial measures. Our chief technology officer has over 20 years of relevant experience in risk management, cybersecurity and information technology. Our chief technology officer and dedicated staff are responsible for the daily management of our cybersecurity efforts. This includes updates and refinement of cybersecurity policies, execution and management of cybersecurity measures, and the preparation of regular reports on cybersecurity execution. Their primary focus is to consistently update our cybersecurity programs and mitigation strategies, ensuring they align with industry best practices and procedures.

PART III

ITEM 17. FINANCIAL STATEMENTS

We have elected to provide financial statements pursuant to Item 18.

ITEM 18. FINANCIAL STATEMENTS

Our consolidated financial statements are included at the end of this annual report.

ITEM 19. EXHIBITS

Exhibit No.	Description of Exhibit
1.1	Eighth Amended and Restated Memorandum and Articles of Association of the Registrant, as currently in effect (incorporated by reference to Exhibit 1.1 of our Annual Report on Form 20-F (File No. 001-40004) filed with the SEC on May 10, 2021)
2.1	Registrant's Specimen American Depositary Receipt (to reflect the ADS ratio change effected on March 15, 2023) (incorporated by reference to Exhibit 2.1 of our Annual Report on Form 20-F (File No. 001-40004) filed with the SEC on February 27, 2024)
2.2	Registrant's Specimen Certificate for Class A Ordinary Shares (incorporated by reference to Exhibit 4.2 of our registration statement on Form F-1 (File No. 333-252205) initially filed with the SEC on January 19, 2021, as amended)
2.3	Deposit Agreement dated February 8, 2021, by and among the Registrant, the depositary and the owners and holders of American depositary shares issued thereunder (incorporated by reference to Exhibit 2.3 of our Annual Report on Form 20-F (File No. 001-40004) filed with the SEC on May 10, 2021)
2.4	The Sixth Amended and Restated Shareholders Agreement between the Registrant and other parties thereto dated as of November 13, 2020 (incorporated by reference to Exhibit 10.19 of our registration statement on Form F-1 (File No. 333-252205) initially filed with the SEC on January 19, 2021, as amended)
2.5	The Sixth Amended and Restated Right of First Refusal and Co-sale Agreement between the Registrant and other parties thereto dated as of November 13, 2020 (incorporated by reference to Exhibit 10.20 of our registration statement on Form F-1 (File No. 333-252205) initially filed with the SEC on January 19, 2021, as amended)
2.6*	Description of Securities
4.1	2016 Share Incentive Plan (incorporated by reference to Exhibit 10.1 of our registration statement on Form F-1 (File No. 333-252205) initially filed with the SEC on January 19, 2021, as amended)
4.2	2021 Share Incentive Plan (incorporated by reference to Exhibit 10.2 of our registration statement on Form F-1 (File No. 333-252205) initially filed with the SEC on January 19, 2021, as amended)
4.3	Form of Indemnification Agreement between the Registrant and each of its directors and executive officers (incorporated by reference to Exhibit 10.3 of our registration statement on Form F-1 (File No. 333-252205) initially filed with the SEC on January 19, 2021, as amended)
4.4	Form of Employment Agreement between the Registrant and each of its executive officers (incorporated by reference to Exhibit 10.4 of our registration statement on Form F-1 (File No. 333-252205) initially filed with the SEC on January 19, 2021, as amended)
4.5	Amended and Restated Exclusive Business Cooperation Agreement between Anxun Quantong (Beijing) Technology Co., Ltd. and Beijing Ronglian Yitong Information Technology Co., Ltd. dated as of November 3, 2020 (incorporated by reference to Exhibit 10.5 of our registration statement on Form F-1 (File No. 333-252205) initially filed with the SEC on January 19, 2021, as amended)
4.6	Share Pledge Agreement among Anxun Quantong (Beijing) Technology Co., Ltd., Dazi Heye Investment Management Co., Ltd. (formerly known as Lhasa Heye Investment Management Co., Ltd.), and Beijing Ronglian Yitong Information Technology Co., Ltd. dated as of March 28, 2019 (incorporated by reference to Exhibit 10.6 of our registration statement on Form F-1 (File No. 333-252205) initially filed with the SEC on January 19, 2021, as amended)

- 4.7 [Share Pledge Agreement among Anxun Guantong \(Beijing\) Technology Co., Ltd., Changxun Sun, and Beijing Ronglian Yitong Information Technology Co., Ltd. dated as of March 28, 2019 \(incorporated by reference to Exhibit 10.7 of our registration statement on Form F-1 \(File No. 333-252205\) initially filed with the SEC on January 19, 2021, as amended\)](#)
- 4.8 [Share Pledge Agreement among Anxun Guantong \(Beijing\) Technology Co., Ltd., Jianhong Zhou, and Beijing Ronglian Yitong Information Technology Co., Ltd. dated as of March 28, 2019 \(incorporated by reference to Exhibit 10.8 of our registration statement on Form F-1 \(File No. 333-252205\) initially filed with the SEC on January 19, 2021, as amended\)](#)
- 4.9 [Share Pledge Agreement among Anxun Guantong \(Beijing\) Technology Co., Ltd., Beijing Hongshan Shengde Equity Investment Center \(Limited Partnership\), and Beijing Ronglian Yitong Information Technology Co., Ltd. dated as of November 3, 2020 \(incorporated by reference to Exhibit 10.9 of our registration statement on Form F-1 \(File No. 333-252205\) initially filed with the SEC on January 19, 2021, as amended\)](#)
- 4.10 [Exclusive Option Agreement among Anxun Guantong \(Beijing\) Technology Co., Ltd., Dazi Heye Investment Management Co., Ltd. \(formerly known as Lhasa Heye Investment Management Co., Ltd.\), and Beijing Ronglian Yitong Information Technology Co., Ltd. dated as of August 28, 2019 \(incorporated by reference to Exhibit 10.10 of our registration statement on Form F-1 \(File No. 333-252205\) initially filed with the SEC on January 19, 2021, as amended\)](#)
- 4.11 [Exclusive Option Agreement among Anxun Guantong \(Beijing\) Technology Co., Ltd., Changxun Sun, and Beijing Ronglian Yitong Information Technology Co., Ltd. dated as of August 28, 2019 \(incorporated by reference to Exhibit 10.11 of our registration statement on Form F-1 \(File No. 333-252205\) initially filed with the SEC on January 19, 2021, as amended\)](#)
- 4.12 [Exclusive Option Agreement among Anxun Guantong \(Beijing\) Technology Co., Ltd., Jianhong Zhou, and Beijing Ronglian Yitong Information Technology Co., Ltd. dated as of March 28, 2019 \(incorporated by reference to Exhibit 10.12 of our registration statement on Form F-1 \(File No. 333-252205\) initially filed with the SEC on January 19, 2021, as amended\)](#)
- 4.13 [Exclusive Option Agreement among Anxun Guantong \(Beijing\) Technology Co., Ltd., Beijing Hongshan Shengde Equity Investment Center \(Limited Partnership\), and Beijing Ronglian Yitong Information Technology Co., Ltd. dated as of November 3, 2020 \(incorporated by reference to Exhibit 10.13 of our registration statement on Form F-1 \(File No. 333-252205\) initially filed with the SEC on January 19, 2021, as amended\)](#)
- 4.14 [Power of Attorney issued by Dazi Heye Investment Management Co., Ltd. \(formerly known as Lhasa Heye Investment Management Co., Ltd.\) dated as of August 28, 2019 \(incorporated by reference to Exhibit 10.14 of our registration statement on Form F-1 \(File No. 333-252205\) initially filed with the SEC on January 19, 2021, as amended\)](#)
- 4.15 [Power of Attorney issued by Changxun Sun dated as of August 28, 2019 \(incorporated by reference to Exhibit 10.15 of our registration statement on Form F-1 \(File No. 333-252205\) initially filed with the SEC on January 19, 2021, as amended\)](#)
- 4.16 [Power of Attorney issued by Jianhong Zhou dated as of March 28, 2019 \(incorporated by reference to Exhibit 10.16 of our registration statement on Form F-1 \(File No. 333-252205\) initially filed with the SEC on January 19, 2021, as amended\)](#)
- 4.17 [Power of Attorney issued by Beijing Hongshan Shengde Equity Investment Center \(Limited Partnership\) dated as of November 3, 2020 \(incorporated by reference to Exhibit 10.17 of our registration statement on Form F-1 \(File No. 333-252205\) initially filed with the SEC on January 19, 2021, as amended\)](#)
- 4.18 [Spousal Consent Letter issued by the spouse of Changxun Sun dated as of August 28, 2019 \(incorporated by reference to Exhibit 10.18 of our registration statement on Form F-1 \(File No. 333-252205\) initially filed with the SEC on January 19, 2021, as amended\)](#)
- 4.19 [Series F Preferred Share Purchase Agreement between the Registrant and other parties thereto dated as of November 4, 2020 \(incorporated by reference to Exhibit 10.21 of our registration statement on Form F-1 \(File No. 333-252205\) initially filed with the SEC on January 19, 2021, as amended\)](#)

4.20	<u>Warrant to Purchase Series F Preferred Shares of the Registrant, dated as of November 13, 2020 (incorporated by reference to Exhibit 10.22 of our registration statement on Form F-1 (File No. 333-252205) initially filed with the SEC on January 19, 2021, as amended)</u>
4.21	<u>Termination Agreement in respect of the Current Contractual Agreements among Anxun Guantong (Beijing) Technology Co., Ltd., Beijing HongShan Shengde Equity Investment Center (Limited Partnership) and Beijing Ronglian Yitong Information Technology Co., Ltd. dated as of January 5, 2024 (incorporated by reference to Exhibit 4.21 of our Annual Report on Form 20-F (File No. 001-40004) filed with the SEC on February 27, 2024)</u>
8.1*	<u>List of Principal Subsidiaries and Affiliated Entities of the Registrant</u>
11.1	<u>Code of Business Conduct and Ethics of the Registrant (incorporated by reference to Exhibit 99.1 of our registration statement on Form F-1 (File No. 333-252205) initially filed with the SEC on January 19, 2021, as amended)</u>
11.2*	<u>Insider Trading Policy</u>
12.1*	<u>CEO Certification pursuant to Section 302 of the Sarbanes-Oxley Act of 2002</u>
12.2*	<u>CFO Certification pursuant to Section 302 of the Sarbanes-Oxley Act of 2002</u>
13.1**	<u>CEO Certification pursuant to Section 906 of the Sarbanes-Oxley Act of 2002</u>
13.2**	<u>CFO Certification pursuant to Section 906 of the Sarbanes-Oxley Act of 2002</u>
15.1*	<u>Consent of Maples and Calder (Hong Kong) LLP</u>
15.2*	<u>Consent of CM Law Firm</u>
15.3*	<u>Consent of ARK Pro CPA & Co</u>
16.1	<u>Letter from KPMG Huazhen LLP to the Securities and Exchange Commission (incorporated by reference to Exhibit 16.1 of our Annual Report on Form 20-F (File No. 001-40004) filed with the SEC on February 27, 2024)</u>
16.2	<u>Letter from Yu Certified Public Accountant, P.C. to the Securities and Exchange Commission (incorporated by reference to Exhibit 16.2 of our Annual Report on Form 20-F (File No. 001-40004) filed with the SEC on February 27, 2024)</u>
101.INS*	Inline XBRL Instance Document
101.SCH*	Inline XBRL Taxonomy Extension Schema Document
101.CAL*	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF*	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB*	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE*	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104*	Cover Page Interactive Data File (embedded within the Inline XBRL document)

* Filed with this annual report on Form 20-F

** Furnished with this annual report on Form 20-F

SIGNATURES

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

Cloopen Group Holding Limited

By: /s/ Changxun Sun
Name: Changxun Sun
Title: Chief Executive Officer

Date: August 27, 2024

CLOOPEN GROUP HOLDING LIMITED

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To the Shareholders and Board of Directors
Cloopen Group Holding Limited:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of Cloopen Group Holding Limited (the “Company”), its subsidiaries and its variable interest entities (collectively the “Group”) as of December 31, 2021 and 2022, the related consolidated statements of comprehensive loss, changes in shareholders’ (deficit)/equity, and cash flows for each of the years in the three-year period ended December 31, 2022, and the related notes (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2021 and 2022, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2022, in conformity with U.S. generally accepted accounting principles.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ ARK PRO CPA & Co

We have served as the Company’s auditor since 2023.

Hong Kong, China

August 27, 2024

CLOOPEN GROUP HOLDING LIMITED

CONSOLIDATED BALANCE SHEETS

(Amounts in thousands of RMB and US\$, except for number of shares and per share data)

	Notes	December 31,		
		2021	2022	
		RMB	RMB	US\$
ASSETS				
Current assets				
Cash	4	656,179	526,740	76,370
Restricted cash	4	698	525	76
Term deposits	2(i)	1,609,864	915,845	132,785
Short-term investments	17	127,514	412,031	59,739
Accounts receivable – third parties, net	5	158,725	133,577	19,367
Accounts receivable – related parties, net	5,22	304	99	14
Contract assets	20	21,118	50,838	7,371
Amounts due from a related party	22	-	105	15
Prepayments and other current assets	6	136,665	108,129	15,679
Total current assets		2,711,067	2,147,889	311,416
Non-current assets				
Long-term investments	7	127,748	58,530	8,486
Property and equipment, net	8	14,094	14,389	2,086
Operating lease right-of-use assets	9	-	16,342	2,369
Intangible assets, net	10	48,397	16,934	2,455
Goodwill	11	121,805	54,427	7,891
Other non-current assets		3,128	4,580	664
Total non-current assets		315,172	165,202	23,951
Total assets		3,026,239	2,313,091	335,367
LIABILITIES AND SHAREHOLDERS' EQUITY				
Current liabilities				
Short-term bank borrowings	12	5,500	-	-
Accounts payable		148,019	122,124	17,706
Contract liabilities	20	285,936	359,801	52,166
Operating lease liabilities-current	9	-	10,162	1,473
Amounts due to related parties	22	794	780	113
Payable for business acquisition	4	93,511	8,915	1,293
Accrued expenses and other current liabilities	13	166,987	242,724	35,192
Total current liabilities		700,747	744,506	107,943
Non-current liabilities				
Long-term borrowings	12	8,004	-	-
Operating lease liabilities-non current	9	-	6,448	935
Deferred income tax liabilities	18	8,883	1,285	186
Other non-current liabilities		3,334	910	132
Total non-current liabilities		20,221	8,643	1,253
Total liabilities		720,968	753,149	109,196
Commitments and contingencies (Note 21)				
SHAREHOLDERS' EQUITY:				
Class A Ordinary Shares (US\$0.0001 par value, 600,000,000 shares authorized, 309,105,485 shares issued as of December 31, 2021 and 2022, and 301,287,039 and 300,489,701 shares outstanding as of December 31, 2021 and 2022, respectively)		192	193	28
Class B Ordinary Shares (US\$0.0001 par value, 25,649,839 shares authorized, issued and outstanding as of December 31, 2021 and 2022; each Class B ordinary share is convertible into one Class A ordinary share)		17	17	3
Additional paid-in capital		11,066,975	11,184,360	1,621,580
Treasury stock		(81,638)	(120,899)	(17,529)
Accumulated other comprehensive loss		(232,268)	(78,613)	(11,398)
Accumulated deficit		(8,446,942)	(9,421,840)	(1,366,038)
Total shareholders' Equity attributable to Cloopen Group Holding Limited		2,306,336	1,563,218	226,646
Non-controlling interests		(1,065)	(3,276)	(475)
Total shareholders' Equity		2,305,271	1,559,942	226,171
Total liabilities and shareholders' equity		3,026,239	2,313,091	335,367

The accompanying notes are an integral part of these consolidated financial statements.

CLOOPEN GROUP HOLDING LIMITED

CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS

(Amounts in thousands of RMB and US\$, except for number of shares and per share data)

	Notes	Year ended December 31,			
		2020	2021	2022	
		RMB	RMB	RMB	US\$
Revenues (including related parties amounts of RMB 33,068, RMB 5,994 and RMB 1,377 for the years ended December 31, 2020, 2021 and 2022, respectively)	20,22	723,453	752,688	593,634	86,069
Cost of revenues (including related parties amounts of RMB 1,414, nil and nil for the years ended December 31, 2020, 2021 and 2022, respectively)	22	(478,118)	(480,755)	(367,334)	(53,258)
Gross profit		245,335	271,933	226,300	32,811
Operating expenses:					
Selling and marketing expenses		(200,410)	(300,043)	(265,304)	(38,465)
General and administrative expenses		(241,356)	(385,498)	(319,217)	(46,282)
Impairment loss of goodwill		-	(149,092)	(107,407)	(15,573)
Impairment loss of intangible assets		-	(136)	(28,011)	(4,061)
Provision for U.S Class Action		-	-	(83,575)	(12,117)
Other operating expenses		-	(51,354)	(70,417)	(10,210)
Research and development expenses (including related parties amounts of RMB5,667, RMB1,974 and nil for the years ended December 31, 2020, 2021 and 2022, respectively)	22	(174,192)	(297,360)	(326,513)	(47,340)
Total operating expenses		(615,958)	(1,183,483)	(1,200,444)	(174,048)
Operating loss		(370,623)	(911,550)	(974,144)	(141,237)
Interest expenses		(3,477)	(366)	(428)	(62)
Interest income		978	11,344	14,627	2,121
Investment income		12	-	340	49
Share of losses of equity method investments	7	-	(596)	(1,969)	(285)
Gain from disposal of long-term investments	7	-	-	5,138	745
Change in fair value of long-term investments	7	11,614	47,247	-	-
Impairment loss of long-term investments	7	-	(6,603)	(7,400)	(1,073)
Change in fair value of warrant liabilities	14	(61,454)	(29,011)	-	-
Gain(loss) from disposal of subsidiaries, net		(7,275)	2,899	(2,739)	(397)
Foreign currency exchange gains (losses), net		6,115	(6,696)	(9,666)	(1,401)
Loss before income taxes		(424,110)	(893,332)	(976,241)	(141,540)
Income tax benefit (expense)	18	(1,127)	(11,120)	342	50
Net loss		(425,237)	(904,452)	(975,899)	(141,490)
Net loss attributable to non-controlling interests		(5)	(593)	(1,001)	(145)
Net loss attributable to Cloopen Group Holding Limited		(425,232)	(903,859)	(974,898)	(141,345)
Accretion and modifications of Redeemable Convertible Preferred Shares	15	(1,139,108)	(4,878,652)	-	-
Deemed dividends to Series E Redeemable Convertible Preferred Shareholders	15	(14,729)	-	-	-
Net loss attributable to ordinary shareholders		(1,579,069)	(5,782,511)	(974,898)	(141,345)
Net loss		(425,237)	(904,452)	(975,899)	(141,490)
Other comprehensive income (loss):					
Foreign currency translation adjustment, net of nil income taxes		153,151	(308,001)	153,655	22,278
Total other comprehensive income (loss)		153,151	(308,001)	153,655	22,278
Comprehensive loss		(1,425,923)	(6,091,105)	(822,244)	(119,212)
Comprehensive loss attributable to non-controlling interests		(81)	(593)	(1,001)	(145)
Comprehensive loss attributable to Cloopen Group Holding Limited		(1,425,842)	(6,090,512)	(821,243)	(119,067)
Net loss per ordinary share					
—Basic and diluted	19	(18.55)	(19.62)	(3.03)	(0.44)
Weighted average number of ordinary shares outstanding used in computing net loss per ordinary share					
—Basic and diluted	19	85,103,964	294,793,258	321,885,046	321,885,046

The accompanying notes are an integral part of these consolidated financial statements.

CLOOPEN GROUP HOLDING LIMITED
CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' DEFICIT
FOR THE YEAR ENDED DECEMBER 31, 2020

(Amounts in thousands of RMB and US\$, except for number of shares and per share data)

	Note	Pre-offering Class A ordinary shares		Pre-offering Class B ordinary shares		Additional paid-in capital	Subscription receivable	Accumulated other comprehensive income(loss)	Accumulated deficit	Total shareholders' deficit attributable to Cloopen Group Holding Limited	Non- controlling interests	Total shareholders' deficit
		Number of shares	RMB	Number of shares	RMB	RMB	RMB	RMB	RMB	RMB	RMB	RMB
Balance as of January 1, 2020		34,724,614	24	55,957,962	33	-	(23,220)	(77,494)	(1,168,156)	(1,268,813)	(26,277)	(1,295,090)
Issuance of ordinary shares to Baiyi's non-controlling interest shareholders as share based compensation	16	3,706,745	3	-	-	33,136	-	-	-	33,139	-	33,139
Purchase of the non-controlling interests of the Group's subsidiaries by issuing ordinary shares		3,501,087	2	-	-	(42,166)	-	-	-	(42,164)	22,692	(19,472)
Receipt of subscription receivables		-	-	-	-	-	1	-	-	1	-	1
Change in the ownership interest in the subsidiaries		-	-	-	-	(3,286)	-	-	-	(3,286)	6,179	2,893
Net loss		-	-	-	-	-	-	-	(425,232)	(425,232)	(5)	(425,237)
Share-based compensation	16	-	-	-	-	77,909	23,219	-	-	101,128	-	101,128
Accretion of Redeemable Convertible Preferred Shares	15	-	-	-	-	(65,593)	-	-	(1,073,515)	(1,139,108)	-	(1,139,108)
Deemed dividends	15	-	-	-	-	-	-	-	(14,729)	(14,729)	-	(14,729)
Foreign currency translation adjustment, net of nil income taxes		-	-	-	-	-	-	153,227	-	153,227	(76)	153,151
Balance as of December 31, 2020		41,932,446	29	55,957,962	33	-	-	75,733	(2,681,632)	(2,605,837)	2,513	(2,603,324)

The accompanying notes are an integral part of these consolidated financial statements.

CLOOPEN GROUP HOLDING LIMITED
CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY
FOR THE YEAR ENDED DECEMBER 31, 2021

(Amounts in thousands of RMB and US\$, except for number of shares and per share data)

Note	A ordinary shares		B Ordinary shares		Treasury Shares	Pre-offering Class A ordinary shares		Pre-offering Class B ordinary shares		Additional paid-in capital	Subscription receivable	Accumulated other comprehensive income(loss)	Accumulated deficit	Total shareholders' deficit attributable to Cloopen Group Holding Limited	Non-controlling interests	Total shareholders' deficit
	Number of shares	RMB	Number of shares	RMB	RMB	Number of shares	RMB	Number of shares	RMB	RMB	RMB	RMB	RMB	RMB	RMB	RMB
Balance as of January 1, 2021		-	-	-	-	41,932,446	29	55,957,962	33	-	-	75,733	(2,681,632)	(2,605,837)	2,513	(2,603,324)
Issuance of ordinary shares to Cloopen Japan's non-controlling interest shareholders as share based compensation	16	-	-	-	-	1,424,312	1	-	-	20,620	-	-	-	20,621	(5,867)	14,754
Exercise of options before IPO		-	-	-	-	11,697,012	7	-	-	15,917	-	-	-	15,924	-	15,924
IPO Pre-offering ordinary shares converted to ordinary shares		85,361,893	53	25,649,839	17	-	(55,053,770)	(37)	(55,957,962)	(33)	-	-	-	-	-	-
IPO preferred shares converted to ordinary shares		158,900,014	103	-	-	-	-	-	-	8,539,512	(336,179)	-	-	8,203,436	-	8,203,436
Initial Public Offering		46,000,000	30	-	-	-	-	-	-	2,195,797	-	-	-	2,195,827	-	2,195,827
Exercise of Warrant C		638,569	-	-	-	-	-	-	-	38,844	-	-	-	38,844	-	38,844
Change in the ownership interest in subsidiaries		-	-	-	-	-	-	-	-	251	-	-	-	251	89	340
Exercise of options		6,385,825	4	-	-	-	-	-	-	10,964	-	-	-	10,968	-	10,968
Issuance of restricted ordinary shares to company's interest shareholders as share based compensation	16	2,411,177	2	-	-	-	-	-	-	89,784	-	-	-	89,786	-	89,786
Acquisition of Kunlun Repurchase of ordinary shares		-	-	-	-	-	-	-	-	-	-	-	-	-	2,793	2,793
Acquisition of subsidiaries Zhuge		-	-	-	-	(81,638)	-	-	-	-	-	-	-	(81,638)	-	(81,638)
Receive the Subscription receivables for Series C and Series E Redeemable Convertible Preferred Shares	4	30,462	-	-	-	-	-	-	-	299	-	-	-	299	-	299
Net loss	15	-	-	-	-	-	-	-	-	-	336,179	-	-	336,179	-	336,179
Share-based compensation	16	-	-	-	-	-	-	-	-	172,188	-	-	-	172,188	-	172,188
Accretion and modification of Redeemable Convertible Preferred Shares		-	-	-	-	-	-	-	-	(17,201)	-	-	(4,861,451)	(4,878,652)	-	(4,878,652)
Foreign currency translation adjustment, net of nil		-	-	-	-	-	-	-	-	-	-	(308,001)	-	(308,001)	-	(308,001)

income taxes																	
Balance as of																	
December																	
31, 2021	299,727,940	192	25,649,839	17	(81,638)	-	-	-	-	11,066,975	-	(232,268)	(8,446,942)	2,306,336	(1,065)	2,305,271	

The accompanying notes are an integral part of these consolidated financial statements

CLOOPEN GROUP HOLDING LIMITED
STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY
FOR THE YEAR ENDED DECEMBER 31, 2022

(Amounts in thousands of RMB and US\$, except for number of shares and per share data)

Note	Class A ordinary shares		Class B ordinary shares		Treasury Shares	Additional paid-in capital	Accumulated other comprehensive loss	Accumulated deficit	Total shareholders' equity attributable to Cloopen Group Holding Limited	Non-controlling interests	Total shareholders' equity
	Number of shares	RMB	Number of shares	RMB	RMB	RMB	RMB	RMB	RMB	RMB	RMB
Balance as of January 1, 2022	299,727,940	192	25,649,839	17	(81,638)	11,066,975	(232,268)	(8,446,942)	2,306,336	(1,065)	2,305,271
Change in the ownership interest in the subsidiaries	-	-	-	-	-	4,877	-	-	4,877	(1,210)	3,667
Exercise option	8,529,150	1	-	-	-	4,012	-	-	4,013	-	4,013
Issuance of restricted ordinary shares to company's interest shareholders as share based compensation	16	-	-	-	-	1,034	-	-	1,034	-	1,034
Repurchase of common shares	797,338	-	-	-	(39,261)	-	-	-	(39,261)	-	(39,261)
Net loss	-	-	-	-	-	-	-	(974,898)	(974,898)	(1,001)	(975,899)
Share-based compensation	16	-	-	-	-	107,462	-	-	107,462	-	107,462
Foreign currency translation adjustment, net of nil income taxes	-	-	-	-	-	-	153,655	-	153,655	-	153,655
Balance as of December 31, 2022	<u>309,054,428</u>	<u>193</u>	<u>25,649,839</u>	<u>17</u>	<u>(120,899)</u>	<u>11,184,360</u>	<u>(78,613)</u>	<u>(9,421,840)</u>	<u>1,563,218</u>	<u>(3,276)</u>	<u>1,559,942</u>
Balance as of December 31, 2022—US\$		<u>28</u>		<u>3</u>	<u>(17,529)</u>	<u>1,621,580</u>	<u>(11,398)</u>	<u>(1,366,038)</u>	<u>226,646</u>	<u>(475)</u>	<u>226,171</u>

The accompanying notes are an integral part of these consolidated financial statements.

CLOOPEN GROUP HOLDING LIMITED
CONSOLIDATED STATEMENTS OF CASH FLOWS

(Amounts in thousands of RMB and US\$, except for number of shares and per share data)

	Year ended December 31,			
	2020	2021	2022	
	RMB	RMB	RMB	US\$
Operating activities:				
Net loss	(425,237)	(904,452)	(975,899)	(141,490)
<i>Adjustments to reconcile net loss to net cash used in operating activities</i>				
Allowance for doubtful accounts	34,085	17,115	25,589	3,710
Share-based compensation	134,264	277,617	107,462	15,581
Depreciation of Property and equipment and amortization of Intangible assets	8,616	10,504	13,893	2,014
Amortization of right-of-use asset and interest on lease liabilities	-	-	8,823	1,279
Deferred tax expense (benefit)	(74)	5,122	(8,806)	(1,277)
Share of losses of equity method investments	-	596	1,969	285
Change in fair value of long-term investments	(11,614)	(47,247)	-	-
Gain from disposal of long-term investments	-	-	(5,138)	(745)
Impairment loss of long-term investments	-	6,603	7,400	1,073
Losses (gains) from disposal of property and equipment	(76)	493	62	9
Investment income	(12)	-	(340)	(49)
Impairment loss of intangible assets	-	136	28,011	4,061
Losses from disposal of intangible assets	-	24	-	-
Impairment loss of goodwill	-	149,092	107,407	15,573
Accretion of interest expenses on unsecured loans	1,894	-	-	-
Losses (gains) from disposal of subsidiaries, net	7,275	(2,899)	2,739	397
Change in fair value of warrant liabilities	61,454	29,011	-	-
Provision for U.S Class Action	-	-	83,575	12,117
Unrealized foreign exchange (gains) losses	(6,115)	6,696	9,666	1,401
<i>Changes in operating assets and liabilities, net of effect of disposal of subsidiaries:</i>				
Accounts receivable - third parties, net	(52,869)	34,342	1,234	179
Accounts receivable - related parties, net	(2,989)	13,420	216	31
Contract assets	(8,498)	(6,647)	(31,422)	(4,556)
Amounts due from related parties	-	3,942	(105)	(15)
Prepayments and other current assets	(23,484)	(15,497)	27,591	4,000
Operating lease right-of-use assets	-	-	(25,165)	(3,649)
Other non-current assets	(1,089)	1,667	(1,452)	(211)
Accounts payable	(4,744)	28,206	(24,589)	(3,565)
Contract liabilities	55,628	94,962	61,863	8,969
Amounts due to related parties	522	(3,472)	(14)	(2)
Operating lease liabilities	-	-	16,610	2,408
Other non-current liabilities	-	3,334	(2,424)	(351)
Accrued expenses and other current liabilities	16,542	59,253	3,974	578
Net cash used in operating activities	(216,521)	(238,079)	(567,270)	(82,245)
Investing activities:				
Cash paid for business combination	-	(203,164)	(116,396)	(16,876)
Cash paid for purchase of property and equipment	(3,402)	(7,390)	(5,825)	(845)
Cash paid for purchase of intangible assets	(2,667)	(1,273)	(980)	(142)
Cash paid for purchase of equity method investments	-	(21,900)	-	-
Cash paid for purchase of other equity investments	(457)	(20,000)	-	-
Cash received from sale of short-term investments	2,512	-	64,833	9,400
Cash paid for purchase of short-term investments	-	(127,514)	(349,350)	(50,651)
Cash received from disposal of property and equipment	62	30	-	-
Cash received from consolidation of subsidiaries	-	10,890	-	-
Cash received from disposal of a subsidiary	-	2,500	-	-
Cash Received from disposal of long-term investments	-	1,500	64,987	9,422
Cash from disposal of subsidiaries	(1,471)	(1,024)	-	-
Payment of interest free loans provided to related parties	(3,950)	-	-	-
Collection of interest free loans provided to related parties	4,160	2,300	-	-
Cash paid for term deposits	(160,349)	(3,375,933)	(4,345,910)	(630,098)
Cash received from maturity of term deposits	69,762	1,926,418	5,040,269	730,770
Net cash provided by/(used in) investing activities	(95,800)	(1,814,560)	351,628	50,980
Financing activities:				
Proceeds from IPO	-	2,195,827	-	-
Proceeds from issuance of Series F Redeemable Convertible Preferred Shares	598,662	-	-	-
Receive the Subscription receivables for Series C and E Redeemable Convertible Preferred Shares	-	336,179	-	-
Exercises of warrant F	-	219,667	-	-
Payment of issuance costs	(6,282)	(5,549)	-	-
Exercises share options	-	26,892	-	-
Repayment of long-term borrowings	(106,092)	-	(8,004)	(1,161)
Payables to a VIE shareholder	-	(230,087)	-	-
Cash paid to acquire subsidiaries' equity interests held by non-controlling shareholders, net	(16,095)	-	-	-
Payment of initial public offering ("IPO") costs	(5,714)	(8,146)	-	-
Repurchase of treasury stock	-	(68,894)	(39,261)	(5,692)
Proceeds from short-term bank borrowings	20,000	-	-	-
Repayment for short-term bank borrowings	(26,838)	(21,140)	(5,500)	(797)
Net cash provided by/(used in) financing activities	457,641	2,444,749	(52,765)	(7,650)
Effect of foreign currency exchange rate changes on cash	(10,719)	(36,235)	138,795	20,123
Net increase/(decrease) in cash and restricted cash	134,601	355,875	(129,612)	(18,792)
Cash and restricted cash at the beginning of the year	166,401	301,002	656,877	95,238
Cash and restricted cash at the end of the year	301,002	656,877	527,265	76,446
Supplemental information				
Interest paid	1,608	291	479	69
Income tax paid	116	299	368	53
Income tax refund	(33)	-	-	-
Non-cash investing and financing activities:				
Transfer of equity interest of subsidiaries at nil consideration	5,793	-	-	-
Issuance of ordinary shares as the consideration for purchase of non-controlling interests	27,025	20,621	-	-
Accrual for IPO costs	275	-	-	-
Accrual for Series F financing issuance costs	5,549	-	-	-
Exercise of Series E Warrant	16,550	-	-	-

The accompanying notes are an integral part of these consolidated financial statements.

