

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 10-K

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
For the transition period from ____ to ____

COMMISSION FILE NO. 001-34647

ZW DATA ACTION TECHNOLOGIES INC.

(Exact name of registrant as specified in its charter)

Nevada
(State or other jurisdiction of
incorporation or organization)

20-4672080
(I.R.S. Employer Identification No.)

Room 1811, Xinghuo Keji Plaza, No. 2 Fufeng Road, Fengtai District, Beijing, PRC
(Address of principal executive offices)

+86-10-6084-6616
(Issuer's telephone number, including area code)

Securities Registered Pursuant to Section 12(b) of the Act:

<u>Title of Each Class</u>	<u>Trading Symbol(s)</u>	<u>Name of Exchange On which Registered</u>
Common Stock, par value \$0.001	CNET	Nasdaq Capital Market

Securities Registered Pursuant to Section 12(g) of the Act: None.

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

Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act.

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, a “smaller reporting company, or an emerging growth company. See the definition of “large accelerated filer,” “accelerated filer,” “smaller reporting company” and “emerging growth company” in Rule 12b-2 of the Exchange Act.

Large Accelerated Filer

Accelerated Filer

Non-Accelerated Filer

Smaller Reporting Company

Emerging growth company

If an emerging growth company, 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.

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 whether the registrant is a shell company (as defined in Rule 12b-2 of the Act).

Yes No

The aggregate market value of 5,720,449 shares of common equity stock held by non-affiliates of the Registrant was approximately \$9,724,763 on the last business day of the Registrant’s most recently completed second fiscal quarter, based on the last sale price of the registrant’s common stock on such date of \$1.70 per share, as reported on the Nasdaq Capital Market.

The number of shares outstanding of the Registrant’s common stock, \$0.001 par value as of April 17, 2023 was 7,174,506.

TABLE OF CONTENTS

<u>PART I</u>		<u>1</u>
<u>ITEM 1</u>	<u>BUSINESS</u>	<u>1</u>
<u>ITEM 1A</u>	<u>RISK FACTORS</u>	<u>18</u>
<u>ITEM 1B</u>	<u>UNRESOLVED STAFF COMMENTS</u>	<u>45</u>
<u>ITEM 2</u>	<u>PROPERTIES</u>	<u>45</u>
<u>ITEM 3</u>	<u>LEGAL PROCEEDINGS</u>	<u>46</u>
<u>ITEM 4</u>	<u>MINE SAFETY DISCLOSURES</u>	<u>46</u>
<u>PART II</u>		<u>46</u>
<u>ITEM 5</u>	<u>MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES</u>	<u>46</u>
<u>ITEM 6</u>	<u>[RESERVED]</u>	<u>47</u>
<u>ITEM 7</u>	<u>MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS</u>	<u>47</u>
<u>ITEM 7A</u>	<u>QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK</u>	<u>63</u>
<u>ITEM 8</u>	<u>FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA</u>	<u>63</u>
<u>ITEM 9</u>	<u>CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE</u>	<u>63</u>
<u>ITEM 9A</u>	<u>CONTROLS AND PROCEDURES</u>	<u>63</u>
<u>ITEM 9B</u>	<u>OTHER INFORMATION</u>	<u>64</u>
<u>ITEM 9C</u>	<u>DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS</u>	<u>64</u>
<u>PART III</u>		<u>65</u>
<u>ITEM 10</u>	<u>DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE</u>	<u>65</u>
<u>ITEM 11</u>	<u>EXECUTIVE COMPENSATION</u>	<u>69</u>
<u>ITEM 12</u>	<u>SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS</u>	<u>71</u>
<u>ITEM 13</u>	<u>CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE</u>	<u>73</u>
<u>ITEM 14</u>	<u>PRINCIPAL ACCOUNTANT FEE AND SERVICES</u>	<u>73</u>
<u>PART IV</u>		<u>74</u>
<u>ITEM 15</u>	<u>EXHIBITS AND FINANCIAL STATEMENT SCHEDULES</u>	<u>74</u>
<u>ITEM 16</u>	<u>FORM 10-K SUMMARY</u>	<u>79</u>

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, and Section 21E of the Securities Exchange Act of 1934. These statements relate to future events or our future financial performance. We have attempted to identify forward-looking statements by terminology including “anticipates”, “believes”, “expects”, “can”, “continue”, “could”, “estimates”, “expects”, “intends”, “may”, “plans”, “potential”, “predict”, “should” or “will” or the negative of these terms or other comparable terminology. These statements are only predictions. Uncertainties and other factors, including the risks outlined under Risk Factors contained in Item 1A of this Form 10-K, may cause our actual results, levels of activity, performance or achievements to be materially different from any future results, levels or activity, performance or achievements expressed or implied by these forward-looking statements.

Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. Our expectations are as of the date this Form 10-K is filed, and we do not intend to update any of the forward-looking statements after the filing date to conform these statements to actual results, unless required by law.

We file annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and proxy and information statements and amendments to reports filed or furnished pursuant to Sections 13(a) and 15(d) of the Securities Exchange Act of 1934, as amended. The SEC also maintains a website (<http://www.sec.gov>) that contains reports, proxy and information statements and other information regarding us and other companies that file materials with the SEC electronically. You may also obtain copies of reports filed with the SEC, free of charge, via a link included on our website at www.zdat.com.

The Public Company Accounting Oversight Board (the “PCAOB”) had historically been unable to inspect our auditor in relation to their audit work performed for our financial statements and the inability of the PCAOB to conduct inspections over our auditor has deprived our investors with the benefits of such inspections.

Our auditor, the independent registered public accounting firm that issues the audit report in our SEC filings, as an auditor of companies that are traded publicly in the United States and a firm registered with the PCAOB, is subject to laws in the United States pursuant to which the PCAOB conducts regular inspections to assess its compliance with the applicable professional standards. Our auditor is located in Hong Kong Special Administrative Region of the PRC (“Hong Kong”), China, a jurisdiction where the PCAOB was unable to conduct inspections and investigations before 2022. As a result, we and investors in our securities were deprived of the benefits of such PCAOB inspections. 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 China mainland and Hong Kong in 2022. However, the inability of the PCAOB to conduct inspections of auditors in Hong Kong in the past made it more difficult to evaluate the effectiveness of our independent registered public accounting firm’s audit procedures or quality control procedures as compared to auditors outside of China mainland and Hong Kong that have been subject to the PCAOB inspections, which could cause investors and potential investors in our securities to lose confidence in our audit procedures and reported financial information and the quality of our financial statements.

Our common stock may be delisted and prohibited from trading in the United States under the Holding Foreign Companies Accountable Act, or the HFCAA, as amended by the Accelerating Holding Foreign Companies Accountable Act, if the PCAOB is unable to inspect or investigate completely auditors located in China mainland and Hong Kong. The delisting of our common stock or the threat of their being delisted could cause the value of our common stock to significantly decline or be worthless, and thus you could lose all or substantial portion of your investment.

On December 18, 2020, the Holding Foreign Companies Accountable Act, or the HFCAA, was signed into law that states if the SEC determines that issuers have filed audit reports issued by a registered public accounting firm that has not been subject to PCAOB inspection for three consecutive years beginning in 2021, the SEC shall prohibit its common stock from being traded on a national securities exchange or in the over-the-counter trading market in the U.S. Furthermore, on June 22, 2021, the U.S. Senate passed the Accelerating Holding Foreign Companies Accountable Act, to prohibit securities of any registrant from being listed on any of the U.S. securities exchanges or traded over-the-counter if the auditor of the registrant’s financial statements is not subject to PCAOB inspection for two consecutive years, instead of three consecutive years as enacted in the HFCAA. On December 2, 2021, the SEC adopted final amendments implementing the disclosure and submission requirements of the HFCAA, pursuant to which the SEC will identify an issuer as a “Commission-Identified Issuer” if the issuer has filed an annual report containing an audit report issued by a registered public accounting firm that the PCAOB has determined it is unable to inspect or investigate completely, and will then impose a trading prohibition on an issuer after it is identified as a Commission-Identified Issuer for three consecutive years. On December 29, 2022, the Accelerating Holding Foreign Companies Accountable Act was signed into law.

On December 16, 2021, the PCAOB issued a HFCAA Determination Report (the “2021 PCAOB Determinations”) to notify the SEC of its determination that the PCAOB was unable to inspect or investigate completely registered public accounting firms headquartered in China mainland and Hong Kong because of positions taken by the Chinese authorities, and our auditor was subject to this determination. On May 13, 2022, the SEC conclusively identified us as a Commission-Identified Issuer under the HFCAA following the filing of our annual report on Form 10-K for the fiscal year ended December 31, 2021.

On August 26, 2022, the PCAOB signed a Statement of Protocol on agreement governing on inspections of audit firms based in mainland China and Hong Kong, with China Securities Regulatory Commission (“CSRC”) and Ministry of Finance (“MOF”) of the PRC, in regarding to governing inspections and investigations of audit firms headquartered in mainland China and Hong Kong (the “Agreement”). As stated in the Agreement, the Chinese authorities committed that the PCAOB has direct access to view complete audit work papers under its inspections or investigations and has sole discretion to the selected audit firms and audit engagements. The Agreement opens access for the PCAOB to inspect and investigate the registered public accounting firms in mainland China and Hong Kong completely. The PCAOB then thoroughly tested compliance with every aspect of the Agreement necessary to determine complete access. This included sending a team of PCAOB staff to conduct on-site inspections and investigations in Hong Kong over a nine-week period from September to November 2022.

On December 15, 2022, the PCAOB issued its 2022 HFCAA Determination Report to notify the SEC of its determination that the PCAOB was able to secure complete access to inspect and investigate PCAOB-registered public accounting firms headquartered in China mainland and Hong Kong completely in 2022. The PCAOB Board vacated its 2021 PCAOB Determinations that the PCAOB was unable to inspect or investigate completely registered public accounting firms headquartered in China mainland and Hong Kong. For this reason, we do not expect to be identified as a Commission-Identified Issuer following the filing of our annual report for the fiscal year ended December 31, 2022. However, whether the PCAOB will continue to be able to satisfactorily conduct inspections of PCAOB-registered public accounting firms headquartered in China mainland and Hong Kong is subject to uncertainty and depends on a number of factors out of our, and our auditor's, control.

The PCAOB is continuing to demand complete access in China mainland and Hong Kong moving forward and is already making plans to resume regular inspections in early 2023 and beyond, as well as to continue pursuing ongoing investigations and initiate new investigations as needed. The PCAOB does not have to wait another year to reassess its determinations. Should the PRC authorities obstruct the PCAOB's access to inspect or investigate completely in any way and at any point, the PCAOB will act immediately to consider the need to issue new determinations consistent with the HFCAA.

We cannot assure you that our auditor will not be determined as a register public accounting firm that the PCAOB is unable to inspect or investigate completely for two consecutive years because of positions taken by the Chinese authorities and/or any other causes in the future. If the PCAOB in the future again determines that it is unable to inspect and investigate completely auditors in China mainland and Hong Kong, we may be identified as a Commission-Identified Issuer accordingly. If this happens, Nasdaq may determine to delist our common stock, and there is no certainty that we will be able to continue listing our common stock on other non-U.S. stock exchanges or that an active market for our common stock will immediately develop outside of the U.S. The prohibiting from trading in the United States or delisting of our common stock or the threat of their being delisted could cause the value of our common stock to significantly decline or be worthless, and thus you could lose all or substantial portion of your investment.

Our Holding Company Structure and Contractual Arrangements with Our Consolidated Variable Interest Entities ("VIEs") and Their Respective Individual Shareholders

ZW Data Action Technologies Inc. is not an operating company in China, but a Nevada holding company with no equity ownership in its VIEs. We conduct our operations in China through our PRC subsidiaries, our VIEs, with which we have maintained contractual arrangements, and their subsidiaries in China. PRC laws and regulations impose certain restrictions or prohibitions on foreign ownership of companies that engage in value-added telecommunication services. Accordingly, we operate these businesses in China through our VIEs, and rely on contractual arrangements among our PRC subsidiaries, our VIEs and their shareholders to control the business operations of our VIEs. As used in this annual report, "we," "us," "our company," "the Company" or "our" refers to ZW Data Action Technologies Inc., a Nevada company, its subsidiaries, and, in the context of describing its operations and consolidated financial information, its consolidated affiliated entities in China, including, but not limited to, Business Opportunity Online (Beijing) Network Technology Co., Ltd. ("Business Opportunity Online") and Beijing CNET Online Advertising Co., Ltd. ("Beijing CNET Online"). Investors of our common stock are not purchasing equity interest in our operating entities in China but instead are purchasing equity interest in a Nevada holding company.

A series of contractual agreements, including exclusive business cooperation agreements, exclusive option agreements, equity pledge agreements, and irrevocable powers of attorney, have been entered into by and among our PRC subsidiaries, our VIEs and their respective shareholders. Terms contained in each set of contractual arrangements with our PRC subsidiaries, our VIEs and their respective shareholders are substantially similar. For more details of these contractual arrangements, see “Item 1. Business—Our subsidiaries and our VIE Structure.”

The contractual arrangements may not be as effective as direct ownership in providing us with control over our consolidated VIEs and we may incur substantial costs to enforce the terms of the arrangements. Please refer to the discussion of uncertainties and risks in relation to our VIE Structure on page 12 under Business-Government Regulation contained in Item 1 and page 23 under Risk Factors-Risks Relating to Regulation of Our Business and to Our Structure contained in Item 1A of this Annual Report.

Our corporate structure is subject to risks associated with our contractual arrangements with our VIEs. Investors may never directly hold equity interests in our VIEs. If the PRC government finds that the agreements that establish the structure for operating our business do not comply with PRC laws and regulations, or if these regulations or their interpretations change in the future, we could be subject to severe penalties or be forced to relinquish our interests in those operations. Our holding company, our PRC subsidiaries, our VIEs, and investors of our company face uncertainty about potential future actions by the PRC government that could affect the enforceability of the contractual arrangements with our VIEs and, consequently, significantly affect the financial performance of our VIEs and our company as a whole.

There are also substantial uncertainties regarding the interpretation and application of current and future PRC laws, regulations and rules regarding the status of the rights of our Nevada holding company with respect to its contractual arrangements with our VIEs and their respective shareholders. 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 any of our VIEs 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 1A. Risk Factors—Risks Relating to Our Business and to Our Structure—If the PRC government finds that the agreements that establish the structure for operating our businesses in China do not comply with PRC governmental restrictions on foreign investment in industries in which we operate, or if these regulations or their interpretation change in the future, we could be subject to severe penalties.”

We face various legal and operational risks and uncertainties associated with being based in or having our operations primarily in China and the complex and evolving PRC laws and regulations. For example, we face risks associated with regulatory approvals on offerings conducted overseas by, and foreign investment in China-based issuers, the use of our VIEs, anti-monopoly regulatory actions, and oversight on cybersecurity and data privacy. Our auditor is headquartered in Hong Kong, China, a jurisdiction where the PCAOB was unable to conduct inspections and investigations before 2022. We face risks associated with whether Public Company Accounting Oversight Board, or the PCAOB, will continue to be able to satisfactorily conduct inspections of PCAOB-registered public accounting firms headquartered in China mainland and Hong Kong, which is subject to uncertainty and depends on a number of factors out of our, and our auditor’s, control. This may impact our ability to conduct certain businesses, accept foreign investments, or list on United States or other foreign exchange outside of China. These risks could result in a material adverse change in our operations and the value of our common stock, significantly limit or completely hinder our ability to offer or continue to offer securities to investors, or cause the value of such securities to significantly decline. For a detailed description of risks related to doing business in China, see “Item 1A. Risk Factors—Risks Associated With Doing Business in China.”

PRC government’s significant authority in regulating our operations and its oversight and control over offerings conducted overseas by, and foreign investment in, China-based issuers could significantly limit or completely hinder our ability to offer or continue to offer securities to investors. Implementation of industry-wide regulations in this nature may cause the value of such securities to significantly decline or be of little or no value. For more details, see “Item 1A. Risk Factors—Risks Associated With Doing Business in China—The PRC government’s significant oversight and discretion over our business operation could result in a material adverse change in our operations and the value of our listed securities.”

Risks and uncertainties arising from the legal system in China, including risks and uncertainties regarding the enforcement of laws and quickly evolving rules and regulations in China, could result in a material adverse change in our operations and the value of our common stock. For more details, see “Item 1A. Risk Factors—Risks Relating to Doing Business in China—Uncertainties in the interpretation and enforcement of PRC laws and regulations could limit the legal protections available to you and us.”

Permissions Required from the PRC Authorities for Our Operations

We conduct our business primarily through our subsidiaries, our VIEs and their subsidiaries in China. Our operations in China are governed by PRC laws and regulations. As of the date of this annual report, our consolidated affiliated Chinese entities have obtained the requisite licenses and permits from the PRC government authorities that are material for the business operations of our holding company, our subsidiaries and our VIEs in China, including, among others, the ICP permits held by our PRC operating VIEs. However, given the uncertainties of interpretation and implementation of relevant laws and regulations and the enforcement practice by government authorities, we cannot assure you that we have obtained all the permits or licenses required for conducting our business in China. In addition, we may be required to obtain additional licenses, permits, filings or approvals for the services of our Internet platform in the future. For more detailed information, see “Item 1A. Risks Associated With Doing Business in China—We may be adversely affected by the complexity, uncertainties and changes in PRC licensing and regulation of internet businesses.”

In connection with our previous issuance of securities to foreign investors, under current PRC laws, regulations and regulatory rules, as of the date of this annual report, we, our PRC subsidiaries and our VIEs, (i) are not required to obtain permissions from the CSRC, (ii) are not required to go through cybersecurity review by the Cyberspace Administration of China, or the CAC, and (iii) have not received or were denied such requisite permissions by any PRC authority.

However, on February 17, 2023, the CSRC released the Trial Administrative Measures of Overseas Securities Offering and Listing by Domestic Companies and a series of associated regulatory guidelines (collectively, the “Filing Rules”), which came into effect from March 31, 2023. In accordance with the Filing Rules, both direct listing and indirect listing activities of China based enterprises become subject to a unified filing requirement with the CSRC. In addition, an overseas listed company must also submit the filing with respect to its follow-on offerings, issuance of convertible corporate bonds and exchangeable bonds, and other equivalent offering activities, within a specific time frame required by the Filing Rules. Therefore, we will be required to file with the CSRC for our overseas offering of equity and equity linked securities in the future within the applicable scope of the Filing Rules. For more detailed information, see “Item 1A. Risk Factors—Risks Associated With 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.”

Cash and Asset Flows through Our Organization

ZW Data Action Technologies Inc. transfers cash to its wholly-owned Hong Kong subsidiary, by making capital contributions or providing loans, and the Hong Kong subsidiary transfer cash to the subsidiaries in China by making capital contributions or providing loans to them. Because ZW Data Action Technologies Inc. and its subsidiaries control our VIEs through contractual arrangements, they are not able to make direct capital contribution to our VIEs and their subsidiaries. However, they may transfer cash to our VIEs by loans or by making payment to the VIEs for inter-group transactions.

For the year ended December 31, 2022, ZW Data Action Technologies Inc., did not transfer any cash to its operating subsidiaries. One of ZW Data Action Technologies Inc.’s subsidiaries paid US\$0.48 million operating expenses in cash on behalf of ZW Data Action Technologies Inc. to the service providers, as a repayment of shareholder loans provided by ZW Data Action Technologies Inc. to this subsidiary in previous years. For the year ended December 31, 2021, ZW Data Action Technologies Inc. transferred aggregately US\$16.33 million cash to its operating subsidiaries to support their business operations and expansions, of which US\$5.0 million was transferred in form of capital contributions and US\$11.33 million was transferred in form of shareholder loans, of which a US\$2.0 million loan was subsequently converted to capital contribution during 2022.

For the years ended December 31, 2022 and 2021, our operating subsidiaries transferred US\$0.34 million and US\$4.25 million cash to the consolidated VIEs in form of loans, respectively.

Our VIEs may transfer cash to our wholly foreign-owned enterprises (“WFOEs”) by paying service fees according to the exclusive business cooperation agreements. For the years ended December 31, 2022 and 2021, our VIEs did not paid any service fees to our WFOEs under the exclusive business cooperation agreements.

For the years ended December 31, 2022 and 2021, no dividends or distributions were made to ZW Data Action Technologies Inc. by our subsidiaries. Under PRC laws and regulations, our PRC subsidiaries and VIEs are subject to certain restrictions with respect to paying dividends or otherwise transferring any of their net assets to us. Remittance of dividends by a wholly foreign-owned enterprise out of China is also subject to examination by the banks designated by the State Administration of Foreign Exchange, or the SAFE. The total restricted net assets of our PRC subsidiaries and VIEs were approximately US\$13.31 million and US\$11.58 million as of December 31, 2022 and 2021, respectively. Furthermore, cash transfers from our PRC subsidiaries to entities outside of China are subject to PRC government control of currency conversion. Shortages in the availability of foreign currency may temporarily delay the ability of our PRC subsidiaries and VIEs to remit sufficient foreign currency to pay dividends or other payments to us, or otherwise satisfy their foreign currency denominated obligations. For risks relating to the fund flows of our operations in China, see “Item 1A. Risk Factors—Risks Associated With Doing Business in China—Any limitation on the ability of our PRC subsidiaries and VIEs to make payments to us, or the tax implications of making payments to us, could have a material adverse effect on our ability to conduct our business or our financial condition.”

For the years ended December 31, 2022 and 2021, no assets other than cash were transferred through our organization.

ZW Data Action Technologies Inc. has not declared or paid any cash dividends, nor does it have any present plan to pay any cash dividends on its common stock 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. See “Item 5. Market For Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities — Dividend.”

Financial Information Related to the VIEs

For more detailed information, see “Item 1A. Risk Factors—Risks Relating to Regulation of Our Business and to Our Structure—Condensed Consolidating Schedules.”

SUMMARY OF RISK FACTORS

An investment in our securities involves a high degree of risk. The occurrence of one or more of the events or circumstances described in the section titled “Risk Factors,” alone or in combination with other events or circumstances, may materially adversely affect our business, financial condition and operating results. In that event, the trading price of our securities could decline, and you could lose all or part of your investment. Such risks include, but are not limited to:

Risks Related to Our Business

- We are susceptible to general economic conditions, natural catastrophic events and public health crises, and a potential downturn in advertising and marketing spending by advertisers could adversely affect our operating results in the near future.
- We face significant competition, and if we do not compete successfully against new and existing competitors, we may lose our market share, and our profitability may be adversely affected.

Risks Relating to Regulation of Our Business and to Our Structure

- Our operations are substantially conducted through our PRC Operating Entities, or VIEs, and through our contractual agreements with each of our PRC Operating Entities and their shareholders in China. If the PRC government finds that the agreements that establish the structure for operating our business in China do not comply with PRC governmental restrictions on foreign investment in industries in which we operate, or if these regulations or their interpretation change in the future, we could be subject to severe penalties.
- We rely on contractual arrangements with our PRC Operating Entities and their shareholders for our China operations, which may not be as effective in providing operational control as direct ownership.

Risks Associated With Doing Business In China

- Our operations and assets in China are subject to significant political and economic uncertainties.
- The PRC government’s significant oversight and discretion over our business operation could result in a material adverse change in our operations and the value of our listed securities.
- Uncertainties in the interpretation and enforcement of PRC laws and regulations could limit the legal protections available to you and us.
- 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.
- Substantial uncertainties exist with respect to the interpretation and implementation of cybersecurity related regulations and cybersecurity review as well as any impact these may have on our business operations.
- Any failure or perceived failure by us to comply with the Anti-Monopoly Guidelines for Internet Platforms Economy Sector and other PRC anti-monopoly laws and regulations may result in governmental investigations or enforcement actions, litigation or claims against us and could have an adverse effect on our business, financial condition and results of operations.
- Our PRC operating VIEs engaged in ICP business have obtained their respective ICP permits and comply with the annual inspection and other related provisions. We may be adversely affected by the complexity, uncertainties and changes in PRC licensing and regulation of internet businesses.

- *As substantially all of our operations are conducted through our PRC subsidiaries and VIEs, as a Nevada holding company, our ability to pay dividends is primarily dependent on receiving distributions of funds from our PRC subsidiaries and VIEs. Any limitation on the ability of our PRC subsidiaries and VIEs to make payments to us, or the tax implications of making payments to us, could have a material adverse effect on our ability to conduct our business or our financial condition.*
- *The Public Company Accounting Oversight Board (the “PCAOB”) had historically been unable to inspect our auditor in relation to their audit work performed for our financial statements and the inability of the PCAOB to conduct inspections over our auditor has deprived our investors with the benefits of such inspections.*
- *Our common stock may be delisted and prohibited from trading in the United States under the Holding Foreign Companies Accountable Act, or the HFCAA, as amended by the Accelerating Holding Foreign Companies Accountable Act, if the PCAOB is unable to inspect or investigate completely auditors located in China mainland and Hong Kong. The delisting of our common stock or the threat of their being delisted could cause the value of our common stock to significantly decline or be worthless, and thus you could lose all or substantial portion of your investment.*

Risks Related to our Securities

- *The Nasdaq may delist our securities from quotation on its exchange which could limit investors’ ability to make transactions in our securities and subject us to additional trading restrictions.*
- *Insiders have substantial control over us, and they could delay or prevent a change in our corporate control even if our other stockholders wanted it to occur.*
- *The market price of our Common Stock has been volatile, and will be likely continue to be highly volatile, which is beyond our control and may result in substantial losses to our investors.*

PART I

ITEM BUSINESS

1

We are a holding company that conducts our primary businesses through our PRC subsidiaries and operating entities (the “VIEs”). We primarily operate a one-stop services for our clients on our Omni-channel advertising, precision marketing and data analysis management system. We also develop blockchain enabled web/mobile applications and provides software solutions, i.e., Software-as-a-Service (“SaaS”) services for clients.

We derive our revenue principally by:

- distributing the right to use search engine marketing service we purchased from key search engines to increase the sales lead conversion rate for our clients’ business promotion on both mobile and PC searches;
- selling Internet advertising space on our advertising portals and providing related data service to our clients through the Internet advertising management systems developed and managed by us;
- providing Blockchain-based SaaS Services; and
- providing other e-commerce O2O advertising and marketing and related value-added technical services.

We generated total revenues of US\$26.24 million for the year ended December 31, 2022, compared with US\$47.33 million in 2021. Net loss attributable to our stockholders was US\$9.79 million and US\$2.75 million for the years ended December 31, 2022 and 2021, respectively.

In 2018, we commenced to expand our business into the blockchain industry and the related technology. With the introduction of blockchain technology, we engaged two unrelated parties to develop two blockchain-technology powered platform applications named BO!News and OMG, respectively. The Bo!News application comprises of three key features: Firstly, BO!News is a platform for the business owners and potential entrepreneurs to exchange projects information. BO!News has a blockchain based information assurance checking feature, ensuring every business to provide reliable and truthful information with tracking or tracing of any changes hashed onto the blockchain. Secondly, BO!News contains a social networking forum with an embedded blockchain reward point mechanism for contents-sharing and comments, to encourage interaction between business owners and their customers, and to activate more stickiness of the customers of the business. Last, Bo!News has a blockchain contracting feature, which provides a more efficient and trustworthy contractual relationship signed through the Internet without face to face meeting, and allows operating through blockchain to affirm irrevocability and traceability of the contract for the business conducted through the Internet. OMG is originally planned to be developed for the use of small and medium brand stores’ reward/loyal points exchange. OMG App enables users (consumers and merchants) to integrate other stores’ reward/loyalty point cards into OMG point consolidation and exchange system built on the blockchain infrastructure platform, which helps consumers managing all of their different reward/loyalty points cards in a single way. Users of OMG will be rewarded with loyalty points for conducting transactions on OMG in the form of token. Merchants will also get benefit of using it as a marketing platform to push their advertising or promotion to their and non-competitors’ customer bases. As in our plan, all reward points in form of token issued by these APPs are not associated with any cryptocurrency and will not be listed in any crypto exchange. They can only be used in exchange for the services and/or products offered by our platform.

We originally planned to launch these two applications by the end of fiscal 2020. However, due to the severe COVID-19 outbreak in China in the first fiscal quarter of 2020, and the repeated regional rebound cases in many provinces in the PRC afterwards, as well as the strict zero-COVID policy adopted by the Chinese government to constrain the spread of the virus, large-scale temporary quarantine and business shutdown incurred and was expected to continue incur from time to time, which resulted in pandemic fears and in return severely affected the SMEs owners' confidence in the expansion of their branded offline stores. As a result, in fiscal 2021, we delayed the launch of BO!News application, and decided to suspend the launch of our OMG application. Alternatively, we enhanced the development of the blockchain infrastructure platform, i.e., Blockchain Integrated Framework ("BIF") platform under the OMG development contract, which platform have membership management, trusted and decentralized payment management and Non-Fungible Token ("NFT") management etc. features, so that the BIF platform could be further integrated into other blockchain application scenarios to provide data storage, assurance and analysis services to the SMEs. We also developed a more comprehensive and upgraded open-core version of BIF in the SaaS model with an open-end control panel to a greater extent, allowing our clients to use it to develop their own NFTs for their IPs and branding in China for the reauthorization use of both domestic and overseas users. The BIF platform is currently being developed into a subscription model with a starting subscription fee and the fees will be increased in accordance with number of apps subscribed, transactions or the size of data stored through the platform. In addition, our clients will be able to self-code themselves based on the existing modules of the smart contracts for the customization on their own specific needs in a low-code practice, and extra usage fee will be charged on the top of monthly recurring revenue. We completed the development and integration of the BIF platform, and officially launched the BIF and Bo!News by the end of 2021.