CLOOPEN GROUP HOLDING LIMITED

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

YEARS ENDED DECEMBER 31, 2020, 2021 AND 2022

(Amounts in thousands of RMB and US\$, except for number of shares and per share data)

1. DESCRIPTION OF BUSINESS, ORGANIZATION AND BASIS OF PRESENTATION

Organization and principal activities

Cloopen Group Holding Limited (“the Company”), through its wholly-owned subsidiaries, consolidated variable interest entity (“VIE”) and VIE’s subsidiaries (collectively referred to as “the Group”), is principally engaged in providing integrated communication services based on cloud computing technology. The Group’s principal operations and geographic markets are mainly in the People’s Republic of China (“PRC”).

The accompanying consolidated financial statements include the financial statements of the Company, its subsidiaries, consolidated VIE and VIE’s subsidiaries.

The VIE arrangements

The Group operates its cloud communication business in the PRC through Beijing Ronglian Yitong Information Technology Co., Ltd. (“Ronglian Yitong”, or the “VIE”), a limited liability company established under the laws of the PRC on March 31, 2009. Ronglian Yitong and its subsidiaries holds the necessary PRC operating licenses for the online businesses. The equity interests of Ronglian Yitong are legally held by Mr. Changxun Sun, the founder, chairman of board of directors and chief executive officer, Mr. Jianhong Zhou, the director of the Company, Lhasa Heye Investment Management Co., Ltd., and Beijing Hongshan Shengde Equity Investment Center (Limited Partnership) who act as nominee equity holders of the VIE on behalf of Anxun Guantong (Beijing) Technology Co., Ltd. (“Anxun Guantong” or “WFOE”), the Company’s wholly-owned subsidiary. A series of contractual agreements, including Powers of Attorney, Exclusive Business Cooperation Agreement, Equity Pledge Agreement, Exclusive Option Agreement and Spousal Consent Letter (collectively, the “VIE Agreements”), were entered among the Company, Anxun Guantong, Ronglian Yitong and its nominee equity holders.

Pursuant to the VIE Agreements, the Company is able to exercise effective control over, bears the risks of, enjoys substantially all of the economic benefits of the VIE, and has an exclusive option to purchase all or part of the equity interests in the VIE when and to the extent permitted by the PRC law at the lowest price possible. The Company’s management concluded that Ronglian Yitong is a VIE and the Company is its primary beneficiary. As such, the consolidated financial statements of the VIE are included in the consolidated financial statements of the Company.

The principal terms of the VIE Agreements are further described below.

1) Powers of Attorney

The Company and each of the equity holders of Ronglian Yitong entered into Powers of Attorney. Pursuant to the Powers of Attorney, the equity holders of Ronglian Yitong irrevocably appointed Anxun Guantong as their attorney-in-fact to exercise all equity holder rights, including, but not limited to, proposing, convening and attending in the equity holders’ meeting, appointing or removing directors, executive officers and senior management, disposing of all or part of the equity holder’s interests in Ronglian Yitong, casting the equity holders’ votes on matters requiring equity holders’ approval and doing all other acts in the capacity of the equity holders as permitted by Ronglian Yitong’s Memorandum and Articles of Association. In addition, the Company has a right to assign its rights and benefits under the Powers of Attorney to any other parties without an advance notice to the equity holders of Ronglian Yitong. The Powers of Attorney shall continue in force and be irrevocable as long as the equity holders of Ronglian Yitong remain as the equity holders of Ronglian Yitong.

2) Exclusive Business Cooperation Agreement

Anxun Guantong and Ronglian Yitong entered into an Exclusive Business Cooperation Agreement, whereby Anxun Guantong is appointed as the exclusive service provider for the provision of business support, technology and consulting services to Ronglian Yitong. Unless a written consent is given by Anxun Guantong, Ronglian Yitong is not allowed to engage a third party to provide such services, while Anxun Guantong is able to designate another party to render such services to Ronglian Yitong. Ronglian Yitong shall pay Anxun Guantong on a monthly basis a service fee, which shall be equal to 100% of the monthly net profits of Ronglian Yitong, and Anxun Guantong has the sole discretion to adjust the basis of calculation of the service fee amount according to service provided to Ronglian Yitong. Anxun Guantong owns the exclusive intellectual property rights, whether created by Anxun Guantong or Ronglian Yitong, as a result of the performance of the Exclusive Business Cooperation Agreement unless terminated in writing by Anxun Guantong. The Exclusive Business Cooperation Agreement may be extended if confirmed in writing by Anxun Guantong prior to the expiration thereof. The extended term shall be determined by Anxun Guantong, and Ronglian Yitong shall accept such extended term unconditionally.

3) Equity Pledge Agreement

An Equity Pledge Agreement was entered into by and among Anxun Guantong, Ronglian Yitong and equity holders of Ronglian Yitong. To guarantee payment from Ronglian Yitong, including but not limited to the service fee pursuant to the Exclusive Business Cooperation Agreement, and the performance of Ronglian Yitong and the nominee equity holders' obligations under the contractual arrangements including the Exclusive Business Cooperation Agreement, Exclusive Option Agreement and Powers of Attorney, the equity holders of Ronglian Yitong pledged their respective equity in Ronglian Yitong to Anxun Guantong under the Equity Pledge Agreement as collateral. In the event Ronglian Yitong fails to pay Anxun Guantong its service fee, Anxun Guantong will have the right to sell the pledged equity and apply the proceeds received to pay any outstanding service fees due by Ronglian Yitong to Anxun Guantong. The equity holders of Ronglian Yitong agree that, during the term of the Equity Pledge Agreement, they will not dispose of the pledged equity or create or allow any encumbrance on the pledged equity, and they also agree that Anxun Guantong's rights relating to the equity pledges shall not be prejudiced by any legal actions of the equity holders of Ronglian Yitong, their successors or their designees. Except that the pledge of approximately 1.55% of the equity interests of VIE is subject to the registration in compliance with the PRC Property Rights Law, the equity pledge was registered with the relevant local administration for industry and commerce in October 2019 and may only be terminated upon the fulfillment of all contractual obligations under the Exclusive Business Cooperation Agreement, Exclusive Option Agreement and Powers of Attorney. During the term of the Equity Pledge Agreement, Anxun Guantong is entitled to receive dividends attributable to the pledged Ronglian Yitong equity.

4) Exclusive Option Agreement

Each of the equity holders of Ronglian Yitong entered into an Exclusive Option Agreement with Anxun Guantong, and Ronglian Yitong, pursuant to which the equity holders of Ronglian Yitong granted Anxun Guantong or other person upon the designation by Anxun Guantong, an irrevocable and exclusive option to purchase, at its discretion and to the extent permitted under the PRC law, all or part of the equity holders' interests in Ronglian Yitong at the lowest price that the PRC law permits at the time unless a valuation of the equity is required by the PRC law. The equity holders of Ronglian Yitong commit that without the prior written consent of Anxun Guantong, the equity holders of Ronglian Yitong will not, among other things, (1) change or amend the Memorandum and Articles of Association, increase or decrease Ronglian Yitong's registered capital, change its structure of registered capital in other manners; (2) sell, transfer, mortgage or dispose of in any manner any assets of Ronglian Yitong or legal or beneficial interest in the business or revenue of Ronglian Yitong, or allow the encumbrance thereon of any security interest; (3) incur, inherit, guarantee or suffer the existence of any debt, except for (i) debts incurred in the ordinary course of business other than through loans and (ii) debts disclosed to Anxun Guantong for which Anxun Guantong's written consent has been obtained; (4) providing any person with any loan or credit or guarantee in any form; (5) cause or permit Ronglian Yitong to merge, consolidate with, acquire or invest in any person, and/or sell permit Ronglian Yitong to sell assets with a value of over RMB500,000; (6) in any manner distribute dividends to its shareholders; (7) create any pledge or encumbrance on their equity interests in Ronglian Yitong; (8) transfer or otherwise dispose of their equity interests in Ronglian Yitong and its equity holders shall appoint those individuals recommended by Anxun Guantong as directors of Ronglian Yitong. Ronglian Yitong shall provide operating and financial information to the Company at the request of Anxun Guantong and ensure the continuance of the business. The Exclusive Option Agreement will remain effective until all equity interests in Ronglian Yitong held by its equity holders are transferred or assigned to the Company or its designee. Ronglian Yitong and its equity holders shall not have any right to terminate the Exclusive Option Agreement.

5) Spousal Consent Letter

Pursuant to the Spousal Consent Letters executed by the spouse of the principal individual shareholder of the VIE, the signing spouse confirmed that she does not enjoy any right or interest in connection with the equity interests of the VIE. The spouse also irrevocably agreed that she would not claim in the future any right or interest in connection with the equity interests in the VIE held by her spouse.

Risks in relation to the VIE structure

In the opinion of the Company's management, the VIE Agreements have resulted in the WFOE having the power to direct activities that most significantly impact the VIE, including appointing key management, setting up operating policies, exerting financial controls and transferring profit or assets out of the VIE at its discretion. The Company considers that it has the right to receive all the benefits and assets of the VIE. As the VIE was established as a limited liability company under the PRC law, its creditors do not have recourse to the general credit of the Company for the liabilities of the VIE, and the Company does not have the obligation to assume the liabilities of the VIE.

The Company has determined that the VIE Agreements are in compliance with the PRC laws and are legally enforceable. However, uncertainties in the PRC legal system could limit the Company's ability to enforce the VIE Agreements; and if the equity holders of the VIE were to reduce their interest in the Company, their interests may diverge from that of the Company and that may potentially increase the risk that they would seek to act contrary to the contractual terms.

The Company's ability to control the VIE also depends on the rights provided to the Company under the Powers of Attorney to vote on all matters requiring equity holders' approval in the respective VIE. As noted above, the Company believes these Powers of Attorney are legally enforceable but yet they may not be as effective as direct equity ownership. In addition, if the corporate structure of the Group or the contractual arrangements among the Company, Anxun Guantong, the VIE and its respective equity holders were found to be in violation of any existing PRC laws and regulations, the relevant PRC regulatory authorities could:

- revoke the business license and/or operating licenses of such entities;
- discontinue or place restrictions or onerous conditions on the Group's operations;
- impose fines, confiscating the income from the VIE, or imposing other requirements with which the Group may not be able to comply;
- require the Group to restructure its ownership structure or operations, including terminating the contractual arrangements with the VIE and deregistering the equity pledges of the VIE, which in turn would affect the Company's ability to consolidate, derive economic interests from, or exert effective control over the VIE; or
- restrict or prohibit our use of the proceeds of this offering to finance our business and operations in the PRC.

The imposition of any of the above restrictions or actions may result in a material and adverse effect on the Group's ability to conduct its business. In addition, if the imposition of any of these restrictions causes the Company to lose the right to direct the activities of the VIE or the right to receive its economic benefits, the Company would no longer be able to consolidate the VIE. The Company's management believes that the likelihood to lose the Company's current ownership structure or the contractual arrangements with the VIE is remote based on the current facts and circumstances.

There is no VIE in which the Company has a variable interest but is not the primary beneficiary. Currently there is no contractual arrangement that could require the Company to provide additional financial support to the VIE.

The following consolidated assets and liabilities information of the Group's VIE as of December 31, 2021 and 2022, and consolidated revenues, net loss and cash flow information for the years then ended, have been included in the accompanying consolidated financial statements:

	December 31,	
	2021	2022
	RMB	RMB
Cash	192,105	82,750
Restricted cash	698	525
Accounts receivable - third parties, net	470,204	125,644
Accounts receivable - related parties, net*	2,995	30,113
Contract assets	21,118	50,838
Amounts due from related parties	688	211,453
Prepayments and other current assets	88,311	61,184
Total current assets	776,119	562,507
Long-term investments	127,748	58,530
Property and equipment, net	13,883	13,613
Operating lease right-of-use assets	-	14,039
Intangible assets, net	46,019	15,533
Goodwill	121,805	54,427
Other non-current assets	3,076	3,958
Total assets	1,088,650	722,607
Short-term borrowings	5,500	-
Accounts payable	200,856	113,687
Contract liabilities	66,646	359,154
Amounts due to related parties**	1,518,382	1,977,866
Payable for business acquisition	93,511	8,915
Operating lease liabilities-current	-	8,871
Accrued expenses and other current liabilities	92,118	89,565
Total current liabilities	1,977,013	2,558,058
Long-term borrowings	6,000	-
Operating lease liabilities-non current	-	4,977
Deferred income tax liabilities	8,883	1,285
Total liabilities	1,991,896	2,564,320

* Accounts receivable-related parties, net includes accounts receivable, net due from the Company and its subsidiaries, which are eliminated upon consolidation, and accounts receivable, net due from one of the Company's shareholders and other related parties of RMB304 and RMB99 as of December 31, 2021, and 2022.

** Amounts due to related parties include amounts due to the Company and its subsidiaries, which are eliminated upon consolidation, and amounts due to one of the Company's shareholders and other related parties of RMB794 and RMB780 as of December 31, 2021 and 2022.

	Year ended December 31,		
	2020	2021	2022
	RMB	RMB	RMB
Revenues	699,218	639,139	636,320
Net loss	(227,670)	(699,152)	(544,042)
Net cash used in operating activities	(20,582)	(174,049)	(574,227)
Net cash provided by/ (used in) investing activities	(32,260)	(275,719)	26,940
Net cash provided by/ (used in) financing activities	(6,838)	579,690	437,759
Net increase / (decrease) in cash and restricted cash	(59,680)	129,922	(109,528)
Cash and restricted cash at the beginning of the year	122,561	62,881	192,803
Cash and restricted cash at the end of the year	62,881	192,803	83,275

In accordance with VIE Agreements, WFOE has the power to direct the activities of the VIE. Therefore, the Company considers that there are no assets in the VIE that can be used only to settle obligations of the VIE, except for restricted cash of RMB698 and RMB525 as of December 31, 2021 and 2022, respectively. The creditors of VIEs do not have recourse to the general credit of WFOE.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

(a) Basis of Presentation

The accompanying consolidated financial statements of the Group have been prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP").

The accompanying consolidated financial statements contemplate the realization of assets and the satisfaction of liabilities in the normal course of business. The realization of assets and the satisfaction of liabilities in the normal course of business are dependent on, among other things, the Group's ability to operate profitably, to generate cash flows from operations, and its ability to attract investors and to borrow funds on reasonable economic terms.

(b) Principles of Consolidation

The consolidated financial statements include the financial statements of the Company, its subsidiaries, the VIE for which the WFOE is the primary beneficiary, and the VIE's subsidiaries.

Subsidiaries are those entities in which the Company, directly or indirectly, controls more than one half of the voting power or has the power to govern the financial and operating policies, to appoint or remove the majority of the members of the board of directors, or to cast a majority of votes at the meeting of directors. A VIE is an entity in which the Company, or its subsidiary, through contractual arrangements, exercises effective control over the activities that most impact the economic performance, bears the risks of, and enjoys the rewards normally associated with ownership of the entity, and therefore the Company or its subsidiary is the primary beneficiary of the entity.

All intercompany transactions and balances among the Company, its subsidiaries, the VIE, and the VIE's subsidiaries have been eliminated upon consolidation.

The following table lists major subsidiaries and the consolidated VIEs of the Company as of December 31, 2022:

	Palace of Incorporation	Percentage of ownership
Beijing Ronglian Yitong Information Technology Co., Ltd.	PRC	VIE
Beijing Ronglian Qimo Technology Co., Ltd.	PRC	100%
Beijing Ronglian Guanghui Technology Co., Ltd.	PRC	100%
Beijing Baiyi High-tech Information Technology Co., Ltd.	PRC	100%
Beijing Ronglian Huitong Technology Information Co., Ltd.	PRC	100%
Shenzhen Zhongtian Wangjing Technology Co., Ltd.	PRC	100%
Cloopen Japan Co., Ltd.	Japan	100%
Anxun Guantong (Beijing) Technology Co., Ltd.	PRC	100%
Cloopen limited	HK	100%

(c) Use of Estimates

The preparation of the consolidated financial statements in accordance with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, related disclosures of contingent assets and liabilities at the balance sheet date, and the reported revenues and expenses during the reported period in the consolidated financial statements and accompanying notes. Actual results could differ from those estimates, and as such, differences may be material to the consolidated financial statements. Significant accounting estimates reflected in the Group's financial statements include, but not limited to, revenue recognition, fair value of assets and liabilities acquired in business combination, the allowance for doubtful accounts receivable and contract assets, depreciable lives and recoverability of property and equipment and intangible assets, assessment of impairment of long-lived assets, intangible assets and goodwill, the realization of deferred income tax assets, the fair value of share based compensation awards, redeemable convertible preferred shares, short-term investments, equity method investments, other equity investments, warrant liabilities, incremental borrowing rates for operating lease liabilities, the fair value of the ordinary shares to determine the existence of beneficial conversion feature of the redeemable convertible preferred shares, and management bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances.

In March 2020, the World Health Organization declared the outbreak of a disease caused by a novel strain of the coronavirus (“COVID-19”) to be a pandemic. After the initial outbreak of the COVID-19, some instances of COVID-19 infections have emerged from time to time. The COVID-19 pandemic has created and may continue to create significant uncertainty in the macroeconomic environment which, in addition to other unforeseen effects of this pandemic, may adversely impact the Group’s results of operations. The extent to which COVID-19 would impacts the results of operations is contingent on the future developments of the outbreak, including constant updates concerning the global severity of and actions needed to contain the outbreak, which are highly uncertain and unpredictable. Due to the uncertainty and the economic implications on global economics conditions from the COVID-19 pandemic, certain estimates and assumptions may change in the near term.

(d) Convenience Translation

Translations of the consolidated financial statements from RMB into US\$ as of and for the year ended December 31, 2022 are solely for the convenience of the readers and were calculated at the rate of US\$1.00 = RMB6.8972, representing the noon buying rate in The City of New York for cable transfers of RMB as set forth in the H.10 weekly statistical release of Federal Reserve Board on December 31, 2022. No representation is made that the RMB amounts could have been, or could be, converted, realized or settled into US\$ at that rate on December 31, 2022, or at any other rate.

(e) Commitments and Contingencies

In the normal course of business, the Group is subject to loss contingencies, such as legal proceedings and claims arising out of its business, that cover a wide range of matters, including, among others, government investigations, shareholder lawsuits, and non-income tax matters. An accrual for a loss contingency is recognized when it is probable that a liability has been incurred and the amount of loss can be reasonably estimated. If a potential material loss contingency is not probable but is reasonably possible, or is probable but cannot be estimated, then the nature of the contingent liability, together with an estimate of the range of possible loss if determinable and material, is disclosed.

(f) Business combinations

Business combinations are recorded using the acquisition method of accounting in accordance with ASC topic 805 (“ASC 805”): Business Combinations. The acquisition method of accounting requires an acquirer to determine the identifiable acquired assets, the liabilities assumed and any non-controlling interest in the acquiree at the acquisition date, measured at their fair values as of that date. The consideration transferred for an acquisition is measured as the aggregate of the fair values at the date of exchange of the assets given, liabilities assumed, and equity instruments issued as well as the contingent considerations as of the acquisition date. The costs directly attributable to the acquisition are expensed as incurred. Identifiable assets, liabilities and contingent liabilities acquired or assumed are measured separately at their fair value as of the acquisition date, irrespective of the extent of any non-controlling interests. The excess of (i) the total cost of the acquisition, fair value of the non-controlling interests and acquisition date fair value of any previously held equity interest in the acquiree over (ii) the fair value of the identifiable net assets of the acquiree, is recorded as goodwill. If the cost of the acquisition is less than the fair value of the net assets of the subsidiary acquired, the difference is recognized directly in earnings.

(g) Cash

Cash consists of cash on hand and cash at bank. Cash at bank are deposited in financial institutions at below locations:

	December 31,	
	2021	2022
	RMB	RMB
Cash on hand	28	23
Cash balances include deposits in: Financial institutions in the mainland of the PRC		
—Denominated in Renminbi (“RMB”)	224,984	209,053
—Denominated in US\$	121,721	142,257
—Denominated in Hong Kong S.A.R. Dollar (“HKD”)	16	-
Total cash balances held at mainland PRC financial institutions	346,721	351,310
Financial institutions in Hong Kong Special Administrative Region (“HKSAR”)		
—Denominated in HKD	5,942	-
—Denominated in US\$	192,427	105,357
—Denominated in RMB	64,726	-
Total cash balances held at HKSAR financial institutions	263,095	105,357
Financial institutions in Japan		
—Denominated in Japanese Yen	8,890	53,464
Total cash balances held at Japan financial institutions	8,890	53,464
Financial institutions in Malaysia		
—Denominated in Malaysian Ringgit	105	328
—Denominated in US\$	3,912	3,099
Total cash balances held at Malaysia financial institutions	4,017	3,427
Financial institutions in Singapore		
—Denominated in SGD	322	7,513
—Denominated in United States Dollars (“USD”)	-	301
Total cash balances held at Singapore financial institutions	322	7,814
Financial institutions in the United States		
—Denominated in USD	31,893	5,047
Total cash balances held at the United States financial institutions	31,893	5,047
Financial institutions in the Philippines		
—Denominated in PHP	1,213	-
Total cash balances held at the Philippines financial institutions	1,213	-
Financial institutions in Korean		
—Denominated in Korean Won (“KRW”)	-	298
Total cash balances held at Korean financial institutions	-	298
Total cash balances held at financial institutions	656,151	526,717
Total cash balances	656,179	526,740

The bank deposits, including term deposits, with financial institutions in the mainland of the PRC and Japan are insured by the government authorities up to RMB500 and JPY10,000, respectively. The bank deposits including term deposits are insured by the government authorities with amounts up to RMB24,678 and RMB20,337 as of December 31, 2021, and 2022, respectively. The Company has not experienced any losses in uninsured bank deposits and does not believe that it is exposed to any significant risks on cash held in bank accounts. To limit exposure to credit risk, the Company primarily places bank deposits with large financial institutions in the PRC and Japan with acceptable credit rating.

(h) Restricted cash

Cash balances that have restrictions as to withdrawal or usage are considered restricted cash. Restricted cash that will be released to cash within the next 12 months is classified as current asset, while the balance restricted for use longer than one year is classified as non-current asset on the consolidated balance sheets.

(i) Term deposits

Term deposits represent deposits at banks with original maturities more than three months but less than one year. The Group's term deposits were denominated in US\$ and were deposited at financial institutions in the mainland of the PRC with the interest rate of 0.44%, and 4.20% per annum as of December 31, 2021 and 2022, respectively.

Term deposits maintained at financial institutions consist of the following:

	2021 RMB	2022 RMB
US\$ denominated bank deposits with financial institutions in the PRC	1,609,864	915,845

To limit exposure to credit risk relating to bank deposits, the Company primarily places term deposits only with large financial institutions in the PRC with acceptable credit rating.

(j) Short-term Investments

The Group's short-term investments represent the Group's investments in financial products managed by financial institutions in the PRC and Cayman which are redeemable at the option of the Group on any working day. Short-term investments are classified as available for sale debt securities and reported at fair value, with unrealized holding gains or losses, net of any related income tax effect, excluded from earnings and recorded as accumulated other comprehensive loss until realized. Realized gains or losses from the sale of short-term investments are determined on a specific identification basis and are recorded as investment income when earned.

(k) Accounts Receivable, net

Accounts receivable are recognized in the period when the Group has provided services to its customers and when its right to consideration is unconditional. Amounts collected on trade accounts receivable are included in net cash provided by operating activities in the consolidated statements of cash flows. Management considers the following factors when determining the collectability of specific accounts: historical experience, credit worthiness of the clients, aging of the receivables and other specific circumstances related to the accounts. An allowance for doubtful accounts is made and recorded into general and administrative expenses based on aging of accounts receivable and on any specifically identified accounts receivable that may become uncollectible. Accounts receivable which are deemed to be uncollectible are charged off against the allowance after all means of collection have been exhausted and the potential for recovery is considered remote. There is a time lag between when the Group estimates a portion of or the entire account balances to be uncollectible and when a write off of the account balances is taken. The Group does not have any off-balance sheet credit exposure related to its customers.

(l) Long-term investments

Equity method investments

The Group applies the equity method to account for an equity interest in an investee over which the Group has significant influence but does not own a majority equity interest or otherwise control.

Under the equity method of accounting, the Group's share of the investee's results of operations is reported as share of losses of equity method investments in the consolidated statements of comprehensive loss.

The Group recognizes an impairment loss when there is a decline in value below the carrying value of the equity method investment that is considered to be other than temporary. The process of assessing and determining whether impairment on an investment is other than temporary requires a significant amount of judgment. To determine whether an impairment is other than temporary, management considers whether it has the ability and intent to hold the investment until recovery and whether evidence indicating the carrying value of the investment is recoverable outweighs evidence to the contrary. Evidence considered in this assessment includes the reasons for the impairment, the severity and duration of the decline in value, any change in value subsequent to the period end, and forecasted performance of the investee.

Other equity investments

The Group elects the measurement alternative in ASC 321 and measures investments in "equity investment" at cost, adjusted for changes resulting from impairments and observable price changes in orderly transactions for identical or similar securities of the same issuer. The Group considers information in periodic financial statements and other documentation provided by the investees to determine whether observable price changes have occurred.

The Group makes a qualitative assessment considering impairment indicators to evaluate whether the equity investments without a readily determinable fair value is impaired at each reporting period, and written down to its fair value if a qualitative assessment indicates that the investment is impaired and the fair value of the investment is less than its carrying value. If an equity investment without a readily determinable fair value is impaired, the Group includes an impairment loss in net income equal to the difference between the fair value of the investment and its carrying amount.

(m) Property and Equipment, net

Property and equipment are stated at cost less accumulated depreciation and any recorded impairment.

The estimated useful lives are as follows:

Computer and office equipment	3-5 years
Furniture and fixtures	3-5 years
Motor vehicles	4-5 years
Buildings	20 years
Leasehold improvements	The shorter of lease terms and estimated useful lives

Depreciation on property and equipment is calculated on the straight-line method over the estimated useful lives of the assets.

When items are retired or otherwise disposed of, income is charged or credited for the difference between net book value and the proceeds received thereon. Ordinary maintenance and repairs are charged to expense as incurred.

(n) Intangible Assets, net

Intangible assets purchased from third parties are initially recorded at cost and amortized on a straight-line basis over the estimated economic useful lives. The Group performs valuation of the intangible assets arising from business combination to determine the fair value to be assigned to each asset acquired. The acquired intangible assets are recognized and measured at fair value and are expensed or amortized using the straight-line approach over the estimated economic useful lives of the assets.

The estimated useful lives of intangible assets are as follows:

Software copyrights	8 years
Telecommunication business operation licenses	3-5 years
Technology	6-10 years
Non-compete arrangements	4-7 year
Customer relationship	3-10 years
Trademark	10 years
Order backlogs	1-4 years
Software	3-8 years

(o) Goodwill

Goodwill represents the excess of the purchase consideration over the acquisition date amounts of the identifiable tangible and intangible assets acquired and liabilities assumed from the acquired entity as a result of the Company's acquisitions of interests in its subsidiaries. Goodwill is not amortized but is tested for impairment on an annual basis, or more frequently if events or changes in circumstances indicate that it might be impaired. In accordance with ASC 350, the Company may first assess qualitative factors to determine whether it is necessary to perform the quantitative goodwill impairment test. In the qualitative assessment, the Company considers factors such as macroeconomic conditions, industry and market considerations, overall financial performance of the reporting unit, and other specific information related to the operations, business plans and strategies of the reporting unit, including consideration of the impact of the COVID-19 pandemic. Based on the qualitative assessment, if it is more likely than not that the fair value of a reporting unit is less than the carrying amount, the quantitative impairment test is performed. The Company may also bypass the qualitative assessment and proceed directly to perform the quantitative impairment test.

The Company performs the quantitative impairment test by comparing the fair value of each reporting unit to its carrying amount, including goodwill. If the fair value of the reporting unit exceeds its carrying amount, goodwill is not considered to be impaired. If the carrying amount of a reporting unit exceeds its fair value, the amount by which the carrying amount exceeds the reporting unit's fair value is recognized as impairment. Application of a goodwill impairment test requires significant management judgment, including the identification of reporting units, allocation of assets, liabilities and goodwill to reporting units, and determination of the fair value of each reporting unit.

(p) Impairment of Long-lived Assets

Long-lived assets such as property and equipment and intangible assets with finite lives are evaluated for impairment whenever events or changes in circumstances indicate that the carrying value of an asset may not be fully recoverable or that the useful life is shorter than the Group had originally estimated. When these events occur, the Group evaluates the impairment for the long-lived assets by comparing the carrying value of the assets to an estimate of future undiscounted cash flows expected to be generated from the use of the assets and their eventual disposition. If the sum of the expected future undiscounted cash flows is less than the carrying value of the assets, the Group recognizes an impairment loss based on the excess of the carrying value of the assets over the fair value of the assets.

(q) Value Added Taxes

The Company's PRC subsidiaries are subject to value added tax ("VAT"). Revenue from providing cloud communication services and communication devices sales are generally subject to VAT at the rate of 6% and 13% since April 1, 2019, or 6% to 16% between May 1, 2018 and April 1, 2019, and subsequently paid to PRC tax authorities after netting input VAT on purchases. The excess of output VAT over input VAT is reflected in accrued expenses and other current liabilities, and the excess of input VAT over output VAT is reflected in prepayments and other current assets in the consolidated balance sheets.

(r) Warrant Liabilities

The freestanding warrants to purchase redeemable convertible preferred shares at a future date were determined to be freestanding instruments that were accounted for as liabilities. At initial recognition, the Group recorded the warrant liabilities on the consolidated balance sheets at their estimated fair value and changes in estimated fair values were included in the change in fair value of warrant liabilities on the consolidated statement of comprehensive loss or allocated to the proceeds from the issuance of the debt instrument to the warrants based on the warrant liabilities fair value. The warrant liabilities are subject to remeasurement at each reporting period and the Group adjusted the carrying value of the warrant liabilities to fair value at the end of each reporting period utilizing the binomial option pricing model, with changes in estimated fair value included in the change in fair value of warrant liabilities on the consolidated statement of comprehensive loss.

(s) Fair Value Measurements

Fair value represents the price that would be received from selling an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or a liability.

Accounting guidance defines fair value, establishes a framework for measuring fair value and expands disclosures about fair value measurements. Accounting guidance establishes a three-level fair value hierarchy and requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value. A financial instrument's categorization within the fair value hierarchy is based upon the lowest level of input that is significant to the fair value measurement. The three levels of inputs are:

- Level 1—Observable inputs that reflect quoted prices (unadjusted) for identical assets or liabilities in active markets.
- Level 2—Include other inputs that are directly or indirectly observable in the marketplace.
- Level 3—Unobservable inputs which are supported by little or no market activity.

Accounting guidance also describes three main approaches to measuring the fair value of assets and liabilities: (1) market approach; (2) income approach and (3) cost approach. The market approach uses prices and other relevant information generated from market transactions involving identical or comparable assets or liabilities. The income approach uses valuation techniques to convert future amounts to a single present value amount. The measurement is based on the value indicated by current market expectations about those future amounts. The cost approach is based on the amount that would currently be required to replace an asset.

Financial assets and liabilities of the Group primarily consist of cash, restricted cash, term deposits, short-term investments, accounts receivable - third parties, net, accounts receivable - related parties, net, other receivables included in prepayments and other current assets, long-term investment, amounts due from related parties, short-term borrowings, long-term borrowings, accounts payable, contract liabilities, other payables included in accrued expenses and other current liabilities. The Group measures short-term investments at fair value on a recurring basis. Short-term investments include financial products issued by financial institutions, which are valued based on prices per units quoted by issuers and are categorized in Level 2 of the fair value hierarchy.

The Group's non-financial assets, such as intangible assets and property and equipment, would be measured at fair value only if they were determined to be impaired.

(t) Revenue recognition

The Group accounts for its revenue contracts in accordance with ASC Topic 606, Revenue from Contracts with Customers (ASC 606). According to ASC 606, revenue is recognized when control of the promised goods or services is transferred to the customers, in an amount that reflects the consideration the Group expects to be entitled to in exchange for those goods or services. The Group determines revenue recognition through the following steps: (1) identify the contract(s) with a customer, (2) identify the performance obligations in the contract, (3) determine the transaction price, (4) allocate the transaction price to the performance obligations in the contract, and (5) recognize revenue when (or as) the entity satisfies a performance obligation.

The Group generate substantially all of the Group's revenues from the following services and products:

- (1) Communication Platform-as-a-Service ("CPaaS") which allows customers to send text messages and place voice calls using the Company's cloud-based platform;
- (2) Cloud-based Contact Centers ("Cloud-based CC") with which customers can operate their virtual contact centers and access related value-added services using the Company's cloud-based platform; and
- (3) Cloud-based Unified Communications and Collaborations ("Cloud-based UC&C") where the Company creates customized communications software on customers' private clouds to meet their specific needs and deliver the software licenses to customers.

The Company recognizes revenue upon the transfer of control of promised products or services provided to the Company's customers, in the amount of consideration the Company expect to receive for those products or services (excluding sales taxes collected on behalf of government authorities). The Company's revenue contracts generally do not include a right of return in relation to the delivered products or services.

The timing of revenue recognition may differ from the timing of invoicing to the Company's customers. The Company record a contract asset when revenue is recognized prior to invoicing, and a contract liability when payment is received from a customer in advance of revenue recognition. The Company generally issue invoices based on contract terms, which may be when the services are completed, upon customer acceptance of the Company's deliverables or at preset milestones. Payments are due with standard payment terms which are generally not more than 90 days from invoice issuance.

We recognize the incremental costs of obtaining contracts as selling, general and administrative expenses when incurred if the amortization period of the asset that otherwise would have been recognized is one year or less. Assets recognized for costs to obtain a contract were not material as of December 31, 2022. Costs to fulfill a contract are recorded as assets if they relate directly to a contract or a specific anticipated contract, the costs generate or enhance resources that will be used in satisfying performance obligations in the future and the costs are expected to be recovered. Costs to fulfill a contract recognized as assets primarily consist of labor and materials costs and generally relate to engineering and set-up costs incurred prior to the satisfaction of performance obligations. Assets recognized for costs to fulfill a contract are included in the "Prepaid expenses and other current assets" line of the consolidated balance sheets and were not material as of December 31, 2022. Such assets are recognized as expenses as we transfer the related goods or services to the customer. All other costs to fulfill a contract are expensed as incurred.

As of December 31, 2022, there were no material amounts of remaining performance obligations that are required to be disclosed. As permitted by ASC 606, we have elected not to disclose information about remaining performance obligations where i) the performance obligation is part of a contract that has an original expected duration of one year or less or ii) when we recognize revenue from the satisfaction of the performance obligation in accordance with the right-to-invoice practical expedient.

CPaaS revenues

The Company accounts for revenue from customers' usage of text message and voice call services on the Company's CPaaS platform as two separate performance obligations. The Company's service fees are determined by applying the contractual unit price to the monthly usage volume of text messages sent or minutes of voice calls placed and a contractual monthly fixed charge per subscriber multiplied by the number of subscribers recorded by the Company's CPaaS platform where relevant. The cloud-based services to send text messages and place voice calls are sold separately to customers with observable standalone selling prices.

The Company also provides services as an agent in provision of CPaaS platforms to customers. The Company identified one performance obligation and recognized the revenues, on a monthly basis, at the amount equal to the difference between the amount charged to the customers and the amount charged by telecommunication operators. The gross amount of revenue from services as an agent was RMB212 million, RMB166 million and RMB89 million for the years ended December 31, 2020, 2021 and 2022, respectively. The net amount of revenue from services as an agent was RMB50 million, RMB41 million and RMB14 million for the years ended December 31, 2020, 2021 and 2022, respectively.

The service contracts are generally with a length between 3 and 12 months and renewable at the latest fee rates of the renewed contract services on the contract renewal date. The option of renewal does not provide the customer with a material right that it otherwise could not obtain without entering into that contract, therefore the renewal option was not recognized as a separate performance obligation in the contract. The service contracts do not grant the Company or customers a unilateral right to terminate the contracts before completion.

Cloud-based CC revenues

Customers subscribe to the Company's basic Cloud-based CC services at a fixed monthly fee and pay for other value-added services on a usage basis. The Company recognizes the monthly service fees ratably over the contract period during which the Company is obligated to grant customers continuous access to those basic Cloud-based CC services. Revenue for other value-added services on top of the basic subscription is determined by applying the contractual unit price to the monthly usage volume and recognized when the related services are provided to customers. The basic subscription is sold to customers at the same price with or without the value-added services, so the transaction price is allocated on the basis of observable stand-alone selling prices.

The service contracts are generally with a length between 3 and 12 months and renewable at the latest fee rates of the renewed contract services on the contract renewal date. The option of renewal does not provide customers with a material right that it otherwise could not obtain without entering into that contract, therefore the renewal option was not recognized as a separate performance obligation in the contract. The service contracts do not grant the Company or customers a unilateral right to terminate the contracts before completion.

The Company also offers customized Cloud-based CC solutions to customers with tailored functionalities and interfacing capabilities suitable to their complicated IT environment. The Company has identified that the nature of our overall promise to customers as the provision of an appropriately customized and interfaced software solution comprising the customized CC license and other highly interdependent and interrelated services, and has accounted for the promise as one combined performance obligation. The Company applies an iterative process to design, test and implement the software in customers' IT environment and recognizes revenue for this performance obligation over a period of time during which the control of the customized Cloud-based CC solution is progressively transferred to the customers. The Company uses an input method to estimate progress, based on the proportion of the labour hours incurred relative to the estimated total labour hours. The Company also offers standard or non-complex cloud-based CC solutions to customers, and has identified one performance obligation in the agreement and recognized revenue upon delivery of standard software. The Company's Cloud-based CC contracts generally include a standard assurance-type warranty.

Cloud-based UC&C revenues

The Company offers customized Cloud-based UC&C solutions to customers with tailored functionalities and interfacing capabilities suitable to their complicated IT environment. The Company has identified that the nature of our overall promise to customers as the provision of an appropriately customized and interfaced software solution comprising the customized UC&C license and other highly interdependent and interrelated services, and has accounted for the promise as one combined performance obligation. The Company applies an iterative process to design, test and implement the software in customers' IT environment and recognizes revenue for this performance obligation over a period of time during which the control of the customized UC&C solution is progressively transferred to the customers. The Company uses an input method to estimate progress, based on the proportion of the labour hours incurred relative to the estimated total labour hours. The Company also offers standard or non-complex cloud-based UC&C solutions to customers, and has identified one performance obligation in the agreement and recognized revenue upon delivery of standard software. Our cloud-based UC&C contracts generally include a standard assurance-type warranty.

(u) Cost of Revenues

Cost of revenues mainly consists of payroll and related costs for employees, communication service expense associated with the use of facilities and equipment by these employees, such as rental and depreciation expenses, communication service expense charges to telecom operators or its distributors and cloud service fees to cloud service providers.

(v) Research and Development Expenses

Research and development expenses mainly consist of payroll and related costs for employees involved in researching in the field of cloud communication, and outsourced design expenses as well as expenses associated with the use by these functions of facilities and equipment, such as rental and depreciation expenses. Research and development expenses are expensed as incurred in accordance with ASC 730 amounted to RMB174,192, RMB297,360 and RMB326,513 for the years ended December 31, 2020, 2021 and 2022, respectively.

(w) Selling and Marketing Expenses

Selling and marketing expenses mainly consist of advertising expenses, promotion expenses, payroll and related expenses for personnel engaged in selling and marketing activities and expenses associated with the use by these functions of facilities and equipment, such as rental and depreciation expenses. Advertising expenses are expensed when incurred and are included in selling expenses in the consolidated statements of comprehensive loss. For the years ended December 31, 2020, 2021 and 2022, the advertising expenses were RMB46,942, RMB57,618 and RMB52,716 respectively.

(x) General and Administrative Expenses

General and administrative expenses mainly consist of payroll and related costs for employees involved in general corporate functions, expenses associated with the use of facilities and equipment by these employees, such as rental and depreciation expenses, professional fees and other general corporate expenses.

(y) Share-based Compensation

The Group applied ASC 718, *Compensation-Stock Compensation* (“ASC 718”), to account for its employee share-based payments. Share-based awards granted to the founders and employees in the form of restricted shares are measured at the grant date fair value of the awards, and are recognized as compensation expense using the graded-vesting schedules over the requisite service period for each separately vesting portion (or tranche) of the award. The Group elects to recognize the effect of forfeitures in compensation cost when they occur. To the extent the required vesting conditions are not met resulting in the forfeiture of the share-based awards, previously recognized compensation expense relating to those awards is reversed.

Share-based compensation in relation to the restricted ordinary shares is measured based on the fair value of the Company’s ordinary shares at the grant date of the award, which is estimated using the income approach and equity allocation method. Estimation of the fair value of the Company’s ordinary shares involves significant assumptions that might not be observable in the market, and a number of complex and subjective variables, discount rate, risk-free interest rate and subjective judgments regarding the Company’s projected financial and operating results, its unique business risks, the liquidity of its ordinary shares and its operating history and prospects at the time the grants are made. Share-based compensation in relation to the share options is estimated using the binominal option pricing model. The determination of the fair value of share options is affected by the fair value of the Company’s ordinary shares as well as the assumptions regarding a number of complex and subjective variables, including the expected share price volatility, risk-free interest rate, exercise multiple and expected dividend yield. The fair value of these awards was determined by management with the assistance from a valuation report prepared by an independent valuation firm using management’s estimates and assumptions.

A change in any of the terms or conditions of share-based awards is accounted for as a modification of the awards. The Company calculates incremental compensation cost of a modification as the excess of the fair value of the modified awards over the fair value of the original awards immediately before its terms are modified at the modification date. For vested awards, the Company recognizes incremental compensation cost in the period the modification occurs. For awards not being fully vested, the Company recognizes the sum of the incremental compensation cost and the remaining unrecognized compensation cost for the original awards over the remaining requisite service period after modification.

(z) Employee Benefits

The Company’s subsidiaries and the VIE and VIE’s subsidiaries in the PRC participate in a government mandated, multi-employers, defined contribution plan, pursuant to which certain retirement, medical, housing and other welfare benefits are provided to employees. PRC labor laws require the entities incorporated in the PRC to pay to the local labor bureau a monthly contribution calculated at a stated contribution rate on the monthly basic compensation of qualified employees. The Company also makes payments to other defined contribution plans and defined benefit plans for the benefit of employees employed by the subsidiary of Japan. The Group has no further commitments beyond its monthly contribution. Employee social benefits included as expenses in the accompanying consolidated statements of comprehensive loss amounted to RMB45,181, RMB94,148 and RMB104,722 for the years ended December 31, 2020, 2021 and 2022, respectively.

(aa) Income Taxes

The Company follows the asset and liability method in according for income taxes in according to ASC topic 740 “Taxation” (“ASC 740”), Income Taxes. Under this method, current income taxes are provided on the basis of income before income taxes for financial reporting purposes, and adjusted for income and expense items which are not assessable or deductible for income tax purposes, deferred income taxes are provided using the liability method. Under this method, deferred income tax assets and liabilities are recognized for the tax effects of temporary differences and are determined by applying enacted statutory tax rates that will be in effect in the period in which the temporary differences are expected to reverse to the temporary differences between the financial statements’ carrying amounts and the tax bases of assets and liabilities. A valuation allowance is provided to reduce the amount of deferred income tax assets if based on the weight of available evidence, it is more-likely-than-not that some portion, or all, of the deferred income tax assets will not be realized. The effect on deferred income taxes arising from a change in tax rates is recognized in the consolidated statements of comprehensive loss in the period of change.

The Company adopts ASC740 to account for uncertainty in income taxes. ASC740 clarifies a “more likely than not” recognition threshold in the evaluation of uncertain tax positions. The Group recognizes the benefit of a tax position in its consolidated financial statements if the tax position is “more likely than not” to prevail based on the facts and technical merits of the position. Tax positions that meet the “more likely than not” recognition threshold are measured at the largest amount of tax benefit that has a greater than fifty percent likelihood of being realized upon settlement. Unrecognized tax benefits may be affected by changes in interpretation of laws, rulings of tax authorities, tax audits, and expiry of statutory limitations. In addition, changes in facts, circumstances and new information may require the Group to adjust the recognition and measurement estimates with regard to individual tax positions. Accordingly, unrecognized tax benefits are periodically reviewed and re-assessed. Adjustments, if required, are recorded in the Group’s consolidated financial statements in the period in which the change that necessitates the adjustments occur. The ultimate outcome for a particular tax position may not be determined with certainty prior to the conclusion of a tax audit and, in certain circumstances, a tax appeal or litigation process. The Group records interest and penalties related to unrecognized tax benefits (if any) in interest expenses and general and administrative expenses, respectively. As of December 31, 2021 and 2022, the Group did not have any significant unrecognized uncertain tax positions.

(bb) Operating Leases

The Company adopted ASU No. 2016-02, Leases (Topic 842) ("ASU 2016-02") from January 1, 2022 by using the modified retrospective method and did not restate the comparable periods. The Company has elected the package of practical expedients, which allows the Company not to reassess (1) whether any expired or existing contracts as of the adoption date are contain a lease, (2) lease classification for any expired or existing leases as of the adoption date and (3) initial direct costs for any expired or existing leases as of the adoption date. The Company also elected the short-term lease exemption for all contracts with lease terms of 12 months or less.

The Company determines if an arrangement is a lease or contains a lease at lease inception. Leases are classified at the inception date as either as a finance lease or an operating lease. The Company classifies a lease as a finance lease when the lease meets any one of the following criteria at lease commencement:

- a. The lease transfers ownership of the underlying asset to the lessee by the end of the lease term.
- b. The lease grants the lessee an option to purchase the underlying asset that the lessee is reasonably certain to exercise.
- c. The lease term is for a major part of the remaining economic life of the underlying asset.
- d. The present value of the sum of the lease payments and any residual value guaranteed by the lessee that is not already reflected in the lease payments equals or exceeds substantially all of the fair value of the underlying asset.
- e. The underlying asset is of such a specialized nature that it is expected to have no alternative use to the Company at the end of the lease term.

For operating leases, the Company recognizes an ROU asset and a lease liability based on the present value of the lease payments over the lease term on the consolidated balance sheets at commencement date. At lease commencement, operating lease ROU assets represent the right to use underlying assets for their respective lease terms and are recognized at amounts equal to the lease liabilities adjusted for any lease payments made prior to the lease commencement date, less any lease incentives received and any initial direct costs incurred by the Company.

After lease commencement, operating lease liabilities are measured at the present value of the remaining lease payments using the discount rate determined at lease commencement.

Operating lease ROU assets are measured at the amount of the lease liabilities and further adjusted for prepaid or accrued lease payments, the remaining balance of any lease incentives received, unamortized initial direct costs and impairment of the ROU assets, if any. Operating lease expense is recorded as a single cost on a straight-line basis over the lease term.

The Company's leases do not provide an implicit rate, the Company estimates its incremental borrowing rate based on the information available at the commencement date in determining the present value of lease payments. The incremental borrowing rate is estimated to approximate the interest rate on a collateralized basis with similar terms and payments, and in economic environments where the leased asset is located.

The effect of the changes made to the Company's consolidated balance sheet as of January 1, 2022 for the adoption of ASU 2016-02 is as follows:

	Balance as of December 31, 2021	Adjustments due to the adoption of ASU 2016-02	Balance as of January 1, 2022
	RMB	RMB	RMB
ASSETS			
Prepayments and other current assets	136,665	(2,663)	134,002
Operating lease right-of-use assets	-	34,948	34,948
LIABILITIES			
Operating lease liabilities-current	-	(20,405)	(20,405)
Operating lease liabilities-non current	-	(11,882)	(11,882)

The impact of adopting ASU 2016-02 on the Company's consolidated balance sheet as of December 31, 2022 are as follows:

	As reported	Legacy GAAP	Adjustments due to the adoption of ASU 2016-02
	RMB	RMB	RMB
ASSETS			
Prepayments and other current assets	108,129	(109,489)	(1,360)
Operating lease right-of-use assets	16,342	-	16,342
LIABILITIES			
Operating lease liabilities-current	(10,162)	-	(10,162)
Operating lease liabilities-non current	(6,448)	-	(6,448)

The adoption of the standard did not have significant impact to the Company's consolidated statements of comprehensive loss or cash flows for the year ended December 31, 2022.

(cc) Foreign Currency Translation and Foreign Currency Risks

The Company's reporting currency is RMB. The functional currency of the Company and its subsidiary incorporated at Hong Kong S.A.R. is the US\$. The functional currency of the Company's subsidiary incorporated at Japan is JPY. The functional currency of the Company's PRC subsidiary, the VIE and the VIE's subsidiaries is RMB.

Transactions denominated in currencies other than the functional currency are remeasured into the functional currency at the exchange rates prevailing at the dates of the transactions. Monetary assets and liabilities denominated in a foreign currency are remeasured into the functional currency using the applicable exchange rate at the balance sheet date. The resulted exchange differences are recorded as foreign currency exchange gains (losses), net in the consolidated statements of comprehensive loss.

The financial statements of the Company, its subsidiary incorporated at Hong Kong S.A.R. and its subsidiary incorporated at Japan are translated from the functional currency into RMB. Assets and liabilities are translated into RMB using the applicable exchange rates at the balance sheet date. Equity accounts other than earnings (deficits) generated in the current period are translated into RMB using the appropriate historical rates. Revenues, expenses, gains and losses are translated into RMB using the average exchange rates for the relevant period. The resulted foreign currency translation adjustments are recorded as a component of other comprehensive loss in the consolidated statements of comprehensive loss, and the accumulated foreign currency translation adjustments are recorded as a component of accumulated other comprehensive loss in the consolidated statements of changes in shareholders' deficit.

RMB is not a freely convertible currency. The PRC State Administration for Foreign Exchange, under the authority of the PRC government, controls the conversion of RMB to foreign currencies. The value of RMB is subject to changes of central government policies and international economic and political developments affecting supply and demand in the PRC foreign exchange trading system market.

(dd) Concentration and Risk

Concentration of customers and suppliers

No customers individually represent greater than 10.0% of total revenues of the Group during the years ended December 31, 2020, 2021 and 2022.

No suppliers individually represent greater than 10.0% of total purchases of the Group during the years ended December 31, 2020 and 2021. One supplier represents 11.1% of total purchases of the Group during the year ended December 31, 2022.

One customer represents 17.4% of total accounts receivable, net including related party amounts and contract assets of the Group as of December 31, 2021. Two customers represent 21.0% and 17.1% of total accounts receivable, net including related party amounts and contract assets of the Group as of December 31, 2022, respectively.

Two suppliers represent 12.7% and 10.5% of total accounts payable of the Group as of December 31, 2021, respectively. Two suppliers represent 11.2% and 11.1% of total accounts payable of the Group as of December 31, 2022, respectively.

One customer represents 11.4% of total contract liabilities of the Group as of December 31, 2021, and no customers individually represent greater than 10.0% of total contract liabilities of the Group as of December 31, 2022.

Two suppliers represent 26.1% and 13.9% of prepayments and other current assets excluding related party amounts of the Group as of December 31, 2021, respectively, and one supplier individually represents 21.5% of prepayments and other current assets excluding related party amounts of the Group as of December 31, 2022.

Concentration of credit risk

Financial instruments that potentially expose the Group to concentrations of credit risk consist principally of cash, restricted cash, term deposits, short-term investments and accounts receivable. The total amount of these financial instruments was RMB2,553 million and RMB1,989 million as of December 31, 2021 and 2022.

The Group's investment policy requires cash, restricted cash, term deposits and short-term investments to be placed with high-quality financial institutions and to limit the amount of credit risk from any one issuer. The Group regularly evaluates the credit standing of the counterparties or financial institutions.

The Group conducts credit evaluations on its customers prior to delivery of goods or services. The assessment of customer creditworthiness is primarily based on historical collection records, research of publicly available information and customer on-site visits by senior management. Based on this analysis, the Group determines what credit terms, if any, to offer to each customer individually. If the assessment indicates a likelihood of collection risk, the Company will not deliver the services or sell the products to the customer or require the customer to pay cash, post letters of credit to secure payment or to make significant down payments.

Interest rate risk

The Group's short-term bank borrowings bears interests at fixed rates. If the Group were to renew these loans, the Group might be subject to interest rate risk.

(ee) Loss per Share

In accordance with ASC 260, *Earnings per Share*, basic income (loss) per share is computed by dividing net income (loss) attributable to ordinary shareholders by the weighted average number of ordinary shares and participating securities during the period, considering the accretions to redemption value of the preferred shares, by the weighted average number of ordinary shares outstanding during the year using the two-class method. Under the two-class method, any net income is allocated between ordinary shares and other participating securities based on their participating rights. A net loss is not allocated to participating securities when the participating securities does not have contractual obligation to share losses.

The Company's preferred shares and restricted ordinary shares are participating securities. The preferred shares are participating securities as they participate in undistributed earnings on an as-if-converted basis and the restricted ordinary shares are participating securities as the holders of the restricted ordinary shares have a non-forfeitable right to receive dividends with all ordinary shares. Neither the preferred shares nor the restricted ordinary shares has a contractual obligation to fund or otherwise absorb the Group's losses. Accordingly, any undistributed net income is allocated on a pro rata basis to the ordinary shares, preferred shares and restricted ordinary shares; whereas any undistributed net loss is allocated to ordinary shares only.

Unvested restricted ordinary shares are excluded from the weighted average number of ordinary shares outstanding because the restricted ordinary shareholders must return the restricted ordinary shares to the Company, if the specified condition are not met.

Diluted loss per share is calculated by dividing net loss attributable to ordinary shareholders, as adjusted for the effect of dilutive ordinary equivalent shares, if any, by the weighted average number of ordinary and dilutive ordinary equivalent shares outstanding during the period. Ordinary equivalent shares consist of shares issuable upon the conversion of the preferred shares and shares issuable upon the exercise of warrants, and ordinary shares issuable upon the vest of restricted ordinary shares or exercise of outstanding share option (using the treasury stock method). Ordinary equivalent shares are calculated based on the most advantageous conversion rate or exercise price from the standpoint of the security holder. Ordinary equivalent shares are not included in the denominator of the diluted loss per share calculation when inclusion of such shares would be anti-dilutive.

(ff) Segment Reporting

The Company's chief operating decision maker has been identified as the chief executive officer, who reviews consolidated results when making decisions about allocating resources and assessing performance of the Group. For the purpose of internal reporting and management's operation review, the Company's chief executive officer and management personnel do not segregate the Group's business by product or service. All products and services are viewed as in one and the only operating segment.

(gg) Treasury Stock

The Company accounts for treasury stock using the cost method. Under this method, the cost incurred to purchase the stock is recorded in the treasury stock account on the consolidated balance sheets. At retirement of the treasury stock, the ordinary shares account is charged only for the aggregate par value of the shares. The excess of the acquisition cost of treasury stock over the aggregate par value is allocated between additional paid-in capital and retained earnings.

(hh) Statutory Reserves

In accordance with the PRC Company Laws, the Group's PRC subsidiary, VIE and VIE's subsidiaries must make appropriations from their after-tax profits as determined under the generally accepted accounting principles in the PRC ("PRC GAAP") to non-distributable reserve funds including statutory surplus fund and discretionary surplus fund. The appropriation to the statutory surplus fund must be 10% of the after-tax profits as determined under PRC GAAP. Appropriation is not required if the statutory surplus fund has reached 50% of the registered capital of the PRC companies. Appropriation to the discretionary surplus fund is made at the discretion of the PRC companies.

The statutory surplus fund and discretionary surplus fund are restricted for use. They may only be applied to offset losses or increase the registered capital of the respective companies. These reserves are not allowed to be transferred to the Company by way of cash dividends, loans or advances, nor can they be distributed except for liquidation.

During the years ended December 31, 2021 and 2022, no profit appropriation to statutory surplus fund for the Group's entities incorporated in the PRC. No appropriation to discretionary surplus fund was made for any of the periods presented by the Group's PRC subsidiary, VIE and VIE's subsidiaries.

(ii) Impact of newly adopted accounting pronouncement

In November 2021, the FASB issued ASU 2021-10, *Government Assistance (Topic 832) — Disclosures by Business Entities about Government Assistance* ("ASU 2021-10"). It requires issuers to make annual disclosures about government assistance, including the nature of the transaction, the related accounting policy, the financial statement line items affected and the amounts applicable to each financial statement line item, as well as any significant terms and conditions, including commitments and contingencies. The amendments in this Update are effective for all entities within their scope for financial statements issued for annual periods beginning after December 15, 2021. The Company adopted this guidance on January 1, 2022 with no material impact on the Company's consolidated financial statements.

(jj) Recently issued accounting pronouncements not yet adopted

In June 2016, the FASB amended ASU 2016-13, *Financial Instruments—Credit Losses (Topic 326)*, Measurement of Credit Losses on Financial Instruments. ASU 2016-13 was further amended in November 2019 by ASU 2019-09, *Financial Instruments—Credit Losses (Topic 326)*, *Derivatives and Hedging (Topic 815)*, and *Leases (Topic 842)*. As a result, ASC 326, *Financial Instruments – Credit Losses* is effective for public companies for annual reporting periods, and interim periods within those years beginning after December 15, 2019. For all other entities, it is effective for fiscal years beginning after December 15, 2022, including interim periods within those fiscal years. As the Group is an “emerging growth company” and elects to apply for the new and revised accounting standards at the effective date for a private company, ASU 2016-13 will be applied for the fiscal year beginning January 1, 2023 and interim periods therein. The Group is currently evaluating the impact of this new guidance on its consolidated financial statements.

In October 2021, the FASB issued ASU 2021-08, *Business Combinations (Topic 805) – Accounting for Contract Assets and Contract Liabilities from Contracts with Customers*, which requires that an acquirer recognize and measure contract assets and contract liabilities acquired in a business combination in accordance with Topic 606, as if it had originated the contracts. Prior to this ASU, an acquirer generally recognizes contract assets acquired and contract liabilities assumed that arose from contracts with customers at fair value on the acquisition date. The ASU is effective for fiscal years beginning after December 15, 2022, with early adoption permitted. The ASU is to be applied prospectively to business combinations occurring on or after the effective date of the amendment (or if adopted early as of an interim period, as of the beginning of the fiscal year that includes the interim period of early application). The adoption is not expected to have a significant effect on the Company’s consolidated financial statements.

In June 2022, the FASB issued ASU 2022-03, *Fair Value Measurement (Topic 820): Fair Value Measurement of Equity Securities Subject to Contractual Sale Restrictions*, which clarifies that a contractual restriction on the sale of an equity security is not considered part of the unit of account of the equity security and, therefore, is not considered in measuring fair value. The amendments also clarify that an entity cannot, as a separate unit of account, recognize and measure a contractual sale restriction. This guidance also requires certain disclosures for equity securities subject to contractual sale restrictions. The new guidance is required to be applied prospectively with any adjustments from the adoption of the amendments recognized in earnings and disclosed on the date of adoption. This guidance is effective for the Company for the year ending March 31, 2025 and interim reporting periods during the year ending March 31, 2025. Early adoption is permitted. The adoption of this standard is not expected to have a material impact on the group’s consolidated financial statements.

In September 2022, the FASB issued ASU 2022-04, *Liabilities—Supplier Finance Programs (Subtopic 405-50): Disclosure of Supplier Finance Program Obligations*, which require a buyer in a supplier finance program disclose qualitative and quantitative information about the supplier finance program. The amendments do not affect the recognition, measurement, or financial statement presentation of obligations covered by supplier finance programs. The new guidance is required to be applied retrospectively to each period in which a balance sheet is presented, except for the amendment on rollforward information, which should be applied prospectively. This guidance is effective for the Company for the year ending March 31, 2024 and interim reporting periods during the year ending March 31, 2024. Early adoption is permitted. The adoption of this standard is not expected to have a material impact on the group’s consolidated financial statements.

In March 2023, the FASB issued ASU No. 2023-02, *Investments—Equity Method and Joint Ventures (Topic 323): Accounting for Investments in Tax Credit Structures Using the Proportional Amortization Method*, that is intended to improve the accounting and disclosures for investments in tax credit structures. This ASU allows reporting entities to elect to account for qualifying tax equity investments using the proportional amortization method, regardless of the program giving rise to the related income tax credits. For public business entities, the amendments are effective for fiscal years beginning after December 15, 2023, including interim periods within those fiscal years. For all other entities, the amendments are effective for fiscal years beginning after December 15, 2024, including interim periods within those fiscal years. Early adoption is permitted for all entities in any interim period. The adoption of ASU 2023-02 is not expected to have any impact on the Company’s consolidated financial statements.

In October 2023, the FASB issued ASU 2023-06, *Disclosure Improvements: Codification Amendments in Response to the SEC's Disclosure Update and Simplification Initiative*. This standard was issued in response to the SEC's disclosure update and simplification initiative, which affects a variety of topics within the Accounting Standards Codification. The amendments apply to all reporting entities within the scope of the affected topics unless otherwise indicated. The effective date for each amendment will be the date on which the SEC's removal of that related disclosure from Regulation S-X or Regulation S-K becomes effective, with early adoption prohibited. The Company is currently evaluating the impact this guidance will have on its financial statement disclosures.

In December 2023, the FASB issued ASU 2023-09, *Income Taxes (Topic 740): Improvements to Income Tax Disclosures*, which improves income tax disclosures. The amendments require the disclosure of specific categories in the rate reconciliation and additional information for reconciling items that meet a quantitative threshold. The amendments also require disaggregated information about the amount of income taxes paid (net of refunds received), Income (or loss) from continuing operations before income tax expense (or benefit) and Income tax expense (or benefit) from continuing operations. The new guidance is required to be applied either prospectively or retrospectively. This guidance is effective for the Company for the year ending March 31, 2026. Early adoption is permitted. The Company is evaluating the impact of the adoption of this guidance.

3. BUSINESS ACQUISITION

The Company accounted for its acquisition in accordance with ASC 805, "Business Combination" ("ASC 805"). The result of the acquiree's operation has been included in the consolidated financial statements since the acquisition date. The excess of the fair value of the consideration transferred over the fair value of net tangible and intangible assets acquired was recorded as goodwill, which is not deductible for corporate income taxation purposes.

a) Acquisition of EliteCRM

On March 10, 2021, the Company entered into a definitive agreement to acquire all the equity interests of EliteCRM in exchange for RMB180 million consideration in cash. EliteCRM was a customer relationship management software provider, and the Group expected to generate synergy with the Cloud-based CC service line after the closing of acquisition. The Group obtained the control of EliteCRM business on March 22, 2021, and paid off the cash consideration for the year ended December 31, 2021.

The acquisition was recorded as a business combination. The Group determined the fair values of assets acquired and liabilities assumed for this acquisition with assistance of an independent appraiser. The goodwill resulting from the acquisition is primarily attributable to the assembled workforce and established network of customers around China. The acquired goodwill is not deductible for tax purposes. A summary of identifiable assets acquired and liabilities assumed in connection with the acquisition is as follows:

Purchase consideration:	RMB	
cash		180,000
Recognized amounts of identifiable assets acquired and liabilities assumed:	March 22, 2021	
Cash		3,986
Accounts receivable		6,455
Prepaid expenses and other current assets		765
Property and equipment, net		4,944
Intangible assets		
Trademark		4,632
Non-compete arrangements		85
Customer relationship		15,000
Technology		4,588
Accounts payable		(5,215)
Contract liabilities		(568)
Accrued expenses and other current liabilities		(8)
Deferred income tax liability		(1,665)
Total identifiable assets acquired and liabilities assumed		32,999
Goodwill		147,001

The intangible assets consist of trademark, non-compete arrangements, customer relationship and Technology. The fair values of trademark of RMB4,632, non-competition arrangements of RMB85, customer relationship of RMB15,000 and Technology of RMB 4,588 are amortized over 8 years, 2 years, 10 years and 6 years, respectively on a straight-line basis.

Intangible assets and goodwill arising from the above acquisition was subjected to annual impairment assessment, and impairment loss of nil and RMB8,691 from intangible assets, and impairment loss of RMB82,467 and RMB10,107 from goodwill was recorded for the year ended December 31 2021, and 2022, respectively (refer to Note 10, and 11).

Since the date of acquisition, EliteCRM have contributed RMB48,701 and RMB8,968 in aggregate to the Group's Revenue and loss, respectively, for the year ended 31 December 2021.

Had the combination taken place on 1 January 2020, the revenue of the Group would have been RMB782,127 and RMB759,057, and loss of the Group would have been RMB426,359, and RMB898,419 respectively, for the years ended 31 December 2020 and 2021.

b) Acquisition of Kunlunjiexin

On August 10, 2021, the Company entered into a share purchase agreement with the largest shareholder of Beijing Kunlunjiexin technology Co., LTD ("Kunlunjiexin") to acquire 58.1273% equity interests of Kunlunjiexin in exchange for RMB23 million consideration in cash. Kunlunjiexin mainly provided AI risk management solutions to energy industry, and the Group expected to generate synergy with the Cloud-based UC&C service line after the closing of acquisition. The Group obtained the control of Kunlunjiexin business on August 31, 2021, and paid cash consideration of RMB23 million for the year ended December 31, 2021.

According to the share purchase agreement, all shareholders will dilute a total of 11.5% equity interest, on a pro rate basis, to setup an ESOP plan upon six months after closing of the acquisition. According to ASC 718, *Compensation-Stock Compensation* ("ASC 718"), the shares to be retained for ESOP, which plans to issue shares to employees and management members of Kunlunjiexin should be accounted as compensation for post-combination service as the share options or restricted shares are restricted and are subject to a vesting schedule of service period and forfeiture to the extent any restricted shares remain unvested in case of early termination of employment. As of December 21, 2021, the ESOP plan was canceled, and as of the reporting date, the Company has not approved any incentive plan in this ESOP.

The acquisition was recorded as a business combination, the Group determined the fair values of assets acquired and liabilities assumed for this acquisition with assistance of an independent appraiser. The goodwill resulting from the acquisition is primarily attributable to the assembled workforce and established network of customers around China. The acquired goodwill is not deductible for tax purposes. A summary of identifiable assets acquired and liabilities assumed in connection with the acquisition is as follows:

Purchase consideration:	RMB
cash	23,100
Recognized amounts of identifiable assets acquired and liabilities assumed:	August 31, 2021
Cash	31
Accounts receivable	936
Prepaid expenses and other current assets	15,578
Property and equipment, net	16
Intangible assets	
Technology	147
Deferred income tax assets	1,327
Accounts payable	(9,050)
Contract liabilities	(624)
Accrued expenses and other current liabilities	(1,690)
Total identifiable assets acquired and liabilities assumed	6,671
Fair value of non-redeemable non-controlling interests in Kunlunjiexin	(2,793)
Goodwill	19,222

The intangible assets are Technology. The fair value of Technology is RMB147, which is amortized over 5 years, on a straight-line basis.