From early 2022, we start to introduce our blockchain-based SaaS services to our clients, which were designated in providing one-stop blockchain-powered enterprise management solutions via our BIF platform in forms of unique NFT generations, data record, share and storage modules subscriptions etc. However, in fiscal 2022, we experienced another round of severe COVID-19 pandemic of the Omicron variant with unexpected long quarantine and business shutdown measures incurred throughout the year, which in return seriously impacted the promotion of our new SaaS services. To adapt to the economic change and alleviate the impact of COVID-19 epidemic control measures, we modified our short-term tactics of SaaS services into a more SMEs-friendly way, for example, we introduced a more flexible payment method of pay per generation of NFT. For the year ended December 31, 2022, we generated an approximately US\$0.43 million revenues from this new SaaS services. As the result of the unexpected COVID-19 rebounds during fiscal 2022, in December 2022, we decided to terminate the promotion of our Bo!News application and concentrate our resources on the BIF platform in future.

In December 2022, after a severe lockdown in most parts of mainland China, especially, during the second half year of 2022, the Chinese government ended its three-year zero-COVID policy, most of the travel restrictions and quarantine requirements were lifted accordingly. Although there remain uncertainties as to the future development and impact of the COVID-19 pandemic, we anticipate a slow and steady recovery of economy in China in fiscal 2023. During fiscal 2023, we plan to further develop our core business, i.e., our Internet advertising and related data service business to broaden and diversify our online marketing channels for customers, reinforce our industry competitive advantages and secure our client base, and to continue to develop and optimize the functions of our blockchain-based applications, and to market and promote our SaaS services to our SME clients.

We have been building our blockchain infrastructure platform on Ethereum platform, and is now integrating with hyperledger solution to ensure the openness and easiness of the blockchain platform. The risks involved in our blockchain platform including but not exclusive to, the security risk, infrastructure risk, transition (blackhole) risk and so forth. As such, any malfunction, breakdown, divergence or abandonment of the Ethereum platform may have an adverse effect on our blockchain-powered platform.

Impact of COVID-19 on Our Operations and Financial Performance

Our business is subject to the impact of natural catastrophic events, such as earthquakes, or floods, public health crisis, such as disease outbreaks, epidemics, or pandemics in China, and all these could result in a decrease or sharp downturn of economies, including our markets and business locations in the current and future periods. The outbreak of the coronavirus (COVID-19) pandemic in China resulted in travel restrictions, and shutdown of businesses, which has caused slower recovery of the China economy. We may experience impact from quarantines, market downturns and changes in customer behavior related to pandemic fears and impact on our workforce if the virus continues to spread. We experienced decreases in revenue in 2020 through 2022 due to the outbreak. COVID-19 affected a significant number of our workforce employed in our operations, and as a result we are experiencing a slow resumption of operations and may experience delays or the inability to delivery our service on a timely basis. In addition, one or more of our customers, partners, service providers or suppliers may experience financial distress, delayed or defaults on payment, file for bankruptcy protection, sharp diminishing of business, or suffer disruptions in their business due to the outbreak. In December 2022, after a severe lockdown in most parts of mainland China, especially, during the second half year of 2022, the Chinese government ended its three-year zero-COVID policy, most of the travel restrictions and quarantine requirements were lifted accordingly. In January 2023, China resumes the entry and exit of its boarder, which represents an entry to a new stage of pandemic prevention and control.

The extent to which the COVID-19 pandemic impacts our results will depend on future developments and reactions in China, which are highly uncertain and will include emerging information concerning the severity of the COVID-19 pandemic and the actions taken by governments and private businesses to attempt to contain the coronavirus. The COVID-19 situation is likely to result in a potential material adverse impact on our business, results of operations and financial condition in the short run if it has become worse in China. Wider-spread COVID-19 in China and globally could prolong the deterioration in economic conditions and could cause decreases or delays in advertising spending and reduce and/or negatively impact our short-term ability to grow our revenues. Any decreased collectability of accounts receivable, bankruptcy of small and medium businesses, or early termination of agreements due to deterioration in economic conditions could negatively impact our results of operations.

Recent Developments

Reverse Stock Split

We filed a Certificate of Amendment to our Articles of Incorporation with the Secretary of State of the State of Nevada to effect a one-for-five (1-for-5) reverse stock split of our Common Stock pursuant to Nevada Revised Statutes (“NRS”) Section 78.209 (the “Reverse Stock Split”), which became effective on January 18, 2023. As a result, the number of shares of our authorized Common Stock was reduced from 100,000,000 shares to 20,000,000 shares and the issued and outstanding number of shares of the Common Stock was correspondingly decreased. The Reverse Stock Split has no effect on the par value of our Common Stock or authorized shares of preferred stock. When the Reverse Stock Split became effective, each five shares of issued and outstanding Common Stock were automatically converted into one newly issued and outstanding share of Common Stock. No fractional shares were issued in connection with the Reverse Stock Split. Any fractional shares of Common Stock that would have otherwise resulted from the Reverse Stock Split were rounded up to the nearest full share. No cash or other consideration was paid in connection with any fractional shares that would otherwise have resulted from the Reverse Stock Split.

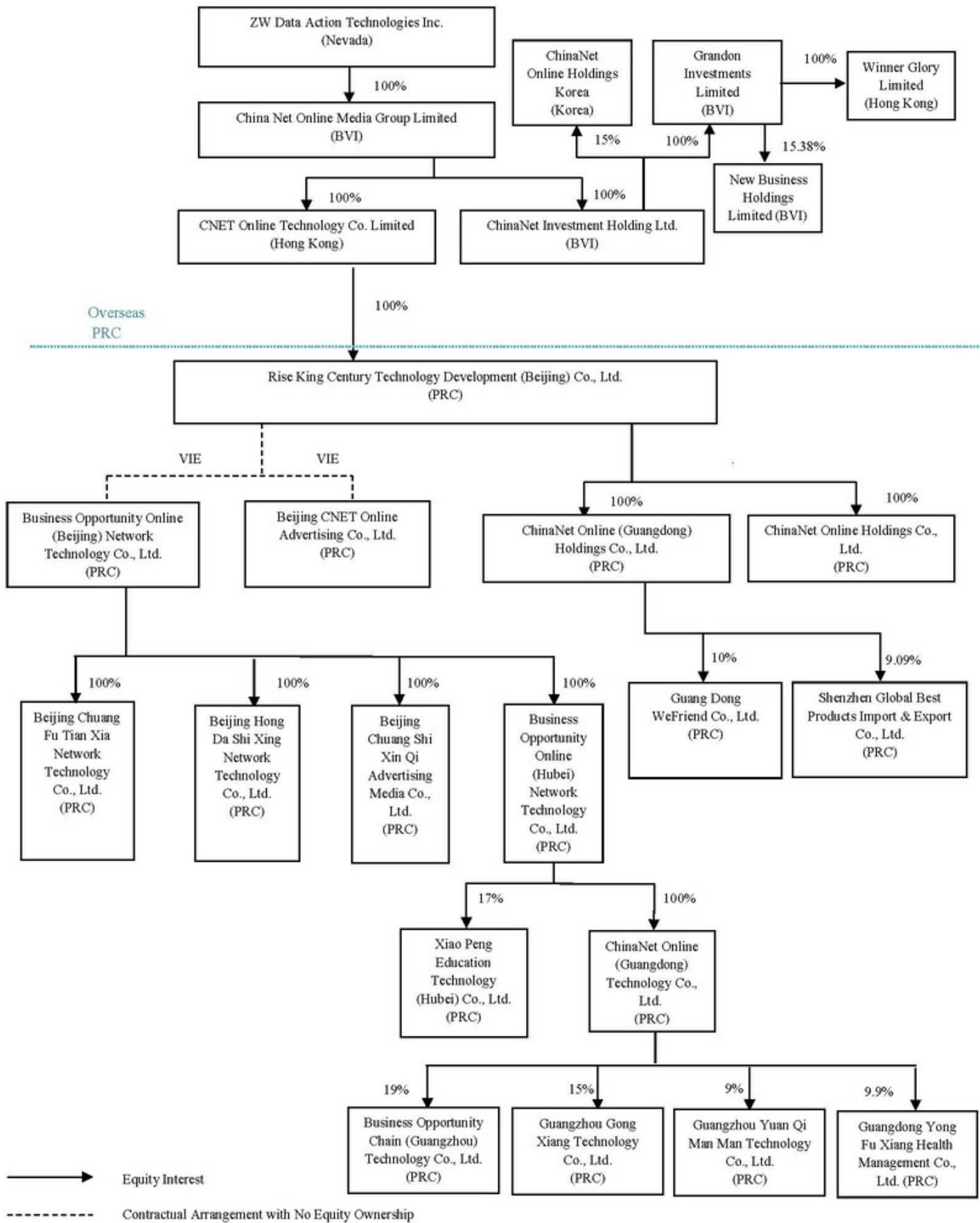
Except where otherwise specified, all number of Common Stock and Common Stock purchase warrants, share prices, exercise prices and per share data discussed in this annual report have been retroactively restated for effect of the Reverse Stock Split.

On February 17, 2022, we received a notice (the “Notice”) from Nasdaq indicating that our Common Stock failed to comply with the \$1.00 minimum bid price required for continued listing on The Nasdaq Capital Market under Nasdaq Listing Rule 5550(a)(2) based upon the closing bid price of the Common Stock for the 30 consecutive business days prior to the date of the Notice. To regain compliance, the minimum bid price of the Common Stock must meet or exceed \$1.00 per share for a minimum ten consecutive business days at any point prior to August 12, 2022. On August 17, 2022, we received another notice from Nasdaq indicating that, while we had not regained compliance with the minimum bid price requirement, Nasdaq had determined that we were eligible for an additional 180-day period, or until February 13, 2023 to regain compliance.

As described above, we filed the Certificate of Amendment to our Articles of Incorporation with the Secretary of State of the State of Nevada to effect the Reverse Stock Split, which became effective on January 18, 2023. On February 3, 2023, we received a letter from the Nasdaq notifying us that Nasdaq had determined that for 10 consecutive business days, from January 20, 2023 to February 2, 2023, the closing bid price of our Common Stock had been at \$1.00 per share or greater. Accordingly, we regained compliance with the Listing Rule and this matter was closed.

Our Subsidiaries, Variable Interest Entities (VIEs) and Ownership Interest Investment Affiliates

As of December 31, 2022, our corporate structure is set forth below:



We were incorporated in the State of Texas in April 2006 and re-domiciled to become a Nevada corporation in October 2006. On June 26, 2009, we consummated a share exchange transaction with China Net Online Media Group Limited (“China Net BVI”) (the “Share Exchange”). As a result of the Share Exchange, China Net BVI became a wholly owned subsidiary of ours and we are now a holding company, which, through certain contractual arrangements with operating companies in the People’s Republic of China (the “PRC”), is primarily engaged in providing Internet advertising, precision marketing, blockchain-based SaaS services and e-commerce online to offline (“O2O”) advertising and marketing and the related data and technical services to SMEs in the PRC.

Effective October 14, 2020, we changed our corporate name from ChinaNet Online Holdings, Inc. to ZW Data Action Technologies Inc. We made the corporate name change because we believe that the new corporate name reflects more accurately our business activities, corporate development strategies and the current and future nature of our business operations. We believe that the name change is in our and our stockholders' best interests. Our stockholders approved the corporate name change as part of our annual shareholder meeting held on October 12, 2020. As demonstrated in our organizational structure diagram above, we are not an operating company in China, but a Nevada holding company with no equity ownership in the VIEs. We conduct our operations in China through our PRC subsidiaries, the VIEs, with which we have entered into contractual arrangements, and their subsidiaries in China. The corporate name change did not have any impact on any of our VIE contractual agreements, as these agreements were entered into among Rise King Century Technology Development (Beijing) Co., Ltd., one of our indirectly wholly-owned PRC subsidiaries (the "WFOE"), the VIEs and their shareholders in the PRC. ZW Data Action Technologies Inc., our Nevada holding company, was not a party to any of these VIE contractual agreements.

Our subsidiaries and our VIE Structure

Our direct wholly owned subsidiary, China Net BVI, was incorporated in the British Virgin Islands on August 13, 2007. On April 11, 2008, China Net BVI became the parent holding company of a group of companies comprised of CNET Online Technology Co. Limited, a Hong Kong company (“China Net HK”), which established, and is the parent company of, Rise King Century Technology Development (Beijing) Co., Ltd., a wholly foreign-owned enterprise (“WFOE”) established in the PRC (“Rise King WFOE”). In October 2008, Rise King WFOE acquired control over Business Opportunity Online (Beijing) Network Technology Co., Ltd. (“Business Opportunity Online”) and Beijing CNET Online Advertising Co., Ltd. (“Beijing CNET Online”) (collectively the “PRC Operating Entities” or the “VIEs”) by entering into a series of contracts (the “Contractual Agreements” or the “VIE Agreements”), which enabled Rise King WFOE to operate the business and manage the affairs of the PRC Operating Entities.

China has adopted a reformed system with respect to foreign investment administration, under which the Chinese government applies national treatment to foreign investors in terms of investment entry and the foreign investor needs to comply with the requirements as provided in The Special Administrative Measures for Foreign Investment (the “Negative List”). The Negative List will be issued by, amended or released upon approval by the State Council, from time to time. The Negative List will consist of a list of industries in which foreign investments are prohibited and a list of industries in which foreign investments are restricted. Foreign investors will be prohibited from making investments in prohibited industries, while foreign investments must satisfy certain conditions for investments in restricted industries, such as: there always a limitation on foreign investment and ownership. Foreign investments and domestic investments in industries outside the scope of the prohibited industries and restricted industries will be treated equally. The most recent version of the Negative List was promulgated jointly by the Ministry of Commerce (“MOFCOM”) and the National Development and Reform Commission (“NDRC”) on December 27, 2021, which came into effective on January 1, 2022 (the “2021 Negative List”).

The business of the PRC Operating Entities falls under the class of a business that provides Internet content or information services, a type of value-added telecommunication services, for which restrictions upon foreign ownership apply. The 2021 Negative List retains the restrictions on foreign ownership related to value-added telecommunication services. As a result, Rise King WFOE is not allowed to conduct the business the PRC Operating Entities companies are currently pursuing. Advertising business is open to foreign investment but used to require that the foreign investors of a WFOE should have been carrying out advertising business for over three years pursuant to the Foreign Investment Advertising Measures as amended by MOFCOM and the State Administration of Industry and Commerce (“SAIC”, currently known as the State Administration for Market Regulations, (“SAMR”)) on August 22, 2008, which was repealed on June 29, 2015. Before June 29, 2015, Rise King WFOE was not allowed to engage in the advertising business because its shareholder, China Net HK, did not meet such requirements. As a result, in order to have the power to direct activities of the PRC Operating Entities that most significantly impact the economic performance of the PRC Operating Entities and the obligation to absorb the losses and the right to receive benefits of the PRC Operating Entities that could potentially be significant to the PRC Operating Entities in a manner that does not violate the related PRC laws, Rise King WFOE executed the Contractual Agreements with the PRC Shareholders and each of the PRC Operating Entities. As such, Rise King WFOE is deemed to be the primary beneficiary of the PRC Operating Entities, or the VIEs, that are parties to the relevant VIE agreements, for accounting purposes only, which serves the purpose of consolidating the VIEs’ operating results in the preparation of our consolidated financial statements under the U.S. GAAP.

Summary of the material terms of the VIE Agreements:

Exclusive Business Cooperation Agreements:

Pursuant to the Exclusive Business Cooperation Agreements entered into by and between Rise King WFOE and each of the PRC Operating Entities, Rise King WFOE has the exclusive right provide to the PRC Operating Entities complete technical support, business support and related consulting services during the term of these agreements, which includes but is not limited to technical services, business consultations, equipment or property leasing, marketing consultancy, system integration, product research and development, and system maintenance. In exchange for such services, each PRC Operating Entity has agreed to pay a service fee consisting of a management fee and a fee for services provided, to Rise King WFOE, which shall be determined by Rise King WFOE according to the following factors: the complexity and difficulty of the services, seniority of and time consumed by the employees, specific contents, scope and value of the services, market price of the same type of services, and operation conditions of the PRC Operating Entities. Each agreement shall remain effective unless terminated in accordance with the provisions thereof or terminated in writing by Rise King WFOE.

Exclusive Option Agreements:

Under the Exclusive Option Agreements entered into by and among Rise King WFOE, each of the PRC Shareholders irrevocably granted to Rise King WFOE, or its designated person, an exclusive option to purchase, to the extent permitted by PRC law, a portion or all of their respective equity interest in any PRC Operating Entities for a purchase price of RMB10, or a purchase price to be adjusted to be in compliance with applicable PRC laws and regulations. Rise King WFOE, or its designated person, has the sole discretion to decide when to exercise the option, whether in part or in full. Each of these agreements shall become effective upon execution and remain effective until all equity interests held by the relevant PRC Shareholder(s) in the PRC Operating Entities have been transferred or assigned to Rise King WFOE and/or any other person designated by Rise King WFOE.

Equity Pledge Agreements:

Under the Equity Pledge Agreements entered into by and among Rise King WFOE, the PRC Operating Entities and each of the PRC Shareholders, the PRC Shareholders pledged all of their equity interests in the PRC Operating Entities to guarantee the PRC Operating Entities' and the PRC Shareholders' performance of the relevant obligations under the Exclusive Business Cooperation Agreements and other Contractual Agreements. If the PRC Operating Entities or any of the PRC Shareholders breaches its/his/her respective contractual obligations under these agreements, or upon the occurrence of one of the events regarded as an event of default under each such agreement, Rise King WFOE, as pledgee, will be entitled to certain rights, including the right to dispose of the pledged equity interests. The PRC Shareholders of the PRC Operating Entities agreed not to dispose of the pledged equity interests or take any actions that would prejudice Rise King WFOE's interest, and to notify Rise King WFOE of any events or upon receipt of any notices which may affect Rise King WFOE's interest in the pledge. Each of the equity pledge agreements will be valid until all the obligations under the Exclusive Business Cooperation Agreements and other Contractual Agreements have been fulfilled, including the service fee payments related to the Exclusive Business Cooperation Agreement are paid in full.

Irrevocable Powers of Attorney:

The PRC Shareholders have each executed an irrevocable power of attorney to appoint Rise King WFOE as their exclusive attorneys-in-fact to vote on their behalf on all PRC Operating Entities matters requiring shareholder approval. The term of each power of attorney is valid so long as such shareholder is a shareholder of the respective PRC Operating Entity.

As a result of these Contractual Agreements, we through our wholly-owned subsidiary, Rise King WFOE, were granted with unconstrained decision making rights and power over key strategic and operational functions that would significantly impact the PRC Operating Entities or the VIEs' economic performance, which includes, but is not limited to, the development and execution of the overall business strategy; important and material decision making; decision making for merger and acquisition targets and execution of merger and acquisition plans; business partnership strategy development and execution; government liaison; operation management and review; and human resources recruitment and compensation and incentive strategy development and execution. Rise King WFOE also provides comprehensive services to the VIEs for their daily operations, such as operational technical support, office administration technical support, accounting support, general administration support and technical support for products and services. As a result of the Exclusive Business Cooperation Agreements, the Equity Pledge Agreements and the Exclusive Option Agreements, Rise King WFOE has the obligation to absorb the losses and the right to receive benefits of the VIEs that could potentially be significant to the VIEs. Rise King WFOE is deemed to be the primary beneficiary of the PRC Operating Entities, or the VIEs, for accounting purposes only, which serves the purpose of consolidating the VIEs' operating results in the preparation of our consolidated financial statements under the U.S. GAAP.

However, there exist substantial uncertainties regarding regulations and their potential effect on our VIE structure and contractual arrangements. As of the date of this annual report, to the best knowledge of our company, our directors and management, our VIE agreements have not been tested in a court of law in the PRC and may not be effective in providing control over the VIEs as would direct equity ownership.

Please refer to the discussion of uncertainties and risks in relation to our VIE Structure on page 12 under Business-Government Regulation contained in Item 1 and page 23 under Risk Factors-Risks Relating to Regulation of Our Business and to Our Structure contained in Item 1A of this Annual Report.

As of December 31, 2022, besides China Net BVI, China Net HK and Rise King WFOE, as discussed above, we have five other indirectly wholly-owned subsidiaries, ChinaNet Investment Holding Ltd, a British Virgin Islands company (“ChinaNet Investment BVI”), Grandon Investments Limited, a British Virgin Islands company (“Grandon BVI”), Winner Glory Limited, a Hong Kong company (“Winner Glory HK”), ChinaNet Online Holdings Co., Ltd., a PRC company (“ChinaNet Online Holdings”) and ChinaNet Online (Guangdong) Holdings Co., Ltd., a PRC company (“ChinaNet Online Guangdong Holdings”).

ChinaNet Investment BVI co-founded ChinaNet Online Holdings Korea, a Korean company (“ChinaNet Korea”) with four unaffiliated individuals and beneficially owns 15% equity interest in ChinaNet Korea. Grandon BVI obtained a 15.38% equity interest in New Business Holdings Limited (“New Business BVI”) in fiscal 2021, for jointly developing blockchain, key opinion leader and e-sports platform and jointly operating IP data for e-sports and games with strategic partners. ChinaNet Online Guangdong Holdings beneficially owns a 10% and a 9.09% equity interest in Guang Dong WeFriend Co., Ltd. (“Guangdong WeFriend”) and Shenzhen Global Best Products Import & Export Co., Ltd. (“Global Best Products”), respectively. Guangdong WeFriend is primarily engaged in Internet private traffic operating, and Global Best Products is primarily operating an online marketplace for health products retailing. The Business activities of ChinaNet Korea and Global Best Products are currently dormant.

Our VIEs, VIEs’ subsidiaries and other ownership interest investment affiliates

As discussed above, through Rise King WFOE, we beneficially own two VIEs: Business Opportunities Online and Beijing CNET Online. Business Opportunities Online is primarily engaged in providing Internet advertising, precision marketing and related data service to the SMEs. The business activities of Beijing CNET Online are currently dormant.

As of December 31, 2022, Business Opportunity Online has the following directly or indirectly wholly-owned subsidiaries in the PRC: Beijing Chuang Fu Tian Xia Network Technology Co., Ltd. (“Beijing Chuang Fu Tian Xia”), Business Opportunity Online (Hubei) Network Technology Co., Ltd. (“Business Opportunity Online Hubei”), Beijing Chuang Shi Xin Qi Advertising Media Co., Ltd. (“Beijing Chuang Shi Xin Qi”), Beijing Hong Da Shi Xing Network Technology Co., Ltd. (“Beijing Hong Da Shi Xing”) and ChinaNet Online (Guangdong) Technology Co., Ltd. (“ChinaNet Online Guangdong Technology”). Except for ChinaNet Online Guangdong Technology, which entity is primarily focuses on developing and operating blockchain technology-based products and services, all other Business Opportunity Online’s wholly-owned subsidiaries are engaged in providing Internet advertising, precision marketing and related data service to the SMEs.

As of December 31, 2022, through our operating VIEs, we also beneficially own a 19% equity interest in Business Opportunity Chain (Guangzhou) Technology Co., Ltd. (“Business Opportunity Chain Guangzhou”), a 17% equity interest in Xiao Peng Education Technology (Hubei) Co., Ltd. (“Xiao Peng Education”), a 15% equity interest in Guangzhou Gong Xiang Technology Co., Ltd. (“Gong Xiang Technology”), a 9.9% equity interest in Guangdong Yong Fu Xiang Health Management Co., Ltd (“Yong Fu Xiang”) and a 9% equity interest in Guangzhou Yuan Qi Man Man Technology Co., Ltd. (“Yuan Qi Man Man”), respectively. Business Opportunity Chain Guangzhou is primarily engaged in the development of livestream platform-based business promotion service and franchise consultancy service, Xiao Peng Education is primarily engaged in providing precision marketing services to online education service providers, Gong Xiang Technology is primarily engaged in providing franchise projects management and consultancy services, Yong Fu Xiang is primarily engaged in providing health care consultancy and health management services, and Yuan Qi Man Man is primarily engaged in providing franchise consultancy and marketing services. The business activities of Xiao Peng Education and Gong Xiang Technology are currently dormant.

Industry and Market Overview

Overview of the Advertising Market in China

According to the “2023 Global Ad spend forecasts” published by Dentsu International in December 2022, the global advertising spend is expected to reach US\$740.9 billion in 2023, with an estimated growth rate of 3.8% year-over-year. The advertising market in 2023 is expected to retain a positive trajectory in all regions. Ad spend in the Asia Pacific is expected to grow by 4.0% year-over-year to US\$245.1 billion in 2023. Looking ahead to 2024, Dentsu expects the global advertising market to pick up pace to increase by 4.8% year-over-year to US\$776.9 billion, boosted by a year of events including the Paris 2024 Olympic and Paralympic Games.

China’s advertising market is slowing in step with its economy and was also adversely affected by the COVID-19 outbreak in 2020 through 2022. However, China’s advertising market still remains one of the key drivers of global growth of advertising. Dentsu International forecasts that China’s total advertising spend will hit US\$124.6 billion with a 3.2% year-over-year growth in 2023 and is expected to grow by 4.4% and 4.5% in 2024 and 2025, respectively. Digital Ad continues to grow in market share, projected to reach 78% in 2023, 81% in 2024 and 82% by 2025.

The growth of China’s advertising market is driven by a number of factors, including the sustained economic growth and increases in disposable income and consumption in China. China was the second largest economy in the world in terms of gross domestic product (“GDP”), which amounted to US\$18 trillion in 2022, with a year-over-year growth of 3%. According to the National Bureau of Statistics of China, the annual disposable income per capita in urban households increased to RMB49,283 in 2022, with a growth of 1.9%, after adjusted by the price factors.

Overview of the Internet Advertising Industry

According to the “2023 Global Ad spend forecasts” published by Dentsu International in December 2022, global ad-spend growth continues to be dominated by digital channels, which reached US\$394.4 billion and achieved 55.3% of the total ad-spend in 2022, and is expected to further increase to 57.1% and 58.2% of the total ad-spend in 2023 and 2024, respectively.

In China, the Internet advertising market growth is expected to stem primarily from a higher internet penetration rate of just 75.6% by the end of December 2022, compared with 73.0% by the end of December 2021. Total internet users reached to approximately 1,067 million people by the end of December 2022, increased by approximately 35 million people, compared with that as of December 2021. (According to the 51st China Internet Network Development Statistical Report issued by China Internet Network Information Center (the “CNNIC”) in March 2023). According to the 51st CNNIC report, as of December 2022, the mobile internet user reached to 1,065 million people, compared with 1,029 million people as of December 2021, which accounted for 99.8% of the total internet users as of December 2022, compared with 99.7% as of December 2021.

The diagram below, published by iResearch Inc., depicts the Market Scale of China's Online Advertising from 2016 to 2023:



High Demand for the Internet Advertising from SMEs and O2O Business in China

We believe that the Internet advertising market in China has significant potential for future growth due to high demand from the rapid development of SMEs and O2O business.

The development of the SME market is still in its early stages in China. Since their sales channels and distribution networks are still underdeveloped, they are driven to search for new participants by utilizing Internet advertising and precision marketing. The SMEs tend to be smaller, less-developed brands primarily focused on restaurants, garments, building materials, home appliances, and entertainment with low start-up costs. The Chinese government has promulgated a series of laws and regulations to protect and promote the development of SMEs which appeals to entrepreneurs looking to benefit from the central government's support of increased domestic demand. SMEs are now responsible for over 50% of China's tax revenues, over 60% of China's GDP and employment of over 80% of the urban Chinese workforce. SMEs are creating new urban jobs, and they are the main destination for new graduates entering the workforce and workers laid-off from state-owned enterprises (SOEs) that re-enter the workforce.

In recent years, the capital market, Internet giants and traditional offline services business in China have all accelerated their O2O business arrangement and development. With the advent of the mobile Internet era, the innovation of user needs, and applications have become the main trend of the Internet, including online payments, location-based services, online and offline interaction and more. Due to the slowdown of China's economy growth in recent years, the competitive market pressure within the local life services industry has increased. Under these circumstances, more and more traditional offline service providers started to use the Internet-based tools to market and promote their products and services. The rapid development of social media and short-form video applications and tools, such as: WeChat, Weibo, Xiaohongshu and Douyin etc., also have had a very important influence on the development of the O2O market, and using social media and short-form video applications and tools to promote brands and maintain customer relationships has become an important advertising and marketing trend for all offline business.