Intangible assets and goodwill arising from the above acquisition was subjected to the annual impairment assessment, and impairment loss of RMB136 and RMB19,222 from intangible assets and goodwill was recorded for the year ended December 2021, respectively (refer to Note 10, and 11).

The acquisition above did not have a material impact on the Group's consolidated financial statements, and, therefore, pro forma disclosures have not been presented.

c) Acquisition of Joytel Singapore PTE. Ltd

On November 12, 2021, the Company entered into a share purchase agreement with all of the selling shareholders of Joytel Singapore PTE. Ltd to acquire 100% equity interests of Joytel Singapore PTE. Ltd in exchange for RMB64 consideration in cash. The Group obtained the control of Joytel Singapore PTE. Ltd on November 30, 2021, and paid off the cash consideration of RMB64 in November, 2021.

The acquisition was recorded as a business combination. The total identifiable assets acquired and liabilities assumed was RMB6, and no intangible assets and goodwill was identified. The different between the consideration and total identifiable assets acquired and liabilities amounting RMB58 was recognized in expenses during the year ended in December 31, 2021.

d) Acquisition of Zhuge Inc.

On December 8, 2021, the Company entered into a share purchase agreement with all of the selling shareholders of Zhuge Inc. to acquire 100% equity interests of Zhuge Inc. in exchange for RMB93.5 million consideration in cash and 30,463 ordinary shares of the Company. Zhuge Inc. mainly provided professional data intelligence solutions, and the Group expected to generate synergy with the Cloud-based CC service line after the closing of acquisition. The Group obtained the control of Zhuge Inc. on December 22, 2021 and paid off the cash consideration of RMB93.5 million as of the report date.

The acquisition was recorded as a business combination. The Group determined the fair values of assets acquired and liabilities assumed for this acquisition with assistance of an independent appraiser. The goodwill resulting from the acquisition is primarily attributable to the assembled workforce and established network of customers around China. The acquired goodwill is not deductible for tax purposes. A summary of identifiable assets acquired and liabilities assumed in connection with the acquisition is as follows:

Purchase consideration:	RMB
cash	93,511
Fair value of 30,463 ordinary shares	300
	<u>93,811</u>
Recognized amounts of identifiable assets acquired and liabilities assumed:	December 31, 2021
Cash	6,551
Accounts receivable	815
Prepaid expenses and other current assets	635
Property and equipment, net	19
Intangible assets	-
Trademark	2,840
Non-compete arrangements	720
Order backlogs	8,560
Customer relationship	-
Technology	6,400
Short-term loan	(5,500)
Accounts payable	(1,220)
Contract liabilities	(4,129)
Accrued expenses and other current liabilities	(12,780)
Deferred income tax liability	(4,630)
Long-term borrowings	(9,144)
Total identifiable assets acquired and liabilities assumed	<u>(10,863)</u>
Goodwill	104,674

The intangible assets consist of trademark, non-compete arrangements, order backlogs, customer relationship and Technology. The fair values of trademark of RMB2,840, non-competition arrangements of RM720, order backlogs of RMB8,560, and Technology of RMB6,400 are amortized over 10 years, 4 years, 4 years and 7 years, respectively on a straight-line basis.

The consideration was negotiated and determined several months before the signature of the share purchase agreement. The Company made the annual impairment test on goodwill, and an impairment loss of RMB47.4 million for goodwill was recorded for the year ended December 31, 2021 (refer to Note 11).

Intangible assets and goodwill arising from the above acquisition was subjected to the annual impairment assessment, and impairment loss of RMB15,002 and RMB57,271 from intangible assets and goodwill was recorded for the year ended December 2022, respectively (refer to Note 10, and 11).

The acquisition above did not have a material impact on the Group's consolidated financial statements, and, therefore, pro forma disclosures have not been presented.

e) Acquisition of Molun SCRM

On January 26, 2022, the Company entered into a definitive agreement to acquire all the equity interests of Molun SCRM business with the cash consideration of RMB31.8 million, which was the private domain social customer relationship management ("SCRM") software provider targeting car OEMs and dealers. The Group expected to generate synergy with the Cloud-based CC service line after the closing of acquisition. The Group obtained the control of Molun SCRM business in March, 2022 and paid off the cash consideration of RMB31.8 million as of December 31, 2022.

The transaction was accounted for under the acquisition method of accounting in accordance with ASC Topic 805. The acquisition was recorded as a business combination. The Group determined the fair values of assets acquired and liabilities assumed for this acquisition with assistance of an independent appraiser. The goodwill resulting from the acquisition is primarily attributable to the assembled workforce and established network of customers around China. The acquired goodwill is not deductible for tax purposes. A summary of identifiable assets acquired and liabilities assumed in connection with the acquisition is as follows:

<i>Purchase consideration:</i>	RMB
cash	31,800
<i>Recognized amounts of identifiable assets acquired and liabilities assumed:</i>	March, 2022
Prepaid expenses and other current assets	150
Intangible assets	
Order backlogs	100
Trademark	1,000
Technology	3,730
Contract liabilities	(12,002)
Deferred income tax liability	(1,207)
Total identifiable assets acquired and liabilities assumed	(8,229)
Goodwill	40,029

The intangible assets consist of non-compete arrangements, customer relationship and Technology. The fair values of order backlogs of RMB100, trademark of RMB1,000 and Technology of RMB3,730 are amortized over 1 year, 10 years and 9 years, respectively on a straight-line basis.

Intangible assets and goodwill arising from the above acquisition was subjected to the annual impairment assessment, and impairment loss of RMB4,318 and RMB40,029 from intangible assets and goodwill was recorded for the year ended December 31, 2022, respectively (refer to Note 10, and 11).

The acquisition above did not have a material impact on the Group's consolidated financial statements, and, therefore, pro forma disclosures have not been presented.

4. CASH AND RESTRICTED CASH

A reconciliation of cash and restricted cash in the consolidated balance sheets to the amounts in the consolidated statement of cash flows is as follows:

	December 31,	
	2021	2022
	RMB	RMB
Cash	656,179	526,740
Restricted cash	698	525
Total cash and restricted cash shown in the consolidated statements of cash flows	656,877	527,265

The balances of restricted cash were mainly related to bank deposits for performance guarantee, which were restricted for use as of December 31, 2021 and 2022, and will be released from restriction within the next 12 months.

5. ACCOUNTS RECEIVABLE, NET

Accounts receivable, net consisted of the following:

	December 31,	
	2021	2022
	RMB	RMB
Accounts receivable - third parties	216,069	214,819
Allowance for doubtful accounts - third parties	(57,344)	(81,242)
Accounts receivable - third parties, net	158,725	133,577
Accounts receivable – related parties	320	104
Allowance for doubtful accounts – related parties	(16)	(5)
Accounts receivable – related parties	304	99

The movement of the allowance for doubtful accounts including both account receivables due from third parties and a related party is as follows:

Allowance for doubtful accounts - third parties	Year ended December 31,	
	2021	2022
	RMB	RMB
Balance at the beginning of the year	43,104	57,344
Additions charged to bad debt expense	14,526	23,898
Write-off	(286)	-
Balance at the end of the year	57,344	81,242

Allowance for doubtful accounts –related parties	Year ended December 31,	
	2021	2022
	RMB	RMB
Balance at the beginning of the year	1,298	16
Additions charged to bad debt expense	(1,282)	(11)
Balance at the end of the year	16	5

The aging analysis table of allowance for doubtful accounts is as follows:

	As of December 31,	
	2021	2022
	RMB	RMB
Within 1 year	(8,354)	(7,031)
Thereafter	(48,990)	(74,211)
Allowance for doubtful accounts - third parties	(57,344)	(81,242)
Within 1 year	(16)	(5)
Allowance for doubtful accounts - related parties	(16)	(5)

6. PREPAYMENTS AND OTHER CURRENT ASSETS

Prepayments and other current assets as of December 31, 2021 and 2022 consisted of the following:

	December 31,	
	2021	2022
	RMB	RMB
Advance to suppliers	82,482	60,721
Deposits	15,798	11,417
Staff advances	938	902
Deductible input VAT	20,391	25,975
Receivables from third party payment platforms	10,364	1,387
Others	6,692	7,727
Prepayments and Other Current Assets	136,665	108,129

7. LONG-TERM INVESTMENTS

	For the year ended December 31,	
	2021	2022
	RMB	RMB
Equity method investments		
Sichuan Xingneng Ronglian Technology Co., Ltd.	2,842	-
Shanghai Keshen Information Technology Co., Ltd.	16,115	14,146
Total equity method investments	18,957	14,146
Other equity investments		
Beijing Chenfeng Network Technology Co., Ltd.	51,207	-
Shanghai Yuhuan Information System Co.Ltd.	18,784	18,784
Beijing Hujingtaoyue Technology Co., Ltd.	13,000	11,000
Hangzhou Paileyun Technology Co., Ltd.	5,800	-
Xinyu Hongling Investment Management Center (limited Partnership)	20,000	14,600
Total other equity investments	108,791	44,384
Total long-term investments	127,748	58,530

(a) Equity method investments

Investments in Sichuan Xingneng

In July 2021, Ronglian Yitong entered into an agreement with Beijing Siji Xingneng Digital Technology Co., Ltd. to establish a joint venture Sichuan Xingneng Ronglian Technology Co., Ltd. (“Sichuan Xingneng”), of which Ronglian Yitong contributed RMB4,900, accounting for 49% of the equity interest. Ronglian Yitong has 49% voting rights at the shareholders’ meeting, which shall be approved by the shareholders representing more than half of the voting rights. The investments are accounted for under the equity method as Ronglian Yitong is able to exercise significant influence through voting rights. Ronglian Yitong recognized its share of loss RMB117 for the year ended December 31, 2021. The Company performed an impairment analysis and recognized an other than temporary loss for the investments of RMB1,941 for the year ended December 31, 2021. In June 2022, Sichuan Xingneng was liquidated and the Company received RMB2,842 in cash.

Investments in Shanghai Keshen

In November 2021, Ronglian Yitong acquired 20% equity interest of Shanghai Keshen Information Technology Co., Ltd. (“Shanghai Keshen”), which is principally engaged in technology development, technology transfer, technical consultation and technical services, at a cash consideration of RMB15 million. Ronglian Yitong has the right to appoint one out of three director for the year ended December 31, 2021. The investments are accounted for under the equity method as Ronglian Yitong is able to exercise significant influence through its board representation. Ronglian Yitong recognized its share of loss RMB479 and RMB1,969 for the year ended December 31, 2021 and 2022. The Company performed an impairment analysis in 2021 and 2022, and recognized RMB406 and nil impairment loss related to the investments without readily determinable fair value due to the lower-than-expected financial performance, and no other downward adjustment was related to the investments without readily determinable fair value.

(b) Other equity investments

Investments in Beijing Chenfeng

On September 2, 2019, Ronglian Yitong entered into a shares purchase agreement to acquire 10% equity interest of Beijing Chenfeng Network Technology Co., Ltd. (“Beijing Chenfeng”), which is principally engaged in provision of customer relationship management solutions, at a cash consideration of RMB2,500. The investment was classified as other equity investments since its investment is not in-substance common stock due to the liquidation preference feature, and does not have readily determinable fair value. The Group elected to measure other equity investments without a readily determinable fair value at cost adjusted for changes resulting from impairments, if any, and observable price changes in orderly transactions for the identical or similar securities of the same issuer.

In 2020, Beijing Chenfeng entered into a series of new financing agreements with new investors, which diluted Ronglian Yitong’s equity interest in Beijing Chenfeng from 9% to 4.49%. In 2021, Beijing Chenfeng entered into a series of new financing agreements with other new investors, which diluted Ronglian Yitong’s equity interest in Beijing Chenfeng to 3.1%. The new financing from third parties provided an observable price for Ronglian Yitong’s investment in Beijing Chenfeng and Ronglian Yitong evaluated the investment’s carrying amount based on the observable price and recognized a gain of RMB9,460 and RMB39,247 from the change in fair value for the year ended December 31, 2020 and 2021. In December 29, 2021 and January 17, 2022, the Company entered into definitive agreements to sell its equity interest of Beijing Chenfeng with cash consideration of US\$7,627 (equivalent to RMB51,207). The equity interest of Beijing Chenfeng was transferred to the buyer in March 2022, and the Company received the cash consideration as of December 31, 2022.

Investments in Hangzhou Paileyun

In August 2019, Ronglian Yitong entered into a shares purchase agreement to acquire 3% equity interest of Hangzhou Paileyun Technology Co., Ltd. (“Hangzhou Paileyun”), which is principally engaged in provision of real-time voice and video cloud communication services, at a cash consideration of RMB3,188. According to the shares purchase agreement, Ronglian Yitong does not have the right to appoint any directors. The Group accounts for its investment in Hangzhou Paileyun as other equity investments since its investment is not in-substance common stock due to the liquidation preference feature, and does not have readily determinable fair value. The Group elected to measure other equity investments without a readily determinable fair value at cost adjusted for changes resulting from impairments, if any, and observable price changes in orderly transactions for the identical or similar securities of the same issuer. The Group did not identify any observable price changes requiring an adjustment to the investments in Hangzhou Paileyun during the year ended December 31, 2019.

In August 2020, Hangzhou Paileyun entered into new financing agreements with new investors. After Hangzhou Paileyun's new financing, Ronglian Yitong's equity interest remained at 3% as Ronglian Huitong made an additional investment of RMB457 in Hangzhou Paileyun pursuant to a capital increase agreement. In December 2020, Hangzhou Paileyun entered into another financing agreement with certain other new investors, which diluted Ronglian Yitong's equity interest in Hangzhou Paileyun from 3% to 2.88%. The new financing from third parties provided an observable price for Ronglian Yitong's investment in Hangzhou Paileyun and Ronglian Yitong evaluated the investment's carrying amount based on the observable price and recognized a gain of RMB2,154 from the change in fair value during the year ended December 31, 2020. In February 2022, the Company entered into a definitive agreement to sell its equity interest of Hangzhou Paileyun with cash consideration of RMB10,938. The difference between the cash consideration and carrying amount was recognized as a gain of RMB5,138 during the year ended December 31, 2022. The Company received the cash consideration as of December 31, 2022.

Investments in Hujingtiaooue

In September 2017, Ronglian Yitong entered into a share purchase agreement to acquire 6.56% equity interest of Beijing Hujingtiaooue Technology Co., Ltd. ("Hujingtiaooue"), which is principally engaged in provision of artificial intelligence marketing solutions, at a cash consideration of RMB4,000. According to the shares purchase agreement, Ronglian Yitong, together with another shareholder, has the right to appoint one director. The Group accounts for its investment in Hujingtiaooue as other equity investments since its investment is not in-substance common stock due to the liquidation preference feature, and does not have readily determinable fair value. The Group elected to measure other equity investments without a readily determinable fair value at cost adjusted for changes resulting from impairments, if any, and observable price changes in orderly transactions for the identical or similar securities of the same issuer.

In June 2018, Hujingtiaooue entered into new financing agreements with new investors. After Hujingtiaooue's new financing, Ronglian Yitong's equity interest in Hujingtiaooue decreased to 5.45% and Ronglian Yitong, together with another shareholder, remains the right to appoint one director. The new financing provided an observable price for Ronglian Yitong's investment in Hujingtiaooue and Ronglian Yitong evaluated the investment's carrying amount based on the observable price and recognized a gain of RMB100 from the change in fair value.

In May 2019, Hujingtiaooue entered into new financing agreements with new investors. After Hujingtiaooue's new financing, Ronglian Yitong's equity interest in Hujingtiaooue further decreased to 4.29% and Ronglian Yitong, together with another shareholder, remains the right to appoint one director. The new financing provided an observable price for Ronglian Yitong's investments in Hujingtiaooue and Ronglian Yitong evaluated this investment's carrying amount based on the observable price, and recognized a gain of RMB900 from the change in fair value.

In May 2021, Hujingtiaooue conducted reorganization and setup Beijing Tanma Qifu Technology Co., Ltd. ("Beijing Tanma"), a new VIE. All shareholders of Hujingtiaooue were transferred to Beijing Tanma, on a pro rate basis. Ronglian Yitong owned 4.29% equity interest in Beijing Tanma.

In October 2021 and December 2021, Beijing Tanma entered into new financing agreements with new investors. After Beijing Tanma's new financing, Ronglian Yitong's equity interest in Beijing Tanma further decreased to 2.45%. Since May 2021, Ronglian Yitong had no right to appoint any director due to reduction of equity interest. The new financing provided an observable price for Ronglian Yitong's investments in Hujingtiaooue and Ronglian Yitong evaluated the investment's carrying amount based on the observable price, and recognized a gain of RMB8,000 from the change in fair value.

The new financing agreement with new investors provided the observable price for other equity investment and the fair value adjustment was determined primarily based on the market approach as of the transaction date, which takes into consideration a number of factors including recent financing pricing which shall be adjusted as similar securities to reflect difference in the rights and obligations between the equity security that was transacted and the equity security held by the Company, and discount rates from traded companies in the industry and requires the Company to make certain assumptions and estimates regarding industry factors. Specifically, some of the significant unobservable inputs included discount of lack of marketability. The assumptions are inherently uncertain and subjective. Changes in any unobservable inputs may have a significant impact on the fair values.

In December 2022, The Company performed an impairment analysis, and recognized RMB2,000 impairment loss related to the investments without readily determinable fair value due to the lower-than-expected financial performance, and no other downward adjustment was related to the investments without readily determinable fair value.

Investments in Xinyu Hongling

In August 2021, Ronglian Yitong and other third party entities set up a limited partnership, Xinyu Hongling Investment Management Center (limited partnership) (“Xinyu Hongling”), which is mainly engaged in investment management and asset management, with a subscribed capital of RMB150 million. Xinyu Hongling’s fund is used to invest in Xicheng Zhiyuan Digital Power Selection (Beijing) Investment Center (Limited Partnership) (“Xicheng Zhiyuan”), with a target subscription amount of RMB751 million. The subscribed capital contribution of Ronglian Yitong is RMB20,000, accounting for 13.33% and 2.66% of the registered capital of Xinyu Hongling and Xicheng Zhiyuan. As at December 31, 2021, Ronglian Yitong made the capital contribution of RMB20,000 to Xinyu Hongling, and Xinyu Hongling made the capital contribution of RMB75,000 to the Xicheng Zhiyuan, which received its capital funds of RMB340.5 million. According to the investment agreement, Ronglian Yitong does not have the right to appoint any directors. The Group accounts for its investment in Xinyu Hongling as other equity investments since its investment is not in-substance common stock due to the liquidation preference feature, and does not have readily determinable fair value. The Group elected to measure other equity investments without a readily determinable fair value at cost adjusted for changes resulting from impairments, if any, and observable price changes in orderly transactions for the identical or similar securities of the same issuer.

In December 2022, the Company performed an impairment analysis, and recognized RMB5,400 impairment loss related to the investments without readily determinable fair value due to the lower-than-expected financial performance, and no other downward adjustment was related to the investments without readily determinable fair value.

Investments in Shanghai Yuhuan

The Company performed an impairment analysis for Shanghai Yuhuan Information System Co., Ltd. (“ShanghaiYuhuan”) in 2021 and 2022, and recognized RMB4,256 and nil impairment loss related to the investments without readily determinable fair value due to the lower-than-expected financial performance, and no other downward adjustment was related to the investments without readily determinable fair value. To estimate the fair value of investment in Shanghai Yuhuan, the Company used discounted cash flow model (“DCF Model”), which is based on the fair value of the entire invested capital of Shanghai Yuhuan using an income approach. The significant inputs for the valuation model include, but not limited to, future cash flows, discount rate, and the comparable selection set of companies operating in similar businesses.

8. PROPERTY AND EQUIPMENT, NET

Property and equipment as of December 31, 2021 and 2022 consisted of the following:

	December 31,	
	2021	2022
	RMB	RMB
Computer and office equipment	18,998	23,301
Furniture and fixtures	2,857	3,323
Motor vehicles	938	938
Leasehold improvement	2,141	2,618
Buildings	4,702	4,702
Property and Equipment	29,636	34,882
Less: Accumulated depreciation	15,542	20,493
Property and Equipment, net	14,094	14,389

Depreciation expenses were RMB4,721, RMB5,507 and RMB5,304 for the years ended December 31, 2020, 2021 and 2022, respectively.

Depreciation expenses on property and equipment were allocated to the following expense items:

	Year ended December 31,		
	2020	2021	2022
	RMB	RMB	RMB
Cost of revenues	1,377	1,404	22
Research and development expenses	538	1,395	1,403
Selling and marketing expenses	1,449	1,703	2,158
General and administrative expenses	1,357	1,005	1,721
Total depreciation expenses	4,721	5,507	5,304

9. Lease

The Group has entered into various non-cancellable operating lease agreements for certain offices. The Group determines if an arrangement is a lease, or contains a lease, at inception and record the leases in the financial statements upon lease commencement, which is the date when the underlying asset is made available for use by the lessor.

The balances for the operating and finance leases where the Group is the lessee are presented as follows within the consolidated balance sheet:

	For the year ended December 31,	
	2021	2022
	RMB(000)	RMB(000)
Operating leases:		
Assets:		
Right-of-use assets - operating lease	-	16,342
Liabilities:		
Current portion of operating lease liabilities	-	10,162
Non-current operating lease liabilities	-	6,448
Total operating lease liabilities	-	16,610

The components of lease expenses were as follows:

	For the year ended December 31, 2022	
	RMB(000)	US\$(000)
Lease Cost		
Amortization of right-of-use assets	24,158	3,503
Interest of operating lease liabilities	1,414	205
Expenses for short-term leases within 12 months and other non-lease component	2,315	336
Total lease cost	27,887	4,044

As of December 31, 2022, the weighted average remaining lease term was 1.74 years and weighted average discount rate was 5.28% for the Company's operating leases.

Supplemental cash flow information related to leases where we are the lessee is as follows:

	For the year ended December 31, 2022	
	RMB(000)	US\$(000)
Cash payments for operating leases	27,575	3,998
ROU assets obtained in exchange for operating lease liabilities	7,455	1,081

As of Dec 31, 2022, the maturities of our operating are as follows:

	Operating Lease	
	RMB(000)	US\$(000)
Year ending December 31.		
2023	13,260	1,923
2024	6,031	874
2025	941	136
Total future lease payments	20,232	2,933
Less: Imputed interest	2,895	420
Total lease liability balance	17,337	2,513

As previously reported in our Annual Report on Form 20-F for the year ended December 31, 2021 and under legacy lease accounting (ASC 840), future minimum lease payments under non-cancellable leases as of December 31, 2021 are as follows:

Year ended December 31,	RMB
2022	26,263
2023	9,615
2024	2,806

For the year ended December 31, 2020 and 2021, the Company recognized lease expense of RMB20,976 and RMB23,738, respectively, under ASC 840.

10. INTANGIBLE ASSETS, NET

The following table summarizes the Company's intangible assets, as of December 31, 2021 and 2022.

	December 31, 2021				
	Gross carrying amount	Accumulated amortization	Accumulated impairment	Net carrying amount	Weighted average amortization Period
	RMB	RMB	RMB	RMB	Years
Software copyrights	15,461	(8,159)	-	7,302	6.8
Telecommunication business operation licenses	3,262	(2,827)	-	435	4.1
Technology	11,135	(585)	(136)	10,414	6.0
Non-compete arrangements	805	(32)	-	773	3.8
Customer relationship	15,000	(1,125)	-	13,875	10.0
Trademark	7,472	(434)	-	7,038	8.8
Order backlogs	8,560	-	-	8,560	4.0
Total	61,695	(13,162)	(136)	48,397	

	December 31, 2022				
	Gross carrying amount	Accumulated amortization	Accumulated impairment	Net carrying amount	Weighted average amortization Period
	RMB	RMB	RMB	RMB	Years
Software copyrights	16,109	(9,833)	-	6,276	7.0
Telecommunication business operation licenses	2,882	(2,787)	-	95	4.0
Technology	14,865	(2,608)	(10,474)	1,783	7.2
Non-compete arrangements	805	(254)	(545)	6	3.8
Customer relationship	15,000	(2,625)	(5,586)	6,789	10.0
Trademark	8,472	(1,381)	(5,106)	1,985	8.9
Order backlogs	8,660	(2,223)	(6,437)	-	4.0
Total	66,793	(21,711)	(28,148)	16,934	

Amortization expenses for intangible assets were RMB3,895, RMB4,997 and RMB8,589 for the years ended December 31, 2020, 2021 and 2022, respectively.

The estimated amortization expense for the next five years is as follows:

	RMB
2023	3,447
2024	2,977
2025	2,360
2026	2,227
2027	1,900
Then thereafter	4,021

11. GOODWILL

The change in the carrying amount of goodwill by reporting unit is as follows:

	Acquisition of				Total RMB(000)
	Guohebing RMB(000)	Kunlunjieixin RMB(000)	Zhuge Inc. RMB(000)	Molun SAAS RMB(000)	
Balance as of December 31, 2020	-	-	-	-	-
Additions	147,001	19,222	104,674	-	270,897
Impairment	(82,467)	(19,222)	(47,403)	-	(149,092)
Balance as of December 31, 2021	64,534	-	57,271	-	121,805
Additions	-	-	-	40,029	40,029
Impairment	(10,107)	-	(57,271)	(40,029)	(107,407)
Balance as of December 31, 2022	54,427	-	-	-	54,427

In the annual goodwill impairment assessment, the Company concluded that the carrying amounts of these reporting units exceeded their respective fair values and recorded impairment losses of RMB149.1 million and RMB107.4 million during the years ended December 31, 2021 and 2022, respectively. The fair value of these reporting units was determined using the market value approach.

12. BORROWINGS

	December 31,	
	2,021 RMB	2,022 RMB
Short-term borrowings		
– Secured bank loans	5,500	-
Long-term borrowings	8,004	-

Secured bank loans

During the year ended December 31, 2021, the secured bank loans of RMB5,500 was from the business acquisition of Zhuge Inc. The short-term bank borrowings were secured by Kongmiao, the founder of Zhuge Inc. During the year ended December 31, 2022, the secured bank loans were repaid.

As of December 31, 2021, the secured bank loans bear a weighted average interest rate of 5.45% per annum, and mature at various times within one year and contain no renewal terms.

Long-term borrowings

During the year ended December 31, 2021, the long-term borrowings of RMB8,004 was from the business acquisition of Zhuge Inc. During the year ended December 31, 2022, the long-term borrowings were repaid.

As of December 31, 2021, the secured bank loans bear a weighted average interest rate of 8% per annum, and mature at various times within one year and contain renewal terms.

13. ACCRUED EXPENSES AND OTHER CURRENT LIABILITIES

	December 31,	
	2021	2022
	RMB	RMB
Accrued payroll and social insurance	82,993	95,297
Taxes payable	19,241	21,742
Payable for repurchase of treasury stocks	12,744	-
Deposits of BNY MELLON	30,641	32,726
Deposits	191	303
Staff reimbursements	17,918	7,991
Accrued liabilities for class action	-	83,575
Other payables	3,259	1,090
Accrued expenses and other current liabilities	166,987	242,724

14. WARRANT LIABILITIES

The Company classified the warrants to purchase redeemable convertible preferred shares as warrant liabilities and adjusted the carrying value of the warrant liabilities to fair value at the end of each reporting period utilizing the binomial option pricing model, which involves significant assumptions including the risk-free interest rate, the expected volatility, expected dividend yield and expected term. The risk-free interest rate was based on the U.S. Treasury rate for the expected remaining life of preferred shares warrants. The expected volatility was estimated based on the historical volatility of comparable peer public companies with a time horizon close to the expected term of the Company's warrant liabilities. Expected dividend yield is zero as the Company does not anticipate any dividend payments in the foreseeable future. Expected term is the remaining life of the warrant liabilities.

Series C Warrant

In February 2016, Ronglian Yitong entered into a two-year credit facility with SPD to borrow up to RMB40 million. On September 23, 2016, in connection with the credit facility arrangement, the Company issued a warrant to China Equities HK Limited ("China Equities"), a related party of SPD, to purchase an aggregate of 661,376 shares of the Company's Series C Redeemable Convertible Preferred Shares at an exercise price of US\$0.945 per share. The warrant is exercisable upon issuance and expires on September 23, 2023. At initial recognition, the Group recorded the warrant liabilities on the consolidated balance sheet at its estimated fair value and subsequently, at each reporting date, recorded changes in estimated fair value included in the change in fair value of warrant liabilities on the consolidated statement of comprehensive loss. The fair value of the warrant to purchase 661,376 Series C Redeemable Convertible Preferred Shares is US\$384 (equivalent to RMB2,679) as of December 31, 2019 and US\$1,479 (equivalent to RMB9,650) as of December 31, 2020.

On March 22, 2021, China Equities exercised the Series C warrants, which entitled China Equities to purchase an aggregate of 664,611 shares of the Company's Series C Redeemable Convertible Preferred Shares at an exercise price of US\$0.9404 per share. China Equities paid the exercise price by surrendering 26,042 Series C Redeemable Convertible Preferred Shares that it would entitle to receive upon a cash exercise of the warrant. Accordingly, by virtue of the cashless exercise of the warrant, the Company issued 638,569 Class A Ordinary Shares to China Equities, with the conversion and redesignation of all series C Redeemable Convertible Preferred Shares into Class A Ordinary Shares on a one-for-one basis after the Company's consummation of IPO. The fair value of Series C warrant is US\$5,958 (equivalent to RMB38,841) at the exercise date.

The fair value of the warrant liability to China Equities HK Limited for purchasing Series C Redeemable Convertible Preferred Shares as of December 31, 2020 and March 22, 2021 are estimated with the following assumptions used:

	December 31, 2020	March 22, 2021
Risk-free rate of return	0.23%	0.38%
Volatility	53%	54%
Expected dividend yield	0%	0%
Fair value of underlying Series C Redeemable Convertible Preferred Shares	3.12	9.91
Expected term	2.7 years	2.5 years

Series E Warrant

During the Company's Series E financing in September 2019, two PRC onshore investment funds would also like to invest in the Series E Redeemable Convertible Preferred Shares. However, these two PRC onshore investment funds were required to obtain ODI approvals from relevant PRC government authorities and complete foreign currency exchange procedures before conducting an outbound direct investment pursuant to the PRC laws. To facilitate these two PRC onshore investment funds to invest in the Series E Redeemable Convertible Preferred Shares with the same preference and rights as other three offshore investment funds, a series of agreements were entered into by the Company and Ronglian Yitong. On September 25, 2019, Ronglian Yitong entered into loan agreements with the two PRC onshore investment funds to borrow two loans in the amount of US\$9.0 million and US\$6.0 million, respectively (equivalent to RMB106,092 in total). The Company also entered into warrant purchase agreements with the two PRC onshore investment funds, which entitle the PRC onshore investment funds to purchase 6,112,570 Series E Redeemable Convertible Preferred Shares at Series E's issuance price of US\$2.45 per share. Such preferred shares shall be issuable upon the exercise of the warrants once the two investors obtain the government approval and complete the exchange procedures for ODI. The warrants are exercisable through February 28, 2021. If the government approval is not obtained before the due date of the loans, the warrants are lapsed. At initial recognition, the Group allocated the proceeds from the issuance of the debt instrument to the warrants based on the warrant liabilities' fair value. The warrant liabilities are subject to remeasurement at each reporting period.

On March 25, 2020 and July 15, 2020, the Company issued 3,706,745 and 3,501,087 ordinary shares, in connection with the purchase of non-controlling interests of the Group's subsidiaries. Pursuant to the anti-dilution provision in the Series E financing arrangement, the two PRC onshore investment funds were entitled to additional 123,677 and 190,597 warrants to purchase Series E Redeemable Convertible Preferred Shares, respectively.

On November 3, 2020, the warrants in connection with Series E financing were exercised and the Company issued 6,426,844 Series E Redeemable Convertible Preferred Shares to the offshore affiliates of the two PRC onshore investment funds (the "Offshore Affiliates") in exchange for two promissory notes in the aggregate amount of US\$15 million.

The fair value of the warrant to purchase 6,112,570 Series E Redeemable Convertible Preferred Shares is US\$291 (equivalent to RMB2,030) as of December 31, 2019. The fair value of additional warrants issued to purchase the additional 123,677 and 190,597 Series E Redeemable Convertible Preferred Shares is US\$114 (equivalent to RMB801) at issuance date and total fair value of the warrant to purchase 6,426,844 Series E Redeemable Convertible Preferred Shares at the exercise date of Series E warrants is US\$2,472 (equivalent to RMB16,550).

The fair value of the warrant liability issued to two PRC onshore investment funds for purchasing Series E Redeemable Convertible Preferred Shares as of December 31, 2019 and November 3, 2020 are estimated with the following assumptions used:

	December 31, 2019	November 3, 2020
Risk-free rate of return	0.35%	0.22%
Volatility	53.0%	50%
Expected dividend yield	0.0%	0%
Fair value of underlying Series E Redeemable Convertible Preferred Shares	1.30	2.62
Expected term	1.2 years	0.5 year

Series F Warrant

On November 13, 2020, the Company agreed to issue a warrant to Novo Investment HK Limited ("Novo Investment") with the exercise price of US\$34,000. Novo Investment may, within six months commencing from the issuance date, subscribe for an aggregate of 11,799,685 Series F Redeemable Convertible Preferred Shares of the Company, par value of US\$0.0001 per share, at the exercise price of US\$2.8814 per share, subject to adjustment. On January 7, 2021, the Series F warrant was fully exercised with the exercise price of US\$34,000 and the Company issued 11,799,685 Series F Redeemable Convertible Preferred Shares to Novo Investment. At initial recognition, the Group recorded the warrant liabilities on the consolidated balance sheet at its estimated fair value and subsequently, at each reporting date, recorded changes in estimated fair value included in the change in fair value of warrant liabilities on the consolidated statement of comprehensive loss.

The fair value of the warrant to purchase 11,799,685 Series F Redeemable Convertible Preferred Shares is US\$3,262 (equivalent to RMB21,622) at the issuance date, US\$5,809 (RMB37,903) and 5,809 (RMB37,531) as of December 31, 2020 and January 7, 2021 (the exercise date).

The fair value of the warrant liability issued to Novo Investment for purchasing Series F Redeemable Convertible Preferred Shares as of November 13, 2020, December 31, 2020 and January 7, 2021 are estimated with the following assumptions used:

	November 13, 2020	December 31, 2020 and January 7, 2021
Risk-free rate of return	0.22%	0.19%
Volatility	50%	50%
Expected dividend yield	0%	0%
Fair value of underlying Series F Redeemable Convertible Preferred Shares	2.62	3.12
Expected term	0.5 year	0.36 years

15. REDEEMABLE CONVERTIBLE PREFERRED SHARES

On July 30, 2014, the Company issued 18,642,038 Series A Redeemable Convertible Preferred Shares ("Series A Preferred Shares") at US\$0.1475 per share with total consideration of US\$2,750 (equivalent to RMB16,902).

On February 6, 2015, the Company issued 19,617,225 Series B Redeemable Convertible Preferred Shares ("Series B Preferred Shares") at US\$0.52 per share with total consideration of US\$10,200 (equivalent to RMB62,691).

On June 10, 2016, the Company issued 18,608,315 Series C Redeemable Convertible Preferred Shares ("Series C Preferred Shares") to investors at US\$1.34 per share with total consideration of US\$25,000 (equivalent to RMB165,466).

Also on June 10, 2016, Max Connect Limited ("Max Connect"), incorporated in the Cayman Islands, purchased 26,051,641 Series C Redeemable Convertible Preferred Shares at nominal consideration. On the same day, Beijing Hongshan Shengde Equity Investment Center (Limited Partnership) ("Hongshan Shengde"), registered in the People's Republic of China and is an affiliate of Max Connect, and Ronglian Yitong and its nominee shareholders entered into a capital increase agreement, pursuant to which, Hongshan Shengde invested into Ronglian Yitong with cash of RMB230,087 (equivalent to US\$35,000).

On November 3, 2020, the Company, Max Connect and Hongshan Shengde agreed to change certain investment arrangements relating to Max Connect's investment in Series C Redeemable Convertible Preferred Shares and Hongshan Shengde's investment in Ronglian Yitong, pursuant to which, (1) Max Honest Ltd. ("Max Honest"), incorporated in the Cayman Islands and is an affiliate of Max Connect and Hongshan Shengde, would be designated as the new holder of 26,051,641 Series C Redeemable Convertible Preferred Shares which was previously held by Max Connect, and (2) the capital increase arrangement with Ronglian Yitong would be terminated.

On the same day, the holder of Series C Redeemable Convertible Preferred Shares was re-designated: Max Connect surrendered 26,051,641 Series C Redeemable Convertible Preferred Shares for nominal consideration, and the Company approved the issue of 26,051,641 Series C Redeemable Convertible Preferred Shares to Max Honest for a consideration of US\$35,000, which would be paid via a promissory note. To facilitate the repayment of the promissory note issued by Max Honest, the Company intends for Ronglian Yitong to pay to Hongshan Shengde the cash consideration that Max Honest have promised for its Series C Redeemable Convertible Preferred Shares and Max Honest will return such cash consideration to the Company. The net impact of those transactions will be to transfer a certain amount of cash from the Company's subsidiary to the Company, with no net impact on cash.

On November 3, 2020, the subscription receivable of US\$35,000 from Max Honest was recorded as a reduction of mezzanine equity, and the payable by Ronglian Yitong to Hongshan Shengde with an amount of RMB230,087 was recorded in liabilities.

On March 19, 2018, the Company issued 12,462,157 Series D Redeemable Convertible Preferred Shares ("Series D Preferred Shares") at US\$2.05 per share with total consideration of US\$25,600 (equivalent to RMB160,975).

On August 28, 2019, the Company issued 13,040,152 Series E Redeemable Convertible Preferred Shares (“Series E Preferred Shares”) at US\$2.45 per share with total consideration of US\$32,000 (equivalent to RMB226,646). The issuance costs were US\$1,766 (equivalent to RMB12,427).

On March 25, 2020 and July 15, 2020, the Company issued 3,706,745 and 3,501,087 ordinary shares, in connection with the purchase of non-controlling interests of the Group’s subsidiaries. Pursuant to the anti-dilution provision in the Series E financing arrangement, the Company issued 263,843 and 406,605 additional Series E Preferred shares at par value to existing Series E Preferred Shareholders on March 25, 2020 and July 15, 2020, respectively. The newly issued preferred shares were deemed as dividends to the existing Series E Preferred Shares.

On November 13, 2020, the Company issued 31,581,509 Series F Redeemable Convertible Preferred Shares (“Series F Preferred Shares”) at US\$2.88 per share with total consideration of US\$91,000 (equivalent to RMB598,662). The issuance costs were US\$1,807 (equivalent to RMB11,830).

In February 2021, the Company completed its IPO on the New York stock exchange and issued 23,000 ADSs for a net proceeds of US\$342 million (equivalent to RMB2.2 billion) at an issuance price of US\$16 per ADS. Each ADS represents two ordinary shares. The issued and outstanding 158,900,014 redeemable convertible preferred shares were converted to Class A ordinary shares on a one-for-one-basis at the same time in the amount of US\$1.27 billion (equivalent to RMB8.20 billion), which includes accretion from January 1, 2021 to February 9, 2021, the date of the Company’s initial public offering. The issued and outstanding 95,140,749 pre-offering ordinary shares were converted to Class A ordinary shares on a one-for-one-basis at the same time, and the remaining 25,649,839 pre-offering ordinary shares were converted to Class B ordinary shares.

The Company’s redeemable convertible preferred shares activities consist of the following:

RMB	Series A	Series B	Series C	Series D	Series E	Series F	Total
Balance as of January 1, 2020	174,528	202,954	607,847	208,826	229,974	-	1,424,129
Exercise of Series E warrants	-	-	-	-	122,642	-	122,642
Issuance for cash	-	-	-	-	-	598,662	598,662
Issuance costs	-	-	-	-	-	(11,830)	(11,830)
Deemed dividends	-	-	-	-	14,729	-	14,729
Accretion of Redeemable Convertible Preferred Shares	229,846	226,825	396,106	77,441	93,773	115,117	1,139,108
Foreign currency translation adjustment	(23,710)	(25,385)	(60,725)	(17,694)	(23,869)	(10,477)	(161,860)
Balance as of December 31, 2020	380,664	404,394	943,228	268,573	437,249	691,472	3,125,580
Subscription receivables	-	-	(230,087)	-	(106,092)	-	(336,179)
Carrying amount as of December 31, 2020	380,664	404,394	713,141	268,573	331,157	691,472	2,789,401
Issuance of Series F Preferred Shares	-	-	-	-	-	257,198	257,198
Accretion of Redeemable Convertible Preferred Shares	588,758	615,764	1,379,371	379,571	610,099	1,305,090	4,878,653
Foreign currency translation adjustment	(7,001)	(7,391)	213,120	(4,768)	98,368	(14,146)	278,182
Balance as of February 9, 2021	962,421	1,012,767	2,305,632	643,376	1,039,624	2,239,614	8,203,434
Conversion to Class A Ordinary Shares	(962,421)	(1,012,767)	(2,305,632)	(643,376)	(1,039,624)	(2,239,614)	(8,203,434)
Balance as of December 31, 2021	-	-	-	-	-	-	-

The rights, preferences and privileges of the Redeemable Convertible Preferred Shares are as follows:

Redemption Rights

Prior to the issuance of Series C Preferred Shares in June 2016, Series A and B Preferred Shares shall be redeemable at the option of holders of the Series A and B Preferred Shares, at any time after the earliest of (i) the fifth (5th) anniversary of the Series A Preferred Shares issue date, if a Qualified Initial Public Offering (“Qualified IPO”), has not been consummated by then, (ii) the time when any material adverse change in the regulatory environment occurs, under which circumstance the captive structure of the Group becomes, has become, or is threaten to become invalid, illegal or unenforceable, or (iii) the date that there is a material breach by the Company or by any direct or indirect owners of the ordinary shares of any of their respective representations, warranties, or undertakings under the transaction documents.

Upon the issuance of Series C Preferred Shares in June 2016, the redemption term of Series A and Series B Preferred Shares were modified to be the same as Series C Preferred Shares, in which they were redeemable at the option of holders of these preferred shares: at any time after the fourth (4th) anniversary of the issuance date of Series C Preferred Shares, if the Company has not consummated a Qualified IPO by then, which extends the redemption start date of Series A and B Preferred Shares was extended from July 30, 2019 to June 9, 2020 to be in line with the optional redemption date of Series C Preferred Shares.

Upon the issuance of Series D Preferred Shares in February 2018, the redemption term of Series A, B and C Preferred Shares were modified to be the same as Series D Preferred Shares, in which they were redeemable at the option of holders of these preferred shares: at any time after the third (3rd) anniversary of the issuance date of Series D Preferred Shares, if the Company has not consummated a Qualified IPO by then, which extends the redemption start date of Series A, B and C Preferred Shares was extended from June 9, 2020 to March 18, 2021 to be in line with the optional redemption date of Series D Preferred Shares.

Upon the issuance of Series E Preferred Shares in August 2019, the redemption term of Series A, B, C and D Preferred Shares were modified to be the same as Series E Preferred Shares, in which they were redeemable at the option of holders of these preferred shares: at any time after the third anniversary of the issuance date of Series E Preferred Shares, if the Company has not consummated a Qualified IPO by then, which extends the redemption start date of Series A, B, C and D Preferred Shares was extended from March 18, 2021 to August 27, 2022 to be in line with the optional redemption date of Series E Preferred Shares. The redemption term of Series F Preferred Shares remained the same as Series E Preferred Shares.

The redemption price equals to the greater of (1) 100% of the Preferred Shares issue price with an 8% compound per annum, plus any declared but unpaid dividends on such Preferred Shares, and (2) the fair market value of the relevant Preferred Shares. The fair value of the relevant Preferred Shares was determined by management with the assistance from a valuation firm using management's estimates and assumptions.

The Company recognized changes in the redemption value immediately as they occur and adjust the carrying value of the Redeemable Convertible Preferred Shares to equal the redemption value at the end of each reporting period, as if it were also the redemption date for the Redeemable Convertible Preferred Shares.

The Company determines whether an amendment or modification to the terms of Series A, B, C and D Preferred Shares represents an extinguishment based on a fair value approach. If the fair value of the preferred shares immediately before and after the amendment is significantly different (by more than 10%), the amendment or modification represents an extinguishment. The Company has determined that the amendment to the terms of Series A, B, C and D Preferred Shares did not represent an extinguishment, and therefore modification accounting was applied by analogy to the modification guidance contained in ASC 718 20, Compensation—Stock Compensation. The Company accounts for modifications that result in an increase to the fair value of the modified preferred shares as a deemed dividend reconciling net loss to net loss attributable to ordinary shareholders as there is a transfer of value from the ordinary shareholders to the preferred shareholders. Modifications that result in a decrease in the fair value of the modified preferred shares were not recognized. Upon the issuance of Series E Preferred Shares in August 2019, the increase in fair value of Series C Preferred Shares and Series D Preferred Shares at the modification date resulting from extension of optional redemption date were US\$974 (equivalent to RMB6,716) and US\$806 (equivalent to RMB5,562), respectively. The inputs for appraising the fair value of the modified preferred shares are the redemption term, volatility, dividend rate and risk-free interest rate.

Conversion Rights

Each preferred share shall be convertible, at the option of the holder, at any time after the date of issuance of such preferred shares according to a conversion ratio, subject to adjustments for dilution, including but not limited to share splits, share combination, share dividends and distribution and certain other events.

Each preferred share shall automatically be converted into ordinary shares, at the applicable then-effective conversion price upon the earlier of (a) the closing of a Qualified IPO, or (b) the date specified by written consent or agreement of the holders of a majority of each round of Preferred Shares with respect to each round of Preferred Shares.

Voting Rights

Each preferred share shall be entitled to that number of votes corresponding to the number of ordinary shares on an as converted basis. Preferred shares shall vote separately as a class with respect to certain specified matters. Otherwise, the holders of preferred shares and ordinary shares shall vote together as a single class.

Dividend Rights

Preferred shares holders are entitled to receive dividends at the rate of 8% of the applicable preferred shares issue price, payable out of funds or assets legally available. Such dividends shall be payable only if declared by the Board of Directors and shall be non-cumulative.

The Company is not obliged to declare, pay, set aside or make such dividends to preferred shares holders except for (i) a distribution made in liquidation; (ii) applicable exempted distribution, including (a) the purchase, repurchase or redemption of ordinary shares by the Company from terminated employees, officers or consultants in accordance with the ESOP or the share restriction agreement, or pursuant to the exercise of a contractual right of first refusal held by the Company, if any, or pursuant to written contractual arrangements with the Company approved by the Board, and (b) the purchase, repurchase or redemption of the Preferred Shares; (iii) all declared but unpaid dividends on the preferred shares have been paid in full, and (iv) a dividend or distribution is likewise declared, paid, set aside or made, respectively, at the same time with respect to each issued and outstanding preferred share such that the dividend or distribution declared, paid, set aside or made to the holder shall be equal to the dividend or distribution that such holder would have received if such preferred share had been converted into ordinary Shares immediately prior to the record date for such dividend or distribution, or if no such record date is established, the date such dividend or distribution is made, and if such share then participated in and the holder received such dividend or distribution.

Liquidation Preferences

In the event of any liquidation including deemed liquidation, dissolution or winding up of the Company, holders of the preferred shares shall be entitled to receive a per share amount equal to 100% of the original preferred shares issue price with an 8% compound per annum, plus any declared but unpaid dividends on such preferred shares, in the sequence of Series F Preferred Shares, Series E Preferred Shares, Series D Preferred Shares, Series C Preferred Shares, Series B Preferred Shares and Series A Preferred Shares. After such liquidation amounts have been paid in full, any remaining funds or assets of the Company legally available for distribution to shareholders shall be ratably distributed among the holders of the Preferred Shares, on an as-converted basis, together with the holders of the ordinary shares.

The Company classified all series of Redeemable Convertible Preferred Shares as mezzanine equity in the consolidated balance sheets since they are contingently redeemable at the option of the holders after a specified time period.

The Company evaluated the embedded conversion option in all series preferred shares to determine if the embedded conversion option require bifurcation and accounting for as a derivative. The Company concluded the embedded conversion option did not need to be bifurcated pursuant to ASC 815 *Derivatives and Hedging*. The Company also determined that there was no beneficial conversion feature attributable to all series preferred shares because the initial effective conversion prices of these all series preferred share were higher than the fair value of the Company's ordinary shares at the relevant commitment dates. The fair value of the Company's ordinary shares on the commitment date was estimated by management, which involves significant assumptions that might not be observable in the market, and a number of complex and subjective variables, including discount rate, risk-free interest rate and subjective judgments regarding the Company's projected financial and operating results, its unique business risks, the liquidity of its ordinary shares and its operating history and prospects at the time the grants are made. Except for the warrant liability with proceeds allocated from the issuance of the debt instrument, the Company also determined there was no other embedded features to be separated from all series preferred shares.

16. SHARE-BASED COMPENSATION

Restricted ordinary shares

On August 28, 2019, 8,154,893 ordinary shares held by Cloopen Co., Ltd., which is wholly owned by Mr. Sun Changxun, became restricted with a graded vesting as to 1/3 of the restricted ordinary shares vest on the first anniversary of August 28, 2019 and with the remaining 2/3 of the restricted ordinary shares vesting evenly over the next two years. Such restricted shares are also subject to immediate vesting upon the Company's completion of a qualified IPO. The fair value of the shares of US\$9,827 are amortized to consolidated statements of comprehensive loss over the vesting term of three years.

In March 2020, the Company, through the VIE, obtained 38% equity interest in one subsidiary, Beijing Baiyi High-tech Information Technology Co., Ltd. ("Baiyi") from the non-controlling shareholders, who are also the management employees in Baiyi. This transaction was accounted for as equity transactions of changes in a parent's ownership interest while the parent retains its controlling financial interest in its subsidiary according to ASC Topic 810-10-45-23. Therefore, no gain or loss shall be recognized in consolidated statements of comprehensive loss. At the same time, the Company issued 3,706,745 ordinary shares at par value to the management employees. These ordinary shares became restricted and subject to a graded vesting that 1,853,373 restricted ordinary shares will vest on March 25, 2021 and the remaining 1,853,372 restricted ordinary shares will vest evenly over the next twelve months. The fair value of the shares of US\$4,804 (equivalent to RMB33,137) are amortized to consolidated statements of comprehensive loss over the vesting term of two years.

In July 2020, the Company accelerated the vesting of 3,706,745 restricted shares so that all the restricted shares vested immediately. The Company accounted for the modification as a Type I (probable-to-probable) modification. Such a modification resulted in the unrecognized share-based compensation expense of US\$3,465 (equivalent to RMB23,898) to be recognized as general and administrative expenses at the time of the modification.

In January 2021, the Company adopted a second share option Plan ("2021 Share Plan"), under which the maximum aggregate number of Class A ordinary shares that may be issued pursuant to all awards under such plan is 15,144,221. The ordinary shares became restricted with a vesting schedule of four years. Under the 2021 Share Plan, 5,898,500 ordinary shares were granted to employees for the year 2021.

In March 2021, the Company offered certain management members of EliteCRM 2,411,177 ordinary shares, which become restricted with a graded vesting as to 1/2 of the restricted ordinary shares vest on the first anniversary of March 22, 2022 and with the remaining 1/2 of the restricted ordinary shares vesting on March 22, 2023. The fair value of the shares of US\$23,883 are amortized to consolidated statements of comprehensive loss over the vesting term of two years.

A summary of the Company's restricted ordinary shares held by the Company's employees for the years ended December 31, 2021 and 2022 is presented below:

	Number of shares	Weighted average grant date fair value
Unvested as of January 1, 2021	5,436,595	1.32
Granted	8,309,677	4.65
Vested	(5,436,595)	1.32
Forfeited	(295,000)	3.19
Unvested as of December 31, 2021	8,014,677	4.71
Granted	3,822,089	0.66
Vested	(1,755,548)	7.45
Forfeited	(5,104,733)	2.21
Unvested as of December 31, 2022	4,976,485	3.20

Total compensation expenses recognized for restricted ordinary shares for the years ended December 31, 2020, 2021 and 2022 were allocated to the following expense items:

	Year ended December 31,		
	2020	2021	2022
	RMB	RMB	RMB
Research and development expenses	-	8,618	(5,158)
General and administrative expenses	67,026	112,218	59,133
Selling and marketing expenses	-	4,191	1,275
Total restricted ordinary shares compensation expenses	67,026	125,027	55,250

In addition to the restricted ordinary shares held by the Company's employees, 1,700,000 ordinary shares were held by a non-employee founder, which were restricted and have been vested immediately upon the completion of the Company's initial public offering on February 9, 2021. The fair value of 1,700,000 restricted ordinary shares on grant date is US\$111.

As of December 31, 2022, total unrecognized compensation expense related to restricted ordinary shares were RMB24,372 until 2025. The restricted ordinary shares are expected to be recognized over a weighted average period of approximately 2.74 years.

Shares Options

In January 2017, the Company's shareholders and board of directors approved a share option Plan ("2016 Share Plan"), under which a maximum aggregate number of 21,119,408 ordinary shares may be issued pursuant to all awards to be granted. In September 2018, the Company's shareholders and board of directors approved that the maximum aggregate number of ordinary shares may be issued under 2016 Share Plan shall be modified to 25,838,502 pre-offering Class A Ordinary Shares. In March 2020 and July 2020, the Company's shareholders and board of directors approved that the maximum aggregate number of ordinary shares may be issued under 2016 Share Plan shall be modified to 26,419,211 and 29,525,465 pre-offering Class A Ordinary Shares, respectively.

In addition, the options may be exercised with respect to 25% to 50% of the shares subject to the options as of the first anniversary of the vesting commencement date with the remaining shares subject to the options shall become vested in equal monthly installments over a period of 12-36 months thereafter. Share options were granted with exercise prices ranging from US\$0.01 to US\$0.38 and will expire 10 years from the grant dates.

Under the 2016 Share Plan, 5,355,499 and nil share options were granted to employees, officers, and board members for the years ended December 31, 2021 and 2022, respectively. A summary of the share options activities for the years ended December 31, 2021 and 2022 is presented below:

	Number of shares	Weighted average exercise price US\$	Weighted remaining contractual years	Aggregate intrinsic value US\$
Outstanding as of January 1, 2021	25,198,592	0.25		
Granted	5,355,499	0.26		
Forfeited	(1,754,969)	0.30		
Exercised	(6,729,352)	0.26		
Outstanding as of December 31, 2021	22,069,770	0.25		
Forfeited	(755,960)	0.34		
Exercised	(3,718,773)	0.25		7,160
Outstanding as of December 31, 2022	17,595,037	0.24		
Vested and expected to vest as of December 31, 2022	17,595,037	0.24	4.66	30,507
Exercisable as of December 31, 2022	16,708,959	0.21	3.59	30,245

The fair values of the options granted are estimated on the dates of grant using the binomial option pricing model with the following assumptions used:

Grant dates:	2020	2021
Risk free rate of return	0.61%-1.88%	1.06%-1.57%
Volatility	48.21%-49.36%	48.76%-49.21%
Expected dividend yield	0%	0%
Exercise multiple	2.20	2.20
Fair value of underlying ordinary share	US\$1.30- US\$3.12	US\$1.45- US\$16.70
Expiration terms	10 years	10 years

The expected volatility was estimated based on the historical volatility of comparable peer public companies with a time horizon close to the expected term of the Company's options. The risk-free interest rate was estimated based on the yield to maturity of U.S. treasury bonds denominated in US\$ for a term consistent with the expected term of the Company's options in effect at the option valuation date. Expected dividend yield is zero as the Company does not anticipate any dividend payments in the foreseeable future. The expected exercise multiple was estimated as the average ratio of the stock price to the exercise price of when employees would decide to voluntarily exercise their vested options. As the Company did not have sufficient information of past employee exercise history, it has considered the statistics on exercise patterns of employees compiled by Huddart and Lang in Huddart, S., and M. Lang. 1996. "Employee Stock Option Exercises: An Empirical Analysis." *Journal of Accounting and Economics*, vol. 21, no. 1 (February), pages 5-43, which are widely adopted by valuers as authoritative guidance on expected exercise multiples. Expected term is the contract life of the option.

The weighted average grant date fair value of the share options granted during the years ended December 31, 2020 and 2021 was US\$2.24 and US\$6.19, respectively. Compensation expense recognized for share options during the years ended December 31, 2020, 2021 and 2022 is allocated to the following expense items:

	RMB	RMB	RMB
	2020	Year ended December 31, 2021	2022
	RMB	RMB	RMB
Cost of revenues	761	507	(621)
Research and development expenses	909	9,946	(795)
Selling and marketing expenses	3,467	16,960	(765)
General and administrative expenses	25,132	109,530	54,393
Total share option compensation expenses	30,269	136,943	52,212

As of December 31, 2022, RMB10,284 of total unrecognized compensation expense related to share options that are expected to be recognized until 2025. The share options are expected to be recognized over a weighted average period of approximately 1.7 years.

Ordinary shares issued to management employees to acquire their equity interests in the majority-owned subsidiaries

In July 2020, the Company, through the VIE, obtained minority interest in three majority-owned subsidiaries from the non-controlling shareholders, among which there are management employees of the three subsidiaries. The consideration included cash consideration of RMB16,095 and 3,501,087 ordinary shares, which were issued by the Company on July 15, 2020. These transactions were accounted for as equity transactions of changes in a parent's ownership interest while the parent retains its controlling financial interest in its subsidiary according to ASC Topic 810-10-45-23. Therefore, no gain or loss shall be recognized in consolidated statements of comprehensive loss.

The difference between fair value of consideration paid to certain management employees and fair value of the non-controlling interest at the time of acquisition is recognized as share-based compensation expenses in the amount of RMB13,750 for the year ended December 31, 2020. Cash consideration of RMB16,095 was fully paid before December 31, 2020.

Waiver of subscription receivable due from a shareholder

On June 10, 2016, the Company issued 16,982,978 ordinary shares at fair value to Mr. Changxun Sun, for an aggregate consideration of US\$3,674 (the "Subscription Price").

On November 3, 2020, all the shareholders and directors of the Company passed a special resolution to waive the Subscription Price, except for the par value which would be paid by Mr. Changxun Sun.

The waiver of the subscription receivable with Mr. Changxun Sun was recorded as compensation expense of US\$3,673 (equivalent to RMB23,219) in the consolidated statements of comprehensive loss for the year ended December 31, 2020.

17. FAIR VALUE MEASUREMENT

The following tables present the fair value hierarchy for those assets and liabilities measured at fair value on a recurring basis as of December 31, 2020, 2021 and 2022, respectively:

RMB	December 31, 2020			Total Fair Value
	Level 1	Level 2	Level 3	
Liabilities				
Warrants Liabilities, current portion (Note 14)	-	-	37,903	37,903
Non-current warrants Liabilities (Note 14)	-	-	9,650	9,650
Assets				
Short-term investments	-	-	127,514	127,514
December 31, 2021				
Assets				
Short-term investments	-	-	412,031	412,031
December 31, 2022				
Assets				
Short-term investments	-	-	412,031	412,031

The table below reflects the reconciliation from the opening balances to the closing balances for recurring fair value measurements of the fair value hierarchy for the years ended December 31, 2020, 2021 and 2022:

				Year ended December 31, 2020			
				Gain or Losses			
RMB	January 1, 2020	Purchase/ Issue	Sell / Exercise	Included in earnings	Included in other comprehensive loss	Foreign currency translation adjustment included in other comprehensive loss	December 31, 2020
Assets							
Short-term investments	2,501	-	2,501	-	-	-	-
Liabilities							
Warrants Liabilities, current portion (Note 14)	-	21,622	-	16,906	-	(415)	37,903
Non-current warrants Liabilities (Note 14)	4,709	-	16,550	23,376	-	(1,885)	9,650

Year ended December 31, 2021							
Gain or Losses							
RMB	January 1, 2021	Purchase/ Issue	Sell / Exercise	Included in earnings	Included in other comprehensive loss	Foreign currency translation adjustment included in other comprehensive loss	December 31, 2021
Assets							
Short-term investments	-	127,727	-	-	-	(213)	127,514
Liabilities							
Warrants Liabilities, current portion (Note 14)	37,903	-	37,531	-	-	(372)	-
Non-current warrants Liabilities (Note 14)	9,650	-	38,841	29,011	-	180	-

Year ended December 31, 2022							
Gain or Losses							
RMB	January 1, 2022	Purchase/ Issue	Sell / Exercise	Included in earnings	Included in other comprehensive loss	Foreign currency translation adjustment included in other comprehensive loss	December 31, 2022
Assets							
Short term investments	127,514	357,142	70,306	-	-	(2,320)	412,031

18. INCOME TAX

a) Income tax

The Cayman Islands

Under the current laws of the Cayman Islands, the Company is not subject to tax on income or capital gain. Additionally, the Cayman Islands does not impose a withholding tax on payments of dividends to shareholders.

No stamp duty is payable in respect of the issue of the shares or on an instrument of transfer in respect of a share.

Hong Kong S.A.R.

Under the current Hong Kong S.A.R. Inland Revenue Ordinance, the Company's Hong Kong S.A.R. subsidiary is subject to Hong Kong S.A.R. profits tax at the rate of 16.5% on its taxable income generated from the operations in Hong Kong S.A.R. Payments of dividends by the Hong Kong S.A.R. subsidiary to the Company is not subject to withholding tax in Hong Kong S.A.R. A two-tiered profits tax rates regime was introduced in 2018 where the first HK\$2 million of assessable profits earned by a company will be taxed at half of the current tax rate (8.25%) whilst the remaining profits will continue to be taxed at 16.5%. There is an anti-fragmentation measure where each group will have to nominate only one company in the group to benefit from the progressive rates. No provision for Hong Kong profits tax has been made in the financial statements as the subsidiary in Hong Kong has no assessable profits for the years ended December 31, 2020, 2021 and 2022.

Japan

The Company's Japan subsidiary, Cloopen Japan Co., Ltd., is subject to Japanese corporation tax (including national corporation tax, local enterprise tax and other income-based taxes) on its worldwide income. The statutory effective tax rate is approximately 30% to 34%, depending on the size of the company.

Dividends paid by a Japanese company are generally subject to Japanese withholding tax. If the Japanese company paying dividends is a non-listed company and the payee is a non-resident of Japan, the rate of such withholding tax is 20.42% under Japanese Tax law. The Company enjoys preferential withholding tax rate of 10% under Japan-China tax treaty.

The PRC

The Group's PRC subsidiaries, the VIE, and the VIE's subsidiaries are subject to the PRC Corporate Income Tax Law ("CIT Law") and are taxed at the statutory income tax rate of 25%, unless otherwise specified.

In March 2007, a new enterprise income tax law (the "New EIT Law") in the PRC was enacted which became effective on January 1, 2008. The New EIT Law applies a unified 25% enterprise income tax ("EIT") rate to both foreign invested enterprises and domestic enterprises, unless a preferential EIT rate is otherwise stipulated. On April 14, 2008, relevant governmental regulatory authorities released further qualification criteria, application procedures and assessment processes for meeting the High and New Technology Enterprise ("HNTE") status under the New EIT Law which would entitle qualified and approved entities to a favorable EIT tax rate of 15%. In April 2009 and June 2017, the State Administration for Taxation ("SAT") issued Circular Guoshuihan (2009) No. 203 ("Circular 203") and SAT Announcement (2017) No. 24 ("Announcement 24") stipulating that entities which qualified for the HNTE status should apply with in-charge tax authorities to enjoy the reduced EIT rate of 15% provided under the New EIT Law starting from the year when the new HNTE certificate becomes effective. The HNTE certificate is effective for a period of three years and can be renewed for another three years. Subsequently, an entity needs to re-apply for the HNTE status in order to be able to enjoy the preferential tax rate of 15%.

Ronglian 7Moor obtained the HNTE certificate in December 2016, and subsequently renewed the HNTE certificate in October 2019 and November 2022. Thus, Ronglian 7Moor is entitled to a preferential tax rate of 15% from 2016 to 2024.

Beijing Baiyi High-Tech Information Technology Co., Ltd., a subsidiary of the Company, obtained the HNTE certificate in October 2017, which expired in October 2020. In October 2020, Baiyi renewed its HNTE status which entitles it to the preferential income tax rate of 15% from 2020 to 2022.

Ronglian Guanghui and Beijing Yunrong Tianxia Technology Co., Ltd., subsidiaries of the Company, obtained the HNTE certificates in December 2017, which expired in December 2020. Thus, Ronglian Guanghui and Beijing Yunrong Tianxia Technology Co., Ltd was entitled to the preferential tax rate of 15% from 2017 to 2019. In October 2020, Beijing Yunrong Tianxia Technology Co., Ltd., renewed its HNTE status which entitled it to the preferential income tax rate of 15% from 2020 to 2022. Due to business scope change, Ronglian Guanghui has no plan to renew the HNTE certificates and could not entitle to the preferential tax rate of 15% after the HNTE certificate became void from January 1, 2020.

Ronglian Yitong, a subsidiary of the Company, obtained the HNTE certificate in September 2015 and subsequently renewed the HNTE certificate in September 2018 and December 2021. Thus, it was entitled to the preferential tax rate of 15% from 2015 to 2023.

Beijing Ronglian Huitong Technology Co., Ltd. and Shenzhen Zhongtian Wangjing Technology Co., Ltd., subsidiaries of the Company, obtained the HNTE certificates in December 2019. Thus, they are entitled to the preferential tax rate of 15% from 2019 to 2021. In December 2021, Beijing Ronglian Huitong Technology Co., Ltd., renewed its HNTE status which entitled it to the preferential income tax rate of 15% in 2022. In December 2022, Shenzhen Zhongtian Wangjing Technology Co., Ltd., renewed its HNTE status which entitled it to the preferential income tax rate of 15% from 2022 to 2024.

If any entities fail to maintain the HNTE qualification under the New EIT Law, they will no longer qualify for the preferential tax rate of 15%.