Our Principal Products and Services

Internet Advertising, Precision Marketing and Related Data Services

Founded in 2003 and 2011, respectively, 28.com and liansuo.com are two of the leading Internet portals for information relating to small business opportunities in China, and 28.com is one of the earliest entrants in this sector. In the past few years, we further developed and upgraded the system and tools of our advertising portals, including customer user interface, and integrated our mobile functions. Besides our advertising portals, we also have established solid partnership relations with key search engines in China which entitle us to the distribution of the right to use their search engine marketing service which allows our customers to invest in their online advertising and marketing campaign through multi-channel to maximize market exposure and effectiveness.

Our Internet advertising, precision marketing and related data services provide advertisers with tools to build sales channels directly in the form of franchisees, sales agents, distributors, and/or resellers, and have the following features which enable them to be attractive to the advertisers:

- Allowing potential entrepreneurs interested in inexpensive franchise and other business ventures to find in-depth details about these businesses in various industries and business categories, with real-time and online assistance through an instant messenger;
- Providing one-stop integrated Internet marketing and advertising services for SMEs by offering customized services and advertisement placement on various communication channels through intelligent based promotion systems;
- Generating effective sales leads information; and
- Bundling with advanced traffic generation techniques, search-engine optimization and marketing and other Internet advertising management tools to assist our clients with monitoring, analyzing and managing their advertising and data collected on our web portal.

We typically charge our clients a fixed monthly fee for the Internet advertising and related data services that we provide on our ad portals. For distribution of the right to use the search engine marketing service, revenue is recognized on a monthly basis and at a gross amount, based on the direct cost consumed through search engines for providing such services with a premium.

For the year ended December 31, 2022, we had approximately 760 clients who used our Internet advertising, marketing and data services, compared with 800 clients for the year ended December 31, 2021. We achieved US\$25.8 million and US\$46.7 million of Internet advertising, precision marketing and related data and technical services revenues for the years ended December 31, 2022 and 2021, respectively, which accounted for 98.4% and 98.6% of our total revenues for the years ended December 31, 2022 and 2021, respectively. The overall gross profit margin of this business segment decreased to -1% for the year ended December 31, 2022 from 2% for the year ended December 31, 2021. The decrease in performances of this business segment was directly resulted from the severe regional COVID-19 rebounds and the zero-COVID policy adopted by the Chinese government to constrain the spread of the COVID-19, which resulted in large-scale quarantine and business shutdown during fiscal 2022.

Blockchain-based SaaS services

From early 2022, we started to introduce our blockchain-based SaaS services to our customers. The SaaS services were designated in providing one-stop blockchain-powered enterprise management solutions via our BIF platform in forms of unique NFT generations, data record, share and storage modules subscriptions etc. For the year ended December 31, 2022, we generated an approximately US\$0.43 million revenues from this business segment, which consist of an approximately US\$0.03 million platform subscription fee revenues and an approximately US\$0.40 million NFT generation service revenues.

Other services revenues

For the year ended December 31, 2021, we achieved US\$0.66 million E-commerce O2O advertising and marketing service revenues through distribution of the advertising spaces in outdoor billboards we purchased from a third party.

Sales and Marketing

For the year ended December 31, 2022, we derived 98.4% of total net revenues from our Internet advertising and the provision of related data and technical services, compared with 98.6% for the year ended December 31, 2021.

We employ experienced advertising sales people and provide in-house education and training to our sales people to ensure that they provide our current and prospective clients with comprehensive information about our services, the benefits of using our advertising, marketing and data services and relevant information regarding the advertising industry. We also market our advertising services from time to time by placing advertisements on television and other well-known portals in China, participating in domestic and international franchise exhibitions in China and other countries and acting as a sponsor to third-party programming and shows.

Suppliers

Our suppliers are major search engines and/or their authorized agents, Internet gateways, other advertising resources suppliers and technical service providers. For the year ended December 31, 2022, internet advertising resources purchased from two of our largest suppliers counted for approximately 77% of our total cost of revenues, in the aggregate, compared with approximately 73% from one of our largest suppliers for the year ended December 31, 2021.

Research and Development

We plan to increase expenditures to enhance the safety of our hardware and server that we depend on to support our network and manage and monitor programs on the network in future years. Whether we continue to further deploy newer technology will depend upon cost and network security. We also focus on enhancing related software systems enabling us to track and monitor advertiser demands and the related data collection and analysis. In the next few years, we intend to move our research and development efforts to mobile-based application system and data collection and analysis tools, and our blockchain-technology powered SaaS services.

Intellectual Property

As of December 31, 2022, we had thirty-one software copyright certificates issued by the State Copyright Office of the PRC, including, but not limited to, software systems covering monitor and management platforms on Internet advertising effects, analysis systems on Internet traffic statistics and Internet user behavior, analysis systems on log-based visit hotspot and browsing trails, analysis systems on mobile advertising platform, Customer Relationship Management (CRM) system, cloud-compute technology and blockchain technology.

Competition

We compete with other Internet advertising companies for business opportunities in China, including companies that also distribute the right to use the search engine marketing services provide by key search engines in China, such as: Zhong Shi Lian Dong Technology (Beijing) Co., Ltd., Shenzhen Jiu Xing Hu Dong Technology Co., Ltd., and Hao Shang Hui Media (Guangzhou) Co., Ltd, and companies that operate Internet advertising portals for business opportunities of the SMEs, such as 78.cn, zhaoshangbang.com and 1637.com etc. We compete for clients primarily on the basis of network size and coverage, location, price, the range of services that we offer and our brand name. We also compete for overall advertising spending with other alternative advertising media companies, such as wireless telecommunications, street furniture, billboards, frame and public transport advertising companies, and with traditional advertising media, such as television, newspapers, magazines and radio.

Government Regulation

The PRC government imposes extensive controls and regulations over the media industry, including on internet, television, radio, newspapers, magazines, advertising, media content production, and the market research industry. This section summarizes the principal PRC regulations that are relevant to our lines of business.

Regulations on the Value-added Telecommunication Services and Advertising Industry in China

Foreign Investments in Value-added Telecommunication Services

The Negative List restricts foreign investments in value-added telecommunication services, including providing Internet information services (“ICP”). In accordance with the Regulations for the Administration of Foreign-Invested Telecommunications Enterprises (“FITE Regulations”), which were issued by the State Council of the PRC on December 11, 2001, became effective on January 1, 2002 and was subsequently amended on September 10, 2008, February 6, 2016, and March 29, 2022, respectively. The FITE Regulations stipulate that foreign invested telecommunications enterprises in the PRC (“FITEs”) must be established as Sino-foreign equity joint ventures. Under the FITE Regulations and in accordance with WTO-related agreements, the foreign party to a FITE engaging in value-added telecommunications services may hold up to 50% of the equity of the FITE, with certain exceptions as approved by the relevant government authorities, but no geographic restrictions on the FITE’s operations. On June 30, 2016, the MIIT issued an Announcement of the Ministry of Industry and Information Technology (the “MIIT”) on Issues concerning the Provision of Telecommunication Services in the Mainland by Service Providers from Hong Kong and Macao, which provides that investors from Hong Kong and Macao may hold more than 50% of the equity in FITEs engaging in certain specified categories of value-added telecommunications services.

For a FITE to acquire any equity interest in a value-added telecommunications business in China, it must satisfy a number of stringent performance and operational experience requirements. FITEs that meet these requirements must obtain approvals from the MIIT or their authorized local counterparts, which retain considerable discretion in granting approvals.

On July 13, 2006, the Notice of the Ministry of Information Industry on Intensifying the Administration of Foreign Investment in Value-added Telecommunications Services (the “MIIT Notice”), which reiterates certain provisions of the FITE Regulations, was issued. Under the MIIT Notice, if a FITE intends to invest in a PRC value-added telecommunications business, the FITE must be established and must apply for a telecommunications business license applicable to the business. Under the MIIT Notice, a domestic company that holds a license for the provision of Internet content services, or an ICP license, is considered to be a type of value-added telecommunications business in China, and is prohibited from leasing, transferring or selling the license to foreign investors in any form, and from providing any assistance, including providing resources, sites or facilities, to foreign investors to conduct value-added telecommunications businesses illegally in China. Trademarks and domain names that are used in the provision of Internet content services must be owned by the ICP license holder or its shareholders. On November 27, 2017, the MIIT promulgated the Notice Regulating the Use of Domain Names in the Provision of Internet-based Information Services, or the Domain Names Notice, which became effective on January 1, 2018. Under the Domain Names Notice, a domain name used by a provider of Internet-based information services must be registered and owned by the provider or, if the provider is an entity, by a shareholder or senior management of the provider.

Foreign Investments in Advertising

In accordance with the Administrative Provision on Foreign Investment in the Advertising Industry, jointly promulgated by the SAMR and MOFCOM on August 22, 2008 and became effective on October 1, 2008, foreign investors can invest in PRC advertising companies either through wholly owned enterprises or joint ventures with Chinese parties. However, the foreign investor must have at least three years of direct operations outside China in the advertising industry as its core business. This requirement was reduced to two years if foreign investment in the advertising company is in the form of a joint venture. The Administrative Provision on Foreign Investment in the Advertising Industry was subsequently repealed by the SAMR and MOFCOM on June 29, 2015.

In consideration of the above discussed restrictions on foreign investments in ICP and advertising business, our whole-owned subsidiary in China, Rise King WFOE, is ineligible to apply for the required licenses for providing Internet information services and was ineligible to apply for the required licenses for providing advertising services in China before June 29, 2015. Our ICP business and advertising business are operated by Business Opportunity Online and Beijing CNET Online in China. We have been, and are expected to continue to be, dependent on these companies to operate our ICP business and advertising business. We do not have any equity interest in our PRC Operating Entities, but Rise King WFOE receives the economic benefits of the same through the Contractual Arrangements.

We have been advised by our PRC counsel, as of the date hereof, our current contractual arrangements with our VIEs and their respective shareholders are valid, binding and enforceable. However, there exist substantial uncertainties regarding the application, interpretation and enforcement of current and future PRC laws and regulations and their potential effect on our corporate structure and contractual arrangements.

On March 15, 2019, the National People's Congress of the PRC approved the Foreign Investment Law, which came into effect on January 1, 2020, 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. However, since it is relatively new, uncertainties still exist in relation to its interpretation and implementation. For instance, under the Foreign Investment Law, "foreign investment" refers to the investment activities directly or indirectly conducted by foreign individuals, enterprises or other entities in China. Though it does not explicitly classify contractual arrangements as a form of foreign investment, there is no assurance that foreign investment via contractual arrangements would not be interpreted as a type of indirect foreign investment activities under the definition in the future. In addition, the definition contains a catch-all provision which includes investments made by foreign investors 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. In any of these cases, it will be uncertain whether our contractual arrangements will be deemed to be in violation of the market access requirements for foreign investment under the PRC laws and regulations. Furthermore, 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. Failure to take timely and appropriate measures to cope with any of these or similar regulatory compliance challenges could materially and adversely affect our current corporate structure, corporate governance and business operations.

Business License and permits for ICP and Advertising Companies

All PRC legal entities may commence operations only upon obtaining a business license from the relevant local branch of the SAMR.

On October 27, 1994, the Tenth Session of the Standing Committee of the Eighth National People's Congress adopted the Advertising Law, which became effective on February 1, 1995, and was subsequently amended on April 24, 2015, on October 26, 2018, and on April 29, 2021. According to the Revised Advertising Law and its various implementing rules, companies engaging in advertising activities must obtain from the SAMR or its local branches a business license which specifically includes within its scope the operation of an advertising business. Companies conducting advertising activities without such a license may be subject to penalties, including fines, confiscation of advertising income and orders to cease advertising operations. The business license of an advertising company is valid for the duration of its existence, unless the license is suspended or revoked due to a violation of any relevant law or regulation. We have obtained such a business license from the local branches of the SAMR as required by existing PRC regulations. We do not expect to encounter any difficulties in maintaining the business license. However, if we seriously violate the relevant advertising laws and regulations, the SAMR or its local branches may revoke our business licenses.

On September 25, 2000, the State Council issued the Measures for the Administration of Internet Information Services ("ICP Measures"), and was subsequently amended on January 8, 2011. Under the ICP Measures, entities that provide information to online users on the Internet, or ICPs, are obliged to obtain an operating permit from the "MIIT or its local branch. ICP permits are subject to annual inspection. Our PRC operating VIEs engaged in ICP business have obtained their respective ICP permits and comply with the annual inspection and other related provisions. We do not expect to encounter any difficulties in maintaining the ICP operating permits. However, if we seriously violate the relevant ICP laws and regulations, the SAMR or its local branches may revoke our permits.

PRC advertising laws, rules and regulations set forth certain content requirements for advertisements in China including, among other things, prohibitions on false or misleading content, superlative wording, socially destabilizing content or content involving obscenities, superstition, violence, discrimination or infringement of the public interest. Advertisements for anesthetic, psychotropic, toxic or radioactive drugs are prohibited. There are also specific restrictions and requirements regarding advertisements that relate to matters such as patented products or processes, pharmaceutical products, medical procedures, alcohol, tobacco, and cosmetics. In addition, all advertisements relating to pharmaceuticals, medical instruments, agrochemicals and veterinary pharmaceuticals, together with any other advertisements which are subject to censorship by administrative authorities according to relevant laws or regulations, must be submitted to relevant authorities for content approval prior to dissemination.

Advertisers, advertising operators, including advertising agencies, and advertising distributors are required by PRC advertising laws and regulations to ensure that the content of the advertisements they prepare or distribute is true and in full compliance with applicable laws. In providing advertising services, advertising operators and advertising distributors must review the supporting documents provided by advertisers for advertisements and verify that the content of the advertisements complies with applicable PRC laws, rules and regulations. Prior to distributing advertisements that are subject to government censorship and approval, advertising distributors are obligated to verify that such censorship has been performed and approval has been obtained. Violation of these regulations may result in penalties, including fines, confiscation of advertising income, orders to cease dissemination of the advertisements and orders to publish an advertisement correcting the misleading information. In circumstances involving serious violations, the SAMR or its local branches may revoke violators' licenses or permits for their advertising business operations. Furthermore, advertisers, advertising operators or advertising distributors may be subject to civil liability if they infringe on the legal rights and interests of third parties in the course of their advertising business.

We do not believe that advertisements containing content subject to restriction or censorship comprise a material portion of the advertisements displayed on our media network. However, there can be no assurance that each advertisement displayed on our network complies with relevant PRC advertising laws and regulations. Failure to comply with PRC laws and regulations relating to advertisement content restrictions governing the advertising industry in China may result in severe penalties.

Regulation on Intellectual Property

Regulation on Trademark

The Trademark Law of the PRC was adopted at the 24th meeting of the Standing Committee of the Fifth National People's Congress on August 23, 1982 and amended on February 22, 1993, October 27, 2001, August 30, 2013 and November April 23, 2019, respectively. The Trademark Law sets out the guidelines on administration of trademarks and protection of the exclusive rights of trademark owners. In order to enjoy an exclusive right to use a trademark, one must register the trademark with the Trademark Office of China National Intellectual Property Administration under the SAMR and obtain a registration certificate.

Regulation on Patents

The Patent Law of the PRC was adopted at the 4th Meeting of the Standing Committee of the Sixth National People's Congress on March 12, 1984 and subsequently amended in 1992, 2000, 2008 and 2020. The Patent Law extends protection to three kinds of patents: invention patents, utility patents and design patents. According to the Implementing Regulations of the Patent Law, promulgated by the State Council of the PRC on June 15, 2001, and subsequently amended in December 28, 2002 and January 9, 2010, respectively, an invention patent refers to a new technical solution relating to a product, a process or improvement. When compared to existing technology, an invention patent has prominent substantive features and represents notable progress. A utility patent refers to any new technical solution relating to the shape, the structure, or their combination, of a product. Utility patents are granted for products only, not processes. A design patent (or industrial design) refers to any new design of the shape, pattern or color of a product or their combinations, which creates an aesthetic feeling and are suitable for industrial application. Inventors or designers must register with the State Intellectual Property Office to obtain patent protection. The term of protection is twenty years for invention patents and ten years for utility patents and design patents. Unauthorized use of patent constitutes an infringement and the patent holders are entitled to claims of damages, including royalties, to the extent reasonable, and lost profits.

Regulation on Copyright

The Copyright Law of the PRC was adopted at the 15th Meeting of the Standing Committee of the Seventh National People's Congress on September 7, 1990 and amended on October 27, 2001, February 26, 2010, and November 11, 2020, respectively. Unlike patent and trademark protection, copyrighted works do not require registration for protection in China. However, copyright owners may wish to voluntarily register with the China Copyright Protection Center to establish evidence of ownership in the event enforcement actions become necessary. Consent from the copyright owners and payment of royalties are required for the use of copyrighted works. Copyrights of movies or other audio or video works usually expire fifty years after their first publication. The amended Copyright Law extends copyright protection to Internet activities, products disseminated over the Internet and software products. The amended Copyright Law also requires registration of the pledge of a copyright.

Regulations on Foreign Currency Exchange

Foreign Currency Exchange

Pursuant to the Foreign Currency Administration Rules promulgated in 1996 and most recently amended in August 2008 and various regulations issued by SAFE and other relevant PRC government authorities, the Renminbi is freely convertible only to the extent of current account items, such as trade-related receipts and payments, interest and dividends. Capital account items, such as direct equity investments, loans and repatriation of investment, unless expressly exempted by laws and regulations, require the prior approval from SAFE or its local branch for conversion of the Renminbi into a foreign currency, such as U.S. dollars, and remittance of the foreign currency outside the PRC.

Payments for transactions that take place within the PRC must be made in Renminbi. Domestic companies or individuals can repatriate foreign currency payments received from abroad or deposit these payments abroad subject to applicable regulations that expressly require repatriation within certain period. Foreign-invested enterprises may retain foreign exchange in accounts with designated foreign exchange banks subject to a cap set by SAFE or its local branch. Foreign currencies received under current account items can be either retained or sold to financial institutions engaged in the foreign exchange settlement or sales business without prior approval from SAFE by complying with relevant regulations. Foreign exchange income under capital account can be retained or sold to financial institutions engaged in foreign exchange settlement and sales business, with prior approval from SAFE unless otherwise provided.

After a Notice on Further Simplifying and Improving Foreign Exchange Administration Policy on Direct Investment, or SAFE Notice 13, became effective on June 1, 2015, instead of applying for approvals regarding foreign exchange registrations of foreign direct investment and overseas direct investment from SAFE, entities and individuals will be required to apply for such foreign exchange registrations from qualified banks. The qualified banks, under the supervision of SAFE, directly examine the applications and conduct the registration. On October 23, 2019, SAFE issued the Circular on Further Promoting Cross-border Trade and Investment Facilitation, or SAFE Circular 28. Among others, SAFE Circular 28 relaxes the prior restrictions and allows the foreign-invested enterprises without equity investment as in their approved business scope to use their capital obtained from foreign exchange settlement to make domestic equity investment as long as the investments are real and in compliance with the foreign investment-related laws and regulations. In addition, SAFE Circular 28 stipulates that qualified enterprises in certain pilot areas may use their capital income from registered capital, foreign debt and overseas listing, for the purpose of domestic payments without providing authenticity certifications to the relevant banks in advance for those domestic payments.

Our business operations, which are subject to the foreign currency exchange regulations, have all been implemented in accordance with these regulations. We will take steps to ensure that our future operations comply with these regulations.

Dividend Distribution

The principal laws, rules and regulations governing dividends paid by PRC operating subsidiaries and VIEs include the Company Law of the PRC (1993), as amended in 2018, and the Foreign Investment Law and its Implementation Rules (2019). Under these laws and regulations, PRC subsidiaries and VIEs, including wholly owned foreign enterprises, or WFOEs, and domestic companies in China, may pay dividends only out of their accumulated profits, if any, determined in accordance with PRC accounting standards and regulations. In addition, its PRC subsidiaries and VIEs, including WFOEs and domestic companies, are required to set aside at least 10% of their after-tax profit based on PRC accounting standards each year to their statutory capital reserve fund until the cumulative amount of such reserve reaches 50% of their respective registered capital. These reserves are not distributable as cash dividends.

Tax

On March 16, 2007, the Fifth Session of the Tenth National People's Congress of PRC passed the Enterprise Income Tax Law of the People's Republic of China, or EIT Law, which became effective on January 1, 2008 and was subsequently amended on February 24, 2017 and December 29, 2018, respectively. On November 28, 2007, the State Council at the 197th Executive Meeting passed the Regulation on the Implementation of the Income Tax Law of the People's Republic of China, which became effective on January 1, 2008 and was subsequently amended on April 23, 2019. The EIT Law adopted a uniform tax rate of 25% for all enterprises (including foreign-invested enterprises).

Under the EIT Law, enterprises are classified as either "resident enterprises" or "non-resident enterprises." Pursuant to the EIT Law and the Implementation Rules, enterprises established under PRC laws, or enterprises established outside China whose "de facto management bodies" are located in China, are considered "resident enterprises" and subject to the uniform 25% enterprise income tax rate for their global income. According to the Implementation Rules, "de facto management body" refers to a managing body that in practice exercises overall management and control over the production and business, personnel, accounting and assets of an enterprise. Our management is currently based in China and is expected to remain in China in the future. In addition, although the EIT Law provides that "dividends, bonuses and other equity investment proceeds between qualified resident enterprises" is exempted income, and the Implementation Rules refer to "dividends, bonuses and other equity investment proceeds between qualified resident enterprises" as the investment proceeds obtained by a resident enterprise from its direct investment in another resident enterprise, however, it is unclear whether our circumstance is eligible for exemption.

Furthermore, the EIT Law and Implementation Rules provide that the "non-resident enterprises" are subject to the enterprise income tax rate of 10% on their income sourced from China, if such "non-resident enterprises" (i) do not have establishments or premises of business in China or (ii) have establishments or premises of business in China, but the relevant income does not have actual connection with their establishments or premises of business in China. Such income tax may be exempted or reduced by the State Council of the PRC or pursuant to a tax treaty between China and the jurisdictions in which its non-PRC shareholders reside. Under the Double Tax Avoidance Arrangement between Hong Kong and Mainland China, if the Hong Kong resident enterprise owns more than 25% of the equity interest in a company in China, the 10% withholding tax on the dividends the Hong Kong resident enterprise received from such company in China is reduced to 5%. If China Net HK is considered to be a Hong Kong resident enterprise under the Double Tax Avoidance Arrangement and is considered to be a "non-resident enterprise" under the EIT Law, the dividends paid to us by Rise King WFOE may be subject to the reduced income tax rate of 5% under the Double Tax Avoidance Arrangement. However, based on the Notice on Certain Issues with Respect to the Enforcement of Dividend Provisions in Tax Treaties, issued on February 20, 2009 by the State Administration of Taxation, 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.

Provisions Regarding Overseas Listing and Mergers and Acquisitions of Domestic Enterprises by Foreign Investors

On August 8, 2006, six PRC regulatory agencies, including CSRC, MOFCOM, SAT, SASAC, SAMR and SAFE, jointly promulgated the M&A Rules, which became effective on September 8, 2006, and was subsequently amended on June 22, 2009, to regulate foreign investment in PRC domestic enterprises. The M&A Rules provide that the MOFCOM must be notified in advance of any change-of-control transaction in which a foreign investor takes control of a PRC domestic enterprise and any of the following situations exist: (i) the transaction involves an important industry in China; (ii) the transaction may affect national “economic security”; or (iii) the PRC domestic enterprise has a well-known trademark or historical Chinese trade name in China. The M&A Rules also contain a provision requiring offshore SPVs formed for the purpose of the overseas listing of equity interests in PRC companies and controlled directly or indirectly by PRC companies or individuals, to obtain the approval of the CSRC prior to publicly listing their securities on an overseas stock exchange. On September 21, 2006, the CSRC issued a clarification that sets forth the criteria and procedures for obtaining any required approval from the CSRC. In December 2020, the NDRC and the MOFCOM promulgated the Measures for the Security Review of Foreign Investment, which came into effect on January 18, 2021.

On July 6, 2021, the State Council and General Office of the CPC Central Committee issued Opinions on Strictly Cracking Down Illegal Securities Activities in Accordance with the Law. The 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.

As a follow-up, on February 17, 2023, the CSRC, as approved by the State Council, released the Trial Administrative Measures of Overseas Securities Offering and Listing by Domestic Companies and a series of associated regulatory guidelines (collectively, the “Filing Rules”), which came into effect from March 31, 2023. The Filing Rules establish a new filing-based regime to regulate overseas offerings of stocks, depository receipts, convertible corporate bond, or other equity securities, and overseas listing of these securities for trading, by domestic companies. According to the Filing Rules, domestic companies that directly or indirectly offer or list their securities in an overseas market should file with the CSRC. Specifically, the examination and determination of an indirect offering and listing will be conducted on a substance-over-form basis, and an offering and listing should be considered as an indirect overseas offering and listing by a domestic company if the issuer meets both of the following conditions: (i) any of the revenue, profits, total assets or net assets of such domestic company in the most recent financial year account for more than 50% of the corresponding data in the issuer’s audited consolidated financial statements for the same period; and (ii) the majority of its business operations are conducted in mainland China or its principal place of business is located in the mainland China, or the majority of senior management in charge of business operations are Chinese citizens or have domicile in the mainland China. According to the Filing Rules, the issuer or its affiliated domestic company, as the case may be, must file with the CSRC for its initial public offering, follow-on offering and other equivalent offering activities. Particularly, a listed company like us is required to submit the filing with respect to its follow-on offerings, issuance of convertible corporate bonds and exchangeable bonds, and other equivalent offering activities, within a specific time frame, which is within three business days after completion of such follow-on offering, issuance of convertible corporate bonds and exchangeable bonds, and other equivalent offering activities. Failure to comply with the filing requirements may result in an order of rectification, a warning and fines to the relevant domestic companies, and a warning and fines on the controlling shareholder, the actual controller and other responsible persons. The Filing Rules also sets forth certain regulatory red lines for overseas offerings and listings by domestic enterprises and additional reporting obligations for listed companies in the case of material changes.

In a Q&A released on the CSRC’s official website, the respondent CSRC official stated that the domestic companies which have listed their securities in the overseas market as of March 31, 2023 will be regarded as the existing overseas listed companies, which will not be required to file with the CSRC until they conduct any new offerings subject to the filing requirements under the Filing Rules. The Q&A also addressed the contractual arrangements and pointed out that, as for companies with contractual arrangements seeking overseas offering, the CSRC will solicit opinions from relevant regulatory authorities and complete the filing procedures for companies with contractual arrangements complying with relevant laws and regulations. If we fail to file with the CSRC in a timely manner or at all, for any future offering (including, among others, follow-on offerings, issuance of convertible corporate bonds and exchangeable bonds, and other equivalent offering activities) pursuant to the Filing Rules due to our contractual arrangements, our ability to raise or utilize funds could be materially and adversely affected, and we may even need to unwind our contractual arrangements or restructure our business operations to rectify the failure to complete the filings. However, as the Filing Rules were recently promulgated, there remain substantial uncertainties as to their interpretation, application, and enforcement and how they will affect our operations and our future financing.

On February 24, 2023, the CSRC, jointly with other relevant governmental authorities, promulgated the revised Provisions on Strengthening Confidentiality and Archives Management of Overseas Securities Issuance and Listing by Domestic Enterprises (the “Confidentiality and Archives Management Provisions”), which took effect on March 31, 2023. According to the Confidentiality and Archives Management Provisions, domestic companies, whether offering and listing securities overseas directly or indirectly, must strictly abide the applicable laws and regulations when providing or publicly disclosing, either directly or through their overseas listed entities, documents and materials to securities services providers such as securities companies and accounting firms or overseas regulators in the process of their overseas offering and listing. If such documents or materials contain any state secrets or government authorities work secrets, domestic companies must obtain the approval from competent governmental authorities according to the applicable laws, and file with the secrecy administrative department at the same level with the approving governmental authority. Furthermore, the Confidentiality and Archives Management Provisions also provides that securities companies and securities service providers shall also fulfill the applicable legal procedures when providing overseas regulatory institutions and other relevant institutions and individuals with documents or materials containing any state secrets or government authorities work secrets or other documents or materials that, if divulged, will jeopardize national security or public interest.

Human Capital Resources

Employees Profiles

As of December 31, 2022, we had 64 full-time employees, 9 of whom are in sales and marketing, 22 of whom are in operations and support, 30 of whom are in management and administration and 3 of whom are in technology support and R&D.

Employee Benefit Plans

We are compliant with local prevailing wage, contractor licensing and insurance regulations, and have good relations with our employees.

As required by PRC regulations, we participate in various employee benefit plans that are organized by municipal and provincial governments, including pension, work-related injury benefits, maternity insurance, medical and unemployment benefit plans. We are required under PRC laws to make contributions to the employee benefit plans at specified percentages of the salaries, bonuses and certain allowances of our employees, up to a maximum amount specified by the local government from time to time. Members of the retirement plan are entitled to a pension equal to a fixed proportion of the salary prevailing at the member’s retirement date.

Generally, we enter into a standard employment contract with our officers and managers for a set period of years and a standard employment contract with other employees for a set period of years. According to these contracts, all of our employees are prohibited from engaging in any activities that compete with our business during the period of their employment with us. Furthermore, the employment contracts with officers or managers include a covenant that prohibits officers or managers from engaging in any activities that compete with our business for two years after the period of employment.

Corporation Information

Our principal executive offices are located at Room 1811, Xinghuo Keji Plaza, No. 2 Fufeng Road, Fengtai District, Beijing, PRC. Our telephone number at this address is (86 10) 60846616 and our fax number is (86 10) 88857816. For more information, see our corporate website at www.zdat.com.

ITEM RISK FACTORS

1A.

In addition to the other information in this Form 10-K, readers should carefully consider the following important factors. These factors, among others, in some cases have affected, and in the future could affect, our financial condition and results of operations and could cause our future results to differ materially from those expressed or implied in any forward-looking statements that appear in this annual report on Form 10-K or that we have made or will make elsewhere.

Risks Related to Our Business

We are susceptible to general economic conditions, natural catastrophic events and public health crises, and a potential downturn in advertising and marketing spending by advertisers could adversely affect our operating results in the near future.

Our business is subject to the impact of natural catastrophic events, such as earthquakes, or floods, public health crisis, such as disease outbreaks, epidemics, or pandemics in China, and all these could result in a decrease or sharp downturn of economies, including our markets and business locations in the current and future periods. Although the COVID-19 outbreak had been largely under control within China, and the PRC government ended its three-year zero-COVID policy in late 2022 with most of the travel restrictions and quarantine requirements lifted accordingly, there remains uncertainty as to the future impact of the pandemic, which could result in unpredictable regional quarantines, travel restrictions, and shutdown of businesses, and slower recovery of the China economy. We may experience impact from quarantines, market downturns and changes in customer behavior related to pandemic fears and impact on our workforce if the virus continues to spread. We experienced a decrease in revenue due to the outbreak. COVID-19 affected a significant number of our workforce employed in our operations, and as a result we are experiencing a slow resumption of operations and may experience delays or the inability to deliver our service on a timely basis. In addition, one or more of our customers, partners, service providers or suppliers may experience financial distress, delayed or defaults on payment, file for bankruptcy protection, sharp diminishing of business, or suffer disruptions in their business due to the outbreak. The extent to which the COVID-19 pandemic impacts our results will depend on future developments and reactions in China, which are highly uncertain and will include emerging information concerning the severity of the COVID-19 pandemic and the actions taken by governments and private businesses to attempt to contain the coronavirus. The COVID-19 situation is likely to result in a potential material adverse impact on our business, results of operations and financial condition in the short run if it has become worse in China. Wider-spread COVID-19 in China and globally could prolong the deterioration in economic conditions and could cause decreases or delays in advertising spending and reduce and/or negatively impact our short-term ability to grow our revenues. Any decreased collectability of accounts receivable, bankruptcy of small and medium businesses, or early termination of agreements due to deterioration in economic conditions could negatively impact our results of operations.

We may be subject to, and may expend significant resources in defending against, government actions and civil suits based on the content and services we provide through our Internet advertising and data service platforms.

PRC advertising laws and regulations require advertisers, advertising operators and advertising distributors, including businesses such as ours, to ensure that the content of the advertisements they prepare or distribute is fair, accurate and in full compliance with applicable laws, rules and regulations. Although we comply with the requirements by reviewing the business licenses and the profiles of our clients, clients may post advertisements about business opportunities that are not legitimate and over which we have no control. On April 24, 2015, the Fourteenth Session of the Standing Committee of the Twelfth National People's Congress adopted the Revised Advertising Law, which became effective on September 1, 2015 and was further amended on October 26, 2018 and April 29, 2021. The Revised Advertising Law further established the advertisement standards and restrictions of certain industries, such as: medical instruments, education and training, franchise and investments; defined separate standards and restrictions for Internet advertisements and reinforced the regulatory responsibilities of the related competent authorities. We cannot assure you that our operating entities will be fully in compliance with these new rules during normal course of business. Violation of these laws, rules or regulations may result in penalties, including fines, confiscation of advertising fees, orders to cease dissemination of the advertisements and orders to publish an advertisement correcting the misleading information. In circumstances involving serious violations, the PRC government may revoke a violator's license for its advertising business operations.

We operate in the advertising and data service industry, which is particularly sensitive to changes in economic conditions and advertising trends.

Advertising and data service spending by our clients is particularly sensitive to changes in general economic conditions. For example, advertising and data service expenditures typically decrease during periods of economic downturn. Advertisers may reduce the amount of money they spend to advertise and obtain precision marketing data and data analysis on/from our advertising and data service platforms for a number of reasons, including:

- a general decline in economic conditions;
- a decline in economic conditions in the particular cities where we conduct business;
- a decision to shift advertising and marketing expenditures to other available less expensive advertising media; and
- a decline in advertising and marketing spending in general.

A decrease in the demand for advertising media in general, and for our advertising and marketing services in particular, would materially and adversely affect our ability to generate revenues, and have a material adverse effect on our financial condition and results of operations.

We face significant competition, and if we do not compete successfully against new and existing competitors, we may lose our market share, and our profitability may be adversely affected.

Increased competition could reduce our profitability and result in a loss of market share. Some of our existing and potential competitors may have competitive advantages, such as significantly greater financial, marketing or other resources, and may successfully mimic and adopt our business models. Moreover, increased competition will provide advertisers with a wider range of media and advertising and marketing service alternatives, which could lead to lower prices and decreased revenues, gross margins and profits. We cannot assure you that we will be able to successfully compete against new or existing competitors.

Key employees are essential to growing our business.

Key employees, such as our chief executive officer, head of each of our business units, and head of our research and development team are essential to our ability to continue to grow our business. They have established relationships within the industries in which we operate. If they were to leave us, our growth strategy might be hindered, which could limit our ability to increase revenue.

In addition, we face competition for attracting skilled personnel with increasing labor cost. If we fail to attract and retain qualified personnel to meet current and future needs, this could slow our ability to grow our business, which could result in a decrease in market share.

We may need additional capital and we may not be able to obtain it at acceptable terms, or at all, which could adversely affect our liquidity and financial position.

We may need additional cash resources due to changed business conditions or other future developments. If these sources are insufficient to satisfy our cash requirements, we may seek to sell additional equity or debt securities or obtain a credit facility. The incurrence of indebtedness would result in increased debt service obligations and could result in operating and financing covenants that would restrict our operations and liquidity.

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

- investors' perception of, and demand for, securities of alternative advertising media companies;

- conditions of the U.S. and other capital markets in which we may seek to raise funds;
- our future results of operations, financial condition and cash flow;
- PRC governmental regulation of foreign investment in advertising service companies in China;
- economic, political and other conditions in China; and
- PRC governmental policies relating to foreign currency borrowings.

Our failure to protect our intellectual property rights could have a negative impact on our business.

We believe our brand, trade name, copyrights, domain name and other intellectual property are critical to our success. The success of our business depends in part upon our continued ability to use our brand, trade names and copyrights to further develop and increase brand awareness. The infringement of our trade names and copyrights could diminish the value of our brand and its market acceptance, competitive advantages or goodwill. In addition, our information and operational systems, which have not been patented or otherwise registered as our property, are a key component of our competitive advantage and our growth strategy.

Monitoring and preventing the unauthorized use of our intellectual property is difficult. The measures we take to protect our brand, trade names, copyrights, domain name and other intellectual property rights may not be adequate to prevent their unauthorized use by third parties. Furthermore, application of laws governing intellectual property rights in China and abroad is uncertain and evolving, and could involve substantial risks to us. If we are unable to adequately protect our brand, trade names, copyrights, domain name and other intellectual property rights, we may lose these rights and our business may suffer materially. Further, unauthorized use of our brand, domain name or trade names could cause brand confusion among advertisers and harm our reputation. If our brand recognition decreases, we may lose advertisers and fail in our expansion strategies, and our business, results of operations, financial condition and prospects could be materially and adversely affected.

We may be subject to intellectual property infringement claims or other allegations, which may materially and adversely affect our business, financial condition and prospects.

We cannot be certain that we do not or will not infringe patents, copyrights, trademarks or other intellectual property rights held by external parties. From time to time, we may be subject to legal proceedings and claims alleging infringement of patents, trademarks, copyrights or other intellectual property rights, or misappropriation of creative ideas or formats, or other infringement of proprietary, which may materially and adversely affect our business, financial condition and prospects.

We rely on computer software and hardware systems in managing our operations, the failure of which could adversely affect our business, financial condition and results of operations.

We are dependent upon our computer software and hardware systems in supporting our network and managing and monitoring programs on the network. In addition, we rely on our computer hardware for the storage, delivery and transmission of the data on our network. Any system failure that interrupts the input, retrieval and transmission of data or increases the service time could disrupt our normal operation. Any failure in our computer software or hardware systems could decrease our revenues and harm our relationships with advertisers and consumers, which in turn could have a material adverse effect on our business, financial condition and results of operations.

Any failure or interruptions in the internet infrastructure, bandwidth providers, data center providers, other third parties or our own systems for providing our solutions to customers could negatively impact our business.

Our ability to deliver our solutions is dependent on the development and maintenance of the internet and other telecommunications services by third parties. Such services include maintenance of a reliable network backbone with the necessary speed, data capacity and security for providing reliable internet access and services and reliable telecommunications systems that connect our operations. While our solutions are designed to operate without interruption, we may experience interruptions and delays in services and availability from time to time. We rely on systems as well as third-party vendors, including data center, bandwidth, and telecommunications equipment providers, to provide our solutions. We do not maintain redundant systems or facilities for some of these services. In the event of a catastrophic event with respect to one or more of these systems or facilities, we may experience an extended period of system unavailability, which could negatively impact our relationship with our customers.

Privacy and data security concerns, laws, or other regulations could expose us to liability or impair our operations.

Privacy and data security are rapidly evolving areas of concern and regulation. Changes in laws restricting or otherwise governing data and transfer thereof could be difficult to comply with, result in increased costs, or impair our operations. Security measures that we implement may fail due to third-party attack, employee error or sabotage, or other causes. Hacking techniques change frequently and therefore can be difficult to prevent. In addition, service providers could suffer security breaches or data losses that affect our customers' information. A security breach could damage our reputation, resulting in loss of customers or reluctance of potential customers to try our platform, or civil or criminal liability.

The PRC Cyber Security Law, effective on June 1, 2017, stipulates that a network operator must adopt technical measures and other necessary measures in accordance with applicable laws and regulations as well as compulsory national and industrial standards to safeguard the safety and stability of network operations, effectively respond to network security incidents, prevent illegal and criminal activities, maintain the integrity, confidentiality and availability of network data.

On June 10, 2021, the Standing Committee of the National People's Congress promulgated the Data Security Law, which took effect on September 1, 2021. The Data Security Law establishes a classified and tiered system for data protection based on the level of importance of the data in the economic and social development, as well as the level of danger of the data imposed on national security, public interests, or the legal interests of individuals and organizations upon any manipulation, destruction, leakage, illegal acquisition or illegal usage. Furthermore, it is specified that the Cyber Security Law applies to the security administration of the cross-border transfer of important data collected and generated by operators of "critical information infrastructure" during their operations in China.

On August 20, 2021, the Standing Committee of the National People's Congress promulgated the Personal Information Protection Law of the People's Republic of China (the "Personal Information Protection Law"), effective from November 1, 2021. The Personal Information Protection Law requires, among others, that (i) the processing of personal information should have a clear and reasonable purpose which should be directly related to the processing purpose, in a method that has the least impact on personal rights and interests, and (ii) the collection of personal information should be limited to the minimum scope necessary to achieve the processing purpose to avoid the excessive collection of personal information. Different types of personal information and personal information processing will be subject to various rules on consent, transfer, and security. Entities handling personal information bear responsibilities for their personal information handling activities, and shall adopt necessary measures to safeguard the security of the personal information they handle. Otherwise, the entities handling personal information could be ordered to correct, or suspend or terminate the provision of services, and face confiscation of illegal income, fines or other penalties.

On November 14, 2021, the Cyberspace Administration of China published a discussion draft of Management Measures for Internet Data Security, or the Draft Measures for Internet Data Security, which provides that data processors conducting the following activities shall apply for cybersecurity review: (i) 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; (ii) listing abroad of data processors processing over one million users' personal information; (iii) listing in Hong Kong which affects or may affect national security; (iv) other data processing activities that affect or may affect national security. The Draft Measures for Internet Data Security also provided that operators of large Internet platforms that set up headquarters, operation centers or R&D centers overseas shall report to the national cyberspace administration and competent authorities. The CAC solicited comments on this draft, but there is no timetable as to when it will be enacted.

On July 7, 2022, the CAC promulgated the Measures for the Security Assessment of Cross-border Data Transfer, which became effective on September 1, 2022. In accordance with these measures, data processors will be subject to security assessment conducted by the CAC prior to any cross-border transfer of data if the transfer involves (i) important data; (ii) personal information transferred overseas by operators of critical information infrastructure or a data processor that has processed personal data of more than one million persons; (iii) personal information transferred overseas by a data processor who has already provided personal data of 100,000 persons or sensitive personal data of 10,000 persons overseas since January 1 of previous year; or (iv) other circumstances as required by the CAC. Furthermore, data processors are required to conduct self-assessment on the risks of cross-border data transfer prior to their applying for the security assessment and focus on assessment of the following significant matters, including, among others: (i) the legality and necessity of the purpose, scope and method of cross-border data transfer; (ii) the scale, scope, type and sensitivity of data transferred overseas, and risks to the national security, public interests or legitimate rights of individuals or organizations caused by such cross-border data transfer; (iii) the responsibilities and obligations that the overseas recipient of such data promises to undertake, and whether such overseas recipient's management and technical measures and capabilities for performing its responsibilities and obligations can guarantee the security of cross-border data transfer; (iv) the risks that the data transferred overseas may be falsified, destroyed, divulged, lost, transferred, illegally obtained or illegally used during and after the cross-border transfer; (v) whether contracts or other legally binding documents entered into with the overseas recipient have fully stipulated the responsibilities and obligations to protect data security. In addition, any cross-border data transfer activities conducted in violation of the Measures for the Security Assessment of Cross-border Data Transfer before the effectiveness of such measures are required to be rectified within six months of the effectiveness date thereof.

We are making efforts to comply with the applicable laws, regulations and standards, but there can be no assurance that our measures will be effective and sufficient under these PRC laws. If we were found by the regulatory authorities to have failed to comply with these PRC laws, we would be subject to warning, fines, confiscation of illegal revenue, revocation of licenses, cancellation of filings, shutdown of our platform or even criminal liability, and our business, results of operations and financial condition would also be adversely affected. In addition, in light of the evolving regulatory framework of China for the protection of information in cyberspace, we may be subject to uncertainties of and adjustments to our business practices, which may incur additional operating expenses and adversely affect our results of operations and financial condition.

If we are unable to maintain appropriate internal financial reporting controls and procedures, it could cause us to fail to meet our reporting obligations, result in the restatement of our financial statements, harm our operating results, subject us to regulatory scrutiny and sanction, cause investors to lose confidence in our reported financial information and have a negative effect on the market price for shares of our Common Stock.

Effective internal controls are necessary for us to provide reliable financial reports and effectively prevent fraud. We maintain a system of internal control over financial reporting, which is defined as a process designed by, or under the supervision of, our principal executive officer and principal financial officer, or persons performing similar functions, and effected by our board of directors, management and other personnel, 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.

As a public company, we have significant additional requirements for enhanced financial reporting and internal controls. We are required to document and test our internal control procedures in order to satisfy the requirements of Section 404 of the Sarbanes-Oxley Act of 2002, which requires annual management assessments of the effectiveness of our internal controls over financial reporting. The process of designing and implementing effective internal controls is a continuous effort that requires us to anticipate and react to changes in our business and the economic and regulatory environments and to expend significant resources to maintain a system of internal controls that is adequate to satisfy our reporting obligations as a public company.

Our management will continue to evaluate the effectiveness of our overall control environment and will continue to refine existing controls as they, in conjunction with the Audit Committee of our Board of Directors, chief executive officer and chief financial officer, consider necessary. We cannot assure you that we will not, in the future, identify areas requiring improvement in our internal control over financial reporting. We cannot assure you that the measures we will take to remediate any areas in need of improvement will be successful or that we will implement and maintain adequate controls over our financial processes and reporting in the future as we continue our growth. If we are unable to maintain appropriate internal financial reporting controls and procedures, it could cause us to fail to meet our reporting obligations, result in the restatement of our financial statements, harm our operating results, subject us to regulatory scrutiny and sanction, cause investors to lose confidence in our reported financial information and have a negative effect on the market price for shares of our Common Stock.

Our blockchain business is at an early stage and the PRC laws and regulations may have a potential effect.

The laws and regulations governing the blockchain in China are developing and evolving and subject to changes. The PRC government adopts a positive attitude to the blockchain technology and it has been mentioned several times in the national strategy reports. On March 2021, the 14th Five-year Plan (2021-2025) for National Economic and Social Development of the PRC was approved by the 13th National People's Congress and firstly mentioned blockchain as a newly recognized manner to support digitalization of the economy. However, the PRC government authorities have strictly prohibited the Initial Coin Offering (the "ICO") and any similar activities within the PRC by issuing the Announcement of the People's Bank of China, the Office of the Central Leading Group for Cyberspace Affairs, the Ministry of Industry and Information Technology and Other Departments on Preventing the Financing Risks of Initial Coin Offerings on September 4, 2017. The Banking and Insurance Regulatory Commission, the Office of the Central Cyberspace Affairs Commission, the Ministry of Public Security, the People's Bank of China and the State Administration for Market Regulation also issued the Risk Warning for Preventing Illegal Fundraising in the Name of "Virtual Currency" or "Blockchain" on August 24, 2018. The Internet Finance Association of China also issued a series of notices to remind the potential risks of ICO and the cryptocurrency trading to the PRC residents, including the Risk Warning on Guarding against the "Virtual Currency" such as Bitcoin on September 13, 2017, Risk Warning on Guarding against the Disguised Initial Coin Offering Activities on January 12, 2018 and Risk Warning on Guarding against the Offshore Initial Coin Offering Activities and the Cryptocurrency Trading on January 26, 2018.

We do not plan to initiate any ICO in China or any other jurisdictions. We have been advised by our PRC counsel, as long as we do not issue any virtual currency coins, we only need to record filing as required by the Cyberspace Administration of China's Regulations on the Management of Blockchain Information Services that went into effect on February 15, 2019. We do not believe that such record filing procedure will have a material effect on our blockchain-powered platform. However, as the laws and regulations governing the blockchain in China are developing and evolving and subject to changes, we cannot assure you that that our blockchain technology related business will continue to be compliance with the PRC law. If our practice is deemed to have violated any PRC law or regulations, our blockchain related business would be materially and adversely affected.

Given the continuing changing of the regulation regime and the government policy of this area in the PRC, an overall limited industry experiences in developing and operating a blockchain-powered platform, and our lack of operating history to serve as a blockchain-based SaaS services provider, our ability to generate substantial revenue from the blockchain-powered platform upon its launch remains unproven. It may be difficult for you to evaluate its performance and prospects.

Risks Relating to Regulation of Our Business and to Our Structure

If the PRC government finds that the agreements that establish the structure for operating our businesses in China do not comply with PRC governmental restrictions on foreign investment in industries in which we operate, or if these regulations or their interpretation change in the future, we could be subject to severe penalties.

Our operations are substantially conducted through our PRC Operating Entities, or VIEs, and through our contractual agreements with each of our PRC Operating Entities in China. PRC regulations restrict foreign investments in value-added telecommunication services, including providing Internet information services ("ICP") and used to have restrictions on foreign investments in advertising business, which was lifted on June 29, 2015. In consideration of the restrictions on foreign investments in ICP and advertising business, our whole-owned subsidiary in China, Rise King WFOE, is ineligible to apply for the required licenses for providing Internet information services and was ineligible to apply for the required licenses for providing advertising services in China before June 29, 2015. Our PRC Operating Entities hold the requisite licenses and permits to provide Internet information services and advertising services in China. We have been and are expected to continue to be dependent on these PRC Operating Entities to operate our ICP and advertising business for the foreseeable future. We have entered into Contractual Agreements with the PRC Operating Entities, pursuant to which we, through Rise King WFOE, provide technical support and consulting services to the PRC Operating Entities. In addition, we have entered into agreements with our PRC Operating Entities and each of their shareholders which provide us with the substantial ability to control these affiliates.

The Foreign Investment Law, which came into effect on January 1, 2020, stipulates three forms of foreign investment but does not explicitly stipulate the contractual arrangements under the VIE structure as a form of foreign investment. The Foreign Investment Law also stipulates that foreign investment includes “foreign investors invest in China through any other methods under laws, administrative regulations, or provisions prescribed by the State Council.”

Since the Foreign Investment Law is relatively new, uncertainties still exist in relation to its interpretation and implementation. There is no assurance that foreign investment via contractual arrangements would not be interpreted as a type of indirect foreign investment activities under the Foreign Investment Law in the future.

If our contractual arrangements will be deemed to be in violation of the market access requirements for foreign investment under the PRC laws and regulations, or furthermore we will fail to complete any actions to be taken by companies with respect to existing contractual arrangements as mandated by future laws, administrative regulations or provisions prescribed by the State Council in a timely manner, or at all, the relevant PRC regulatory authorities, including the SAMR and the MIIT, which regulates ICP and advertising companies, would have broad discretion in dealing with such violations, including:

- revoking the business and operating licenses of Rise King WFOE and/or the PRC Operating Entities;
- discontinuing or restricting the operations of Rise King WFOE and/or the PRC Operating Entities;
- imposing conditions or requirements with which we, Rise King WFOE and/or our PRC Operating Entities may not be able to comply; or
- requiring us or Rise King WFOE and/or PRC Operating Entities to restructure the relevant ownership structure or operations.

The imposition of any of these penalties would result in a material and adverse effect on our ability to conduct our business and would have a material adverse impact on our cash flows, financial position and operating performance.

We rely on contractual arrangements with the PRC Operating Entities and their shareholders for our China operations, which may not be as effective in providing operational control as direct ownership.

We rely on contractual arrangements with our PRC Operating Entities and their shareholders to operate our ICP and advertising business. These contractual arrangements may not be as effective in providing us with control over the PRC Operating Entities as direct ownership. If we had direct ownership of the PRC Operating Entities, we would be able to exercise our rights as a shareholder to effect changes in the board of directors of those companies, which in turn could affect changes, subject to any applicable fiduciary obligations, at the management level. However, under the current contractual arrangements, as a legal matter, if the PRC Operating Entities or any of their subsidiaries and shareholders fail to perform its or their respective obligations under these contractual arrangements, we may have to incur substantial costs and resources to enforce such arrangements, and rely on legal remedies under PRC laws, including seeking specific performance or injunctive relief, and claiming damages, which we cannot assure you to be effective. Accordingly, it may be difficult for us to change our corporate structure or to bring claims against the PRC Operating Entities if they do not perform their obligations under its contracts with us or if any of the PRC citizens who hold the equity interest in the PRC Operating Entities do not cooperate with any such actions.

Many of these contractual arrangements are governed by PRC laws and provide for the resolution of disputes through either arbitration or litigation in the PRC. Accordingly, these contracts would be interpreted in accordance with PRC laws and any disputes would be resolved in accordance with PRC legal procedures. The legal environment in the PRC is not as developed as in other jurisdictions, such as the United States. As a result, uncertainties in the PRC legal system could limit our ability to enforce these contractual arrangements. In the event we are unable to enforce these contractual arrangements, we may not be able to exert effective control over our operating entities, and our ability to conduct our business may be negatively affected. In addition, a PRC court or arbitration tribunal may refuse to enforce the contractual arrangements on the grounds that they are designed to circumvent PRC foreign investment restrictions and therefore are against PRC public policy.

Contractual arrangements we have entered into among the PRC Operating Entities may be subject to scrutiny by the PRC tax authorities and a finding that we owe additional taxes or are ineligible for our tax exemption, or both, could substantially increase our taxes owed, and reduce our net income and the value of your investment.

Under PRC law, arrangements and transactions among related parties may be subject to audit or challenge by the PRC tax authorities. If any of the transactions we have entered into among our subsidiaries and affiliated entities are found not to be on an arm's-length basis, or to result in an unreasonable reduction in tax under PRC law, the PRC tax authorities have the authority to disallow our tax savings, adjust the profits and losses of our respective PRC entities and assess late payment interest and penalties.

If any of our PRC Operating Entities incurs debt on its own behalf in the future, the instruments governing the debt may restrict their ability to pay dividends or make other distributions to us. In addition, the PRC tax authorities may require us to adjust our taxable income under the contractual arrangements with the PRC Operating Entities we currently have in place in a manner that would materially and adversely affect the PRC Operating Entities' ability to pay dividends and other distributions to us. Furthermore, relevant PRC laws and regulations permit payments of dividends by the PRC Operating Entities only out of their retained earnings, if any, determined in accordance with PRC accounting standards and regulations. Under PRC laws and regulations, prior to payment of dividends, each of the PRC Operating Entities is also required to set aside at least 10% of its net income each year as statutory reserves until the balance in the reserve reaches 50% of the registered capital of the respective PRC Operating Entities. As a result of these PRC laws and regulations, the PRC Operating Entities are restricted in their ability to transfer a portion of their net assets to us whether in the form of dividends, loans or advances. Any limitation on the ability of the PRC Operating Entities to pay dividends to us could materially and adversely limit our ability to grow, make investments or acquisitions that could be beneficial to our businesses, pay dividends, or otherwise fund and conduct our business.

Condensed Consolidating Schedules

The following tables presented the condensed consolidating schedules that depicted the financial position, cash flows and results of operations for our company, our consolidated subsidiaries, consolidated VIE, and any eliminating adjustments as of December 31, 2022 and 2021, and for the years ended December 31, 2022 and 2021, respectively. All amounts are presented in thousands of U.S. dollars.