The CIT Law also provides that an enterprise established under the laws of a foreign country or region but whose "de facto management body" is located in the PRC be treated as a resident enterprise for the PRC tax purposes and consequently be subject to the PRC income tax at the rate of 25% for its global income. The Implementing Rules of the CIT Law define the location of the "de facto management body" as "the place where the exercising, in substance, of the overall management and control of the production and business operation, personnel, accounting, property, etc., of a non-PRC company is located." Based on a review of surrounding facts and circumstances, the Group does not believe that it is likely that its operations outside the PRC should be considered a resident enterprise for PRC tax purposes.

The components of loss before income taxes are as follows:

	Year ended December 31,		
	2020	2021	2022
	RMB	RMB	RMB
The Cayman Islands*	(173,957)	(453,788)	(345,945)
Hong Kong S.A.R.*	(1,223)	19,023	(34,946)
Japan*	10,169	(3,159)	(27,883)
The PRC, excluding Hong Kong S.A.R.	(259,099)	(455,408)	(567,467)
Total	(424,110)	(893,332)	(976,241)

*Non PRC entities not subject to income tax

Withholding tax on undistributed dividends

The CIT law also imposes a withholding income tax of 10% on dividends distributed by a foreign investment enterprise ("FIE") to its immediate holding company outside of Mainland China, if such immediate holding company is considered as a non-resident enterprise without any establishment or place within Mainland China or if the received dividends have no connection with the establishment or place of such immediate holding company within Mainland China, unless such immediate holding company's jurisdiction of incorporation has a tax treaty with the PRC that provides for a different withholding arrangement. The Cayman Islands, where the Company is incorporated, does not have such tax treaty with the PRC. According to the arrangement between Mainland China and Hong Kong S.A.R. on the Avoidance of Double Taxation and Prevention of Fiscal Evasion in August 2006, dividends paid by an FIE in Mainland China to its immediate holding company in Hong Kong S.A.R. will be subject to withholding tax at a rate of no more than 5% (if the foreign investor owns directly at least 25% of the shares of the FIE). The Group did not record any dividend withholding tax, as the Group's PRC entities, have no retained earnings in any of the years presented.

Pursuant to the PRC Corporate Income Tax Law, a 10% withholding tax is levied on interest income from the foreign investment enterprises established in Mainland China. The requirement is effective from 1 January 2008 and applies to earnings after 31 December 2007. The Group applies a preferential withholding tax rate of 7% due to a tax treaty between Mainland China and the jurisdiction of the foreign investors.

Income tax expense recognized in the consolidated statements of comprehensive loss consists of the following:

	Year ended December 31,		
	2020	2021	2022
	RMB	RMB	RMB
Current income tax expense	1,201	5,998	8,464
Deferred income tax benefit (expense)	(74)	5,122	(8,806)
Total income tax expense	1,127	11,120	(342)

Reconciliation of the differences between the income tax benefit computed based on the PRC statutory income tax rate and the Group's income tax expense for the years ended December 31, 2020, 2021 and 2022 are as follows:

	Year ended December 31,		
	2020	2021	2022
	RMB	RMB	RMB
Computed expected income tax benefit	(106,028)	(223,333)	(244,060)
Non-deductible expenses / taxable deemed income			
Share-based compensation	33,566	66,705	26,865
Non-deductible entertainment	577	940	1,240
Uninvoiced expenditures	217	-	-
Taxable deemed interest income from inter-company interest-free loans	2,155	6,659	2,659
Non-deductible IPO fees	2,210	824	-
Employee commercial Insurance	110	372	291
Effect of withholding tax at 7% on the interest income of a PRC subsidiary	-	1,144	2,121
Selling Commission	581	2,072	1,003
Others	46	63	109
Non-PRC entities not subject to income tax	7,296	47,479	66,530
Effect of income tax rate differences in jurisdictions other than the PRC	-	(2,334)	2,964
Over provision in respect of prior years	104	4,883	203
NOL expired	200	8,635	38,871
Amortization of intangible assets formed by business combinations	(74)	(536)	(8,806)
Others	-	813	1,701
Changes in valuation allowance	60,167	96,734	107,967
Actual income tax expense	1,127	11,120	(342)

b) Deferred income tax assets

	December 31,		
	2020	2021	2022
	RMB	RMB	RMB
Net operating loss carry forwards	218,478	280,865	349,681
Uninvoiced expenditures	6,204	9,867	9,867
Accounts receivable and contract assets allowance	12,707	16,486	22,172
Other equity investments impairment	10,337	11,412	12,777
Goodwill impairment	1,417	38,690	55,534
Share of losses of equity method investments	174	149	641
Others	9	1	2,050
Less: Valuation allowance	(239,007)	(335,339)	(443,306)
Total deferred income tax assets, net	10,319	22,131	9,416
Intangible assets	(185)	(8,883)	(1,285)
Equity method investment on the gain from the disposal of a subsidiary	-	(2,766)	(2,766)
Change in fair value of other equity investments	(10,319)	(19,365)	(6,650)
Total gross deferred income tax liabilities	(10,504)	(31,014)	(10,701)
Net deferred income tax assets	(185)	(8,883)	(1,285)

As of December 31, 2022, the Group had net operating loss carry forwards of approximately RMB1,598 million attributable to the PRC and Hong Kong S.A.R. subsidiaries, the VIE, and the VIE's subsidiaries. The loss carried forward by the PRC companies will expire during the period from year 2023 to year 2032. As of December 31, 2022, the Group had tax loss carry forwards for PRC and Hong Kong S.A.R. income tax purpose of RMB 1,598,037, which will expire if unused by the following year-end:

Year ending December 31,	RMB
2023	134,456
2024	49,989
2025	76,725
2026	268,086
2027	288,277
Then thereafter	780,504
Total	1,598,037

A valuation allowance is provided against deferred income tax assets when the Group determines that it is more likely than not that the deferred income tax assets will not be utilized in the foreseeable future. In making such determination, the Group evaluates a variety of factors including the Group's operating history, accumulated deficit, existence of taxable temporary differences and reversal periods.

As of December 31, 2022, the valuation allowance of RMB 443,306 was related to the deferred income tax assets of the PRC and Hong Kong S.A.R. entities which were in loss position. As of December 31, 2022, management believes it is more likely than not that the Group will realize the deferred income tax assets, net of the valuation allowance.

Changes in valuation allowance are as follows:

	Year ended December 31,		
	2020	2021	2022
	RMB	RMB	RMB
Balance at the beginning of the year	(180,643)	(239,007)	(335,339)
Additions	(60,167)	(96,734)	(107,967)
Decrease upon disposal of a subsidiary	1,803	402	—
Balance at the end of the year	(239,007)	(335,339)	(443,306)

According to the PRC Tax Administration and Collection Law, the statute of limitation is three years if the underpayment of taxes is due to computational errors made by the taxpayer or the withholding agent. The statute of limitation is extended to five years under special circumstances where the underpayment of taxes is more than RMB100. In the case of transfer pricing issues, the statute of limitation is 10 years. There is no statute of limitation in the case of tax evasion. The income tax returns of the Company's PRC subsidiary, the VIE and the VIE's subsidiaries for the years from 2017 to 2022 are open to examination by the PRC tax authorities.

19. NET LOSS PER SHARE

The following table sets forth the basic and diluted net loss per ordinary share computation and provides a reconciliation of the numerator and denominator for the years presented:

	Year ended December 31,	
	2021	2022
	RMB	RMB
Numerator:		
Net loss	(903,859)	(974,898)
Accretion and modifications of Redeemable Convertible Preferred Shares	(4,878,652)	-
Numerator for basic and diluted net loss per ordinary share calculation	(5,782,511)	(974,898)
Denominator:		
Weighted average number of Class A and Class B ordinary shares	294,793,258	321,885,046
Denominator for basic and diluted net loss per ordinary share calculation	294,793,258	321,885,046
Net loss per ordinary share attributable to pre-offering Class A and pre-offering Class B ordinary shareholders		
—Basic and diluted	(19.62)	(3.03)

Securities that could potentially dilute basic net loss per ordinary share in the future that were not included in the computation of diluted net loss per ordinary share because to do so would have been antidilutive for the years ended December 31, 2021 and 2022 are as follow:

	Year ended December 31,	
	2021	2022
Share options	22,069,770	17,595,037
Restricted ordinary shares	8,014,677	4,976,485

20. REVENUE INFORMATION

Revenues

The Group's revenues are disaggregated by major products/services lines, timing of revenue recognition and primary geographical markets (based on the location of customers) as follow:

Major products/services lines	Year ended December 31,		
	2020	2021	2022
	RMB	RMB	RMB
CPaaS			
- Text messaging	244,445	235,842	119,416
- Voice calls	81,574	56,892	25,953
- Others (Note2)	59,418	56,136	46,796
Cloud-based CC	227,550	276,126	310,765
Cloud-based UC&C	107,378	125,358	89,350
Other services	3,088	2,334	1,354
Revenues	723,453	752,688	593,634

Note 1: The gross amount of revenue from services as an agent was RMB212 million, RMB166 million and RMB89 million for the years ended December 31, 2020, 2021 and 2022. The net amount of revenue from services as an agent was RMB50 million, RMB41 million and RMB14 million for the years ended December 31, 2020, 2021 and 2022 respectively.

Note 2: Others mainly include CPaaS revenue from the customers' use of the Group's Internet of Things (IoT) and jointly-operated CPaaS platforms.

Timing of revenue recognition	Year ended December 31,		
	2020	2021	2022
	RMB	RMB	RMB
Point in time	490,449	476,019	381,163
Over time	233,004	276,669	212,471
Revenues	723,453	752,688	593,634

Primary geographical markets (based on the location of customers)

	Year ended December 31,		
	2020	2021	2022
	RMB	RMB	RMB
The PRC	700,535	711,932	556,663
Japan	22,918	40,756	36,971
Revenues	723,453	752,688	593,634

Revenue based on a gross basis/ net basis

	Year ended December 31,		
	2020	2021	2022
	RMB	RMB	RMB
On a gross basis	667,732	689,667	579,629
On a net basis	55,722	63,021	14,005
Revenues	723,453	752,688	593,634

Contract Assets and Contract Liabilities

The Group's contract assets and contract liabilities as of December 31, 2020, 2021 and 2022 are as follows:

	December 31,		
	2020	2021	2022
	RMB	RMB	RMB
Contract assets	18,342	21,118	50,838
Contract liabilities	177,376	285,936	359,801

The contract assets primarily relate to the Group's rights to consideration for work performed but not invoiced at the reporting date on Cloud-based UC&C projects and Cloud-based CC projects. The contract assets are transferred to receivables when the rights to consideration become unconditional.

The contract liabilities primarily related to the advanced consideration received from customers in relation to the subsequent provision of Cloud-based CC services and CPaaS solutions. The contract liabilities will be recognized as revenue when the Group fulfils its performance obligations to transfer the promised products or services to customers, which is expected to occur within one year.

Changes in the contract assets balances for the years ended December 31, 2020, 2021 and 2022 are as follows:

	Year ended December 31,		
	2020	2021	2022
	RMB	RMB	RMB
Gross amount at the beginning of the year	16,577	25,075	31,722
Increases due to revenue recognized during the year	46,662	51,712	50,825
Transfers to accounts receivable during the year	(38,164)	(45,065)	(19,403)
Gross amount at the end of the year	25,075	31,722	63,144
Allowance for contract assets	(6,733)	(10,604)	(12,306)
Contract assets, net	18,342	21,118	50,838

The movement of the allowance for contract assets is as follows:

	Year ended December 31,		
	2020	2021	2022
	RMB	RMB	RMB
Balance at the beginning of the year	995	6,733	10,604
Additions charged to bad debt expense	5,738	3,871	1,702
Balance at the end of the year	6,733	10,604	12,306

Changes in the contract liabilities balances for the years ended December 31, 2020, 2021 and 2022 are as follows:

	Year ended December 31,		
	2020	2021	2022
	RMB	RMB	RMB
Balance at the beginning of the year	121,748	177,376	285,936
Revenue recognized that was included in the contract liabilities balance at the beginning of the year	(81,807)	(74,907)	(96,082)
Increase due to cash received, excluding amount recognized as revenue during the year	137,435	183,467	169,947
Balance at the end of the year	177,376	285,936	359,801

The amounts of revenue recognized for the years ended December 31, 2020, 2021 and 2022 that were included in the contract liabilities balances at the beginning of the year are RMB81,807, RMB74,907 and RMB96,082, respectively.

The Company has elected the practical expedient in ASC 606-10-50-14(a) to not disclose the information about remaining performance obligations which are part of contracts that have an original expected duration of one year or less.

21. COMMITMENTS AND CONTINGENCIES

Legal Proceedings

From time to time, the Group is involved in claims and legal proceedings that arise in the ordinary course of business. The Group records a liability when it is both probable that a liability has been incurred and the amount of the loss can be reasonably estimated. Based on currently available information, the Group has recorded accrued liabilities for class action of US\$12,000 (equivalent to RMB83,575) in this regard as of December 31, 2022. Subsequent legal proceedings see "Note 23 Subsequent events – U.S Class Action".

Purchase Commitment

The Group's purchase commitments primarily relate to purchase of software and equipment. Total purchase commitments contracted but not yet reflected in the consolidated financial statements as of December 31, 2022 were as follows:

Year ended December 31,	RMB
2023	14,945
2024 and thereafter	1,736

22. RELATED PARTY TRANSACTIONS

(i) Related Parties

Name of Related Parties	Relationship with the Company
Beijing Puhui Sizhong Technology Limited Company Changxun Sun, Zhiqiang Xu, Muchao Deng	A company controlled by Mr. Changxun Sun Three management employees One of the Company's investment affiliates and the Company owns 55.38% equity interest and has significant influence
Beijing Jingu Shitong Technology Co., Ltd Hi Sun Technology (China) Limited	A company that controls Main Access Limited, an entity that is a shareholder of the Company One of the Company's investment affiliates and the Company owns 20% equity interest and has significant influence since December 2021
Shanghai Keshen Information Technology Co., Ltd.	One of the Company's investment affiliates and the Company owns 15.93% equity interest and has significant influence
Beijing Lianxinzhuihui Technology Co., Ltd.	One of the Company's investment affiliates and the Company owns 18.52% equity interest and has significant influence
Shenzhen City Yunjitong Technology Co., Ltd	One of the Company's investment affiliates and the Company owns 20% equity interest and has significant influence
Shenyang Yunrongxin Technology Co., Ltd	One of the Company's investment affiliates and the Company owns 20% equity interest and has significant influence

(ii) The Company had the following related party transactions for the years ended December 31, 2020, 2021 and 2022:

	Note	Year ended December 31,		
		2020 RMB	2021 RMB	2022 RMB
Interest free loans provided to related parties:				
-Three management employees	(a)	2,550	-	-
-Beijing Jingu Shitong Technology Co., Ltd	(a)	1,400	-	-
Interest free loans collected from related parties:				
-Three management employees	(a)	4,160	900	-
Beijing Jingu Shitong Technology Co., Ltd	(a)	-	1,400	-
Cloud-based UC&C services provided to a related party:				
-Hi Sun Technology (China) Limited	(b)	30,352	5,158	-
-Shanghai Keshen Information Technology Co., Ltd.	(b)	-	-	34
CPaaS services provided to related parties:				
-Beijing Lianxinzhuihui Technology Co., Ltd.	(c)	2,360	200	-
-Shenyang Yunrongxin Technology Co., Ltd	(c)	145	532	1,341
-Shenzhen City Yunjitong Technology Co., Ltd	(c)	3	5	2
-Beijing Jingu Shitong Technology Co., Ltd	(c)	208	99	-
Sub-lease income from an equity investee:				
-Beijing Jingu Shitong Technology Co., Ltd	(d)	317	-	-
Project development services purchased from related parties:				
-Hi Sun Technology (China) Limited	(e)	368	-	-
-Shenyang Yunrongxin Technology Co., Ltd	(e)	1,046	-	-
Research and development services purchased from a related party:				
-Hi Sun Technology (China) Limited	(e)	5,667	1,974	-
Rental expenses paid for a related party:				
-Beijing Puhui Sizhong Technology Limited Company	(f)	150	-	-

(a) Interest free loans provided to and collected from related parties

For the year ended December 31, 2020, the Company provided interest-free loans of RMB2,550 to the three management employees of the Group. For the years ended December 31, 2020 and 2021, the Company collected interest-free loans of RMB4,160, RMB900, respectively, from the three management employees of the Group. As of December 31, 2020, the amounts due from the three management employees were RMB900. The Company received repayments of RMB900 in cash from the three management employees of the Group in January 2021.

For the year ended December 31, 2020, the Company provided interest-free loans of RMB1,400 to Beijing Jingu Shitong Technology Co., Ltd. ("Jingu"). As of December 31, 2020, the amount due from Jingu was RMB1,400. The Company received RMB1,400 in cash from Jingu in January 2021.

(b) Cloud-based UC&C services provided to a related party

The Company provided Cloud-based UC&C services to subsidiaries of Hi Sun Technology (China) Limited ("Hi Sun Group"), a company which controls Main Access Limited, one of the Company's shareholders. Revenues of RMB30,352 and RMB5,158 were recorded in the consolidated statements of comprehensive loss for the years ended December 31, 2020 and 2021, respectively.

The Company provided Cloud-based UC&C services to subsidiaries of Shanghai Keshen Information Technology Co., Ltd ("Shanghai Keshen"). Revenues of RMB34 were recorded in the consolidated statements of comprehensive loss for the year ended December 31, 2022. Amounts due from Shanghai Keshen were RMB194 and nil as of December 31, 2021 and 2022, which are included in accounts receivable - related parties, net on the consolidated balance sheets. Amounts due to Shanghai Keshen were RMB58 and RMB53, which were deposits as of December 31, 2021 and 2022.

(c) CPaaS services provided to related parties

The Company provided CPaaS services to Lianxinzhahui. Revenues of RMB2,360 RMB200 and nil were recorded in the consolidated statements of comprehensive loss for the years ended December 31, 2020, 2021 and 2022, respectively. Amounts due from Lianxinzhahui were RMB3 and nil as of December 31, 2021 and 2022, which are included in accounts receivable - related parties, net on the consolidated balance sheets.

The Company provided CPaaS services to Shenyang Yunrongxin Technology Co., Ltd ("Shenyang Yunrongxin"). Revenues of RMB145, RMB532 and RMB1,341 were recorded in the consolidated statements of comprehensive loss for the years ended December 31, 2020, 2021 and 2022, respectively. Amounts due from Shenyang Yunrongxin were RMB107 and RMB99 as of December 31, 2021 and 2022, which are included in accounts receivable - related parties, net on the consolidated balance sheets.

The Company provided CPaaS services to Shenzhen City Yunjitong Technology Co., Ltd ("Shenzhen City Yunjitong"). Revenues of RMB3, RMB5 and RMB2 were recorded in the consolidated statements of comprehensive loss for the years ended December 31, 2020, 2021 and 2022, respectively.

The Company provided CPaaS services to Jingu. Revenues of 208, RMB99 and nil were recorded in the consolidated statements of comprehensive loss for the years ended December 31, 2020, 2021 and 2022, respectively.

(d) Sub-lease income from an equity investee

For the years ended December 31, 2020, the Group leased office to Jingu with sub-lease income of RMB317.

(e) Outsourcing services purchased from related parties

The Company purchased project development services, which is included in cost of revenues of RMB368 for the year ended December 31, 2020, and research and development services from Hi Sun Group, which is included in research and development expenses of RMB5,667 and RMB1,974, for the years ended December 31, 2020 and 2021, respectively.

The Company purchased from Shenyang Yunrongxin project development services, which is included in cost of revenues of RMB1,046, nil, and nil, for the years ended December 31, 2020, 2021 and 2022, respectively. Amounts due to Shenyang Yunrongxin were RMB731 and RMB722 as of December 31, 2021 and 2022, which are included in accounts amounts due to related parties on the consolidated balance sheets.

The Company purchased project development services from Shanghai Keshen. Amounts due from Shanghai Keshen were nil and RMB105, which were prepayment of project development services fee as of December 31, 2021 and 2022, respectively.

The Company purchased project development services from Shenzhen City Yunjitong, amounts due to Shenzhen City Yunjitong were RMB5 and RMB5 as of December 31, 2021 and 2022, which are included in accounts amounts due to related parties on the consolidated balance sheets.

(f) Rental expenses paid for a related party

For the year ended December 31, 2020, the Group paid rental expenses of RMB150 on behalf of Beijing Puhui Sizhong Technology Limited Company ("Puhui Sizhong"), a company affiliated with Mr. Changxun Sun, the Group's founder and a board member. The Group did not expect to collect the amount paid from Puhui Sizhong and therefore recognized the rental expenses paid on behalf of Puhui Sizhong as general and administrative expenses.

(iii) The Company had the following related party balances as of December 31, 2021 and 2022:

	Notes	2021 RMB	2022 RMB
Accounts receivable - related parties, net:			
-Shanghai Keshen Information Technology Co., Ltd.	(b)	194	-
-Beijing Lianxinzhui Technology Co., Ltd.	(c)	3	-
-Shenyang Yunrongxin Technology Co., Ltd	(c)	107	99
Amounts due from related parties:			
-Shanghai Keshen Information Technology Co., Ltd.	(c)	-	105
Total amounts due from related parties		-	105
Amounts due to related parties:			
-Shenyang Yunrongxin Technology Co., Ltd	(e)	731	722
-Shenzhen City Yunjitong Technology Co., Ltd	(e)	5	5
-Shanghai Keshen Information Technology Co., Ltd.	(b)	58	53
Total amounts due to related parties		794	780

23. SUBSEQUENT EVENTS

(a) Coronavirus Impact

Since the outbreak of COVID-19 throughout China and other countries and regions, a series of precautionary and control measures have been implemented worldwide to contain the virus. The outbreak of COVID-19 has had certain negative impact on the overall economy of the regions where the Company deliver its products or services. Any economic slowdown and/or negative business sentiment could potentially have an impact on the industries in which the Company's major customers operate, including the settlement of the outstanding accounts receivable from these customers.

The Group will continue to closely focus on both global and domestic situation of concerning its prevention and control, and cope with the related impacts on the Company actively.

(b) U.S. Class Action

On April 19, 2021, the Company and certain of current and former directors and officers, the underwriters of the Company in the initial public offering and the Company's agent for service of process in the United States were named as defendants in a securities class action filed in the Supreme Court of the State of New York, New York County (Index No. 652617/2021). The plaintiff alleges that the registration statement on Form F-1 in connection with the initial public offering contained material misstatements and omissions in violation of the U.S. federal securities laws, including those relating to estimates on financial results of the fourth quarter of 2020. On December 3, 2021, defendants in the Sonny St. John action filed a motion to dismiss the complaint, and on August 10, 2022, the Supreme Court of the State of New York denied that motion to dismiss. On December 10, 2021, the Company and certain of current and former directors and officers, the underwriters of the Company in the initial public offering and the Company's agent for service of process in the United States were named as defendants in a securities class action filed in the United States District Court of the Southern District of New York (Case No. 1:21-cv-10610-JGK), which also has arisen out of certain public disclosures made in connection with the initial public offering. On July 15, 2022, defendants in the Dong action filed a motion to dismiss the complaint, and on March 16, 2023, the United States District Court for the Southern District of New York denied that motion to dismiss. On June 5, 2023, we as well as all parties to the above-mentioned class action lawsuits executed a binding term sheet, which set forth all material deal points associated with the full and final resolution of the class action lawsuits. On August 16, 2023, we entered into a stipulation of settlement reflecting the terms of the settlement. The settlement documents require us to pay a total of US\$12,000 (equivalent to RMB83,575) in cash to the plaintiff class. On October 5, 2023, the Supreme Court of the State of New York preliminarily approved the settlement of the class action lawsuits. On October 26, 2023, the Company paid off the settlement amount. On January 23, 2024, the Supreme Court of the State of New York issued an order granting final approval of the settlement and dismissing the claims the in the Sonny St. John action.

24. PARENT ONLY FINANCIAL INFORMATION

The following condensed parent company financial information of Cloopen Group Holding Limited has been prepared using the same accounting policies as set out in the accompanying consolidated financial statements. As of December 31, 2021, there were no material contingencies, significant provisions of long-term obligations, mandatory dividend or redemption requirements of redeemable stocks or guarantees of Cloopen Group Holding Limited, except for those, which have been separately disclosed in the consolidated financial statements.

(a) Condensed Balance Sheets

	December 31,	
	2021	2022
	RMB	RMB
Assets		
Current assets		
Cash	35,660	64,344
Term deposits	1,342,085	713,872
Short-term investments	127,514	62,681
Other current assets	7,556	13
Total current assets	1,512,815	840,910
Non-current asset:		
Investments in and amounts due from subsidiaries and consolidated VIE and VIE's subsidiaries	850,554	857,362
Total non-current asset	850,554	857,362
Total assets	2,363,369	1,698,272
Liabilities		
Current liabilities		
Accrued expenses and other current liabilities...	57,033	135,054
Total current liabilities	57,033	135,054
Total liabilities	57,033	135,054
Shareholders' equity:		
Class A Ordinary Shares	192	193
Class B Ordinary Shares	17	17
Additional paid-in capital	11,066,975	11,184,360
Treasury stock	(81,638)	(120,899)
Accumulated other comprehensive loss	(232,268)	(78,613)
Accumulated deficit	(8,446,942)	(9,421,840)
Total shareholders' equity	2,306,336	1,563,218
Total liabilities and shareholders' equity	2,363,369	1,698,272

(b) Condensed Statements of Comprehensive Loss

	Year ended December 31,		
	2020	2021	2022
	RMB	RMB	RMB
Total operating expenses	(120,031)	(280,773)	(238,074)
Change in fair value of warrant liabilities	(61,465)	(29,011)	-
Share of losses from subsidiaries and consolidated VIE and VIE's subsidiaries	(243,736)	(594,075)	(736,824)
Loss before income taxes	(425,232)	(903,859)	(974,898)
Income tax expense	-	-	-
Net loss	(425,232)	(903,859)	(974,898)
Accretion and modification of Redeemable Convertible Preferred Shares	(1,139,108)	(4,878,652)	-
Deemed dividends to Series E Redeemable Convertible Preferred Shareholders	(14,729)	-	-
Net loss attributable to ordinary shareholders	(1,579,069)	(5,782,511)	(974,898)

(c) Condensed Statements of Cash Flows

	Year ended December 31,		
	2020	2021	2022
	RMB	RMB	RMB
Net cash used in operating activities	(1,574)	(13,099)	(290,137)
Net cash used in investing activities	(438,055)	(1,397,584)	(335,194)
Net cash provided by/ (used in) financing activities	602,202	2,685,674	(47,474)
Effect of foreign currency exchange rate changes on cash	(1,434)	(58,740)	73,275
Net increase/(decrease) in cash	161,139	1,216,251	(599,530)
Cash at the beginning of the year	355	161,494	1,377,745
Cash at the end of the year	161,494	1,377,745	778,215

**Description of rights of securities
registered under Section 12 of the Securities Exchange Act of 1934 (the “Exchange Act”)**

American depositary shares (“ADSs”), each of which represents six Class A ordinary shares of Cloopen Group Holding Limited (“we,” “us,” “our company,” or “our”), are traded over the counter in the United States and, in connection therewith (but not for trading), the Class A ordinary shares are registered under Section 12(b) of the Exchange Act. This exhibit contains a description of the rights of (1) the holders of Class A ordinary shares and (2) the holders of ADSs. Class A ordinary shares underlying the ADSs are held by the Bank of New York Mellon, as depositary, and holders of ADSs will not be treated as holders of Class A ordinary shares.

Description of Class A Ordinary Shares

The following is a summary of material provisions of our currently effective eighth amended and restated memorandum and articles of association (the “Articles”) as well as the Companies Act (As Revised) of the Cayman Islands (the “Companies Act”) insofar as they relate to the material terms of our Class A ordinary shares. As it is a summary, it may not contain all the information that you may otherwise deem important. For more complete information, you should read the entire Articles, which has been filed with the Securities and Exchange Commission (the “SEC”) as an exhibit to our registration statement on Form F-1 (File No. 333-252205), as amended, initially filed with the SEC on January 19, 2021.

Type and Class of Securities (Item 9.A.5 of Form 20-F)

The par value of Class A ordinary shares is US\$0.0001 per share. The number of Class A ordinary shares that had been issued as of the date of the annual report on Form 20-F for the fiscal year ended December 31, 2022 is provided on the cover thereof. Our Class A ordinary shares are issued in registered form and are issued when registered in our register of members. We may not issue shares to bearer. Our shareholders who are not Cayman Islands residents may freely hold and vote their shares.

Preemptive Rights (Item 9.A.3 of Form 20-F)

Our shareholders do not have preemptive rights.

Limitations or Qualifications (Item 9.A.6 of Form 20-F)

We have a dual-class voting structure such that our ordinary shares consist of Class A ordinary shares and Class B ordinary shares. Holders of our Class A ordinary shares and our Class B ordinary shares shall, at all times, vote together as one class on all matters submitted to a vote by our shareholders at any general meeting of our company. Each Class A ordinary share shall be entitled to one vote, and each Class B ordinary share shall be entitled to ten votes, on all matters subject to a vote at general meetings of our company. Due to the additional votes attached to the Class B ordinary shares, the voting power of the Class A ordinary shares may be materially limited.

Rights of Other Types of Securities (Item 9.A.7 of Form 20-F)

Not applicable.

Rights of Class A Ordinary Shares (Item 10.B.3 of Form 20-F)

Classes of Ordinary Shares

Our ordinary shares are divided into Class A ordinary shares and Class B ordinary shares. Holders of our Class A ordinary shares and Class B ordinary shares have the same rights except for voting and conversion rights. The Class A ordinary shares and Class B ordinary shares carry equal rights and rank *pari passu* with one another, including the rights to dividends and other capital distributions.

Conversion

Each Class B ordinary share is convertible into one Class A ordinary share at any time by the holder thereof. Class A ordinary shares are not convertible into Class B ordinary shares under any circumstances. Upon any sale, transfer, assignment or disposition of Class B ordinary shares by a holder thereof to any person or entity that is not Mr. Changxun Sun or his affiliate (as defined in our Articles), or upon a change of ultimate beneficial ownership of any Class B ordinary share to any person who is not Mr. Changxun Sun or his affiliate, such Class B ordinary shares will be automatically and immediately converted into an equal number of Class A ordinary shares.

Voting Rights

Holders of our Class A ordinary shares and our Class B ordinary shares shall, at all times, vote together as one class on all matters submitted to a vote by our shareholders at any general meeting of our company. Each Class A ordinary share shall be entitled to one vote, and each Class B ordinary share shall be entitled to ten votes, on all matters subject to a vote at general meetings of our company. Voting at any meeting of shareholders is by show of hands unless a poll (before or on the declaration of the result of the show of hands) is demanded. A poll may be demanded by the chairman of such meeting or any shareholder present in person or by proxy. No shareholder shall be entitled to vote or be counted in a quorum, in respect of any share, unless such shareholder is duly registered as our shareholder.

An ordinary resolution to be passed at a general meeting requires the affirmative vote of a simple majority of the votes cast, while a special resolution requires the affirmative vote of at least two-thirds of votes attached to all issued and outstanding ordinary shares cast at a general meeting. Both ordinary resolutions and special resolutions may also be passed by a unanimous written resolution signed by all the shareholders of our company, as permitted by the Companies Act and our Articles. A special resolution will be required for important matters such as a change of name or making changes to our Articles. We may, among other things, subdivide or consolidate our shares by ordinary resolution.

General Meetings of Shareholders

As a Cayman Islands exempted company, we are not obliged by the Companies Act to call shareholders' annual general meetings. Our Articles provide that we may (but are not obliged to) in each year hold a general meeting as our annual general meeting in which case we shall specify the meeting as such in the notices calling it, and the annual general meeting shall be held at such time and place as may be determined by our directors.

Shareholders' general meetings may be convened by a majority of our board of directors (acting by a resolution of our board of directors) or the chairman of our board of directors. Advance notice of at least ten calendar days is required for the convening of our annual general meeting and any other general meeting of our shareholders. A quorum required for a meeting of shareholders consists of one or more shareholders present in person or by proxy, or, if a corporation or other non-natural person, by its duly authorized representative, representing not less than one-third of all votes attaching to the total issued shares of our company entitled to vote at the meeting.

The Companies Act provides shareholders with only limited rights to requisition a general meeting, and does not provide shareholders with any right to put any proposal before a general meeting. However, these rights may be provided in a company's articles of association. Our Articles provide that upon the requisition of shareholders representing in aggregate not less than one-third of all votes attaching to the issued and outstanding shares of our company entitled to vote at general meetings as at the date of the deposit of the requisition, our board is obliged to convene an extraordinary general meeting and put the resolutions so requisitioned to a vote at such meeting. However, our Articles do not provide our shareholders with any right to put any proposals before annual general meetings or extraordinary general meetings not called by such shareholders.

Dividends

Subject to the Companies Act, our directors may declare dividends in any currency to be paid to our shareholders. In addition, our shareholders may by ordinary resolution declare a dividend, but no dividend may exceed the amount recommended by our directors. Under the laws of the Cayman Islands, dividends may be declared and paid out of our profits or out of our share premium account. Our Articles provide that dividends may set aside out of the funds of our company lawfully available for distribution such sums as they think proper as reserve or reserves which shall, in the absolute discretion of our directors, be applicable for meeting contingencies or for equalizing dividends or for any other purpose to which those funds may be properly applied as our directors may from time to time think fit. In no circumstances may a dividend be paid if this would result in our company being unable to pay its debts as they fall due in the ordinary course of business. Holders of our ordinary shares will be entitled to such dividends as may be declared by our board of directors.