As of December 31, 2022

	The Company	Consolidated Subsidiaries	Consolidated VIE	Elimination	Consolidation
	US\$	US\$	US\$	US\$	US\$
Assets					
Cash and cash equivalents	-	3,813	578	-	4,391
Accounts receivable, net	-	-	1,745	-	1,745
Prepayment and deposit to suppliers	66	2,825	2,020	(344)	4,567
Due from group companies	38,397	11,539	145	(50,081)	-
Other current assets	-	1,608	2	-	1,610
Long-term investments	-	1,431	165	-	1,596
Operating lease right-of-use assets	-	1,616	145	-	1,761
Property and equipment, net	-	136	113	-	249
Intangible assets, net	-	3,264	-	-	3,264
Long-term deposits and prepayments	-	69	-	-	69
Deferred tax assets, net	-	-	406	-	406
Total Assets	\$ 38,463	\$ 26,301	\$ 5,319	\$ (50,425)	\$ 19,658
Liabilities and Equity					
Accounts payable	-	-	205	-	205
Advances from customers	-	224	859	(344)	739
Accrued payroll and other accruals	337	38	63	-	438
Taxes payable	-	646	2,602	-	3,248
Operating lease liabilities	-	202	145	-	347
Lease payment liabilities related to short-term leases	-	-	101	-	101
Due to group companies	242	34,542	15,297	(50,081)	-
Other current liabilities	75	53	309	-	437
Warrant liabilities	185	-	-	-	185
Operating lease liabilities-Non current	-	1,535	-	-	1,535
Long-term borrowing from a related party	-	126	-	-	126
Total Liabilities	839	37,366	19,581	(50,425)	7,361
Total stockholders' equity	37,624	(11,065)	(14,262)	-	12,297
Total Liabilities and Equity	\$ 38,463	\$ 26,301	\$ 5,319	\$ (50,425)	\$ 19,658

As of December 31, 2021

	The Company	Consolidated Subsidiaries	Consolidated VIE	Elimination	Consolidation
	US\$	US\$	US\$	US\$	US\$
Assets					
Cash and cash equivalents	-	6,992	181	-	7,173
Accounts receivable, net	-	643	2,796	-	3,439
Prepayment and deposit to suppliers	99	2,444	5,287	(271)	7,559
Due from related parties	-	-	90	-	90
Due from group companies	38,878	12,037	159	(51,074)	-
Other current assets	-	1,653	4	-	1,657
Long-term investments	-	1,784	496	-	2,280
Operating lease right-of-use assets	-	1,998	21	-	2,019
Property and equipment, net	-	207	168	-	375
Intangible assets, net	-	7,523	-	-	7,523
Long-term deposits and prepayments	-	75	-	-	75
Deferred tax assets, net	-	-	441	-	441
Total Assets	\$ 38,977	\$ 35,356	\$ 9,643	\$ (51,345)	\$ 32,631
Liabilities and Equity					
Accounts payable	-	-	1,119	-	1,119
Advances from customers	-	132	1,384	(271)	1,245
Accrued payroll and other accruals	247	59	83	-	389
Taxes payable	-	685	2,849	-	3,534
Operating lease liabilities	-	193	9	-	202
Lease payment liabilities related to short-term leases	-	42	110	-	152
Due to group companies	242	35,037	15,795	(51,074)	-
Other current liabilities	75	23	43	-	141
Warrant liabilities	2,039	-	-	-	2,039
Operating lease liabilities-Non current	-	1,897	10	-	1,907
Long-term borrowing from a related party	-	137	-	-	137
Total Liabilities	2,603	38,205	21,402	(51,345)	10,865
Total stockholders' equity	36,374	(2,849)	(11,759)	-	21,766
Total Liabilities and Equity	\$ 38,977	\$ 35,356	\$ 9,643	\$ (51,345)	\$ 32,631

For the year ended December 31, 2022

	The Company	Consolidated Subsidiaries	Consolidated VIE	Elimination	Consolidation
	US\$	US\$	US\$	US\$	US\$
Revenues	-	2,048	25,454	(1,267)	26,235
Cost of revenues	-	2,097	25,599	(1,267)	26,429
Total operating expenses	808	7,000	3,133	(16)	10,925
Loss from operations	(808)	(7,049)	(3,278)	16	(11,119)
Other income/(expenses)	1,854	(166)	(347)	(16)	1,325
Income/(loss) before income tax benefit and noncontrolling interests	1,046	(7,215)	(3,625)	-	(9,794)
Income tax benefit	-	-	3	-	3
Net income/(loss)	1,046	(7,215)	(3,622)	-	(9,791)
Net income attributable to noncontrolling interests	-	-	-	-	-
Net income/(loss) attributable to ZW Data Action Technologies Inc.	\$ 1,046	\$ (7,215)	\$ (3,622)	-	\$ (9,791)

For the year ended December 31, 2021

	The Company	Consolidated Subsidiaries	Consolidated VIE	Elimination	Consolidation
	US\$	US\$	US\$	US\$	US\$
Revenues	-	5,192	46,928	(4,792)	47,328
Cost of revenues	-	6,292	45,730	(4,792)	47,230
Total operating expenses	7,742	4,537	1,409	-	13,688
Loss from operations	(7,742)	(5,637)	(211)	-	(13,590)
Other income/(expenses)	11,305	(154)	(72)	-	11,079
Income/(loss) before income tax expense and noncontrolling interests	3,563	(5,791)	(283)	-	(2,511)
Income tax expense	-	(70)	(107)	-	(177)
Net Income/(loss)	3,563	(5,861)	(390)	-	(2,688)
Net income attributable to noncontrolling interests	-	(63)	(3)	-	(66)
Net income/(loss) attributable to ZW Data Action Technologies Inc.	\$ 3,563	\$ (5,924)	\$ (393)	-	\$ (2,754)

For the year ended December 31, 2022

	The Company	Consolidated Subsidiaries	Consolidated VIE	Elimination	Consolidation
	US\$	US\$	US\$	US\$	US\$
Net cash (used in)/provided by operating activities	(481)	(2,781)	73	-	(3,189)
Net cash provided by/(used in) investing activities	481	198	12	(139)	552
Net cash (used in)/provided by financing activities	-	(481)	342	139	-
Effect of exchange rate fluctuation	-	(115)	(30)		(145)
Net (decrease)/increase in cash and cash equivalents	-	(3,179)	397		(2,782)
Cash and cash equivalents, at beginning of the year	-	6,992	181	-	7,173
Cash and cash equivalents, at end of the year	\$ -	\$ 3,813	\$ 578	-	\$ 4,391

For the year ended December 31, 2021

	The Company	Consolidated Subsidiaries	Consolidated VIE	Elimination	Consolidation
	US\$	US\$	US\$	US\$	US\$
Net cash (used in)/provided by operating activities	(786)	(4,347)	(3,705)	-	(8,838)
Net cash (used in)/provided by investing activities	(16,325)	(9,073)	(647)	20,578	(5,467)
Net cash provided by/(used in) financing activities	17,111	16,328	4,250	(20,578)	17,111
Effect of exchange rate fluctuation	-	64	6	-	70
Net increase/(decrease) in cash and cash equivalents	-	2,972	(96)	-	2,876
Cash and cash equivalents, at beginning of the year	-	4,020	277	-	4,297
Cash and cash equivalents, at end of the year	\$ -	\$ 6,992	\$ 181	-	\$ 7,173

Risks Associated With Doing Business In China

There are substantial risks associated with doing business in China, as set forth in the following risk factors.

Our operations and assets in China are subject to significant political and economic uncertainties.

Changes in PRC laws and regulations, or their interpretation, or the imposition of confiscatory taxation, restrictions on currency conversion, imports and sources of supply, devaluations of currency or the nationalization or other expropriation of private enterprises could have a material adverse effect on our business, results of operations and financial condition. Under its current leadership, the Chinese government has been pursuing economic reform policies that encourage private economic activity and greater economic decentralization. There is no assurance, however, that the Chinese government will continue to pursue these policies, or that it will not significantly alter these policies from time to time without notice.

The PRC government's significant oversight and discretion over our business operation could result in a material adverse change in our operations and the value of our listed securities.

We conduct our operations in China through our PRC subsidiaries, our VIEs, with which we have maintained contractual arrangements, and their subsidiaries in China. Our operations in China are governed by PRC laws and regulations. The PRC government has significant oversight and discretion over the conduct of our business, and it may influence our operations, which could result in a material adverse change in our operation and/or the value of our securities. Also, the PRC government has recently promulgated certain regulations and rules to exert more oversight and control over offerings that are conducted overseas and/or foreign investment in China-based issuers. For example, on July 6, 2021, the relevant PRC government authorities made public the Opinions on Strictly Cracking Down Illegal Securities Activities in Accordance with the Law (the "Opinions"). The 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. On February 17, 2023, the CSRC released the Trial Administrative Measures of Overseas Securities Offering and Listing by Domestic Companies and five supporting guidelines (collectively, the "Filing Rules"), which came into effect on March 31, 2023. Pursuant to the Filing Rules, domestic companies that seek to offer or list their securities in an overseas market, whether directly or indirectly, are required to fulfill relevant filing procedure and report relevant information to the CSRC. On December 28, 2021, the NDRC, the MIIT, and several other administrations jointly published the Measures for Cybersecurity Review, effective on February 15, 2022, which required that, among others, operators of "critical information infrastructure" purchasing network products and services or network platform operators carrying out data processing activities, that affect or may affect national security, shall apply with the Cybersecurity Review Office for a cybersecurity review. In addition, a network platform operator holding over one million users' personal information shall apply with the Cybersecurity Review Office for a cybersecurity review before any public offering at a foreign stock exchange. On November 14, 2021, the CAC released the draft Administrative Measures for Internet Data Security (the "Draft Measures for Internet Data Security"), for public comments, which requires, among others, that a prior cybersecurity review should be required for listing abroad of data processors which process over one million users' personal information, and the listing of data processors in Hong Kong which affects or may affect national security.

Since the Draft Measures for Internet Data Security is in the process of being formulated, and the Opinions, the Filing Rules and the Measures for Cybersecurity Review are relevantly new and remain unclear on how it will be interpreted, amended and implemented by the relevant PRC governmental authorities, it remains uncertain whether we can obtain the specific regulatory approvals from, and complete the required filings with the CSRC, CAC or any other PRC government authorities for our future securities offering in a timely basis or at all. If we are unable to obtain such approvals or complete such filings, or such approvals or filings are rescinded even if obtained, our ability to continue to offer securities to investors will be significantly limited or completely hindered, and the value of such securities may be significantly decline or be worthless. In addition, implementation of industry-wide regulations directly targeting our operations could cause the value of our securities to significantly decline. Therefore, investors of our company and our business face potential uncertainty from actions taken by the PRC government affecting our business.

Uncertainties in the interpretation and enforcement of PRC laws and regulations could limit the legal protections available to you and us.

The PRC legal system is a civil law system based on written statutes. Unlike the common law system, prior court decisions may be cited for reference but have limited precedential value.

In 1979, the PRC government began to promulgate a comprehensive system of laws and regulations governing economic matters in general. The overall effect of legislation over the past four decades has significantly enhanced the protections afforded to various forms of foreign investments in China. However, China has not developed a fully integrated legal system, and recently enacted laws and regulations may not sufficiently cover all aspects of economic activities in China. In particular, the interpretation and enforcement of these laws and regulations involve uncertainties. Since PRC administrative and court authorities have significant discretion in interpreting and implementing statutory and contractual terms, it may be difficult to evaluate the outcome of administrative and court proceedings and the level of legal protection available to you and us.

Furthermore, the PRC legal system is based in part on government policies and internal rules, some of which are not published on a timely basis or at all, and which may have a retroactive effect. As a result, we may not be aware of our violation of any of these policies and rules until sometime after the violation. Such uncertainties, including uncertainty over the scope and effect of our contractual, property (including intellectual property) and procedural rights, and any failure to respond to changes in the regulatory environment in China could materially and adversely affect our business and impede our ability to continue our operations.

PRC regulations relating to mergers and acquisitions of domestic enterprises by foreign investors may increase the administrative burden we face and create regulatory uncertainties.

The Regulations on Mergers and Acquisitions of Domestic Enterprises by Foreign Investors, (the “M&A Rules”), which adopted by six PRC regulatory agencies, took effect as of September 8, 2006 and was subsequently amended on June 22, 2009. This M&A Rules established additional procedures and requirements that could make merger and acquisition activities by foreign investors more time-consuming and complex.

In addition, the Implementing Rules Concerning Security Review on the Mergers and Acquisitions by Foreign Investors of Domestic Enterprises (the “Rules Concerning Security Review on M&A”), issued by the Ministry of Commerce in August 2011, specify that mergers and acquisitions by foreign investors involved in “an industry related to national security” are subject to strict review by the Ministry of Commerce, and prohibit any activities attempting to bypass such security review, including by structuring the transaction through a proxy or contractual control arrangement. We believe that our business is not in an industry related to national security, but we cannot preclude the possibility that the competent PRC government authorities may publish explanations contrary to our understanding or broaden the scope of such security reviews in the future, in which case our future acquisitions and investment in China, including those by way of entering into contractual arrangements with target entities, may be closely scrutinized or prohibited. Moreover, according to the Anti-Monopoly Law, as amended, the SMAR should be notified in advance of any concentration of undertaking if certain filing thresholds are triggered. We may grow our business in part by directly acquiring complementary businesses in China. Complying with the requirements of these laws and regulations and other regulations of China to complete such transactions could be time-consuming, and any of these required approval processes, may delay or inhibit our ability to complete such transactions. Our ability to expand our business or maintain or expand our market share through future acquisitions would as such be materially and adversely affected.

In December 2020, the NDRC and the Ministry of Commerce promulgated the Measures for the Security Review of Foreign Investment, which came into effect on January 18, 2021. As these measures are recently promulgated, official guidance has not been issued. Currently, the interpretation of those measures remains unclear in many aspects, such as what would constitute “important information technology and internet services and products” and whether these measures may apply to foreign investment that is implemented or completed before the enactment of these new measures. Such uncertainties may restrict our ability to implement our acquisition strategy and adversely affect our business and prospects.

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.

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. As a follow-up, on February 17, 2023, the CSRC, as approved by the State Council, released the Trial Administrative Measures of Overseas Securities Offering and Listing by Domestic Companies and a series of associated regulatory guidelines (collectively, the “Filing Rules”), which came into effect from March 31, 2023. The Filing Rules establish a new filing-based regime to regulate overseas offerings of stocks, depository receipts, convertible corporate bond, or other equity securities, and overseas listing of these securities for trading, by domestic companies. According to the Filing Rules, domestic companies that directly or indirectly offer or list their securities in an overseas market should file with the CSRC. Specifically, the examination and determination of an indirect offering and listing will be conducted on a substance-over-form basis, and an offering and listing should be considered as an indirect overseas offering and listing by a domestic company if the issuer meets both of the following conditions: (i) any of the revenue, profits, total assets or net assets of such domestic company in the most recent financial year account for more than 50% of the corresponding data in the issuer’s audited consolidated financial statements for the same period; and (ii) the majority of its business operations are conducted in mainland China or its principal place of business is located in the mainland China, or the majority of senior management in charge of business operations are Chinese citizens or have domicile in the mainland China. According to the Filing Rules, the issuer or its affiliated domestic company, as the case may be, must file with the CSRC for its initial public offering, follow-on offering and other equivalent offering activities. Particularly, a listed company like us is required to submit the filing with respect to its follow-on offerings, issuance of convertible corporate bonds and exchangeable bonds, and other equivalent offering activities, within a specific time frame, which is within three business days after completion of such follow-on offering, issuance of convertible corporate bonds and exchangeable bonds, and other equivalent offering activities. Failure to comply with the filing requirements may result in an order of rectification, a warning and fines to the relevant domestic companies, and a warning and fines on the controlling shareholder, the actual controller and other responsible persons. The Filing Rules also sets forth certain regulatory red lines for overseas offerings and listings by domestic enterprises and additional reporting obligations for listed companies in the case of material changes.

In a Q&A released on the CSRC's official website, the respondent CSRC official stated that the domestic companies which have listed their securities in the overseas market as of March 31, 2023 will be regarded as the existing overseas listed companies, which will not be required to file with the CSRC until they conduct any new offerings subject to the filing requirements under the Filing Rules. The Q&A also addressed the contractual arrangements and pointed out that, as for companies with contractual arrangements seeking overseas offering, the CSRC will solicit opinions from relevant regulatory authorities and complete the filing procedures for companies with contractual arrangements complying with relevant laws and regulations. If we fail to file with the CSRC in a timely manner or at all, for any future offering (including, among others, follow-on offerings, issuance of convertible corporate bonds and exchangeable bonds, and other equivalent offering activities) pursuant to the Filing Rules due to our contractual arrangements, our ability to raise or utilize funds could be materially and adversely affected, and we may even need to unwind our contractual arrangements or restructure our business operations to rectify the failure to complete the filings. However, as the Filing Rules were recently promulgated, there remain substantial uncertainties as to their interpretation, application, and enforcement and how they will affect our operations and our future financing.

On February 24, 2023, the CSRC, jointly with other relevant governmental authorities, promulgated the revised Provisions on Strengthening Confidentiality and Archives Management of Overseas Securities Issuance and Listing by Domestic Enterprises (the "Confidentiality and Archives Management Provisions"), which took effect on March 31, 2023. According to the Confidentiality and Archives Management Provisions, domestic companies, whether offering and listing securities overseas directly or indirectly, must strictly abide the applicable laws and regulations when providing or publicly disclosing, either directly or through their overseas listed entities, documents and materials to securities services providers such as securities companies and accounting firms or overseas regulators in the process of their overseas offering and listing. If such documents or materials contain any state secrets or government authorities work secrets, domestic companies must obtain the approval from competent governmental authorities according to the applicable laws, and file with the secrecy administrative department at the same level with the approving governmental authority. Furthermore, the Confidentiality and Archives Management Provisions also provides that securities companies and securities service providers shall also fulfill the applicable legal procedures when providing overseas regulatory institutions and other relevant institutions and individuals with documents or materials containing any state secrets or government authorities work secrets or other documents or materials that, if divulged, will jeopardize national security or public interest.

On December 27, 2021, the NDRC and the Ministry of Commerce jointly issued the Special Administrative Measures (Negative List) for Foreign Investment Access (the "2021 Negative List"), which became effective on January 1, 2022. Pursuant to the 2021 Negative List, if a PRC company engaging in the prohibited business stipulated in the 2021 Negative List seeks an overseas offering and listing, it shall obtain the approval from the competent governmental authorities. Besides, the foreign investors of the issuer shall not be involved in the company's operation and management, and their shareholding percentages shall be subject, mutatis mutandis, to the relevant regulations on the domestic securities investments by foreign investors. As the 2021 Negative List is relatively new, there remain substantial uncertainties as to the interpretation and implementation of these new requirements, and it is unclear as to whether and to what extent listed companies like us will be subject to these new requirements. If we are required to comply with these requirements and fail to do so on a timely basis, if at all, our business operation, financial conditions and business prospect may be adversely and materially affected.

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 any additional approval and filing from the CSRC or other regulatory authorities or other procedures, including the cybersecurity review under the Measures for Cybersecurity Review and the Draft Measures for Internet Data Security, are required for our offshore offerings, 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 offshore offerings, or a rescission of any such approval or filing if obtained by us, would subject us to sanctions by the CSRC or other PRC regulatory authorities for failure to seek CSRC approval or filing or other government authorization for our offshore offerings. These regulatory authorities may impose fines and penalties on our operations in China, limit our ability to pay dividends outside of China, limit our operating privileges in China, delay or restrict the repatriation of the proceeds from our offshore offerings into China or take other actions that could materially and adversely affect our business, financial condition, results of operations, and prospects, as well as the trading price of our listed securities. The CSRC or other PRC regulatory authorities also may take actions requiring us, or making it advisable for us, to halt our offshore offerings before settlement and delivery of the shares offered. Consequently, if investors engage in market trading or other activities in anticipation of and prior to settlement and delivery, they do so at the risk that settlement and delivery may not occur. 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 listed securities.

Any failure or perceived failure by us to comply with the Anti-Monopoly Guidelines for Internet Platforms Economy Sector and other PRC anti-monopoly laws and regulations may result in governmental investigations or enforcement actions, litigation or claims against us and could have an adverse effect on our business, financial condition and results of operations.

The PRC anti-monopoly enforcement agencies have strengthened enforcement under the PRC Anti-Monopoly Law in recent years. On December 28, 2018, the SAMR, issued the Notice on Anti-monopoly Enforcement Authorization, pursuant to which its province-level branches are authorized to conduct anti-monopoly enforcement within their respective jurisdictions. On September 11, 2020, the Anti-Monopoly Commission of the State Council issued Anti-monopoly Compliance Guideline for Operators, which requires operators to establish anti-monopoly compliance management systems under the PRC Anti-Monopoly Law to manage anti-monopoly compliance risks. On February 7, 2021, the Anti-Monopoly Commission of the State Council published Anti-Monopoly Guidelines for the Internet Platform Economy Sector that specified circumstances where an activity of an internet platform will be identified as monopolistic act as well as concentration filing procedures for business operators, including those involving variable interest entities. On March 12, 2021, the SAMR published several administrative penalty cases about concentration of business operators that violated PRC Anti-Monopoly Law in the internet sector.

On October 23, 2021, the Standing Committee of the National People's Congress issued a discussion draft of the amended Anti-Monopoly Law, which proposes to increase the fines for illegal concentration of business operators to "no more than ten percent of its last year's sales revenue if the concentration of business operator has or may have an effect of excluding or limiting competition; or a fine of up to RMB5 million if the concentration of business operator does not have an effect of excluding or limiting competition." The draft also proposes for the relevant authority to investigate transaction where there is evidence that the concentration has or may have the effect of eliminating or restricting competition, even if such concentration does not reach the filing threshold. On June 24, 2022, the Standing Committee of the National People's Congress passed the amended PRC Anti-Monopoly Law, which became effective on August 1, 2022. As a follow-up, in March 2023, the SAMR issued four associated regulatory guidelines, which became effective on April 15, 2023.

Given that we do not hold a dominant market position in the relevant markets and we have not entered into any monopolistic agreement, our PRC legal advisor, Beijing Kunrong Law Firm, is of the view that we are in compliance with the currently effective PRC anti-monopoly laws in all material aspects; however, if the PRC regulatory authorities identify any of our activities as monopolistic under the PRC Anti-Monopoly Law or the Anti-Monopoly Guidelines for the Internet Platform Economy Sector, or identify us holding a dominant market position or of abusing such dominant position, we may be subject to other investigations and administrative penalties, such as termination of monopolistic act and confiscation of illegal gains. There are significant uncertainties associated with the evolving legislative activities and varied local implementation practices of anti-monopoly and competition laws and regulations in China, especially with respect to the interpretation and implementation of the amended Anti-Monopoly Law. With the enactment of the amended Anti-Monopoly Law, it will be more difficult to complete the acquisition transaction. It will be costly for us to adjust our business practices in order to comply with these evolving laws, regulations, rules, guidelines and implementations. Any non-compliance or associated inquiries, investigations and other governmental actions may divert significant management time and attention and our financial resources, lead to negative publicity, liabilities or administrative penalties, therefore materially and adversely affect our financial conditions, operations and business prospects. If we are required to take any rectifying or remedial measures or are subject to any penalties, our reputation and business operations may be materially and adversely affected.

Substantial uncertainties exist with respect to the interpretation and implementation of cybersecurity related regulations and cybersecurity review as well as any impact these may have on our business operations.

The cybersecurity legal regime in China is relatively new and evolving rapidly, and their interpretation and enforcement involve significant uncertainties. As a result, it may be difficult to determine what actions or omissions may be deemed to be in violations of applicable laws and regulations in certain circumstances.

Network operators in China are subject to numerous laws and regulations, and have the obligations to, among others, (i) establish internal security management systems that meet the requirements of the classified protection system for cybersecurity, (ii) implement technical measures to monitor and record network operation status and cybersecurity incidents, (iii) implement data security measures such as data classification, backups and encryption, and (iv) submit for cybersecurity review under certain circumstances.

On November 7, 2016, the Standing Committee of the National People's Congress issued the Cyber Security Law, which imposes more stringent requirements on operators of "critical information infrastructure," especially in data storage and cross-border data transfer.

On December 28, 2021, the CAC, the NDRC, the MIIT, and several other administrations jointly published the Measures for Cybersecurity Review, effective on February 15, 2022, which 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. However, the scope of operators of "critical information infrastructure" under the current regulatory regime remains unclear and is subject to the decisions of competent PRC regulatory authorities. As advised by our PRC counsel, Beijing Kunrong Law Firm, the exact scope of operators of "critical information infrastructure" under the Measures for Cybersecurity Review and current PRC regulatory regime remains unclear, and is subject to the decisions of the relevant PRC government authorities that have been delegated the authority to identify operators of "critical information infrastructure" in their respective jurisdictions (including regions and industries). PRC government authorities have wide discretion in the interpretation and enforcement of these laws, including the identification of operators of "critical information infrastructure" and the interpretation and enforcement of requirements potentially applicable to such operators of "critical information infrastructure." As an internet platform, we are at risk of being deemed to be an operator of "critical information infrastructure" or a network platform operator meeting the above criteria under PRC cybersecurity laws. 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 cyber security incidents and conducting regular emergency drills, and although the internet products and services we purchase are primarily bandwidth, copyright content and marketing services, 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 suspend the provision of any existing or new services to our users, and we may experience other disruptions of our operations, which could cause us to lose users and customers therefore leading to adverse impacts on our business. 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 cybersecurity requirements in China, the relevant governmental authorities may, at their discretion, conduct investigations, levy fines, request app stores to take down our apps and cease to provide viewing and downloading services related to our apps, prohibit the registration of new users on our platform, 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 November 14, 2021, the CAC published a discussion draft of the Administrative Measures for Internet Data Security, or the Draft Measures for Internet Data Security, which provides that data processors conducting the following activities shall apply for cybersecurity review: (i) merger, reorganization or division 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; (ii) listing abroad of data processors processing over one million users' personal information; (iii) listing in Hong Kong which affects or may affect national security; or (iv) other data processing activities that affect or may affect national security. There have been no clarifications from the authorities as of the date of this annual report as to the standards for determining such activities that "affects or may affect national security." The CAC has solicited comments on this draft until December 13, 2021, but there is no timetable as to when it will be enacted. As such, substantial uncertainties exist with respect to the enactment timetable, final content, interpretation and implementation. The Draft Measures for Internet Data Security, if enacted as proposed, may materially impact our capital raising activities. Any failure to obtain such approval or clearance from the regulatory authorities could materially constrain our liquidity and have a material adverse impact on our business operations and financial results, especially if we need additional capital or financing.

The interpretation and application of these cybersecurity laws, regulations and standards are still uncertain and evolving, especially the Draft Measures for Internet Data Security. We cannot assure you that relevant governmental authorities will not interpret or implement these and other laws or regulations in ways that may negatively affect us.

We may be adversely affected by the complexity, uncertainties and changes in PRC licensing and regulation of internet businesses.

The PRC government extensively regulates the internet industry, including the licensing and permit requirements pertaining to companies in this industry. Internet-related laws and regulations in China are relatively new and evolving, and their interpretation and enforcement involve significant uncertainty. As a result, it may be difficult to determine what actions or omissions may be deemed to be violations of applicable laws and regulations in certain circumstances. Our PRC operating VIEs engaged in ICP business have obtained their respective ICP permits and comply with the annual inspection and other related provisions. However, we cannot assure you that we have obtained all the permits or licenses required for conducting our business in China or will be able to maintain our existing licenses or obtain any new licenses if required by any new laws or regulations. In addition, due to the increasing popularity and use of the internet other online services, it is possible that additional laws and regulations may be adopted with respect to the internet or other online services covering issues such as user privacy, pricing, content, copyrights and distribution. The adoption of additional laws or regulations may decrease the growth of the internet or other online services, which could in turn decrease the demand for our products and services and increase our cost of doing business.

We derive a substantial portion of our sales from China.

We derive a substantially portion of our sales from China. We anticipate that sales of our services in China will continue to represent a substantial proportion of our total sales in the near future. Any significant decline in the condition of the PRC economy could adversely affect consumer demand of our services, among other things, which in turn would have a material adverse effect on our business and financial condition.

Currency fluctuations and restrictions on currency exchange may adversely affect our business, including limiting our ability to convert Chinese Renminbi into foreign currencies and, if Chinese Renminbi were to decline in value, reducing our revenue in U.S. dollar terms.

Our reporting currency is the U.S. dollar and our operations in China use the local currency as their functional currencies. We are subject to the effects of exchange rate fluctuations with respect to any of these currencies. For example, the value of the Renminbi depends to a large extent on Chinese government policies and China's domestic and international economic and political developments, as well as supply and demand in the local market. On July 21, 2005, the Chinese government changed its policy of pegging the value of Chinese Renminbi to the U.S. dollar. Under the new policy, Chinese Renminbi may fluctuate within a narrow and managed band against a basket of certain foreign currencies. It is possible that the Chinese government could adopt a more flexible currency policy, which could result in more significant fluctuation of Chinese Renminbi against the U.S. dollar. We can offer no assurance that Chinese Renminbi will be stable against the U.S. dollar or any other foreign currency.

The income statements of our operations are translated into U.S. dollars at the average exchange rates in each applicable period. To the extent the U.S. dollar strengthens against foreign currencies, the translation of these foreign currencies denominated transactions results in reduced revenue, operating expenses and net income for our international operations. Similarly, to the extent the U.S. dollar weakens against foreign currencies, the translation of these foreign currency denominated transactions results in increased revenue, operating expenses and net income for our international operations. We are also exposed to foreign exchange rate fluctuations as we convert the financial statements of our foreign operating subsidiaries and VIEs into U.S. dollars in consolidation. If there is a change in foreign currency exchange rates, the conversion of the foreign subsidiaries and VIEs' financial statements into U.S. dollars will lead to a translation gain or loss which is recorded as a component of other comprehensive income. We have not entered into agreements or purchased instruments to hedge our exchange rate risks, although we may do so in the future. The availability and effectiveness of any hedging transaction may be limited and we may not be able to successfully hedge our exchange rate risks.

Although Chinese governmental policies were introduced in 1996 to allow the convertibility of Chinese Renminbi into foreign currency for current account items, conversion of Chinese Renminbi into foreign exchange for capital items, such as foreign direct investment, loans or securities, requires the approval of the State Administration of Foreign Exchange, or SAFE, which is under the authority of the People's Bank of China. These approvals, however, do not guarantee the availability of foreign currency conversion. We cannot be sure that we will be able to obtain all required conversion approvals for our operations or those Chinese regulatory authorities will not impose greater restrictions on the convertibility of Chinese Renminbi in the future. Because a significant amount of our future revenue may be in the form of Chinese Renminbi, our inability to obtain the requisite approvals or any future restrictions on currency exchanges could limit our ability to utilize revenue generated in Chinese Renminbi to fund our business activities outside of China, or to repay foreign currency obligations, including our debt obligations, which would have a material adverse effect on our financial condition and results of operations.

We may have limited legal recourse under PRC laws if disputes arise under our contracts with third parties.

The Chinese government has enacted laws and regulations dealing with matters such as corporate organization and governance, foreign investment, commerce, taxation and trade. However, their experience in implementing, interpreting and enforcing these laws and regulations is limited, and our ability to enforce commercial claims or to resolve commercial disputes is unpredictable. If our new business ventures are unsuccessful, or other adverse circumstances arise from these transactions, we face the risk that the parties to these ventures may seek ways to terminate the transactions, or, may hinder or prevent us from accessing important information regarding the financial and business operations of these acquired companies. The resolution of these matters may be subject to the exercise of considerable discretion by agencies of the Chinese government, and forces unrelated to the legal merits of a particular matter or dispute may influence their determination. Any rights we may have to specific performance, or to seek an injunction under PRC law, in either of these cases, are severely limited, and without a means of recourse by virtue of the Chinese legal system, we may be unable to prevent these situations from occurring. The occurrence of any such events could have a material adverse effect on our business, financial condition and results of operations.