Transfer of Ordinary Shares

Subject to any applicable restrictions set forth in our Articles, any of our shareholders may transfer all or any of his or her shares by an instrument of transfer in the usual or common form or in a form that our directors may approve.

Our directors may decline to register any transfer of any share which is not fully paid up or on which we have a lien. Our directors may also decline to register any transfer of any share unless:

- the instrument of transfer is lodged with us and is accompanied by the certificate for the shares to which it relates and such other evidence as our directors may reasonably require to show the right of the transferor to make the transfer;
 - the instrument of transfer is in respect of only one class of share;
 - the instrument of transfer is properly stamped (in circumstances where stamping is required);
 - in the case of a transfer to joint holders, the number of joint holders to whom the share is to be transferred does not exceed four; and
-

- a fee of such maximum sum as the Designated Stock Exchange (as defined in our Articles) may determine to be payable or such lesser sum as our directors may from time to time require is paid to us in respect thereof.

If our directors refuse to register a transfer they shall, within three calendar months after the date on which the instrument of transfer was lodged, send to each of the transferor and the transferee notice of such refusal.

The registration of transfers may, after compliance with any notice requirement of the Designated Stock Exchange (as defined in our Articles), be suspended and the register closed at such times and for such periods as our board of directors may from time to time determine, provided, however, that the registration of transfers shall not be suspended nor the register closed for more than 30 calendar days in any calendar year as our board may determine.

Restructuring.

A company may present a petition to the Grand Court of the Cayman Islands for the appointment of a restructuring officer on the grounds that the company:

- is or is likely to become unable to pay its debts; and
- intends to present a compromise or arrangement to its creditors (or classes thereof) either pursuant to the Companies Act, the law of a foreign country or by way of a consensual restructuring.

The Grand Court may, among other things, make an order appointing a restructuring officer upon hearing of such petition, with such powers and to carry out such functions as the court may order. At any time (1) after the presentation of a petition for the appointment of a restructuring officer but before an order for the appointment of a restructuring officer has been made, and (2) when an order for the appointment of a restructuring officer is made, until such order has been discharged, no suit, action or other proceedings (other than criminal proceedings) shall be proceeded with or commenced against the company, no resolution to wind up the company shall be passed, and no winding up petition may be presented against the company, except with the leave of the court. However, notwithstanding the presentation of a petition for the appointment of a restructuring officer or the appointment of a restructuring officer, a creditor who has security over the whole or part of the assets of the company is entitled to enforce the security without the leave of the court and without reference to the restructuring officer appointed.

Liquidation

Subject to any rights of holders of shares issued upon special terms and conditions, (1) if we are wound up and the assets available for distribution among our shareholders are more than sufficient to repay the whole of the capital paid up at the commencement of the winding up, the excess shall be distributed among those shareholders in proportion to the par value of the shares held by them at the commencement of the winding up, subject to a deduction from those shares in respect of which there are monies due, of all monies payable to our company for unpaid calls or otherwise, and (2) if we are wound up and the assets available for distribution among the shareholders as such are insufficient to repay the whole of the paid-up capital, those assets shall be distributed so that, as nearly as may be, the losses shall be borne by the shareholders in proportion to the par value of the shares held by them.

Calls on Ordinary Shares and Forfeiture of Ordinary Shares

Subject to our Articles and to the terms of allotment, our board of directors may from time to time make calls upon shareholders for any amounts unpaid on their ordinary shares in a notice served to such shareholders at least 14 calendar days prior to the specified time of payment. The ordinary shares that have been called upon and remain unpaid are subject to forfeiture.

Redemption, Repurchase and Surrender of Shares

We are empowered by the Companies Act and our Articles to purchase our own shares (including any redeemable shares) on such terms and in such manner and terms as have been approved by our board or by our shareholders by ordinary resolutions. We may issue shares on terms that are subject to redemption, at our option or at the option of the holders, on such terms and in such manner as may be determined by our board of directors.

Under the Companies Act and as permitted under our Articles, the redemption or repurchase of any share may be paid out of the company's profits or out of the proceeds of a fresh issue of shares made for the purpose of such redemption or repurchase, or out of capital (including share premium account and capital redemption reserve) if the company can, immediately following such payment, pay its debts as they fall due in the ordinary course of business. In addition, under the Companies Act, no such share may be redeemed or repurchased (1) unless it is fully paid up, (2) if such redemption or repurchase would result in there being no shares issued and outstanding, or (3) if the company has commenced liquidation. In addition, our company may accept the surrender of any fully paid share for no consideration.

Issuance of Additional Shares

Our Articles authorizes our board of directors to issue additional shares (including, without limitation, preferred shares) from time to time as our board of directors shall determine, to the extent of available authorized but unissued shares.

Our Articles also authorizes our board of directors to establish from time to time one or more series of preference shares and to determine, with respect to any series of preference shares, the terms and rights of that series, including:

- the designation of the series;
- the number of shares of the series;
- the dividend rights, dividend rates, conversion rights and voting rights; and
- the rights and terms of redemption and liquidation preferences.

Our board of directors may issue preference shares without action by our shareholders to the extent authorized but unissued. Issuance of these shares may dilute the voting power of holders of ordinary shares.

Inspection of Books and Records

Holders of our ordinary shares have no general right under Cayman Islands law to inspect or obtain copies of our list of shareholders or our corporate records (except for our Articles, our register of mortgages and charges and special resolutions of our shareholders). However, we will provide our shareholders with annual audited financial statements.

Appointment and Removal of Directors

Unless otherwise determined by our company in general meeting, our Articles provide that our board of directors will consist of not less than three directors. There are no provisions relating to retirement of directors upon reaching any age limit. The directors have the power to appoint any person as a director either to fill a casual vacancy on the board or as an addition to the existing board. Our shareholders may also appoint any person to be a director by way of ordinary resolution.

Subject to restrictions contained in our Articles, a director may be removed with or without cause by ordinary resolution of our company. In addition, the office of any director shall be vacated if the director (1) becomes bankrupt or makes any arrangement or composition with his creditors, (2) dies or is found to be or becomes of unsound mind, (3) resigns his office by notice in writing to our company, (4) without special leave of absence from our board, is absent from three consecutive board meetings and our board resolves that his office be vacated, or (5) is removed from office pursuant to our Articles.

Proceedings of Board of Directors

Our Articles provide that, subject to the Companies Act, the Articles and to any resolutions passed in a general meeting of our company, our business is to be managed and conducted by our board of directors. The quorum necessary for board meetings may be fixed by the board and, unless so fixed at another number, will be a majority of the directors. Our Articles provide that the board may from exercise all the powers of our company to borrow money, to mortgage or charge all or any part of the undertaking, property and uncalled capital of our company and to issue debentures and other securities whenever money is borrowed, or as security for any debt, liability or obligation of our company or of any third party.

Register of Members

Under the Companies Act, we must keep a register of members and there should be entered therein:

- the names and addresses of our members, together with a statement of the shares held by each member, and such statement shall confirm (1) the amount paid on the shares of each member, (2) the number and category of shares held by each member, and (3) whether each relevant category of shares held by a member carries voting rights under the Articles and if so, whether such voting rights are conditional;
- the date on which the name of any person was entered on the register as a member; and
- the date on which any person ceased to be a member.

Under the Companies Act, the register of members is prima facie evidence of the registered holder or member of shares of a company. Therefore, a person becomes a registered holder or member of shares of the company only upon entry being made in the register of members. A member registered in the register of members is deemed as a matter of Cayman Islands law to have legal title to the shares as set against its name in the register of members.

The Bank of New York Mellon, as depositary, is included in our register of members as a holder of Class A ordinary shares represented by the ADSs.

If the name of any person is incorrectly entered in or omitted from our register of members or if there is any default or unnecessary delay in entering on the register the fact of any person having ceased to be a member of our company, the person or member aggrieved (or any member of our company or our company itself) may apply to the Grand Court of the Cayman Islands for an order that the register be rectified. The Court may either refuse such application or it may, if satisfied of the justice of the case, make an order for the rectification of the register.

Exempted Company

We are an exempted company with limited liability under the Companies Act. The Companies Act distinguishes between ordinary resident companies and exempted companies. Any company that is registered in the Cayman Islands but conducts business mainly outside of the Cayman Islands may apply to be registered as an exempted company. The requirements for an exempted company are essentially the same as for an ordinary company except that an exempted company:

- does not have to file an annual return of its shareholders with the Registrar of Companies;
- is not required to open its register of members for inspection;
- does not have to hold an annual general meeting;
- may issue shares with no par value;
- may obtain an undertaking against the imposition of any future taxation (such undertakings are given for a period of up to 30 years);
- may register by way of continuation in another jurisdiction and be deregistered in the Cayman Islands;
- may register as a limited duration company; and
- may register as a segregated portfolio company.

“Limited liability” means that the liability of each shareholder is limited to the amount unpaid by the shareholder on the shares of the company (except in exceptional circumstances, such as involving fraud, the establishment of an agency relationship or an illegal or improper purpose or other circumstances in which a court may be prepared to pierce or lift the corporate veil).

Requirements to Change the Rights of Holders of Class A Ordinary Shares (Item 10.B.4 of Form 20-F)

Variations of Rights of Shares

If at any time, our share capital is divided into different classes of shares, all or any of the special rights attached to any class of shares may, subject to the provisions of the Companies Act, be materially adversely varied with the consent in writing of the holders of two-thirds of the issued shares of that class or with the sanction of a special resolution passed at a separate meeting of the holders of the shares of that class.

The rights conferred upon the holders of the shares of any class issued with preferred or other rights shall not, unless otherwise expressly provided by the terms of issue of the shares of that class, be deemed to be materially adversely varied by the creation or issue of shares ranking *pari passu* with or subsequent to them or the redemption or purchase of any shares of any class by our company. The rights of the holders of shares shall not be deemed to be materially adversely varied by the creation or issue of shares with preferred or other rights including, without limitation, the creation of shares with enhanced or weighted voting rights.

Limitations on the Rights to Own Class A Ordinary Shares (Item 10.B.6 of Form 20-F)

There are no limitations imposed by our Articles on the rights of non-resident or foreign shareholders to hold or exercise voting rights on our shares. In addition, there are no provisions in our Articles that require our company to disclose shareholder ownership above any particular ownership threshold.

Provisions Affecting Any Change of Control (Item 10.B.7 of Form 20-F)

Anti-Takeover Provisions

Some provisions of our Articles may discourage, delay or prevent a change of control of our company or management that shareholders may consider favorable, including provisions that (1) authorize our board of directors to issue preference shares in one or more series and to designate the price, rights, preferences, privileges and restrictions of such preference shares without any further vote or action by our shareholders, and (2) limit the ability of shareholders to requisition and convene general meetings of shareholders.

However, under Cayman Islands law, our directors may only exercise the rights and powers granted to them under our Articles for a proper purpose and for what they believe in good faith to be in the best interests of our company.

Ownership Threshold (Item 10.B.8 of Form 20-F)

There are no provisions in our Articles that require our company to disclose shareholder ownership above any particular ownership threshold.

Differences Between the Law of Different Jurisdictions (Item 10.B.9 of Form 20-F)

The Companies Act is derived, to a large extent, from the older Companies Acts of England but does not follow recent United Kingdom statutory enactments, and accordingly there are significant differences between the Companies Act and the current Companies Act of England.

In addition, the Companies Act differs from laws applicable to United States corporations and their shareholders. Set forth below is a summary of certain significant differences between the provisions of the Companies Act applicable to us and the laws applicable to United States corporations and companies incorporated in the State of Delaware.

Mergers and Similar Arrangements

The Companies Act permits mergers and consolidations between Cayman Islands companies and between Cayman Islands companies and non-Cayman Islands companies. For these purposes, (1) “merger” means the merging of two or more constituent companies and the vesting of their undertaking, property and liabilities in one of such companies as the surviving company and (2) a “consolidation” means the combination of two or more constituent companies into a combined company and the vesting of the undertaking, property and liabilities of such companies to the consolidated company.

In order to effect such a merger or consolidation, the directors of each constituent company must approve a written plan of merger or consolidation, which must then be authorized by (1) a special resolution of the shareholders of each constituent company, and (2) such other authorization, if any, as may be specified in such constituent company’s articles of association. The written plan of merger or consolidation must be filed with the Registrar of Companies of the Cayman Islands together with a declaration as to the solvency of the consolidated or surviving company, a list of the assets and liabilities of each constituent company and an undertaking that a copy of the certificate of merger or consolidation will be given to the members and creditors of each constituent company and that notification of the merger or consolidation will be published in the Cayman Islands Gazette. Dissenting shareholders have the right to be paid the fair value of their shares (which, if not agreed between the parties, will be determined by the Cayman Islands court) if they follow the required procedures, subject to certain exceptions. Court approval is not required for a merger or consolidation which is effected in compliance with these statutory procedures.

A merger between a Cayman parent company and its Cayman subsidiary or subsidiaries does not require authorization by a resolution of shareholders of that Cayman subsidiary if a copy of the plan of merger is given to every member of that Cayman subsidiary to be merged unless that member agrees otherwise. For this purpose, a company is a “parent” of a subsidiary if it holds issued shares that together represent at least 90% of the votes at a general meeting of the subsidiary.

The consent of each holder of a fixed or floating security interest over a constituent company is required unless this requirement is waived by a court in the Cayman Islands.

Save in certain limited circumstances, a shareholder of a Cayman constituent company who dissents from the merger or consolidation is entitled to payment of the fair value of his shares (which, if not agreed between the parties, will be determined by the Cayman Islands court) upon dissenting to the merger or consolidation, provide the dissenting shareholder complies strictly with the procedures set out in the Companies Act. The exercise of dissenter rights will preclude the exercise by the dissenting shareholder of any other rights to which he or she might otherwise be entitled by virtue of holding shares, save for the right to seek relief on the grounds that the merger or consolidation is void or unlawful.

Separate from the statutory provisions relating to mergers and consolidations, the Companies Act also contains statutory provisions that facilitate the reconstruction and amalgamation of companies by way of schemes of arrangement, provided that the arrangement is approved by (1) 75% in value of the shareholders or class of shareholders, as the case may be, or (2) a majority in number representing 75% in value of each the creditors or each class of creditors, as the case may be, with whom the arrangement is to be made, that are, in each case, present and voting either in person or by proxy at a meeting, or meetings, convened for that purpose. The convening of the meetings and subsequently the arrangement must be sanctioned by the Grand Court of the Cayman Islands. While a dissenting shareholder has the right to express to the court the view that the transaction ought not to be approved, the Grand Court of the Cayman Islands can be expected to approve the arrangement if it determines that:

- the statutory provisions as to the required majority vote have been met;
- the shareholders have been fairly represented at the meeting in question and the statutory majority are acting bona fide without coercion of the minority to promote interests adverse to those of the class;
- the arrangement is such that may be reasonably approved by an intelligent and honest man of that class acting in respect of his interest; and
- the arrangement is not one that would more properly be sanctioned under some other provision of the Companies Act.

The Companies Act also contains a statutory power of compulsory acquisition which may facilitate the “squeeze out” of dissentient minority shareholder upon a tender offer. When a tender offer is made and accepted by holders of 90.0% of the shares affected within four months, the offeror may, within a two-month period commencing on the expiration of such four-month period, require the holders of the remaining shares to transfer such shares to the offeror on the terms of the offer. An objection can be made to the Grand Court of the Cayman Islands but this is unlikely to succeed in the case of an offer which has been so approved unless there is evidence of fraud, bad faith or collusion.

If an arrangement and reconstruction by way of scheme of arrangement is thus approved and sanctioned, or if a tender offer is made and accepted, in accordance with the statutory procedures, the dissenting shareholder would have no rights comparable to appraisal rights, save that objectors to a takeover offer may apply to the Grand Court of the Cayman Islands for various orders that the Grand Court of the Cayman Islands has a broad decision to make, which would otherwise ordinarily be available to dissenting shareholders of Delaware corporations, providing rights to receive payment in cash for the judicially determined value of the shares.

Shareholders' Suits

In principle, we will normally be the proper plaintiff to sue for a wrong done to us as a company, and as a general rule a derivative action may not be brought by a minority shareholder. However, based on English authorities, which would in all likelihood be of persuasive authority in the Cayman Islands, the Cayman Islands courts can be expected (and have had occasion) to follow and apply the common law principles (namely the rule in *Foss v. Harbottle* and the exceptions thereto) which permit a minority shareholder to commence a class action against or derivative actions in the name of our company to challenge:

- an act which is ultra vires or illegal and is therefore incapable of ratification by the shareholders;
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- the act complained of, although not ultra vires, could only be effected duly if authorized by more than a simple majority vote that has not been obtained; and
- an act which constitutes a fraud against the minority where the wrongdoer are themselves in control of the company.

Indemnification of Directors and Executive Officers and Limitation of Liability

Cayman Islands law does not limit the extent to which a company's memorandum and articles of association may provide for indemnification of officers and directors, except to the extent any such provision may be held by the Cayman Islands courts to be contrary to public policy, such as to provide indemnification against civil fraud or the consequences of committing a crime.

Our Articles permit indemnification of officers and directors, and their personal representatives, against all actions, proceedings, costs, charges, expenses, losses, damages, or liabilities incurred or sustained in their capacities as such unless such actions, proceedings, costs, charges, expenses, losses or, damages or liabilities arise from the dishonesty, wilful default or fraud of such directors or officers, in or about the conduct of our company's business or affairs (including as a result of any mistake of judgment) or in the execution or discharge of his duties, powers, authorities or discretions. This standard of conduct is generally the same as permitted under the Delaware General Corporation Law for a Delaware corporation.

In addition, we have entered into indemnification agreements with our directors and executive officers that provide such persons with additional indemnification beyond that provided in our Articles.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers or persons controlling us under the foregoing provisions, we have been informed that in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

Directors' Fiduciary Duties

Under Delaware corporate law, a director of a Delaware corporation has a fiduciary duty to the corporation and its shareholders. This duty has two components: the duty of care and the duty of loyalty. The duty of care requires that a director act in good faith, with the care that an ordinarily prudent person would exercise under similar circumstances. Under this duty, a director must inform himself of, and disclose to shareholders, all material information reasonably available regarding a significant transaction.

The duty of loyalty requires that a director acts in a manner he or she reasonably believes to be in the best interests of the corporation. He or she must not use his corporate position for personal gain or advantage. This duty prohibits self-dealing by a director and mandates that the best interest of the corporation and its shareholders take precedence over any interest possessed by a director, officer or controlling shareholder and not shared by the shareholders generally.

In general, actions of a director are presumed to have been made on an informed basis, in good faith and in the honest belief that the action taken was in the best interests of the corporation. However, this presumption may be rebutted by evidence of a breach of one of the fiduciary duties. Should such evidence be presented concerning a transaction by a director, the director must prove the procedural fairness of the transaction and that the transaction was of fair value to the corporation.

As a matter of Cayman Islands law, a director of a Cayman Islands company is in the position of a fiduciary with respect to the company and therefore it is considered that he or she owes the following duties to the company:

- a duty to act in good faith in the best interests of the company,
- a duty not to make a personal profit based on his or her position as director (unless the company permits him or her to do so),
- a duty not to put himself or herself in a position where the interests of the company conflict with his or her personal interest or his or her duty to a third party, and
- a duty to exercise powers for the purpose for which such powers were intended.

A director of a Cayman Islands company owes to the company a duty to act with skill and care. It was previously considered that a director need not exhibit in the performance of his or her duties a greater degree of skill than may reasonably be expected from a person of his or her knowledge and experience. However, English and Commonwealth courts have moved towards an objective standard with regard to the required skill and care and these authorities are likely to be followed in the Cayman Islands.

Shareholder Action by Written Consent

Under the Delaware General Corporation Law, a corporation may eliminate the right of shareholders to act by written consent by amendment to its certificate of incorporation. Cayman Islands law and our Articles provide that shareholders may approve corporate matters and adopt both the ordinary resolutions and the special resolutions by way of unanimous written resolutions signed by or on behalf of all of the shareholders of our company who would have been entitled to vote on such matter at a general meeting without a meeting being held.

Shareholder Proposals

Under the Delaware General Corporation Law, a shareholder has the right to put any proposal before the annual meeting of shareholders, provided it complies with the notice provisions in the governing documents. A special meeting may be called by the board of directors or any other person authorized to do so in the governing documents, but shareholders may be precluded from calling special meetings.

With respect to shareholder proposals, Cayman Islands law is essentially the same as Delaware law. The Companies Act provide shareholders with only limited rights to requisition a general meeting, and does not provide shareholders with any right to put any proposal before a general meeting. However, these rights may be provided in a company's articles of association.

In accordance with our Articles, shareholders holding not less than one-third of the votes attaching to the total issued and outstanding shares of our company entitled to vote at general meetings shall have the right to requisition a shareholder's meeting, in which case our directors shall convene an extraordinary general meeting and to put the resolutions so requisitioned to a vote at such meeting. Other than this right to requisition a shareholders' meeting, our Articles do not provide our shareholders with any other right to put proposals before annual general meetings or extraordinary general meetings not called by such shareholders.

Cumulative Voting

Under the Delaware General Corporation Law, cumulative voting for election of directors is not permitted unless the corporation's certificate of incorporation specifically provides for it. Cumulative voting potentially facilitates the representation of minority shareholders on a board of directors since it permits the minority shareholder to cast all the votes to which the shareholder is entitled on a single director, which increases the shareholder's voting power with respect to electing such director.

There are no prohibitions in relation to cumulative voting under the laws of the Cayman Islands but our Articles do not provide for cumulative voting. As a result, our shareholders are not afforded any less protections or rights on this issue than shareholders of a Delaware corporation.

Removal of Directors

Under the Delaware General Corporation Law, a director of a corporation with a classified board may be removed only for cause with the approval of a majority of the outstanding shares entitled to vote, unless the certificate of incorporation provides otherwise. Under our Articles, subject to certain restrictions as contained therein, directors may be removed with or without cause, by an ordinary resolution of our shareholders. An appointment of a director may be on terms that the director shall automatically retire from office (unless he has sooner vacated office) at the next or a subsequent annual general meeting or upon any specified event or after any specified period in a written agreement between the company and the director, if any; but no such term shall be implied in the absence of express provision. In addition, a director's office shall be vacated if the director (1) becomes bankrupt or makes any arrangement or composition with his creditors; (2) is found to be or becomes of unsound mind or dies; (3) resigns his office by notice in writing to the company; (4) without special leave of absence from our board of directors, is absent from three consecutive meetings of the board and the board resolves that his office be vacated or; (5) is removed from office pursuant to any other provision of our Articles.

Transactions with Interested Shareholders

The Delaware General Corporation Law contains a business combination statute applicable to Delaware public corporations whereby, unless the corporation has specifically elected not to be governed by such statute by amendment to its certificate of incorporation, it is prohibited from engaging in certain business combinations with an "interested shareholder" for three years following the date that such person becomes an interested shareholder. An interested shareholder generally is a person or a group who or which owns or owned 15% or more of the target's outstanding voting shares within the past three years.

This statute has the effect of limiting the ability of a potential acquirer to make a two-tiered bid for the target in which all shareholders would not be treated equally. The statute does not apply if, among other things, prior to the date on which such shareholder becomes an interested shareholder, the board of directors approves either the business combination or the transaction which resulted in the person becoming an interested shareholder. This encourages any potential acquirer of a Delaware corporation to negotiate the terms of any acquisition transaction with the target's board of directors.

Cayman Islands law has no comparable statute. As a result, we cannot avail ourselves of the types of protections afforded by the Delaware business combination statute. However, although Cayman Islands law does not regulate transactions between a company and its significant shareholders, it does provide that such transactions must be entered into bona fide in the best interests of the company and for a proper purpose and not with the effect of constituting a fraud on the minority shareholders.

Dissolution; Winding Up

Under the Delaware General Corporation Law, unless the board of directors approves the proposal to dissolve, dissolution must be approved by shareholders holding 100% of the total voting power of the corporation. Only if the dissolution is initiated by the board of directors may it be approved by a simple majority of the corporation's outstanding shares. Delaware law allows a Delaware corporation to include in its certificate of incorporation a supermajority voting requirement in connection with dissolutions initiated by the board.

Under Cayman Islands law, a company may be wound up by either an order of the courts of the Cayman Islands or by a special resolution of its members or, if the company is unable to pay its debts as they fall due, by an ordinary resolution of its members. The court has authority to order winding up in a number of specified circumstances including where it is, in the opinion of the court, just and equitable to do so.

Variation of Rights of Shares

Under the Delaware General Corporation Law, a corporation may vary the rights of a class of shares with the approval of a majority of the outstanding shares of such class, unless the certificate of incorporation provides otherwise. Under Cayman Islands law and our Articles, if our share capital is divided into more than one class of shares, we may materially adversely vary the rights attached to any class with the consent in writing of the holders of two-thirds of the issued shares of that class or with sanction of a special resolution passed by a majority of two-thirds of the votes cast at a separate meeting of the holders of the shares of that class.

Amendment of Governing Documents

Under the Delaware General Corporation Law, a corporation's governing documents may be amended with the approval of a majority of the outstanding shares entitled to vote, unless the certificate of incorporation provides otherwise.

Under the Cayman Islands law, our Articles may only be amended with a special resolution of our shareholders.

Rights of Non-resident or Foreign Shareholders

There are no limitations imposed by our Articles on the rights of non-resident or foreign shareholders to hold or exercise voting rights on our shares.

In addition, there are no provisions in our Articles that require our company to disclose shareholder ownership above any particular ownership threshold.

Inspection of Books and Records

Under the Delaware General Corporation Law, any shareholder of a corporation may for any proper purpose inspect or make copies of the corporation's stock ledger, list of shareholders and other books and records.

Holders of our shares will have no general right under Cayman Islands law to inspect or obtain copies of our list of shareholders or our corporate records (save for our Articles, our register of mortgages and charges and special resolutions of our shareholders). However, we intend to provide our shareholders with annual reports containing audited financial statements.

Changes in Capital (Item 10.B.10 of Form 20-F)

We may from time to time by ordinary resolution in accordance with the Companies Act:

- increase our capital by such sum, to be divided into shares of such amounts, as the resolution shall prescribe;
- consolidate and divide all or any of our share capital into shares of larger amounts than our existing shares;
- cancel any shares which at the date of the passing of the resolution have not been taken or agreed to be taken by any person, and diminish the amount of its share capital by the amount of the shares so cancelled subject to the provisions of the Companies Act;
- sub-divide our shares or any of them into shares of smaller amount than is fixed by our Articles, subject nevertheless to the Companies Act; and
- divide shares into several classes and without prejudice to any special rights previously conferred on the holders of existing shares, attach to the shares respectively any preferential, deferred, qualified or special rights, privileges, conditions or such restrictions that in the absence of any such determination in a general meeting may be determined by our directors.

We may, by special resolution, subject to any confirmation or consent required by the Companies Act, reduce our share capital or any capital redemption reserve in any manner authorized by law.

Debt Securities (Item 12.A of Form 20-F)

Not applicable.

Warrants and Rights (Item 12.B of Form 20-F)

Not applicable.

Other Securities (Item 12.C of Form 20-F)

Not applicable.

Description of American Depositary Shares (Items 12.D.1 and 12.D.2 of Form 20-F)

The Bank of New York Mellon, as depositary, will register and deliver American Depositary Shares, also referred to as ADSs. Each ADS represents six Class A ordinary shares (or a right to receive Class A ordinary shares) deposited with The Hongkong and Shanghai Banking Corporation Limited, as custodian for the depositary in Hong Kong. Each ADS will also represent any other securities, cash or other property that may be held by the depositary. The deposited shares together with any other securities, cash or other property held by the depositary are referred to as the deposited securities. The depositary's office at which the ADSs will be administered and its principal executive office are located at 240 Greenwich Street, New York, New York 10286.

You may hold ADSs either (1) directly (i) by having an American Depositary Receipt, also referred to as an ADR, which is a certificate evidencing a specific number of ADSs, registered in your name, or (ii) by having uncertificated ADSs registered in your name, or (2) indirectly by holding a security entitlement in ADSs through your broker or other financial institution that is a direct or indirect participant in The Depository Trust Company, or DTC. If you hold ADSs directly, you are a registered ADS holder, or an ADS holder. This description assumes you are an ADS holder. If you hold the ADSs indirectly, you must rely on the procedures of your broker or other financial institution to assert the rights of ADS holders described in this section. You should consult with your broker or financial institution to find out what those procedures are.

Registered holders of uncertificated ADSs will receive statements from the depositary confirming their holdings.

As an ADS holder, we will not treat you as one of our shareholders and you will not have shareholder rights. Cayman Islands law governs shareholder rights. The depositary will be the holder of the shares underlying your ADSs. As a registered holder of ADSs, you will have ADS holder rights. A deposit agreement among us, the depositary, ADS holders and all other persons indirectly or beneficially holding ADSs sets out ADS holder rights as well as the rights and obligations of the depositary. New York law governs the deposit agreement and the ADSs.

The following is a summary of what we believe to be the material terms of the deposit agreement. Notwithstanding this, because it is a summary, it may not contain all the information that you may otherwise deem important. For more complete information, you should read the entire deposit agreement and the form of ADR which contains the terms of your ADSs, which are filed as exhibits to our registration statement on Form F-1 (File No. 333-252205), as amended, initially filed with the SEC on January 19, 2021.

Dividends and Other Distributions***How Will You Receive Dividends and Other Distributions on the Shares?***

The depositary has agreed to pay or distribute to ADS holders the cash dividends or other distributions it or the custodian receives on shares or other deposited securities, upon payment or deduction of its fees and expenses. You will receive these distributions in proportion to the number of shares your ADSs represent.

- *Cash.* The depositary will convert any cash dividend or other cash distribution we pay on the shares into U.S. dollars, if it can do so on a reasonable basis and can transfer the U.S. dollars to the United States. If that is not possible or if any government approval is needed and cannot be obtained, the deposit agreement allows the depositary to distribute the foreign currency only to those ADS holders to whom it is possible to do so. It will hold the foreign currency it cannot convert for the account of the ADS holders who have not been paid. It will not invest the foreign currency and it will not be liable for any interest. Before making a distribution, any withholding taxes or other governmental charges that must be paid will be deducted. The depositary will distribute only whole U.S. dollars and cents and will round fractional cents to the nearest whole cent. If the exchange rates fluctuate during a time when the depositary cannot convert the foreign currency, you may lose some of the value of the distribution.
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- *Shares.* The depositary may distribute additional ADSs representing any shares we distribute as a dividend or free distribution. The depositary will only distribute whole ADSs. It will sell shares which would require it to deliver a fraction of an ADS (or ADSs representing those shares) and distribute the net proceeds in the same way as it does with cash. If the depositary does not distribute additional ADSs, the outstanding ADSs will also represent the new shares. The depositary may sell a portion of the distributed shares (or ADSs representing those shares) sufficient to pay its fees and expenses in connection with that distribution.
- *Rights to Purchase Additional Shares.* If we offer holders of our securities any rights to subscribe for additional shares or any other rights, the depositary may (1) exercise those rights on behalf of ADS holders, (2) distribute those rights to ADS holders or (3) sell those rights and distribute the net proceeds to ADS holders, in each case after deduction or upon payment of its fees and expenses. To the extent the depositary does not do any of those things, it will allow the rights to lapse. In that case, you will receive no value for them. The depositary will exercise or distribute rights only if we ask it to and provide satisfactory assurances to the depositary that it is legal to do so. If the depositary will exercise rights, it will purchase the securities to which the rights relate and distribute those securities or, in the case of shares, new ADSs representing the new shares, to subscribing ADS holders, but only if ADS holders have paid the exercise price to the depositary. U.S. securities laws may restrict the ability of the depositary to distribute rights or ADSs or other securities issued on exercise of rights to all or certain ADS holders, and the securities distributed may be subject to restrictions on transfer.
- *Other Distributions.* The depositary will send to ADS holders anything else we distribute on deposited securities by any means it thinks is legal, fair and practical. If it cannot make the distribution in that way, the depositary has a choice. It may decide to sell what we distributed and distribute the net proceeds, in the same way as it does with cash. Or, it may decide to hold what we distributed, in which case ADSs will also represent the newly distributed property. However, the depositary is not required to distribute any securities (other than ADSs) to ADS holders unless it receives satisfactory evidence from us that it is legal to make that distribution. The depositary may sell a portion of the distributed securities or property sufficient to pay its fees and expenses in connection with that distribution. U.S. securities laws may restrict the ability of the depositary to distribute securities to all or certain ADS holders, and the securities distributed may be subject to restrictions on transfer.

The depositary is not responsible if it decides that it is unlawful or impractical to make a distribution available to any ADS holders. We have no obligation to register ADSs, shares, rights or other securities under the Securities Act. We also have no obligation to take any other action to permit the distribution of ADSs, shares, rights or anything else to ADS holders. *This means that you may not receive the distributions we make on our shares or any value for them if it is illegal or impractical for us to make them available to you.*

Deposit, Withdrawal and Cancellation

How Are ADSs Issued?

The depositary will deliver ADSs if you or your broker deposits shares or evidence of rights to receive shares with the custodian. Upon payment of its fees and expenses and of any taxes or charges, such as stamp taxes or stock transfer taxes or fees, the depositary will register the appropriate number of ADSs in the names you request and will deliver the ADSs to or upon the order of the person or persons that made the deposit.

How Can ADS Holders Withdraw the Deposited Securities?