We must comply with the Foreign Corrupt Practices Act.

We are required to comply with the United States Foreign Corrupt Practices Act, which prohibits U.S. companies from engaging in bribery or other prohibited payments to foreign officials for the purpose of obtaining or retaining business. Foreign companies, including some of our competitors, are not subject to these prohibitions. If our competitors engage in these practices, they may receive preferential treatment from personnel of some companies, giving our competitors an advantage in securing business or from government officials who might give them priority in obtaining new licenses, which would put us at a disadvantage. Although we inform our personnel that such practices are illegal, we cannot assure you that our employees or other agents will not engage in such conduct for which we might be held responsible. If our employees or other agents are found to have engaged in such practices, we could suffer severe penalties.

Changes in foreign exchange regulations in the PRC may affect our ability to pay dividends in foreign currency or conduct other foreign exchange business.

The Renminbi is not a freely convertible currency, and the restrictions on currency exchanges may limit our ability to use revenues generated in Renminbi to fund our business activities outside the PRC or to make dividends or other payments in United States dollars. The PRC government strictly regulates conversion of Renminbi into foreign currencies. Over the years, foreign exchange regulations in the PRC have significantly reduced the government's control over routine foreign exchange transactions under current accounts. In the PRC, the State Administration for Foreign Exchange, or the SAFE, regulates the conversion of the Renminbi into foreign currencies. Pursuant to applicable PRC laws and regulations, foreign invested enterprises incorporated in the PRC are required to apply for foreign exchange registration certificates. Currently, conversion within the scope of the "current account" (e.g. remittance of foreign currencies for payment of dividends, etc.) can be effected without requiring the approval of SAFE. However, conversion of currency in the "capital account" (e.g. for capital items such as direct investments, loans, securities, etc.) still requires the approval of SAFE.

Any limitation on the ability of our PRC subsidiaries and VIEs to make payments to us, or the tax implications of making payments to us, could have a material adverse effect on our ability to conduct our business or our financial condition.

As substantially all of our operations are conducted through our PRC subsidiaries and VIEs, as a Nevada holding company, our ability to pay dividends is primarily dependent on receiving distributions of funds from our PRC subsidiaries and VIEs. Relevant PRC statutory laws and regulations permit payments of dividends by our PRC subsidiaries and VIEs only out of their retained earnings, if any, as determined in accordance with PRC accounting standards and regulations and after it has met the PRC requirements for appropriation to statutory reserves. Paid in capital of the PRC subsidiaries and VIEs included in our consolidated net assets are also not distributable for dividend purposes.

In accordance with the PRC regulations on Enterprises with Foreign Investment, a WFOE established in the PRC is required to provide certain statutory reserves, namely general reserve fund, the enterprise expansion fund and staff welfare and bonus fund which are appropriated from net profit as reported in the enterprise's PRC statutory accounts. A WFOE is required to allocate at least 10% of its annual after-tax profit to the general reserve until such reserve has reached 50% of its registered capital based on the enterprise's PRC statutory accounts. Appropriations to the enterprise expansion fund and staff welfare and bonus fund are at the discretion of the board of directors. The aforementioned reserves can only be used for specific purposes and are not distributable as cash dividends. Rise King WFOE is subject to the above mandated restrictions on distributable profits. Additionally, in accordance with the Company Law of the PRC, a domestic enterprise is required to provide a statutory common reserve of at least 10% of its annual after-tax profit until such reserve has reached 50% of its registered capital based on the enterprise's PRC statutory accounts. A domestic enterprise is also required to provide for a discretionary surplus reserve, at the discretion of the board of directors. The aforementioned reserves can only be used for specific purposes and are not distributable as cash dividends. All of our other PRC subsidiaries and PRC VIEs are subject to the above mandated restrictions on distributable profits.

The PRC Enterprise Income Tax (“EIT”) Law also imposes a 10% withholding income tax for dividends distributed by a foreign invested enterprise to its immediate holding company outside China. A lower withholding tax rate will be applied if there is a tax treaty arrangement between mainland China and the jurisdiction of the foreign holding company. Holding companies in Hong Kong, for example, may enjoy the reduced withholding tax rate of 5% rate, subject to certain conditions and requirements.

The ability of our PRC subsidiaries to make dividends and other payments to us may also be restricted by changes in applicable foreign exchange and other laws and regulations. Currently, Renminbi is freely convertible for current account items, including the distribution of dividends, interest payments, trade and service related foreign exchange transactions, but not for capital account items, such as direct investments, loans, repatriation of investments and investments in securities outside of China, unless the prior approval of the State Administration of Foreign Exchange (the “SAFE”) is obtained and prior registration with the SAFE is made. Foreign-invested enterprises like Rise King WFOE that need foreign exchange for the distribution of profits to its shareholders may effect payment from their foreign exchange accounts or purchase and pay foreign exchange rates at the designated foreign exchange banks to their foreign shareholders by producing board resolutions for such profit distribution. Based on their needs, foreign-invested enterprises are permitted to open foreign exchange settlement accounts for current account receipts and payments of foreign exchange along with specialized accounts for capital account receipts and payments of foreign exchange at certain designated foreign exchange banks.

Although the current Exchange Rules allow converting Chinese Renminbi into foreign currency for current account items, conversion of Chinese Renminbi into foreign exchange for capital items, such as foreign direct investment, loans or securities, requires the approval of SAFE, which is under the authority of the People’s Bank of China. These approvals, however, do not guarantee the availability of foreign currency conversion. We cannot be sure that it will be able to obtain all required conversion approvals for our operations or the Chinese regulatory authorities will not impose greater restrictions on the convertibility of Chinese Renminbi in the future. Currently, most of our retained earnings are generated in Renminbi. Any future restrictions on currency exchanges may limit our ability to use retained earnings generated in Renminbi to make dividends or other payments in U.S. dollars or fund possible business activities outside China.

The Public Company Accounting Oversight Board (the “PCAOB”) had historically been unable to inspect our auditor in relation to their audit work performed for our financial statements and the inability of the PCAOB to conduct inspections over our auditor has deprived our investors with the benefits of such inspections.

Our auditor, the independent registered public accounting firm that issues the audit report in our SEC filings, as an auditor of companies that are traded publicly in the United States and a firm registered with the PCAOB, is subject to laws in the United States pursuant to which the PCAOB conducts regular inspections to assess its compliance with the applicable professional standards. Our auditor is located in Hong Kong Special Administrative Region of the PRC (“Hong Kong”), China, a jurisdiction where the PCAOB was unable to conduct inspections and investigations before 2022. As a result, we and investors in our securities were deprived of the benefits of such PCAOB inspections. 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 China mainland and Hong Kong in 2022. However, the inability of the PCAOB to conduct inspections of auditors in Hong Kong in the past made it more difficult to evaluate the effectiveness of our independent registered public accounting firm’s audit procedures or quality control procedures as compared to auditors outside of China mainland and Hong Kong that have been subject to the PCAOB inspections, which could cause investors and potential investors in our securities to lose confidence in our audit procedures and reported financial information and the quality of our financial statements.

Our common stock may be delisted and prohibited from trading in the United States under the Holding Foreign Companies Accountable Act, or the HFCAA, as amended by the Accelerating Holding Foreign Companies Accountable Act, if the PCAOB is unable to inspect or investigate completely auditors located in China mainland and Hong Kong. The delisting of our common stock or the threat of their being delisted could cause the value of our common stock to significantly decline or be worthless, and thus you could lose all or substantial portion of your investment.

On December 18, 2020, the Holding Foreign Companies Accountable Act, or the HFCAA, was signed into law that states if the SEC determines that issuers have filed audit reports issued by a registered public accounting firm that has not been subject to PCAOB inspection for three consecutive years beginning in 2021, the SEC shall prohibit its common stock from being traded on a national securities exchange or in the over-the-counter trading market in the U.S. Furthermore, on June 22, 2021, the U.S. Senate passed the Accelerating Holding Foreign Companies Accountable Act, to prohibit securities of any registrant from being listed on any of the U.S. securities exchanges or traded over-the-counter if the auditor of the registrant's financial statements is not subject to PCAOB inspection for two consecutive years, instead of three consecutive years as enacted in the HFCAA. On December 2, 2021, the SEC adopted final amendments implementing the disclosure and submission requirements of the HFCAA, pursuant to which the SEC will identify an issuer as a "Commission-Identified Issuer" if the issuer has filed an annual report containing an audit report issued by a registered public accounting firm that the PCAOB has determined it is unable to inspect or investigate completely, and will then impose a trading prohibition on an issuer after it is identified as a Commission-Identified Issuer for three consecutive years. On December 29, 2022, the Accelerating Holding Foreign Companies Accountable Act was signed into law.

On December 16, 2021, the PCAOB issued a HFCAA Determination Report (the "2021 PCAOB Determinations") to notify the SEC of its determination that the PCAOB was unable to inspect or investigate completely registered public accounting firms headquartered in China mainland and Hong Kong because of positions taken by the Chinese authorities, and our auditor was subject to this determination. On May 13, 2022, the SEC conclusively identified us as a Commission-Identified Issuer under the HFCAA following the filing of our annual report on Form 10-K for the fiscal year ended December 31, 2021.

On August 26, 2022, the PCAOB signed a Statement of Protocol on agreement governing on inspections of audit firms based in mainland China and Hong Kong, with China Securities Regulatory Commission ("CSRC") and Ministry of Finance ("MOF") of the PRC, in regarding to governing inspections and investigations of audit firms headquartered in mainland China and Hong Kong (the "Agreement"). As stated in the Agreement, the Chinese authorities committed that the PCAOB has direct access to view complete audit work papers under its inspections or investigations and has sole discretion to the selected audit firms and audit engagements. The Agreement opens access for the PCAOB to inspect and investigate the registered public accounting firms in mainland China and Hong Kong completely. The PCAOB then thoroughly tested compliance with every aspect of the Agreement necessary to determine complete access. This included sending a team of PCAOB staff to conduct on-site inspections and investigations in Hong Kong over a nine-week period from September to November 2022.

On December 15, 2022, the PCAOB issued its 2022 HFCAA Determination Report to notify the SEC of its determination that the PCAOB was able to secure complete access to inspect and investigate PCAOB-registered public accounting firms headquartered in China mainland and Hong Kong completely in 2022. The PCAOB Board vacated its 2021 PCAOB Determinations that the PCAOB was unable to inspect or investigate completely registered public accounting firms headquartered in China mainland and Hong Kong. For this reason, we do not expect to be identified as a Commission-Identified Issuer following the filing of our annual report for the fiscal year ended December 31, 2022. However, whether the PCAOB will continue to be able to satisfactorily conduct inspections of PCAOB-registered public accounting firms headquartered in China mainland and Hong Kong is subject to uncertainty and depends on a number of factors out of our, and our auditor's, control.

The PCAOB is continuing to demand complete access in China mainland and Hong Kong moving forward and is already making plans to resume regular inspections in early 2023 and beyond, as well as to continue pursuing ongoing investigations and initiate new investigations as needed. The PCAOB does not have to wait another year to reassess its determinations. Should the PRC authorities obstruct the PCAOB's access to inspect or investigate completely in any way and at any point, the PCAOB will act immediately to consider the need to issue new determinations consistent with the HFCAA.

We cannot assure you that our auditor will not be determined as a register public accounting firm that the PCAOB is unable to inspect or investigate completely for two consecutive years because of positions taken by the Chinese authorities and/or any other causes in the future. If the PCAOB in the future again determines that it is unable to inspect and investigate completely auditors in China mainland and Hong Kong, we may be identified as a Commission-Identified Issuer accordingly. If this happens, Nasdaq may determine to delist our common stock, and there is no certainty that we will be able to continue listing our common stock on other non-U.S. stock exchanges or that an active market for our common stock will immediately develop outside of the U.S. The prohibiting from trading in the United States or delisting of our common stock or the threat of their being delisted could cause the value of our common stock to significantly decline or be worthless, and thus you could lose all or substantial portion of your investment.

If we become directly subject to the scrutiny involving U.S. listed Chinese companies, we may have to expend significant resources to investigate and/or defend the matter, which could harm our business operations, stock price and reputation.

U.S. public companies that have substantially all of their operations in China have been the subject of intense scrutiny by investors, financial commentators and regulatory agencies. Much of the scrutiny has centered around financial and accounting irregularities and mistakes, a lack of effective internal controls over financial reporting and, in many cases, allegations of fraud. As a result of the scrutiny, the publicly traded stock of many U.S. listed China-based companies that have been the subject of such scrutiny has sharply decreased in value. Many of these companies are now subject to shareholder lawsuits and/or SEC enforcement actions that are conducting internal and/or external investigations into the allegations. If we become the subject of any such scrutiny, whether any allegations are true or not, we may have to expend significant resources to investigate such allegations and/or defend our company. Such investigations or allegations will be costly and time-consuming and distract our management from our business plan and could result in our reputation being harmed and our stock price could decline as a result of such allegations, regardless of the truthfulness of the allegations.

Future inflation in China may inhibit our activity to conduct business in China.

In recent years, the Chinese economy has experienced periods of rapid expansion and high rates of inflation. These factors have led to the adoption by Chinese government, from time to time, of various corrective measures designed to restrict the availability of credit or regulate growth and contain inflation. High inflation may in the future cause Chinese government to impose controls on credit and/or prices, or to take other action, which could inhibit economic activity in China, and thereby harm the market for our services.

The enforcement of the PRC Labor Contract Law and other labor-related regulations in the PRC may adversely affect our business and results of operations.

The Standing Committee of the National People's Congress enacted the Labor Contract Law on January 2008 and amended it on December 28, 2012. The Labor Contract Law introduced specific provisions related to fixed-term employment contracts, part-time employment, probationary periods, consultation with labor unions and employee assemblies, employment without a written contract, dismissal of employees, severance, and collective bargaining to enhance previous PRC labor laws. Under the Labor Contract Law, an employer is obligated to sign an unlimited-term labor contract with any employee who has worked for the employer for ten consecutive years. Further, if an employee requests or agrees to renew a fixed-term labor contract that has already been entered into twice consecutively, the resulting contract, with certain exceptions, must have an unlimited term. With certain exceptions, an employer must pay severance to an employee where a labor contract is terminated or expires. In addition, PRC governmental authorities have continued to introduce various new labor-related regulations since the effectiveness of the Labor Contract Law.

Under the PRC Social Insurance Law and the Administrative Measures on Housing Fund, employees are required to participate in pension insurance, work-related injury insurance, medical insurance, unemployment insurance, maternity insurance and housing funds and employers are required, together with their employees or separately, to pay the social insurance premiums and housing funds for their employees.

These laws designed to enhance labor protection tend to increase our labor costs. In addition, as the interpretation and implementation of these regulations are still evolving, our employment practices may not be at all times be deemed in compliance with the regulations. As a result, we could be subject to penalties or incur significant liabilities in connection with labor disputes or investigations, which could have a material adverse effect on our results of operations and financial condition.

We may have difficulty establishing adequate management, legal and financial controls in the PRC.

We may have difficulty in hiring and retaining a sufficient number of qualified employees to work in the PRC. As a result of these factors, we may experience difficulty in establishing management, legal and financial controls, collecting financial data and preparing financial statements, books of account and corporate records and instituting business practices that meet Western standards. We may have difficulty establishing adequate management, legal and financial controls in the PRC.

You may experience difficulties in effecting service of legal process, enforcing foreign judgments or bringing original actions in China based on United States or other foreign laws against us and our management.

We conduct a substantial portion of our operations in China and a substantial portion of our assets are located in China. In addition, some of our directors and executive officers reside within China. As a result, it may not be possible to effect service of process within the United States or elsewhere outside China upon some of our directors and senior executive officers, including with respect to matters arising under U.S. federal securities laws or applicable state securities laws. It would also be difficult for investors to bring an original lawsuit against us or our directors or executive officers before a Chinese court based on U.S. federal securities laws or otherwise. Moreover, China does not have treaties with the United States or many other countries providing for the reciprocal recognition and enforcement of judgment of courts.

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, or Article 177, which became effective in March 2020, no overseas securities regulator is allowed to directly conduct investigation or evidence collection activities within the territory of the PRC. While detailed interpretation of or implementation rules under Article 177 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 difficulties faced by you in protecting your interests.

PRC enterprise income tax law could adversely affect our business and our net income.

On March 16, 2007, the National People's Congress of the PRC passed the revised Enterprise Income Tax Law (or EIT Law), which took effect on January 1, 2008 and was subsequently amended on February 24, 2017 and December 29, 2018, respectively. The EIT Law imposes a unified income tax rate of 25% on all companies established in China. Under the EIT Law, an enterprise established outside of the PRC with "de facto management bodies" within the PRC is considered as a resident enterprise and will normally be subject to the enterprise income tax at the rate of 25% on its global income. The EIT Law, however, does not define the term "de facto management bodies." If the PRC tax authorities subsequently determine that we should be classified as a resident enterprise, then our global income will be subject to PRC income tax at a tax rate of 25%.

With the introduction of the EIT Law, China has resumed imposition of a withholding tax (10% in the absence of a bilateral tax treaty or new domestic regulation reducing such withholding tax rate to a lower rate). Per the Double Tax Avoidance Arrangement between Hong Kong and Mainland China, a Hong Kong company as the investor, which is considered a "non-resident enterprise" under the EIT Law, may enjoy the reduced withholding tax rate of 5%, subject to certain conditions and requirements. As China Net HK is the sole shareholder of Rise King WFOE, substantially all of our income will derive from dividends we receive from Rise King WFOE through China Net HK. When we declare dividends from the income in the PRC, we cannot assure whether such dividends may be taxed at a reduced withholding tax rate of 5% per the Double Tax Avoidance Arrangement between Hong Kong and Mainland China as the PRC tax authorities may regard our China Net HK as a shell company formed only for tax purposes and still deem Rise King WFOE in the PRC as the subsidiary directly owned by us. Based on the Notice on Certain Issues with respect to the Enforcement of Dividend Provisions in Tax Treaties, issued on February 20, 2009 by the State Administration of Taxation, 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.

Investors should note that the EIT Law provides only a framework of the enterprise tax provisions, leaving many details on the definitions of numerous terms as well as the interpretation and specific applications of various provisions unclear and unspecified. Any increase in our tax rate in the future could have a material adverse effect on our financial conditions and results of operations.

Under the EIT Law, we may be classified as a "resident enterprise" of China. Such classification will likely result in unfavorable tax consequences to us and holders of our securities.

Under the EIT Law, an enterprise established outside of China with its "de facto management body" in China is considered a "resident enterprise," meaning that it can be treated the same as a Chinese enterprise for enterprise income tax purposes. The implementing rules of the EIT Law defines "de facto management body" as an organization that exercises "substantial and overall management and control over the production and operations, personnel, accounting, and properties" of an enterprise. Currently no interpretation or application of the EIT Law and its implementing rules is available, therefore it is unclear how tax authorities will determine tax residency based on the facts of each case.

If the PRC tax authorities determine that China Net is a “resident enterprise” for PRC enterprise income tax purposes, a number of unfavorable PRC tax consequences could follow. First, we will be subject to enterprise income tax at a rate of 25% on our worldwide income as well as PRC enterprise income tax reporting obligations. This would mean that income such as interest on offering proceeds and other non-China source income would be subject to PRC enterprise income tax at a rate of 25%. Second, although under the EIT Law and its implementing rules dividends paid to us by our PRC subsidiaries would qualify as “tax-exempt income,” we cannot guarantee that such dividends will not be subject to a 10% withholding tax, as the PRC foreign exchange control authorities, which enforce the withholding tax, have not yet issued guidance with respect to the processing of outbound remittances to entities that are treated as resident enterprises for PRC enterprise income tax purposes. Finally, a 10% withholding tax will be imposed on dividends we pay to our non-PRC shareholders.

Our Chinese operating companies are obligated to withhold and pay PRC individual income tax in respect of the salaries and other income received by their employees who are subject to PRC individual income tax. If they fail to withhold or pay such individual income tax in accordance with applicable PRC regulations, they may be subject to certain sanctions and other penalties, which could have a material adverse impact on our business.

Under PRC laws, Rise King WFOE and the PRC Operating Entities will be obligated to withhold and pay individual income tax in respect of the salaries and other income received by their employees who are subject to PRC individual income tax. Such companies may be subject to certain sanctions and other liabilities under PRC laws in case of failure to withhold and pay individual income taxes for its employees in accordance with the applicable laws.

In addition, the SAT has issued several circulars concerning employee stock options. Under these circulars, employees working in the PRC (which could include both PRC employees and expatriate employees subject to PRC individual income tax) are required to pay PRC individual income tax in respect of their income derived from exercising or otherwise disposing of their stock options. Our PRC entities will be obligated to file documents related to employee stock options with relevant tax authorities and withhold and pay individual income taxes for those employees who exercise their stock options. While tax authorities may advise us that our policy is compliant, they may change their policy, and we could be subject to sanctions.

The non-U.S. activities of our non-U.S. subsidiaries and VIEs may be subject to U.S. taxation.

We conduct a substantial portion of our business through our operating subsidiaries and VIEs in China and are subject to income tax in the PRC. ZW Data Action Technologies Inc. is a Nevada corporation and is subject to income tax in the United States. The Tax Cuts and Jobs Act (the “U.S. Tax Reform”) was signed into law on December 22, 2017, which significantly modified the U.S. Internal Revenue Code by, among other things, reducing the statutory U.S. federal corporate income tax rate from 35% to 21% for taxable years beginning after December 31, 2017; limiting and/or eliminating many business deductions; migrating the U.S. to a territorial tax system with a one-time transition tax on a mandatory deemed repatriation of previously deferred foreign earnings of certain foreign subsidiaries; subject to certain limitations, generally eliminating U.S. corporate income tax on dividends from foreign subsidiaries; and providing for new taxes on certain foreign earnings.

The U.S. Tax Reform includes provisions for a new tax on global intangible low-taxed income (“GILTI”) effective for tax years of non-U.S. corporations beginning after December 31, 2017. The GILTI provisions impose a tax on foreign income in excess of a deemed return on tangible assets of controlled foreign corporations (“CFCs”), subject to the possible use of foreign tax credits and a deduction equal to 50 percent to offset the income tax liability, subject to some limitations. The new GILTI tax would be imposed on us when our subsidiaries and VIEs that are CFCs generate income that is subject to Subpart F of the U.S. Internal Revenue Code beginning after December 31, 2017, and any such resulting U.S. corporate income tax imposed on us would reduce our consolidated net income.

Risks Related to our Securities

Insiders have substantial control over us, and they could delay or prevent a change in our corporate control even if our other stockholders wanted it to occur.

Our executive officers, directors, and principal stockholders hold approximately 18% of our outstanding Common Stock. Accordingly, these stockholders are able to exert substantial influence over all matters requiring stockholder approval, including the election of directors and approval of significant corporate transactions. This could delay or prevent an outside party from acquiring or merging with us even if our other stockholders wanted it to occur.

There may not be sufficient liquidity in the market for our securities in order for investors to sell their securities.

There is currently only a limited public market for our Common Stock and there can be no assurance that a trading market will develop further or be maintained in the future. As of April 14, 2023, the closing trade price of our Common Stock was \$1.77 per share. As of April 17, 2023, we had approximately 610 shareholders of record of our Common Stock, not including shares held in street name. In addition, during the past two fiscal years our Common Stock has had a trading range with a low price of \$1.44 per share and a high price of \$30.95 per share.

The market price of our Common Stock may be volatile.

The market price of our Common Stock has been and will likely continue to be highly volatile, as is the stock market in general. Some of the factors that may materially affect the market price of our Common Stock are beyond our control, such as changes in financial estimates by industry and securities analysts, conditions or trends in the industry in which we operate or sales of our common stock. These factors may materially adversely affect the market price of our Common Stock, regardless of our performance. In addition, the public stock markets have experienced extreme price and trading volume volatility particularly for companies whose primary operations are located in the PRC. This volatility has significantly affected the market prices of securities of many companies for reasons frequently unrelated to the operating performance of the specific companies. These broad market fluctuations may adversely affect the market price of our Common Stock.

The outstanding warrants may adversely affect us in the future and cause dilution to existing stockholders.

We have warrants outstanding to purchase up to 1,000,343 shares of our Common Stock, of which 406,175 will expire on December 14, 2023, and the remaining 594,168 warrants will expire on August 18, 2024. The exercise prices of these warrants range from \$10.15 to \$22.4375 per share, subject to adjustment in certain circumstances. Exercise of these warrants may cause dilution in the interests of other stockholders as a result of the additional Common Stock that would be issued upon exercise. In addition, sales of the shares of our Common Stock issuable upon exercise of these warrants could have a depressive effect on the price of our stock, particularly if there is not a coinciding increase in demand by purchasers of our Common Stock. Further, the terms on which we may obtain additional financing during the period any of these warrants remain outstanding may be adversely affected by the existence of these warrants as well.

We may need additional capital and may sell additional securities or other equity securities or incur indebtedness, which could result in additional dilution to our shareholders or increase our debt service obligations.

We may require additional cash resources due to changed business conditions or other future developments, including any investments or acquisitions we may decide to pursue. If our cash resources are insufficient to satisfy our cash requirements, we may seek to sell additional equity or debt securities or obtain a credit facility. The sale of additional equity securities or equity-linked debt securities could result in additional dilution to our shareholders. The incurrence of indebtedness would result in increased debt service obligations and could result in operating and financing covenants that would restrict our operations. We cannot assure you that financing will be available in amounts or on terms acceptable to us, if at all.

We have not paid dividends in the past and do not expect to pay dividends in the future, and any return on investment may be limited to the value of our stock.

We have never paid any cash dividends on our Common Stock and do not anticipate paying any cash dividends on our Common Stock in the foreseeable future and any return on investment may be limited to the value of our stock. We plan to retain any future earnings to finance growth.

Techniques employed by manipulative short sellers in Chinese small cap stocks may drive down the market price of our common stock.

Short selling is the practice of selling securities that the seller does not own but rather has, supposedly, 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 therefore in the short seller's best interests for the price of the stock to decline, many short sellers (sometimes known as "disclosed shorts") 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 stock short. While traditionally these disclosed shorts were limited in their ability to access mainstream business media or to otherwise create negative market rumors, the rise of the Internet and technological advancements regarding document creation, videotaping and publication by weblog ("blogging") have allowed many disclosed shorts to publicly attack a company's credibility, strategy and veracity by means of so-called research reports that mimic the type of investment analysis performed by large Wall Street firm and independent research analysts. These short attacks have, in the past, led to selling of shares in the market, on occasion in large scale and broad base. Issuers with business operations based in China and who have limited trading volumes and are susceptible to higher volatility levels than U.S. domestic large-cap stocks, can be particularly vulnerable to such short attacks.

These short seller publications are not regulated by any governmental, self-regulatory organization or other official authority in the U.S., are not subject to the certification requirements imposed by the Securities and Exchange Commission in Regulation AC (Regulation Analyst Certification) and, accordingly, the opinions they express may be based on distortions of actual facts or, in some cases, fabrications of facts. In light of the limited risks involved in publishing such information, and the enormous profit that can be made from running just one successful short attack, unless the short sellers become subject to significant penalties, it is more likely than not that disclosed shorts will continue to issue such reports.

While we intend to strongly defend our public filings against any such short seller attacks, oftentimes we are constrained, either by principles of freedom of speech, applicable state law (often called "Anti-SLAPP statutes"), or issues of commercial confidentiality, in the manner in which we can proceed against the relevant short seller. You should be aware that in light of the relative freedom to operate that such persons enjoy – oftentimes blogging from outside the U.S. with little or no assets or identity requirements – should we be targeted for such an attack, our stock will likely suffer from a temporary, or possibly long term, decline in market price should the rumors created not be dismissed by market participants.

The Nasdaq may delist our securities from quotation on its exchange which could limit investors' ability to make transactions in our securities and subject us to additional trading restrictions.

Our Common Stock is traded on the Nasdaq Stock Market LLC ("Nasdaq"), a national securities exchange.

On February 17, 2022, we received a notice (the "Notice") from Nasdaq indicating that our Common Stock failed to comply with the \$1.00 minimum bid price required for continued listing on The Nasdaq Capital Market under Nasdaq Listing Rule 5550(a)(2) based upon the closing bid price of the Common Stock for the 30 consecutive business days prior to the date of the Notice. To regain compliance, the minimum bid price of the Common Stock must meet or exceed \$1.00 per share for a minimum ten consecutive business days at any point prior to August 12, 2022. On August 17, 2022, we received another notice from Nasdaq indicating that, while we had not regained compliance with the minimum bid price requirement, Nasdaq had determined that we were eligible for an additional 180-day period, or until February 13, 2023 to regain compliance.

We filed a Certificate of Amendment to our Articles of Incorporation with the Secretary of State of the State of Nevada to effect a one-for-five (1 for 5) reverse stock split of our common stock (the “Common Stock”) pursuant to NRS Section 78.209, which became effective on January 18, 2023. On February 3, 2023, we received a letter from the Nasdaq notifying us that Nasdaq had determined that for 10 consecutive business days, from January 20, 2023 to February 2, 2023, the closing bid price of our Common Stock had been at \$1.00 per share or greater. Accordingly, we regained compliance with the Listing Rule and this matter was closed.

There can be no assurance that we will continue being able to comply with Nasdaq’s rule or will otherwise be in compliance with other Nasdaq continued listing criteria. If Nasdaq delists our Common Stock from trading on its exchange, we could face significant material adverse consequences including:

- a limited availability of market quotations for our securities;
- a determination that our Common Stock is a “penny stock” which will require brokers trading in our Common Stock to adhere to more stringent rules and possibly resulting in a reduced level of trading activity in the secondary trading market for our Common Stock;
- a limited amount of news and analyst coverage for our company; and
- a decreased ability to issue additional securities or obtain additional financing in the future.

If we become directly subject to the scrutiny involving U.S. listed Chinese companies, we may have to expend significant resources to investigate and/or defend the matter, which could harm our business operations, stock price and reputation.

U.S. public companies that have substantially all of their operations in China have been the subject of intense scrutiny by investors, financial commentators and regulatory agencies. Much of the scrutiny has centered around financial and accounting irregularities and mistakes, a lack of effective internal controls over financial reporting and, in many cases, allegations of fraud. As a result of the scrutiny, the publicly traded stock of many U.S. listed China-based companies that have been the subject of such scrutiny has sharply decreased in value. Many of these companies are now subject to shareholder lawsuits and/or SEC enforcement actions that are conducting internal and/or external investigations into the allegations. If we become the subject of any such scrutiny, whether any allegations are true or not, we may have to expend significant resources to investigate such allegations and/or defend our company. Such investigations or allegations will be costly and time-consuming and distract our management from our business plan and could result in our reputation being harmed and our stock price could decline as a result of such allegations, regardless of the truthfulness of the allegations.

ITEM UNRESOLVED STAFF COMMENTS

1B.

None.

ITEM PROPERTIES

2

The following table summarizes the location of real property we currently lease. We do not own any real property.

Item	Address
1	Room 1811, Xinghuo Keji Plaza, No. 2 Fufeng Road, Fengtai District, Beijing, PRC
2	10 th Floor, Tower A&B, No. 68 First Helong Road, Baiyun District, Guangzhou City, Guangdong Province, PRC
3	5 th Floor, Tower A, No. 68 First Helong Road, Baiyun District, Guangzhou City, Guangdong Province, PRC

The property listed in Item 1 above is our principal executive office and is used by all of our business segments. The properties listed in Item 2 and Item 3 are the offices for our subsidiaries and operating VIEs in Guangzhou, Guangdong province, and are primarily used by all of our business segments.

We believe that our existing facilities and equipment are well maintained and in good operating condition and are sufficient to meet our needs for the foreseeable future.

ITEM LEGAL PROCEEDINGS

3

We are currently not a party to any legal or administrative proceedings and are not aware of any pending or threatened legal or administrative proceedings against us in all material aspects. We may from time to time become a party to various legal or administrative proceedings arising in the ordinary course of our business.

ITEM MINE SAFETY DISCLOSURES

4

Not applicable.

PART II.

ITEM MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

5

Our Common Stock has been listed on the Nasdaq Capital Market under the symbol "CNET" since October 29, 2013. Prior to that time, from September 14, 2010 through October 28, 2013, our Common Stock was listed on Nasdaq Global Market under the symbol "CNET". Prior to that time, from March 4, 2010 through September 13, 2010, our Common Stock was listed on the NYSE AMEX under the trading symbol "CNET." Prior to that time, our Common Stock was quoted on the OTC Bulletin Board ("OTCBB") under the trading symbol "EMZG", until August 14, 2009, when our ticker symbol was change to "CHNT".

We filed a Certificate of Amendment to our Articles of Incorporation with the Secretary of State of the State of Nevada to effect a one-for-five (1-for-5) reverse stock split of our Common Stock pursuant to NRS Section 78.209 (the "Reverse Stock Split"), which became effective on January 18, 2023. As a result, the number of shares of our authorized Common Stock was reduced from 100,000,000 shares to 20,000,000 shares and the issued and outstanding number of shares of the Common Stock was correspondingly decreased. The Reverse Stock Split has no effect on the par value of our Common Stock or authorized shares of preferred stock.

When the Reverse Stock Split became effective, each five shares of issued and outstanding Common Stock were automatically converted into one newly issued and outstanding share of Common Stock. No fractional shares were issued in connection with the Reverse Stock Split. Any fractional shares of Common Stock that would have otherwise resulted from the Reverse Stock Split were rounded up to the nearest full share. No cash or other consideration was paid in connection with any fractional shares that would otherwise have resulted from the Reverse Stock Split.

Holders

As of April 17, 2023, there were approximately 610 record holders of our Common Stock.

Dividends

We have never paid any dividends on our Common Stock and we plan to retain earnings, if any, for use in the development and growth of our business. Payment of future dividends, if any, will be at the discretion of the board of directors after taking into account various factors, including current financial condition, operating results and current and anticipated cash needs. If we ever determine to pay a dividend, we may experience difficulties in completing the administrative procedures necessary to obtain and remit foreign currency from China for the payment of such dividends from the profits of our PRC subsidiaries and VIEs.

Securities Authorized for Issuance Under Equity Compensation Plans

See “Item 11. Executive Compensation” for the aggregate information regarding our equity compensation plans in effect on December 31, 2022.

Equity Repurchases

During the fourth quarter of our fiscal year ended December 31, 2022, neither we nor any “affiliated purchaser” (as defined in Rule 10b-18(a)(3) under the Exchange Act) purchased any shares of our Common Stock, the only class of our equity securities registered pursuant to Section 12 of the Exchange Act.

Recent Sales of Unregistered Securities

Any previous sales of unregistered securities by the Company have been previously disclosed in our reports on Form 10-Q or Form 8-K, as applicable, filed with the SEC.

ITEM [RESERVED]

6

ITEM MANAGEMENT’S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

7

Forward-Looking Statements

You should read the following discussion and analysis of our financial condition and results of operations in conjunction with our audited consolidated financial statements and the related notes to the consolidated financial statements included elsewhere in this Form 10-K. Our audited consolidated financial statements have been prepared in accordance with U.S. GAAP. The following discussion and analysis contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, including, without limitation, statements regarding our expectations, beliefs, intentions or future strategies that are signified by the words “expect,” “anticipate,” “intend,” “believe,” or similar language. All forward-looking statements included in this document are based on information available to us on the date hereof, and we assume no obligation to update any such forward-looking statements. Our business and financial performance are subject to substantial risks and uncertainties. Actual results could differ materially from those projected in the forward-looking statements. In evaluating our business, you should carefully consider the information set forth under the heading “Risk Factors” and elsewhere in this Form 10-K. Readers are cautioned not to place undue reliance on these forward-looking statements.

The Public Company Accounting Oversight Board (the “PCAOB”) had historically been unable to inspect our auditor in relation to their audit work performed for our financial statements and the inability of the PCAOB to conduct inspections over our auditor has deprived our investors with the benefits of such inspections.

Our auditor, the independent registered public accounting firm that issues the audit report in our SEC filings, as an auditor of companies that are traded publicly in the United States and a firm registered with the PCAOB, is subject to laws in the United States pursuant to which the PCAOB conducts regular inspections to assess its compliance with the applicable professional standards. Our auditor is located in Hong Kong Special Administrative Region of the PRC (“Hong Kong”), China, a jurisdiction where the PCAOB was unable to conduct inspections and investigations before 2022. As a result, we and investors in our securities were deprived of the benefits of such PCAOB inspections. 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 China mainland and Hong Kong in 2022. However, the inability of the PCAOB to conduct inspections of auditors in Hong Kong in the past made it more difficult to evaluate the effectiveness of our independent registered public accounting firm’s audit procedures or quality control procedures as compared to auditors outside of China mainland and Hong Kong that have been subject to the PCAOB inspections, which could cause investors and potential investors in our securities to lose confidence in our audit procedures and reported financial information and the quality of our financial statements.

Our common stock may be delisted and prohibited from trading in the United States under the Holding Foreign Companies Accountable Act, or the HFCAA, as amended by the Accelerating Holding Foreign Companies Accountable Act, if the PCAOB is unable to inspect or investigate completely auditors located in China mainland and Hong Kong. The delisting of our common stock or the threat of their being delisted could cause the value of our common stock to significantly decline or be worthless, and thus you could lose all or substantial portion of your investment.

On December 18, 2020, the Holding Foreign Companies Accountable Act, or the HFCAA, was signed into law that states if the SEC determines that issuers have filed audit reports issued by a registered public accounting firm that has not been subject to PCAOB inspection for three consecutive years beginning in 2021, the SEC shall prohibit its common stock from being traded on a national securities exchange or in the over-the-counter trading market in the U.S. Furthermore, on June 22, 2021, the U.S. Senate passed the Accelerating Holding Foreign Companies Accountable Act, to prohibit securities of any registrant from being listed on any of the U.S. securities exchanges or traded over-the-counter if the auditor of the registrant's financial statements is not subject to PCAOB inspection for two consecutive years, instead of three consecutive years as enacted in the HFCAA. On December 2, 2021, the SEC adopted final amendments implementing the disclosure and submission requirements of the HFCAA, pursuant to which the SEC will identify an issuer as a "Commission-Identified Issuer" if the issuer has filed an annual report containing an audit report issued by a registered public accounting firm that the PCAOB has determined it is unable to inspect or investigate completely, and will then impose a trading prohibition on an issuer after it is identified as a Commission-Identified Issuer for three consecutive years. On December 29, 2022, the Accelerating Holding Foreign Companies Accountable Act was signed into law.

On December 16, 2021, the PCAOB issued a HFCAA Determination Report (the "2021 PCAOB Determinations") to notify the SEC of its determination that the PCAOB was unable to inspect or investigate completely registered public accounting firms headquartered in China mainland and Hong Kong because of positions taken by the Chinese authorities, and our auditor was subject to this determination. On May 13, 2022, the SEC conclusively identified us as a Commission-Identified Issuer under the HFCAA following the filing of our annual report on Form 10-K for the fiscal year ended December 31, 2021.

On August 26, 2022, the PCAOB signed a Statement of Protocol on agreement governing on inspections of audit firms based in mainland China and Hong Kong, with China Securities Regulatory Commission ("CSRC") and Ministry of Finance ("MOF") of the PRC, in regarding to governing inspections and investigations of audit firms headquartered in mainland China and Hong Kong (the "Agreement"). As stated in the Agreement, the Chinese authorities committed that the PCAOB has direct access to view complete audit work papers under its inspections or investigations and has sole discretion to the selected audit firms and audit engagements. The Agreement opens access for the PCAOB to inspect and investigate the registered public accounting firms in mainland China and Hong Kong completely. The PCAOB then thoroughly tested compliance with every aspect of the Agreement necessary to determine complete access. This included sending a team of PCAOB staff to conduct on-site inspections and investigations in Hong Kong over a nine-week period from September to November 2022.

On December 15, 2022, the PCAOB issued its 2022 HFCAA Determination Report to notify the SEC of its determination that the PCAOB was able to secure complete access to inspect and investigate PCAOB-registered public accounting firms headquartered in China mainland and Hong Kong completely in 2022. The PCAOB Board vacated its 2021 PCAOB Determinations that the PCAOB was unable to inspect or investigate completely registered public accounting firms headquartered in China mainland and Hong Kong. For this reason, we do not expect to be identified as a Commission-Identified Issuer following the filing of our annual report for the fiscal year ended December 31, 2022. However, whether the PCAOB will continue to be able to satisfactorily conduct inspections of PCAOB-registered public accounting firms headquartered in China mainland and Hong Kong is subject to uncertainty and depends on a number of factors out of our, and our auditor's, control.

The PCAOB is continuing to demand complete access in China mainland and Hong Kong moving forward and is already making plans to resume regular inspections in early 2023 and beyond, as well as to continue pursuing ongoing investigations and initiate new investigations as needed. The PCAOB does not have to wait another year to reassess its determinations. Should the PRC authorities obstruct the PCAOB's access to inspect or investigate completely in any way and at any point, the PCAOB will act immediately to consider the need to issue new determinations consistent with the HFCAA.

We cannot assure you that our auditor will not be determined as a register public accounting firm that the PCAOB is unable to inspect or investigate completely for two consecutive years because of positions taken by the Chinese authorities and/or any other causes in the future. If the PCAOB in the future again determines that it is unable to inspect and investigate completely auditors in China mainland and Hong Kong, we may be identified as a Commission-Identified Issuer accordingly. If this happens, Nasdaq may determine to delist our common stock, and there is no certainty that we will be able to continue listing our common stock on other non-U.S. stock exchanges or that an active market for our common stock will immediately develop outside of the U.S. The prohibiting from trading in the United States or delisting of our common stock or the threat of their being delisted could cause the value of our common stock to significantly decline or be worthless, and thus you could lose all or substantial portion of your investment.

Overview

Our company was incorporated in the State of Texas in April 2006 and re-domiciled to become a Nevada corporation in October 2006. As a result of a share exchange transaction we consummated with China Net BVI in June 2009, we are now a holding company, which through certain contractual arrangements with operating companies in the PRC, is engaged in providing Internet advertising, precision marketing, blockchain-based SaaS services and ecommerce O2O advertising and marketing services and the related data and technical services to SMEs in the PRC.

Through our PRC operating subsidiaries and VIEs, we primarily operate a one-stop services for our clients on our Omni-channel advertising, precision marketing and data analysis management system. We offer a variety channels of advertising and marketing services through this system, which primarily include distribution of the right to use search engine marketing services we purchased from key search engines, provision of online advertising placements services on our web portals, provision of ecommerce O2O advertising and marketing services as well as provision of other related value-added data and technical services to maximize market exposure and effectiveness for our clients. From early 2022, we started to introduce our new SaaS services to customers. The SaaS services were designed in providing one-stop blockchain-powered enterprise management solutions via our BIF platform in forms of unique NFT generations, data record, share and storage modules subscriptions etc.

Basis of presentation, critical accounting policies and management estimates

Our consolidated financial statements have been prepared in accordance with generally accepted accounting principles in the United States of America ("U.S. GAAP") and include the accounts of our company, and all of our subsidiaries and VIEs. All transactions and balances between our company and our subsidiaries and VIEs have been eliminated upon consolidation. We prepare financial statements in conformity with U.S. GAAP, which requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities on the date of the financial statements and the reported amounts of revenues and expenses during the financial reporting period. We continually evaluate these estimates and assumptions based on the most recently available information, our own historical experience and various other assumptions that we believe to be reasonable under the circumstances. Since the use of estimates is an integral component of the financial reporting process, actual results could differ from those estimates. We considered the policies discussed below to be critical to an understanding of our financial statements.

Foreign currency translation and transactions

We conduct substantially all of our operations through our PRC operating subsidiaries and VIEs, PRC is the primary economic environment in which we operate. The exchange rates used to translate amounts in Renminbi (“RMB”), the functional currency of the PRC, into our reporting currency, the United States Dollar (“U.S. dollar” or “US\$”) for the purposes of preparing our consolidated financial statements are as follows:

	As of December 31,	
	2022	2021
Balance sheet items, except for equity accounts	6.9646	6.3757
	Year Ended December 31,	
	2022	2021
Items in the statements of operations and comprehensive loss	6.7261	6.4515

Impairment of long-lived assets

In accordance with ASC 360-10-35, long-lived assets, which include tangible long-lived assets and intangible long-lived assets, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of long-lived assets to be held and used is measured by a comparison of the carrying amount of the asset to the estimated undiscounted future cash flows expected to be generated by the asset. If the carrying amount of an asset exceeds its estimated future undiscounted cash flows, an impairment loss is recognized for the difference between the carrying amount of the asset and its fair value.

Revenue recognition

In accordance with ASC Topic 606 “Revenue from Contracts with Customers”, our revenues are recognized when control of the promised goods or services are transferred to our customers, in an amount that reflects the consideration we expected to be entitled to in exchange for those goods or services.

For the distribution of the right to use search engine marketing service, the provision of advertising placement services, and the blockchain platform subscription service, we recognize revenues over time when we consider the services have been delivered to our customers, with the related benefits being simultaneously received and consumed by our customers. For NFT generation service provided through our BIF platform, revenues are recognized based on a fixed price per NFT generation, when a NFT is generated, delivered and accepted by customers (“point in time”).

For the distribution of the right to use the third-party’s search engine marketing service, we recognize the revenues on a gross basis, because we determine that we are a principal in the transaction, who controls the service before it is transferred to the customers.

Lease

We lease office spaces from unrelated parties during our normal course of business. We account for these leases in accordance with ASC Topic 842 “Leases”. Other than office spaces leases, we do not have any other contract that is or contains a lease under ASC Topic 842.

Our lease contracts do not contain any option for us to extend or terminate the lease, and do not contain the option for us to purchase the underlying assets. Based on the noncancelable lease period in the contract, we consider contract-based, asset-based, market-based and entity-based factors to determine the term over which we are reasonably certain to extend the lease, and then determine the lease term of each contract. Our lease contracts only contain fixed lease payments and do not contain any residual value guarantee. Our lease contracts do not contain any nonlease component and are classified as operating leases in accordance with ASC Topic 842-10-25-3.

Our office spaces lease contracts with a duration of twelve months or less meet the definition of short-term leases under ASC Topic 842. As an accounting policy, we elected not to recognize right-of-use asset and related lease liability to these short-term leases. Instead, we recognized the lease payments of these short-term leases in our consolidated statements of operations and comprehensive loss on a straight-line basis over the lease term.

As the implicit rates of our leases cannot be readily determined, in accordance with ASC Topic 842-20-30-3, we then use our incremental borrowing rate as the discount rate to determine the present value of our lease payments for each of our lease contracts with a duration of over twelve months. The discount rate used by us was determined based on the interest rate expected to be used by the commercial banks in the PRC for long-term loans with the same maturity terms as the respective lease contracts at lease inception, if lent to our company on a collateralized basis.

Recent issued or adopted accounting standards

In June 2016, the FASB issued ASU No. 2016-13, “Financial Instruments-Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments”. The amendments in this ASU require the measurement and recognition of expected credit losses for financial assets held at amortized cost. The amendments in this ASU replace the existing incurred loss impairment model with an expected loss methodology, which will result in more timely recognition of credit losses. In November 2018, the FASB issued ASU No. 2018-19, “Codification Improvements to Topic 326, Financial Instruments-Credit Losses”, which among other things, clarifies that receivables arising from operating leases are not within the scope of Subtopic 326-20. Instead, impairment of receivables arising from operating leases should be accounted for in accordance with Topic 842, Leases. For public entities, the amendments in these ASUs are effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. In November 2019, the FASB issued ASU No. 2019-10, “Financial Instruments-Credit Losses (Topic 326), Derivatives and Hedging (Topic 815), and Leases (Topic 842)-Effective date”, which deferred the effective date of this ASU until fiscal years beginning after December 15, 2022, including interim periods within those fiscal years, for SEC filers that are eligible to be smaller reporting companies under the SEC’s definition. Our company, as a SEC smaller reporting company, has adopted the amendments in this ASU from January 1, 2023. The adoption of this ASU did not have a material impact on our consolidated financial position and results of operations.

A. RESULTS OF OPERATIONS FOR THE YEARS ENDED DECEMBER 31, 2022 AND 2021

The following table sets forth a summary, for the periods indicated, of our consolidated results of operations. Our historical results presented below are not necessarily indicative of the results that may be expected for any future period. All amounts, except number of shares and per share data, are presented in thousands of U.S. dollars.

	Year Ended December 31,	
	2022	2021
	US\$	US\$
Revenues		
From unrelated parties	\$ 26,235	\$ 47,324
From related parties	-	4
Total revenues	26,235	47,328
Cost of revenues	26,429	47,230
Gross (loss)/profit	(194)	98
Operating expenses		
Sales and marketing expenses	269	730
General and administrative expenses	8,304	12,632
Research and development expenses	229	326
Impairment on intangible assets	2,123	-
Total operating expenses	10,925	13,688
Loss from operations	(11,119)	(13,590)
Other income (expenses)		
Change in fair value of warrant liabilities	1,854	11,329
Interest income	116	4
Impairment on long-term investments	(596)	-
Loss on disposal of long-term investments	-	(38)
Other expense, net	(49)	(216)
Total other income	1,325	11,079
Loss before income tax benefit/(expense) and noncontrolling interests	(9,794)	(2,511)
Income tax benefit/(expense)	3	(177)
Net loss	(9,791)	(2,688)
Net income attributable to noncontrolling interests	-	(66)
Net loss attributable to ZW Data Action Technologies Inc.	\$ (9,791)	\$ (2,754)
Loss per share		
Loss per common share		
Basic and diluted	\$ (1.37)	\$ (0.42)
Weighted average number of common shares outstanding:		
Basic and diluted	7,136,290	6,618,754

REVENUES

The following tables set forth a breakdown of our total revenues, disaggregated by type of services for the periods indicated, with inter-company transactions eliminated:

Revenue type	Year Ended December 31,			
	2022		2021	
	(Amounts expressed in thousands of US dollars, except percentages)			
-Internet advertising and related data service	\$ 3,548	13.5%	\$ 7,442	15.7%
-Distribution of the right to use search engine marketing service	22,262	84.9%	39,224	82.9%
Internet advertising and related services	25,810	98.4%	46,666	98.6%
Blockchain-based SaaS services	425	1.6%	-	-
Ecommerce O2O advertising and marketing services	-	-	662	1.4%
Total	\$ 26,235	100%	\$ 47,328	100%

Total Revenues: Our total revenues decreased to US\$26.24 million for the year ended December 31, 2022 from US\$47.33 million for the year ended December 31, 2021, which was primarily due to the decrease in our main stream service revenues, i.e., distribution of the right to use search engine marketing service.

We derive the majority of our revenues from distribution of the right to use the search engine marketing (“SEM”) services, sale of advertising space on our internet ad portals, and provision of the related data and technical services, all of which management considers as one aggregate business operation and relies upon the consolidated results of all operations in this business unit to make decisions about allocating resources and evaluating performance. Our advertising and marketing services to related parties were provided in the ordinary course of business on the same terms as those provided to our unrelated customers. Our service revenues from related parties were insignificant for both the years ended December 31, 2022 and 2021.

- Internet advertising revenues for the year ended December 31, 2022 was approximately US\$3.55 million, compared with US\$7.44 million for the year ended December 31, 2021. The decreases were mainly due to repeated regional COVID-19 rebound cases in many provinces in China throughout the year, which resulted in long-term regional quarantine and large-scale business shutdown that affected business of most of our clients, i.e., SMEs. This in return materially and adversely affected the advertising investment budgets and advertising service demands of our SME clients.
- Revenue generated from distribution of the right to use search engine marketing service for the year ended December 31, 2022 was approximately US\$22.62 million, compared with approximately US\$39.22 million for the year ended December 31, 2021. The reason that caused the decrease in revenue generated from this business category was the same as discussed above about the Internet advertising and related data services.
- For the year ended December 31, 2022, we generated an approximately US\$0.43 million revenues from our Blockchain-based SaaS Services, which consist of an approximately US\$0.03 million platform subscription fee revenues and an approximately US\$0.40 million NFT generation service revenues.
- For the year ended December 31, 2021, we generated an approximately US\$0.66 million Ecommerce O2O advertising and marketing service revenues through distribution of the advertising spaces in outdoor billboards we purchased from a third party. We terminated this business in the fourth quarter of fiscal 2021.

Cost of Revenues

Our cost of revenues consisted of advertising resources costs directly related to the offering of our Internet advertising, precision marketing services and our Ecommerce O2O advertising and marketing service, and software platform amortization cost related to our blockchain-based SaaS services. The following table sets forth our cost of revenues, disaggregated by type of services, by amount and gross profit ratio for the periods indicated, with inter-company transactions eliminated:

	Year Ended December 31,					
	2022			2021		
	(Amounts expressed in thousands of US dollars, except percentages)					
	Revenue	Cost	GP ratio	Revenue	Cost	GP ratio
-Internet advertising and related data service	\$ 3,548	3,199	10%	\$ 7,442	6,590	11%
-Distribution of the right to use search engine marketing service	22,262	22,894	-3%	39,224	39,140	0.2%
Internet advertising and related services	25,810	26,093	-1%	46,666	45,730	2%
Blockchain-based SaaS services	425	336	21%	-	-	-
Ecommerce O2O advertising and marketing services	-	-	-	662	1,500	-127%
Total	\$ 26,235	\$ 26,429	-1%	\$ 47,328	\$ 47,230	0.2%

Cost of revenues: our total cost of revenues decreased to approximately US\$26.43 million for the year ended December 31, 2022, compared with US\$47.23 million for the year ended December 31, 2021. Our cost of revenues primarily consists of search engine marketing resources purchased from key search engines, cost of outdoor advertising resources, amortization of software platform development cost and other direct costs associated with providing our services. The decrease in our total cost of revenues for the year ended December 31, 2022 was primarily due to the decrease in costs associated with the distribution of the right to use search engine marketing service we purchased from key search engines, which was in line with the decrease in the related revenues as discussed in the revenues section above.

- Costs for Internet advertising and data service primarily consist of cost of internet traffic flow and technical services we purchased from other portals and technical suppliers for obtaining effective sales lead generation to promote business opportunity advertisements placed on our own ad portals. For the year ended December 31, 2022 and 2021, our total cost of revenues for Internet advertising and data service was approximately US\$3.20 million and US\$6.59 million, respectively. The gross margin rate of this business category for the years ended December 31, 2022 and 2021 was 10% and 11%, respectively. We anticipate the gross margin rate of this business category will maintain at around 10%.
- Costs for distribution of the right to use search engine marketing service was direct search engine resource consumed for the right to use search engine marketing service that we purchased from key search engines and distributed to our customers. We purchased these search engine resources from well-known search engines in China, for example, Baidu, Qihu 360 and Sohu (Sogou) etc. We purchased the resource in relatively large amounts under our own name at a relatively lower rate compared to the market rates. We charged our clients the actual cost they consumed on search engines for the use of this service and a premium at certain percentage of that actual consumed cost. For the year ended December 31, 2022, our total cost of revenues for distribution of the right to use search engine marketing service decreased to US\$22.89 million, compared with US\$39.14 million for last year. Gross margin rate of this service for the year ended December 31, 2022 was -3%, compared with 0.2% last year. This was directly attributable to the negative impacts on us of the repeated regional COVID-19 rebound in many provinces of China throughout fiscal 2022, which materially and adversely affected the advertising investment budgets and advertising service demands from our SME clients. Under such circumstances, we had to sell the resources pre-purchased from key search engines at a loss to secure our client base and meet our working capital needs during fiscal 2022. We are actively negotiating with our suppliers for more favorable discount, as a result, along with the end of zero-COVID policy adopted by the Chinese government since late 2022, we anticipate to gradually improve the gross margin rate for this business category in future periods.
- For the year ended December 31, 2022, cost of our Blockchain-based SaaS services was approximately US\$0.34 million, which represented the amortized cost of our self-developed BIF platform.
- For the year ended December 31, 2021, costs for our Ecommerce O2O advertising and marketing service revenues were approximately US\$1.50 million, which represented the amortized costs for the related outdoor billboards ad spaces we pre-purchased for the year.

Gross (loss)/profit

As a result of the foregoing, we incurred a gross loss of approximately US\$0.19 million for the year ended December 31, 2022, compared with a gross profit of approximately US\$0.10 million for the year ended December 31, 2021. Our overall gross margin rate for the years ended December 31, 2022 and 2021 was approximately -1% and 0.2%, respectively. The gross loss and the decrease in overall gross margin were primarily due to the decrease in gross margin of our main steam service revenues, i.e., distribution of the right to use search engine marketing services, which accounted for approximately 84.9% of our total revenues for the year ended December 31, 2022, to -3%, compared with the 0.2% gross margin rate last year.

Operating Expenses

Our operating expenses consist of sales and marketing expenses, general and administrative expenses, research and development expenses and impairment on intangible assets. The following tables set forth our operating expenses, divided into their major categories by amount and as a percentage of our total revenues for the periods indicated.

	Year Ended December 31,			
	2022		2021	
	(Amounts expressed in thousands of US dollars, except percentages)			
	Amount	Percentage of total revenue	Amount	Percentage of total revenue
Total Revenues	\$ 26,235	100%	\$ 47,328	100%
Gross (loss)/profit	(194)	-1%	98	0.2%
Sales and marketing expenses	269	1%	730	2%
General and administrative expenses	8,304	32%	12,632	27%
Research and development expenses	229	1%	326	1%
Impairment on intangible assets	2,123	8%	-	-
Total operating expenses	10,925	42%	13,688	30%

Operating Expenses: Our operating expenses were approximately US\$10.93 million and US\$13.69 million for the years ended December 31, 2022 and 2021, respectively.