You may surrender your ADSs to the depositary for the purpose of withdrawal. Upon payment of its fees and expenses and of any taxes or charges, such as stamp taxes or stock transfer taxes or fees, the depositary will deliver the shares and any other deposited securities underlying the ADSs to the ADS holder or a person the ADS holder designates at the office of the custodian. Or, at your request, risk and expense, the depositary will deliver the deposited securities at its office, if feasible. However, the depositary is not required to accept surrender of ADSs to the extent it would require delivery of a fraction of a deposited share or other security. The depositary may charge you a fee and its expenses for instructing the custodian regarding delivery of deposited securities.

How Do ADS Holders Interchange Between Certificated ADSs and Uncertificated ADSs?

You may surrender your ADR to the depositary for the purpose of exchanging your ADR for uncertificated ADSs. The depositary will cancel that ADR and will send to the ADS holder a statement confirming that the ADS holder is the registered holder of uncertificated ADSs. Upon receipt by the depositary of a proper instruction from a registered holder of uncertificated ADSs requesting the exchange of uncertificated ADSs for certificated ADSs, the depositary will execute and deliver to the ADS holder an ADR evidencing those ADSs.

Voting Rights

How Do You Vote?

ADS holders may instruct the depositary how to vote the number of deposited shares their ADSs represent. If we request the depositary to solicit your voting instructions (and we are not required to do so), the depositary will notify you of a shareholders' meeting and send or make voting materials available to you. Those materials will describe the matters to be voted on and explain how ADS holders may instruct the depositary how to vote. For instructions to be valid, they must reach the depositary by a date set by the depositary. The depositary will try, as far as practical, subject to the laws of the Cayman Islands and the provisions of our Articles or similar documents, to vote or to have its agents vote the shares or other deposited securities as instructed by ADS holders. If we do not request the depositary to solicit your voting instructions, you can still send voting instructions, and, in that case, the depositary may try to vote as you instruct, but it is not required to do so. Except by instructing the depositary as described above, you will not be able to exercise voting rights unless you surrender your ADSs and withdraw the shares. However, you may not know about the meeting enough in advance to withdraw the shares. In any event, the depositary will not exercise any discretion in voting deposited securities and it will only vote or attempt to vote as instructed or as described in the following sentence. If (1) we asked the depositary to solicit your instructions at least 40 days before the meeting date, (2) the depositary does not receive voting instructions from you by the specified date and (3) we confirm to the depositary that:

- we wish to receive a proxy to vote uninstructed shares;
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- we reasonably do not know of any substantial shareholder opposition to a particular question; and
- the particular question is not materially adverse to the interests of shareholders,

the depositary will consider you to have authorized and directed it to give, and it will give, a discretionary proxy to a person designated by us to vote the number of deposited securities represented by your ADSs as to that question.

We cannot assure you that you will receive the voting materials in time to ensure that you can instruct the depositary to vote your shares. In addition, the depositary and its agents are not responsible for failing to carry out voting instructions or for the manner of carrying out voting instructions. This means that you may not be able to exercise voting rights and there may be nothing you can do if your shares are not voted as you requested.

In order to give you a reasonable opportunity to instruct the depositary as to the exercise of voting rights relating to deposited securities, if we request the depositary to act, we agree to give the depositary notice of any such meeting and details concerning the matters to be voted upon at least 45 days in advance of the meeting date.

Payment of Taxes

You will be responsible for any taxes or other governmental charges payable on your ADSs or on the deposited securities represented by any of your ADSs. The depositary may refuse to register any transfer of your ADSs or allow you to withdraw the deposited securities represented by your ADSs until those taxes or other charges are paid. It may apply payments owed to you or sell deposited securities represented by your ADSs to pay any taxes owed and you will remain liable for any deficiency. If the depositary sells deposited securities, it will, if appropriate, reduce the number of ADSs to reflect the sale and pay to ADS holders any proceeds, or send to ADS holders any property, remaining after it has paid the taxes.

Tender and Exchange Offers; Redemption, Replacement or Cancellation of Deposited Securities

The depositary will not tender deposited securities in any voluntary tender or exchange offer unless instructed to do so by an ADS holder surrendering ADSs and subject to any conditions or procedures the depositary may establish.

If deposited securities are redeemed for cash in a transaction that is mandatory for the depositary as a holder of deposited securities, the depositary will call for surrender of a corresponding number of ADSs and distribute the net redemption money to the holders of called ADSs upon surrender of those ADSs.

If there is any change in the deposited securities such as a sub-division, combination or other reclassification, or any merger, consolidation, recapitalization or reorganization affecting the issuer of deposited securities in which the depositary receives new securities in exchange for or in lieu of the old deposited securities, the depositary will hold those replacement securities as deposited securities under the deposit agreement. However, if the depositary decides it would not be lawful and practical to hold the replacement securities because those securities could not be distributed to ADS holders or for any other reason, the depositary may instead sell the replacement securities and distribute the net proceeds upon surrender of the ADSs.

If there is a replacement of the deposited securities and the depositary will continue to hold the replacement securities, the depositary may distribute new ADSs representing the new deposited securities or ask you to surrender your outstanding ADRs in exchange for new ADRs identifying the new deposited securities.

If there are no deposited securities underlying ADSs, including if the deposited securities are cancelled, or if the deposited securities underlying ADSs have become apparently worthless, the depositary may call for surrender of those ADSs or cancel those ADSs upon notice to the ADS holders.

Amendment and Termination

How May the Deposit Agreement Be Amended?

We may agree with the depositary to amend the deposit agreement and the ADRs without your consent for any reason. If an amendment adds or increases fees or charges, except for taxes and other governmental charges or expenses of the depositary for registration fees, facsimile costs, delivery charges or similar items, or prejudices a substantial right of ADS holders, it will not become effective for outstanding ADSs until 30 days after the depositary notifies ADS holders of the amendment. At the time an amendment becomes effective, you are considered, by continuing to hold your ADSs, to agree to the amendment and to be bound by the ADRs and the deposit agreement as amended.

How May the Deposit Agreement Be Terminated?

The depositary will initiate termination of the deposit agreement if we instruct it to do so. The depositary may initiate termination of the deposit agreement if:

- 60 days have passed since the depositary told us it wants to resign but a successor depositary has not been appointed and accepted its appointment;
 - we delist the ADSs from an exchange in the United States on which they were listed and do not list the ADSs on another exchange in the United States or make arrangements for trading of ADSs on the U.S. over-the-counter market;
 - we delist our shares from an exchange outside the United States on which they were listed and do not list the shares on another exchange outside the United States;
 - the depositary has reason to believe the ADSs have become, or will become, ineligible for registration on Form F-6 under the Securities Act of 1933;
 - we appear to be insolvent or enter insolvency proceedings;
 - all or substantially all the value of the deposited securities has been distributed either in cash or in the form of securities;
-

- there are no deposited securities underlying the ADSs or the underlying deposited securities have become apparently worthless; or
- there has been a replacement of deposited securities.

If the deposit agreement will terminate, the depositary will notify ADS holders at least 90 days before the termination date. At any time after the termination date, the depositary may sell the deposited securities. After that, the depositary will hold the money it received on the sale, as well as any other cash it is holding under the deposit agreement, unsegregated and without liability for interest, for the pro rata benefit of the ADS holders that have not surrendered their ADSs. Normally, the depositary will sell as soon as practicable after the termination date.

After the termination date and before the depositary sells, ADS holders can still surrender their ADSs and receive delivery of deposited securities, except that the depositary may refuse to accept a surrender for the purpose of withdrawing deposited securities or reverse previously accepted surrenders of that kind that have not settled if it would interfere with the selling process. The depositary may refuse to accept a surrender for the purpose of withdrawing sale proceeds until all the deposited securities have been sold. The depositary will continue to collect distributions on deposited securities, but, after the termination date, the depositary is not required to register any transfer of ADSs or distribute any dividends or other distributions on deposited securities to the ADSs holder (until they surrender their ADSs) or give any notices or perform any other duties under the deposit agreement except as described in this paragraph.

Limitations on Obligations and Liability

Limits on Our Obligations and the Obligations of the Depositary; Limits on Liability to Holders of ADSs

The deposit agreement expressly limits our obligations and the obligations of the depositary. It also limits our liability and the liability of the depositary. We and the depositary:

- are only obligated to take the actions specifically set forth in the deposit agreement without negligence or bad faith, and the depositary will not be a fiduciary or have any fiduciary duty to holders of ADSs;
 - are not liable if we are or it is prevented or delayed by law or by events or circumstances beyond our or its ability to prevent or counteract with reasonable care or effort from performing our or its obligations under the deposit agreement;
 - are not liable if we or it exercises discretion permitted under the deposit agreement;
 - are not liable for the inability of any holder of ADSs to benefit from any distribution on deposited securities that is not made available to holders of ADSs under the terms of the deposit agreement, or for any special, consequential or punitive damages for any breach of the terms of the deposit agreement;
-

- have no obligation to become involved in a lawsuit or other proceeding related to the ADSs or the deposit agreement on your behalf or on behalf of any other person;
- may rely upon any documents we believe or it believes in good faith to be genuine and to have been signed or presented by the proper person;
- are not liable for the acts or omissions of any securities depository, clearing agency or settlement system; and
- the depository has no duty to make any determination or provide any information as to our tax status, or any liability for any tax consequences that may be incurred by ADS holders as a result of owning or holding ADSs or be liable for the inability or failure of an ADS holder to obtain the benefit of a foreign tax credit, reduced rate of withholding or refund of amounts withheld in respect of tax or any other tax benefit.

In the deposit agreement, we and the depository agree to indemnify each other under certain circumstances.

Requirements for Depositary Actions

Before the depository will deliver or register a transfer of ADSs, make a distribution on ADSs, or permit withdrawal of shares, the depository may require:

- payment of stock transfer or other taxes or other governmental charges and transfer or registration fees charged by third parties for the transfer of any shares or other deposited securities;
- satisfactory proof of the identity and genuineness of any signature or other information it deems necessary; and
- compliance with regulations it may establish, from time to time, consistent with the deposit agreement, including presentation of transfer documents.

The depository may refuse to deliver ADSs or register transfers of ADSs when the transfer books of the depository or our transfer books are closed or at any time if the depository or we think it advisable to do so.

Your Right to Receive the Shares Underlying your ADSs

ADS holders have the right to cancel their ADSs and withdraw the underlying shares at any time except:

- when temporary delays arise because (1) the depository has closed its transfer books or we have closed our transfer books, (2) the transfer of shares is blocked to permit voting at a shareholders' meeting or (3) we are paying a dividend on our shares;

- when you owe money to pay fees, taxes and similar charges; or
- when it is necessary to prohibit withdrawals in order to comply with any laws or governmental regulations that apply to ADSs or to the withdrawal of shares or other deposited securities.

This right of withdrawal may not be limited by any other provision of the deposit agreement.

Direct Registration System

In the deposit agreement, all parties to the deposit agreement acknowledge that the Direct Registration System, or DRS, and Profile Modification System, or Profile, will apply to the ADSs. DRS is a system administered by DTC that facilitates interchange between registered holding of uncertificated ADSs and holding of security entitlements in ADSs through DTC and a DTC participant. Profile is a feature of DRS that allows a DTC participant, claiming to act on behalf of a registered holder of uncertificated ADSs, to direct the depositary to register a transfer of those ADSs to DTC or its nominee and to deliver those ADSs to the DTC account of that DTC participant without receipt by the depositary of prior authorization from the ADS holder to register that transfer.

In connection with and in accordance with the arrangements and procedures relating to DRS/Profile, the parties to the deposit agreement understand that the depositary will not determine whether the DTC participant that is claiming to be acting on behalf of an ADS holder in requesting registration of transfer and delivery as described in the paragraph above has the actual authority to act on behalf of the ADS holder (notwithstanding any requirements under the Uniform Commercial Code). In the deposit agreement, the parties agree that the depositary's reliance on and compliance with instructions received by the depositary through the DRS/Profile system and in accordance with the deposit agreement will not constitute negligence or bad faith on the part of the depositary.

Shareholder Communications; Inspection of Register of Holders of ADSs

The depositary will make available for your inspection at its office all communications that it receives from us as a holder of deposited securities that we make generally available to holders of deposited securities. The depositary will send you copies of those communications or otherwise make those communications available to you if we ask it to. You have a right to inspect the register of holders of ADSs, but not for the purpose of contacting those holders about a matter unrelated to our business or the ADSs.

Jury Trial Waiver

The deposit agreement provides that, to the extent permitted by law, ADS holders waive the right to a jury trial of any claim they may have against us or the depositary arising out of or relating to our shares, the ADSs or the deposit agreement, including any claim under the U.S. federal securities laws. If we or the depositary opposed a jury trial demand based on the waiver, the court would determine whether the waiver was enforceable in the facts and circumstances of that case in accordance with applicable case law. You will not, by agreeing to the terms of the deposit agreement, be deemed to have waived our or the depositary's compliance with U.S. federal securities laws or the rules and regulations promulgated thereunder.

Settlement of Disputes; Submission to Jurisdiction

The deposit agreement gives the depositary or an ADS holder asserting a claim against us relating to our ordinary shares, the ADSs or the deposit agreement the right to require us to submit that claim to binding arbitration in New York under the International Arbitration Rules of the American Arbitration Association, including any securities law claim. However, a claimant could also elect not to submit its claim to arbitration and instead bring its claim in any court having jurisdiction of it. The deposit agreement does not give us the right to require anyone to submit any claim to arbitration.

In the deposit agreement, we have submitted to the non-exclusive jurisdiction of any state or federal court located in the State of New York with respect to any action relating to our ordinary shares, the ADSs or the deposit agreement. However, nothing in the deposit agreement purports to prevent anyone from pursuing any legal claim in any other court.

List of Principal Subsidiaries and Affiliated Entities

Subsidiaries

Cloopen Limited
 Cloopen Investment Inc.
 Zhuge (Hong Kong) Limited
 Anxun Guantong (Beijing) Technology Co., Ltd.
 Anxun Shuzhi (Shenzhen) Technology Co., Ltd.

Place of Incorporation

Hong Kong
 Cayman Islands
 Hong Kong
 PRC
 PRC

Affiliated Entities

Beijing Ronglian Yitong Information Technology Co., Ltd.
 Beijing Ronglian Huitong Technology Information Co., Ltd.
 Beijing Baiyi High-Tech Information Technology Co., Ltd.
 Beijing Ronglian Guanghui Technology Co., Ltd.
 Beijing Ronglian Qimo Technology Co., Ltd.
 Ronglian Cloud (Shenzhen) Information Technology Co., Ltd.
 Shenzhen Zhongtian Wangjiing Technology Co., Ltd.
 Wuhan Ronglian Yuntong Information Technology Co., Ltd.
 Shanghai GuoHeBing Software Technology Co., Ltd.
 Beijing Zhuge Yunyou Technology Co., Ltd.

Place of Incorporation

PRC
 PRC
 PRC
 PRC
 PRC
 PRC
 PRC
 PRC
 PRC
 PRC

CLOOPEN GROUP HOLDING LIMITED

INSIDER TRADING POLICY

(Adopted by the Board of Directors of Cloopen Group Holding Limited (the “Company”), a Cayman Islands company, on January 19, 2021, effective upon the effectiveness of the Company’s registration statements on Form F-1 relating to the Company’s initial public offering)

This statement of Insider Trading Policy (the “Statement”) of the Company sets forth the Company’s policies against insider trading.

I. OVERVIEW

Preventing insider trading is necessary to comply with United States securities law and to preserve the reputation and integrity of the Company as well as that of all persons affiliated with it. “Insider trading” occurs when any person purchases or sells a security while in possession of inside information relating to the security. As explained in Section III below, “inside information” is information which is considered to be both “material” and “non-public.”

The Company considers strict compliance with the policies (the “Policy”) set forth in this Statement to be a matter of utmost importance. Violation of this Policy could cause extreme reputational damage and possible legal liability to the violator and the Company and its direct and indirect subsidiaries and affiliates (collectively, the “Group”). Knowing or wilful violations of the letter or spirit of the Policy will be grounds for immediate dismissal from the Group. Violation of the Policy might expose the violator to severe criminal penalties as well as civil liability to any person injured by the violation. The monetary damages flowing from a violation could be multiple times the profit realized by the violator.

This Statement applies to all officers, directors, employees and consultants of the Group (each, an “Affiliate”) and extends to all activities within and outside an individual’s duties at the Group. Every director, officer, employee and consultant of the Company must review this Statement, and when requested by the Company, must execute and return the Certificate of Compliance attached hereto to the chief financial officer of the Company, the Compliance Officer for the Company (the “Compliance Officer”), within seven (7) days after receipt of the request.

Questions regarding the Statement should be directed to the Compliance Officer at liyipeng@yuntongxun.com.

II. POLICIES PROHIBITING INSIDER TRADING

For purposes of this Statement, the terms “purchase” and “sell” of securities does not include acceptance of options granted by the issuer thereof and the exercise of options that does not involve a sale of securities. Among other things, the cashless exercise of options does involve sale of securities and therefore is subject to the policies set forth below.

- A. **No Trading** - No Affiliate may purchase or sell any type of security or enter into a binding security trading plan in compliance with Rule 10b5-1 under the U.S. Securities Exchange Act of 1934, as amended (a “Trading Plan”) while in possession of material non-public information relating to the Company, its American Depositary Shares (“ADSs”) representing its ordinary shares or other securities of the Company (“Material Information”).

If any Affiliate is in possession of Material Information, the above policy mandates that the Affiliate may not purchase or sell the Company’s securities until the later of (i) the expiration of a forty-eight-hour waiting period following public disclosure of the Material Information by the Company, and (ii) the lapse of one full Trading Day on the New York Stock Exchange (“NYSE”) following such public disclosure. “Trading Day” is defined as a day on which the NYSE is open for trading. Except for public holidays in the U.S., the regular trading hours of the NYSE are from 9:30 a.m. to 4:00 p.m., New York City time, Monday through Friday.

In addition, no Affiliate may purchase or sell any Company security or enter into a Trading Plan without the prior clearance by the Compliance Officer during any period the Company has designated as a “limited trading period,” regardless of whether such Affiliate possesses any Material Information. The Compliance Officer may declare limited trading periods at the times that he or she deems appropriate, and need not provide any reason for making a declaration.

Furthermore, all transactions in Company securities (including, without limitation, acquisitions and dispositions of the ADSs, sale of the Company’s ordinary shares issued upon exercise of stock options and the execution of a Trading Plan, but excluding the acceptance of options granted by the Company and the exercise of options that does not involve sale of securities) by officers, directors and key employees designated by the Company from time to time must be pre-approved by the Compliance Officer.

Please see Section III below for an explanation of the Material Information.

- B. ***Trading Window*** – Assuming none of the “no trading” restrictions set forth in Section II-A above applies, no officer, director, employee or consultant may purchase or sell any security of the Company or enter into a Trading Plan other than during the Trading Window (defined below). The “Trading Window” is the period in any fiscal quarter of the Company commencing at the close of business on the second Trading Day following the date of the Company’s public disclosure of its financial results for the prior fiscal year or fiscal quarter, as applicable, and ending on December 31, March 31, June 30 and September 30.

In other words,

(1) beginning on January 1 of each year, no Affiliate may purchase or sell any security of the Company or enter into a Trading Plan until the close of business on the second Trading Day following the date of the Company’s public disclosure of its financial results for the fiscal year ended on December 31 of the prior year, and

(2) beginning on April 1, July 1, October 1 and January 1 of each year, no Affiliate may purchase or sell any security of the Company or enter into a Trading Plan until the close of business on the second Trading Day following the date of the Company’s public disclosure of its financial results for the fiscal quarter ended on March 31, June 30, September 30 and December 31 of that year, respectively.

If the Company’s public disclosure of its financial results for the prior period occurs on a Trading Day more than four hours before the NYSE closes for trading, then such date of disclosure shall be considered the first Trading Day following such public disclosure.

Please note that trading in Company securities during the Trading Window does not provide a “safe harbor,” and all Affiliates should strictly comply with all the policies set forth in this Statement.

When in doubt, consult the Compliance Officer before trading.

Notwithstanding the foregoing, sale of securities pursuant to an existing Trading Plan which was entered into in accordance with the Policy and in compliance with applicable law is not subject to the restrictions on trading in Sections II A and II B above.

- C. **No Tipping** - No Affiliate may directly or indirectly disclose any Material Information to anyone who trades in the Company's securities.
- D. **Confidentiality** - No Affiliate may communicate any Material Information to anyone outside the Company under any circumstances unless approved by the Compliance Officer in advance, or to anyone within the Company other than on a need-to-know basis.
- E. **No Comment** - No Affiliate may discuss any internal matters or developments of the Company with anyone outside the Company, except as required in the performance of regular corporate duties. Unless you are expressly authorized to the contrary, if you receive any inquiries about the Company or its securities from any press, investment analyst, investor or other outsiders, or any requests for comments or interviews, you should decline to comment and direct the inquiry or request to the Compliance Officer or any other office designated by the Chief Executive Officer.
- F. **Corrective Action** - If any information that may be deemed as Material Information is inadvertently disclosed, any Affiliate having knowledge of such disclosure should notify the Compliance Officer immediately so that the Company can determine whether or not any corrective action, such as a disclosure to the general public, is warranted.

III. EXPLANATION OF INSIDER TRADING

As noted above, "insider trading" refers to the purchase or sale of a security while in possession of "material" "non-public" information relating to the security. The aforementioned securities include not only stocks, bonds, notes and debentures, but also options, warrants and similar instruments. "Purchase" and "sale" are defined broadly under the U.S. federal securities law. "Purchase" includes not only the actual purchase of a security, but also any contract to purchase or otherwise acquire a security. "Sale" includes not only the actual sale of a security, but also any contract to sell or otherwise dispose of a security. These definitions extend to a broad range of transactions including conventional cash-for-stock transactions, the grant and exercise of stock options and acquisitions and exercises of warrants, puts, calls and other derivatives related to a security. It is generally understood that the definition of "insider trading" includes the following:

- trading by insiders while in possession of material, non-public information;
- trading by persons other than insiders while in possession of material, non-public information where the information either was given in breach of an insider's fiduciary duty to keep it confidential or was misappropriated; and
- communicating or tipping material, non-public information to others, including recommending the purchase or sale of a security while in possession of such information.

As noted above, for purposes of this Statement, the terms "purchase" and "sell" of securities exclude the acceptance of options granted by the issuer thereof and the exercise of options that does not involve sale of securities. Among other things, the cashless exercise of options does involve sale of securities and therefore is subject to the policies set forth in this Statement.

What Facts are Material?

The materiality of a fact depends upon the circumstances. A fact is considered “material” if there is a substantial likelihood that a reasonable investor would consider it important in making a decision to buy, sell or hold a security or where the fact is likely to have a significant effect on the market price of the security. Material information can be positive or negative and can relate to virtually any aspect of a company’s business or to any type of security, debt or equity.

Examples of material information include (but are not limited to) information concerning:

- dividends;
- corporate earnings or earnings forecasts;
- changes in financial condition or asset value;
- negotiations for the mergers or acquisitions or dispositions of significant subsidiaries or assets;
- significant new contracts or the loss of a significant contract;
- significant new products or services;
- significant marketing plans or changes in such plans;
- capital investment plans or changes in such plans;
- material litigation, administrative action or governmental investigations or inquiries involving the Group or its officers or directors;
- significant borrowings or other financings;
- defaults on borrowings;
- new equity or debt offerings;
- significant personnel changes;
- changes in accounting methods and write-offs; and
- any substantial change in industry circumstances or competitive conditions which could significantly affect the Company’s earnings or prospects for expansion.

A good general rule of thumb: When in doubt, do not trade.

What is Non-public?

Information is “non-public” if it is not available to the general public. In order for information to be considered public, it must be widely disseminated in a manner making it generally available to investors through such commonly believed to be trustworthy media sources as Dow Jones, Reuters Economic Services, The Wall Street Journal, Bloomberg, Associated Press or United Press International. Circulation of rumors, even if later proven to be truth and is reported in the media, does not constitute effective public dissemination.

In addition, even after a public announcement, a reasonable period of time must lapse in order for the market to react to the information. Generally, one should allow approximately forty-eight (48) hours following publication as a reasonable waiting period before such information is deemed to be public.

Who is an Insider?

"Insiders" include officers, directors, employees and consultants of a company and anyone else who has material inside information about a company. Insiders have independent fiduciary duties to their company and its stockholders not to trade on material, non-public information relating to the company's securities. All Affiliates should consider themselves insiders with respect to material, non-public information about business, activities and securities of the Company. Affiliates may not trade the Company's securities while in possession of material, non-public information relating to the Company, or tip or otherwise communicate, except on a need-to-know basis, such information to others.

It should be noted that trading of the Company's securities by members in an Affiliate's household could be deemed the responsibility of such Affiliate under certain circumstances and give rise to legal and Company-imposed sanctions.

Trading by Persons Other than Insiders

Insiders may be liable for communicating or tipping material, non-public information to a third party ("tippee"), and insider trading violations are not limited to trading or tipping by insiders. Persons other than insiders also can be liable for insider trading, including tippees who trade on material, non-public information tipped to them, or individuals who trade on material, non-public information which has been misappropriated.

Tippees inherit an insider's duties with respect to, and are liable for trading on, material, non-public information illegally tipped to them by an insider. Similarly, just as insiders are liable for the insider trading of their tippees, so are tippees who pass the information along to others who trade. In other words, a tippee's liability for insider trading is no different from that of an insider. Tippees can obtain material, non-public information by receiving overt tips from others or through, among other things, conversations at social, business or other gatherings.

Penalties for Engaging in Insider Trading

Penalties on individuals engaging in insider trading and their employers for trading on or tipping material, non-public information can extend well beyond any profits made or losses avoided by the violators. The US Securities and Exchange Commission ("SEC") and Department of Justice have made the civil and criminal prosecution of insider trading violations a top priority. Enforcement remedies available to the government or private plaintiffs under the US federal securities laws include:

- SEC administrative sanctions;
- sanctions by self-regulatory organizations in the securities industry;
- civil injunctions;
- damage awards to private plaintiffs;
- disgorgement of all profits;
- civil fines for the violator of up to three times the amount of profit gained or loss avoided;
- civil fines for the employer or other controlling person of a violator (i.e., where the violator is an employee or other controlled person) of up to the greater of US\$1,000,000 or three times the amount of profit gained or loss avoided by the violator;
- criminal fines for individual violators of up to US\$1,000,000 (US\$2,500,000 for an entity); and
- jail sentences of up to 10 years.

In addition, insider trading could result in serious sanctions by the Company, including immediate dismissal. Insider trading violations are not limited to violations of the US federal securities laws. Other US federal and state civil or criminal laws, such as the laws prohibiting mail and wire fraud and the Racketeer Influenced and Corrupt Organizations Act (RICO) may have also been violated in an insider trading case.

CERTIFICATION OF COMPLIANCE

TO: Compliance Officer

FROM: _____

RE: STATEMENT OF POLICIES OF CLOOPEN GROUP HOLDING LIMITED GOVERNING MATERIAL, NON-PUBLIC INFORMATION AND THE PREVENTION OF INSIDER TRADING (Dated:)

I have received and reviewed and understand the above-referenced Statement of Policies (the “**Policy**”), and hereby undertake, as a condition to my present and continued employment at or association with Cloopen Group Holding Limited or its subsidiary or affiliated entity (the “**Company**”), to comply fully with the Policy.

I hereby certify that I have adhered to the Policy during the time period that I have been employed by or associated with the Company.

I agree to adhere to the Policy during any future period I am employed by or associated with the Company.

Signature: _____

Name: _____

ID Card Number: _____

Title: _____

Date: _____

**Certification by the Principal Executive Officer
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002**

I, Changxun Sun, certify that:

1. I have reviewed this annual report on Form 20-F of Cloopen Group Holding Limited (the “Company”);
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Company as of, and for, the periods presented in this report;
4. The Company’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Company and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the Company’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the Company’s internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the Company’s internal control over financial reporting; and
5. The Company’s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company’s auditors and the audit committee of the Company’s board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Company’s ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Company’s internal control over financial reporting.

Date: August 27, 2024

By: /s/ Changxun Sun
Name: Changxun Sun
Title: Chief Executive Officer

**Certification by the Principal Financial Officer
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002**

I, Yipeng Li, certify that:

1. I have reviewed this annual report on Form 20-F of Cloopen Group Holding Limited (the “Company”);
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the Company as of, and for, the periods presented in this report;
4. The Company’s other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the Company and have:
 - (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the Company, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - (b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - (c) Evaluated the effectiveness of the Company’s disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - (d) Disclosed in this report any change in the Company’s internal control over financial reporting that occurred during the period covered by the annual report that has materially affected, or is reasonably likely to materially affect, the Company’s internal control over financial reporting; and
5. The Company’s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company’s auditors and the audit committee of the Company’s board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the Company’s ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the Company’s internal control over financial reporting.

Date: August 27, 2024

By: /s/ Yipeng Li
Name: Yipeng Li
Title: Chief Financial Officer

**Certification by the Principal Executive Officer
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**

In connection with the Annual Report of Cloopen Group Holding Limited (the "Company") on Form 20-F for the fiscal year ended December 31, 2022 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Changxun Sun, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: August 27, 2024

By: /s/ Changxun Sun
Name: Changxun Sun
Title: Chief Executive Officer

**Certification by the Principal Financial Officer
Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002**

In connection with the Annual Report of Cloopen Group Holding Limited (the "Company") on Form 20-F for the fiscal year ended December 31, 2022 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Yipeng Li, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: August 27, 2024

By: /s/ Yipeng Li
Name: Yipeng Li
Title: Chief Financial Officer



Our ref VSL/767927-000001/19725351v1

Cloopen Group Holding Limited
16/F, Tower A, Fairmont Tower
33 Guangshun North Main Street
Chaoyang District, Beijing
People's Republic of China

27 August 2024

Dear Sirs

Cloopen Group Holding Limited

We have acted as legal advisers as to the laws of the Cayman Islands to Cloopen Group Holding Limited, an exempted company incorporated in the Cayman Islands with limited liability (the “**Company**”), in connection with the filing by the Company with the United States Securities and Exchange Commission (the “**SEC**”) of an annual report on Form 20-F for the year ended 31 December 2022 (the “**Annual Report**”).

We hereby consent to the reference to our firm under the heading “Item 10. Additional Information—E. Taxation—Cayman Islands Taxation” in the Annual Report.

We consent to the filing with the SEC of this consent letter as an exhibit to the Annual Report. In giving such consent, we do not thereby admit that we come within the category of persons whose consent is required under Section 7 of the Securities Act of 1933, or under the Securities Exchange Act of 1934, in each case, as amended, or the regulations promulgated thereunder.

Yours faithfully

/s/ Maples and Calder (Hong Kong) LLP
Maples and Calder (Hong Kong) LLP

Maples and Calder (Hong Kong) LLP

26th Floor Central Plaza 18 Harbour Road Wanchai Hong Kong

Tel +852 2522 9333 Fax +852 2537 2955 **maples.com**

Resident Hong Kong Partners: Ann Ng (Victoria (Australia)), Aisling Dwyer (British Virgin Islands)
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W.C. Pao (England and Wales), Richard Spooner (England and Wales), Sharon Yap (New Zealand), Everton Robertson (Cayman Islands)
Nick Stern (England and Wales), Juno Huang (Queensland (Australia)), Karen Pallaras (Victoria (Australia)), Joscelyne Ainley (England and Wales)
Andrew Wood (England and Wales)

Non-Resident Partner: Jonathan Green (Cayman Islands)

Cayman Islands Attorneys at Law | British Virgin Islands Solicitors



澄明律師

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August 27, 2024

16/F, Tower A, Fairmont Tower
33 Guangshun North Main Street
Chaoyang District, Beijing
People's Republic of China

Dear Sir/Madam:

We hereby consent to the reference of our name under the headings “Item 3. KEY INFORMATION—Our Operations in China and Permissions Required from the PRC Authorities for Our Operations,” “Item 3. KEY INFORMATION—D. Risk Factors—Risks Related to Our Corporate Structure,” “Item 4. INFORMATION ON THE COMPANY—C. Organizational Structure” and “ITEM 10. ADDITIONAL INFORMATION—E. Taxation—PRC Taxation” in Cloopen Group Holding Limited’s Annual Report on Form 20-F for the year ended December 31, 2022 (the “Annual Report”), which is filed with the Securities and Exchange Commission (the “SEC”) on the date hereof.

We also consent to the filing of this consent letter with the SEC as an exhibit to the Annual Report.

In giving such consent, we do not thereby admit that we come within the category of persons whose consent is required under Section 7 of the Securities Act of 1933, or under the Securities Exchange Act of 1934, in each case, as amended, or the regulations promulgated thereunder.

Very truly yours,

/s/ CM Law Firm
CM Law Firm



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CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the registration statement (Form S-8 No. 333-258130) pertaining to the 2016 Share Incentive Plan and 2021 Share Incentive Plan of Cloopen Group Holding Limited of our report dated August 27, 2024, with respect to our audits of the consolidated financial statements of Cloopen Group Holding Limited as of December 31, 2021 and 2022, and for each of the years in the three-year period ended December 31, 2022, which report is included in the Annual Report on Form 20-F of the Company for the year ended December 31, 2022.

/s/ Ark Pro CPA & Co.

ARK Pro CPA & Co.
Hong Kong, China

August 27, 2024
PCAOB ID: 3299

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