- Sales and marketing expenses: For the year ended December 31, 2022, our sales and marketing expenses decreased to US\$0.27 million from US\$0.73 million for the year ended December 31, 2021. Our sales and marketing expenses primarily consist of advertising expenses for brand development that we pay to different media outlets for the promotion and marketing of our advertising web portals and our services, staff salaries, staff benefits, performance bonuses, travelling expenses, communication expenses and other general office expenses of our sales department. Due to certain aspects of our business nature, the fluctuation of our sales and marketing expenses usually does not have a direct linear relationship with the fluctuation of our net revenues. For the year ended December 31, 2022, the changes in our sales and marketing expenses were primarily due to the decrease in brand building and promotion expenses of approximately US\$0.51 million, which was partially offset by the increase in general departmental expenses of approximately US\$0.05 million.
- General and administrative expenses: Our general and administrative expenses were approximately US\$8.30 million and US\$12.63 million for the years ended December 31, 2022 and 2021, respectively. Our general and administrative expenses primarily consist of salaries and benefits of management, accounting, human resources and administrative personnel, office rentals, depreciation of office equipment, allowance for doubtful accounts, professional service fees, maintenance, utilities and other general office expenses of our supporting and administrative departments. For the year ended December 31, 2022, the changes in our general and administrative expenses were primarily due to the following reasons: (1) the decrease in share-based compensation expenses of approximately US\$6.84 million, due to less restricted shares granted and issued to management, directors and employees in fiscal 2022, compared with that of fiscal 2021; (2) the increase in allowance for doubtful accounts of approximately US\$2.39 million, due to repeated regional COVID-19 rebound cases in many provinces throughout the year and the zero-COVID policy adopted by the Chinese government, which resulted in large scale of business shutdown throughout the year, and in return, materially and adversely affected the liquidity of our SME clients; and (3) the increase in general departmental expenses of approximately US\$0.12 million.
- Research and development expenses: Our research and development expenses were approximately US\$0.23 million and US\$0.33 million for the years ended December 31, 2022 and 2021, respectively. Our research and development expenses primarily consist of salaries and benefits of our staff in the research and development department, office equipment depreciation expenses, and office utilities and supplies allocated to our research and development department etc. For the year ended December 31, 2022, the decrease in our research and development expenses was primarily due to a reduction in headcount in our research and development department, compared with last year.
- Impairment on intangible assets: For the year ended December 31, 2022, we recorded approximately US\$2.12 million impairment loss associated with our intangible assets, due to insufficient estimated future cash flows expected to be generated by these assets. This was primarily attributable to the negative impacts resulted from the severe COVID-19 rebounds in China and the strict zero-COVID policy adopted by the Chinese government throughout fiscal 2022, which resulted in large scale quarantine and business shutdown, and in return, materially and adversely affected the advertising investment budgets and advertising service demands of our SME clients, and thus adversely affected the future cash flows expected to be generated by these intangible assets.

Loss from operations: As a result of the foregoing, we incurred a net loss from operations of approximately US\$11.12 million and US\$13.59 million for the years ended December 31, 2022 and 2021, respectively.

Change in fair value of warrant liabilities: We issued warrants in financing activities. We determined that these warrants should be accounted for as derivative liabilities, as the warrants are dominated in a currency (U.S. dollar) other than our functional currency (Renminbi or Yuan). As a result, a gain of change in fair value of approximately US\$1.85 million and US\$11.33 million was recorded in earnings for the years ended December 31, 2022 and 2021, respectively.

Interest income: For the year ended December 31, 2022, we recognized an approximately US\$0.12 million interest income, which was primarily related to the interest we earned from the short-term loans we provided to unrelated parties during the year.

Impairment on long-term investments: For the year ended December 31, 2022, we recognized an approximately US\$0.60 million impairment loss on long-term investments, which was related to our cash investments in three of our unconsolidated investee entities whose business activities had become dormant as of the end of fiscal 2022.

Loss before income tax (benefit)/expense and noncontrolling interest: As a result of the foregoing, our loss before income tax (benefit)/expense and noncontrolling interest was approximately US\$9.79 million and US\$2.51 million for the years ended December 31, 2022 and 2021, respectively.

Income tax (benefit)/expense: For the year ended December 31, 2022, we recognized a deferred income tax benefit of approximately US\$0.003 million in relation to the net operating loss incurred by one of our operating VIEs, which we consider likely to be utilized with future earnings of this entity. For the year ended December 31, 2021, we recognized a total deferred income tax expense of US\$0.18 million, which consisted of an approximately US\$0.15 million and an approximately US\$0.03 million deferred income tax expense recognized in relation to additional deferred tax assets valuation allowance provided and utilization of prior year recognized deferred tax assets, respectively.

Net loss: As a result of the foregoing, for the years ended December 31, 2022 and 2021, we incurred a net loss of approximately US\$9.79 million and US\$2.69 million, respectively.

Net income attributable to noncontrolling interest: In May 2018, we incorporated a majority-owned subsidiary, Business Opportunity Chain and beneficially owned 51% equity interest. In October 2020, we incorporated another majority-owned subsidiary, Qiweilian Guangzhou and beneficially owned 51% equity interest. Due to changes in business strategies, we disposed our 51% equity interest in both Business Opportunity Chain and Qiweilian Guangzhou to unrelated parties during fiscal 2021. For the year ended December 31, 2021, net income allocated to the noncontrolling interests of these entities before they were disposed was approximately US\$0.07 million in the aggregate.

Net loss attributable to ZW Data Action Technologies Inc.: Total net loss as adjusted by net income attributable to the noncontrolling interest shareholders as discussed above yields the net loss attributable to ZW Data Action Technologies Inc. Net loss attributable to ZW Data Action Technologies Inc. was approximately US\$9.79 million and US\$2.75 million for the years ended December 31, 2022 and 2021, respectively.

B. LIQUIDITY AND CAPITAL RESOURCES

Cash Transfer within Our Organization and the Related Restrictions

We are a Nevada holding company with operations primarily conducted in China through our PRC subsidiaries, VIEs and VIEs' subsidiaries. The intercompany flow of funds within our organization is effected through capital contributions and intercompany loans. We do not have written policies regarding intercompany cash transfer within our organization. In accordance with our current internal cash management practices, all intercompany cash transfer within our organization requires prior approval by our financial director and our chief financial officer/or our chief executive officer before execution.

For the year ended December 31, 2022, we did not transfer any cash to our operating subsidiaries. One of our subsidiaries paid US\$0.48 million operating expenses in cash on behalf of us to the service providers, as a repayment of the shareholder loans provided by us to this subsidiary in previous years. For the year ended December 31, 2021, we transferred aggregately US\$16.33 million cash to our operating subsidiaries to support their business operations and expansions, of which US\$5.0 million was transferred in form of capital contributions and US\$11.33 million was transferred in form of shareholder loans, of which a US\$2.0 million loan was subsequently converted to capital contribution during 2022.

For the years ended December 31, 2022 and 2021, our operating subsidiaries transferred US\$0.34 million and US\$4.25 million cash to the consolidated VIEs in form of loans, respectively.

Other than the cash transfers above, no other assets were transferred within our organization for the years ended December 31, 2022 and 2021.

Below table summarized the above cash transfers within our organization included in the cash flows statements of our Condensed Consolidating Schedules for the years ended December 31, 2022 and 2021, respectively, on page 28 under Risk Factors-Risks Relating to Regulation of Our Business and to Our Structure contained in Item 1A of this Annual Report:

	For the year ended December 31, 2022			Total US\$'000
	The Company	Consolidated Subsidiaries	Consolidated VIEs	
	US\$'000	US\$'000	US\$'000	
Net cash transferred from/(to) companies within the organization presented as cash provided by/(used in) investing activities	481	(342)		139
Net cash transferred (to)/from companies within the organization presented as cash (used in)/provided by financing activities		(481)	342	(139)

	For the year ended December 31, 2021			Total US\$'000
	The Company	Consolidated Subsidiaries	Consolidated VIEs	
	US\$'000	US\$'000	US\$'000	
Net cash transferred to companies within the organization presented as cash used in investing activities	(16,325)*	(4,253)*	-	(20,578)
Net cash transferred from companies within the organization presented as cash provided by financing activities	-	16,328*	4,250*	20,578

* *Difference between 16,325 and 16,328 and difference between 4,253 and 4,250 were rounding differences.*

As we conduct our operations primarily in China through our PRC subsidiaries, VIEs and their subsidiaries, and we intend to transfer most of our cash raised from the U.S. stock market to these operating entities to support their operations and expansions, our ability to pay dividends to U.S. investors may depend on receiving distributions from our PRC subsidiaries and settlement of the amounts owed under the VIE agreements from the consolidated VIEs. Any limitation on the ability of our PRC subsidiaries and the consolidated VIEs to make payments to us, or the tax implications of making payments to us, could have a material adverse effect on our ability to pay dividends to our U.S. investors.

The PRC regulations currently permit payment of dividends only out of accumulated profits, as determined in accordance with PRC accounting standards and regulations. Our PRC subsidiaries, the consolidated VIEs and their subsidiaries in China are also required to set aside at least 10% of their respective after-tax profit based on the PRC accounting standards and regulations each year to the statutory surplus reserve, until the balance in the reserve reaches 50% of the registered capital of the respective PRC entities. In accordance with these PRC laws and regulations, our PRC subsidiaries, the consolidated VIEs and their subsidiaries are restricted in their ability to transfer a portion of their net assets to us. As of December 31, 2022 and 2021, net assets restricted in the aggregate, were approximately US\$13.31 million and US\$11.58 million, respectively. Appropriations to the enterprise expansion fund and staff welfare and bonus fund of a foreign-invested PRC entity and appropriation to the discretionary surplus reserve of other PRC entities are at the discretion of the board of directors. To date, none of our PRC subsidiaries, the consolidated VIEs and their subsidiaries appropriated any of these non-mandatory funds and reserves. Furthermore, if these entities incur debt on their own in the future, the instruments governing the debt may restrict their ability to pay dividends or make other payments.

Under the PRC Enterprise Income Tax (“EIT”) Law and related regulations, dividends, interests, rent or royalties payable by a foreign-invested enterprise to its immediate holding company outside China are subject to a 10% withholding tax. A lower withholding tax rate will be applied if there is a tax treaty arrangement between mainland China and the jurisdiction of the foreign holding company. Hong Kong has a tax arrangement with mainland China that provides for a 5% withholding tax on dividends subject to certain conditions and requirements, such as the requirements that the Hong Kong enterprise owns at least 25% of the PRC enterprise distributing the dividend at all times within the 12-month period immediately preceding the distribution of dividends and provides that the recipient can demonstrate it is a Hong Kong tax resident and it is the beneficial owner of the dividends. The PRC government adopted regulations in 2018 which stipulate that in determining whether a non-resident enterprise has the status as a beneficial owner, comprehensive analysis shall be conducted based on the factors listed therein and the actual circumstances of the specific case shall be taken into consideration. Specifically, it expressly excludes an agent or a designated payee from being considered as a “beneficial owner”. We own our PRC subsidiaries through China Net HK. China Net HK currently does not hold a Hong Kong tax resident certificate from the Inland Revenue Department of Hong Kong, there is no assurance that the reduced withholding tax rate will be available for us. If China Net HK is not considered to be the “beneficial owner” of the dividends by the Chinese local tax authority, any dividends paid to it by our PRC subsidiaries would be subject to a withholding tax rate of 10%.

There are no restrictions for the consolidated VIEs to settle the amounts owed under the VIE agreements to our WFOE. However, arrangements and transactions among affiliated entities may be subject to audit or challenge by the PRC tax authorities. If at any time the VIE agreements and the related fee structure between the consolidated VIEs and our WFOE is determined to be non-substantive and disallowed by Chinese tax authorities, the consolidated VIEs could, as a matter of last resort, make a non-deductible transfer to our WFOE for the amounts owed under the VIE agreements. This would result in such transfer being non-deductible expenses for the consolidated VIEs but still taxable income for our WFOE. If this happens, it may increase our tax burden and reduce our after-tax income in the PRC, and may materially and adversely affect our ability to make distributions to the holding company. Our management is of the view that the likelihood that this scenario would happen is remote.

Our PRC subsidiaries generate all of their revenue in Renminbi, Renminbi is not freely convertible into other currencies. As a result, any restriction on currency exchange may limit the ability of our PRC subsidiaries to pay dividends/make distributions to us. The Chinese government imposes controls on the convertibility of Renminbi into foreign currencies and, in certain cases, the remittance of currency out of China. Shortages in availability of foreign currency may then restrict the ability of our PRC subsidiaries to remit sufficient foreign currency to us for us to pay dividends to the U.S. investors. Renminbi is currently convertible under the “current account”, which includes dividends, trade and service-related foreign exchange transactions, but not under the “capital account”, which includes foreign direct investment and foreign debt. Currently, our PRC subsidiaries may purchase foreign currency for settlement of current account transactions, including payment of dividends to us, without the approval of the State Administration of Foreign Exchange of China (the “SAFE”) by complying with certain procedural requirements. However, the relevant Chinese governmental authorities may limit or eliminate our ability to purchase foreign currencies in the future for current account transactions. The Chinese government may continue to strengthen its capital controls, and additional restrictions and substantial vetting processes may be instituted by the SAFE for cross-border transactions falling under both the current account and the capital account. Any existing and future restrictions on currency exchange may limit our ability to utilize revenue generated in Renminbi to pay dividends in foreign currencies to holders of our securities. Foreign exchange transactions under the capital account remain subject to limitations and require approvals from, or registration with, the SAFE and other relevant Chinese governmental authorities. This could affect our ability to obtain foreign currency through debt or equity financing for our PRC subsidiaries.

To date, the VIEs have settled to our WFOE the amount owed under the VIE agreements of RMB15.25 million (approximately US\$2.27 million) in the aggregate.

To date, none of our subsidiaries has made any distribution of earnings or issued any dividends to their respective shareholder in or outside of China, or to the Nevada holding company, and the Nevada holding company has never declared or paid any cash dividends to U.S. investors.

We currently do not have any plan to make any distribution of earnings/issue any dividends directly or indirectly to our Nevada holding company or pay any cash dividends on our common stock in the foreseeable future because we currently intend to retain most, if not all, of our available funds and any future earnings to operate and expand our business.

Cash Flow Analysis for the Years Ended December 31, 2022 and 2021

Cash and cash equivalents represent cash on hand and deposits held at call with banks. We consider all highly liquid investments with original maturities of three months or less at the time of purchase to be cash equivalents. As of December 31, 2022, we had cash and cash equivalents of approximately US\$4.39 million.

Our liquidity needs include (i) net cash used in operating activities that consists of (a) cash required to fund the initial build-out, continued expansion of our network and new services and (b) our working capital needs, which include deposits and advance payments to search engine resources and other advertising resources providers, payment of our operating expenses and financing of our accounts receivable; and (ii) net cash used in investing activities that consist of the investment to expand technologies related to our existing and future business activities, investment to enhance the functionality of our current advertising portals for providing advertising, marketing and data services and to secure the safety of our general network, and investment to establish joint ventures with strategic partners for the development of new technologies and services. To date, we have financed our liquidity need primarily through proceeds we generated from financing activities.

The following table provides detailed information about our net cash flow for the periods indicated:

	Year Ended December 31,	
	2022	2021
Amounts in thousands of US dollars		
Net cash used in operating activities	\$ (3,189)	\$ (8,838)
Net cash provided by/(used in) investing activities	552	(5,467)
Net cash provided by financing activities	-	17,111
Effect of exchange rate changes	(145)	70
Net (decrease)/increase in cash and cash equivalents	\$ (2,782)	\$ 2,876

Net cash used in operating activities:

For the year ended December 31, 2022, our net cash used in operating activities of approximately US\$3.19 million were primarily attributable to:

- (1) net loss excluding approximately US\$2.22 million of non-cash expenses of depreciation and amortizations; approximately US\$0.34 million of amortization of operating lease right-of-use assets, approximately US\$0.19 million of share-based compensation; approximately US\$1.85 million of gain from change in fair value of warrant liabilities; approximately US\$2.39 million of allowance for doubtful accounts; approximately US\$0.60 million of impairment on long-term investments; approximately US\$2.12 million of impairment on intangible assets; approximately US\$0.003 million of deferred tax benefit; and approximately US\$0.11 million of non-operating income, yielded the non-cash, non-operating items excluded net loss of approximately US\$3.91 million.
- (2) the receipt of cash from operations from changes in operating assets and liabilities, such as:
- prepayment and deposit to suppliers decreased by approximately US\$1.65 million, primarily due to utilization of the prepayment made to suppliers as of December 31, 2021 through Ad resource and other services received from suppliers during fiscal 2022;
 - other current liabilities and accruals increased by approximately US\$0.90 million in the aggregate, primarily due to delay paying these liabilities to improve the working capital status during the year;
 - due from related parties in relation to advertising services provided to related parties decreased by approximately US\$0.06 million; and
 - other current assets decreased by approximately US\$0.002 million.
- (3) offset by the use from operations from changes in operating assets and liabilities, such as:
- accounts payable decreased by approximately US\$0.85 million, primarily due to settlement of the amount due to a major internet Ad resource provider as of December 31, 2021 during the year;
 - accounts receivable increased by approximately US\$0.28 million;
 - advance from customers decreased by approximately US\$0.42 million;
 - operating lease liabilities and lease liabilities related to short-term leases decreased by approximately US\$0.34 million in the aggregate, due to payment for our office lease costs during the year; and
 - taxes payable decreased by approximately US\$0.01 million.

For the year ended December 31, 2021, our net cash used in operating activities of approximately US\$8.84 million were primarily attributable to:

- (1) net loss excluding approximately US\$0.63 million of non-cash expenses of depreciation and amortizations; approximately US\$0.21 million of amortization of operating lease right-of-use assets; approximately US\$7.03 million of share-based compensation; approximately US\$11.33 million of gain from change in fair value of warrant liabilities; approximately US\$0.18 million of deferred tax expense; and approximately US\$0.56 million of other non-operating losses, yielded the non-cash items excluding net loss of approximately US\$5.41 million.
- (2) the receipt of cash from operations from changes in operating assets and liabilities, such as:
- accounts payable increased by approximately US\$0.50 million, due to more favorable payment terms granted by a new supplier;
 - tax payables increased by approximately US\$0.03 million; and
 - other current assets decreased by approximately US\$0.01 million.

(3) offset by the use from operations from changes in operating assets and liabilities, such as:

- accounts receivable increased by approximately US\$0.99 million, primarily due to increase in total revenues for the year ended December 31, 2021, compared with that in previous year;
- prepayment and deposit to suppliers increased by approximately US\$2.06 million, primarily due to the increase in deposits and prepayments made for the purchase of search engine marketing service from a key search engine and the purchase of other advertising resources from the related suppliers;
- advance from customers decreased by approximately US\$0.22 million;
- long-term deposits and prepayments increased by approximately US\$0.07 million, which was the deposit made for the lease of our new office spaces in Guangzhou; and
- accruals, operating lease liabilities, short-term lease payment payables and other current liabilities decreased by approximately US\$0.62 million in the aggregate, due to settlement of these operating liabilities during the year.

Net cash provided by/(used in) investing activities:

For the year ended December 31, 2022, our cash provided by investing activities included the following transactions: (1) we provided short-term loans of US\$2.60 million in the aggregate to two unrelated parties during the year. The current interest rate is 5% per annum for both loans; (2) we received an aggregate of US\$2.05 million repayments of short-term loan principals, of which US\$1.03 million was related to a loan provided in fiscal 2021, and a US\$0.09 million loan interest income; (3) we received a deposit refund of US\$1.0 million, which was paid in fiscal 2021 for a potential merge and acquisition transaction, as there was no definitive agreement reached among the contract parties by the date as agreed upon; and (4) we received an approximately US\$0.01 million short-term loan repayment from one of our unconsolidated investees. In the aggregate, these transactions resulted in a net cash inflow provided by investing activities of approximately US\$0.55 million for the year ended December 31, 2022.

For the year ended December 31, 2021, our cash used in investing activities included the following transactions: (1) we paid an aggregate of approximately US\$0.33 million for the purchase of vehicles, furniture and office equipment, and for the leasehold improvement of our Guangzhou office; (2) we made an aggregate of approximately US\$2.26 million cash investment and temporary loans to our investee entities, including an US\$1.0 million investment for a 15.38% equity interest in an entity, for jointly developing blockchain, key opinion leader and e-sports platform and jointly operating IP data for e-sports and games with strategic partners; (3) we paid US\$1.16 million for the purchase of an Internet Ad tracking system to further enhance the effectiveness of our Internet advertising business; (4) we provided to an unrelated party short-term loans of approximately US\$2.95 million in the aggregate, of which an approximately US\$1.51 million was provided during 2021. The borrower repaid an approximately US\$1.30 million during 2021; (5) cash decreased by approximately US\$0.01 million as a result of deconsolidation of VIEs' subsidiaries during the year; and (6) we made an aggregate of US\$2.50 million deposit and prepayment for other investing activities, including: (i) a US\$1.0 million refundable deposit for a potential merge and acquisition transaction, which had been refunded in December 2022, as there was no definitive agreement reached by the date as agreed upon; and (ii) a US\$1.5 million prepayment in accordance with a cryptocurrency mining machine purchase agreement, which was subsequently cancelled due to the industry banning policies announced by the government. We were refunded with US\$1.0 million during the year and the remaining balance of the US\$0.5 million was charged off as our non-operating losses for the year ended December 31, 2021, due to subsequent collection is considered remote. In the aggregate, these transactions resulted in a net cash outflow from investing activities of approximately US\$5.47 million for the year ended December 31, 2021.

Net cash provided by financing activities:

For the year ended December 31, 2022, no cash was provided by or used in financing activities.

For the year ended December 31, 2021, we consummated an offering of approximately 1.04 million shares of our common stock to certain institutional investors at a purchase price of \$17.95 per share. As part of the transaction, we also issued to the investors and the placement agent warrants to purchase up to 0.52 million shares and 0.07 million shares of our common stock, respectively, with an exercise price of \$17.95 per share and US\$22.4375 per share, respectively. We received net proceeds of approximately US\$17.11 million, after deduction of approximately US\$1.60 million direct financing cost paid in cash.

Future Liquidity, Material Cash Requirements and Capital Resources

Our future short-term liquidity needs within 12 months from the date hereof primarily include deposits and advance payments required for the purchase of search engine marketing resources and other online marketing resources to be distributed to our customers and payments for our operating expenses, which mainly consist of office rentals and employee salary and benefit.

In addition, in order to further develop our core business, i.e., our Internet advertising and related data service business, broaden and diversify the online marketing channels for customers, reinforce our industry competitive advantage and secure our client base, we are actively seeking target companies with complementary online marketing resources for acquisition and/or joint ventures cooperation. To date, we have not entered into any binding agreements with any potential target. It is not yet certain when the potential acquisition and/or cooperation will be consummated and what form(s) of consideration will be transferred by us. If this transaction were to be consummated, it will materially decrease our liquidity in the short run when the cash consideration, if any, is transferred. However, upon consummation of the acquisition, operating profits and new cash inflow may be generated from the acquired subsidiary, which may also help to improve the overall gross margin and cash flow status of our core business through the expected synergies of combining operations of the new acquired subsidiary and our own. Except this, we do not have other material non-operational cash requirements within 12 months from the date hereof.

Our current core business is to provide advertising and marketing services to small and medium enterprises (“SMEs”) in the PRC, which is particularly sensitive to changes in general economic conditions. During fiscal 2022, there had been repeated severe COVID-19 cases rebound in many provinces, including first tier cities in China, such as Shanghai, Guangzhou, Shenzhen etc., regional large-scale quarantine and business shutdown incurred, which resulted in pandemic fears and in return severely affected the SMEs owners’ confidence to further expand their businesses, and thus adversely affected the SMEs owners’ demands on our online advertising and marketing services. As a result, our core business suffered from a temporary decrease in revenues, and we experienced a gross loss from our core business for fiscal 2022. Thus, we have been relying on proceeds generated from financing activities for our liquidity in fiscal 2022. In December 2022, after a severe lockdown in most parts of mainland China, the Chinese government ended its three-year zero-COVID policy, most of the travel restrictions and quarantine requirements were lifted accordingly. Although there remain uncertainties as to the future development and impact of the COVID-19 pandemic, we anticipate a slow recovery of performance and improvement of cash flow status of our core business in the next 12 months.

In order to improve operation performance, from early 2022, we started to introduce our new SaaS services to our customers. The SaaS services were designated to provide one-stop blockchain-powered enterprise management solutions via our Blockchain Integrated Framework (“BIF”) platform in forms of unique NFT generations, data record, share and storage modules subscriptions etc. However, the unexpected long-time quarantine and business shutdown measures for COVID-19 epidemic control incurred throughout fiscal 2022 adversely affected our promotion of the new SaaS services to our customers. To adapt to the economic change and alleviate the impact of COVID-19 epidemic control measures, we modified our short-term tactics of SaaS services into a more SMEs-friendly way, for example, we introduced a more flexible payment method of pay per generation of NFT. We generated approximately US\$0.43 million of revenues from this new SaaS services in fiscal 2022 and expect to generate approximately US\$0.90 million of revenues from the SaaS services within the next 12 months. Although revenues from the new SaaS services business and its profitability have not met our expectations, it is expected to bring us positive cash flow and help to improve our liquidity, as these services are provided based on technologies of our self-developed software platform, which does not need any further material cash outflow to other third-party service providers.

In addition, for the next 12 months from the date hereof, we anticipate to generate additional cash inflows and/or improve our liquidity through the following: (1) our short-term working capital loans provided to unrelated parties will mature within the next 12 months that we anticipate collecting these loan principals and the related interest income within the next 12 months; (2) if at any time we anticipate insufficiency of our working capital, we can apply for revolving credit facility from commercial banks in the PRC to supplement our short-term liquidity deficit. We have not experienced any difficulties in obtaining such credit facility before, and this could result in fixed obligations and incremental cost of interest; (3) in consideration of the long-term cooperation history and good track records with our major suppliers, we plan to negotiate with our suppliers for more favorable payment terms; and (4) we plan to reduce our operating costs through optimizing the personnel structure among different offices and reduce our office leasing spaces, if needed. This may incur incremental costs related to employee layoff compensation and contract termination penalty.

Based on the above discussion, we believe that our current cash and cash equivalents, our anticipated new cash flows from operations and investing and financing activities, and our other liquidity improving measures will ensure we have sufficient cash to meet our obligations as they become due within the next 12 months.

In the long term, beyond the next 12 months, we plan to further broaden the application scenarios of our blockchain-based SaaS services to be offered to the customers, continue expanding our core Internet advertising and marketing business through acquisitions, and develop Internet advertising and marketing channels that target overseas Internet users. As such, we may decide to enhance our liquidity position or increase our cash reserve for future investments through additional equity financing in the U.S. capital market. This would result in further dilution to our shareholders. We cannot assure you that such financing will be available in amounts or on terms acceptable to us, or at all.

C. Off-Balance Sheet Arrangements

None.

D. Disclosure of Contractual Obligations

In August 2022, we obtained a 9.9% equity interest in Guangdong Yong Fu Xiang Health Management Co., Ltd (“Yong Fu Xiang”), through subscription of a RMB6.73 million (approximately US\$0.97 million) registered capital of the entity in cash, which amount was committed to be paid up before December 31, 2065.

In September 2022, we obtained a 9% equity interest in Guangzhou Yuan Qi Man Man Technology Co., Ltd. (“Yuan Qi Man Man”), through subscription of a RMB0.09 million (approximately US\$0.01million) registered capital of the entity in cash, which amount was committed to be paid up before December 31, 2040.

ITEM QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

7A.

As a smaller reporting company, we are not required to include disclosure under this Item.

ITEM FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

8

Consolidated Financial Statements

Our consolidated financial statements and the notes thereto begin on page F-1 of this Annual Report.

ITEM CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

9

None.

ITEM CONTROLS AND PROCEDURES

9A.

Evaluation of Disclosure Controls and Procedures

Disclosure Controls and Procedures

Our chief executive officer and chief financial officer, with the participation of other members of management, evaluated the effectiveness of our disclosure controls and procedures, as defined in Exchange Act Rules 13a-15(e) and 15d-15(e), as of December 31, 2022. Based on this evaluation, our chief executive officer and chief financial officer concluded that our disclosure controls and procedures as of December 31, 2022 were effective such that the material information required to be included in our SEC reports is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms relating to our company, including our consolidating subsidiaries and VIEs, and was made known to them by others within those entities, particularly during the period when this report was being prepared.

Management’s Annual Report on Internal Control over Financial Reporting

The management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Exchange Act Rules 13a-15(f) and 15d-15(f). Our internal control over financial reporting is designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America.

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.

Under the supervision and with the participation of the Chief Executive Officer and Chief Financial Officer, management conducted an evaluation of the effectiveness of its internal control over financial reporting as of December 31, 2022. The framework on which such evaluation was based is contained in the report entitled “Internal Control — Integrated Framework” issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework). Based on the criteria set forth in the COSO Report, management assessed the effectiveness of the Company’s internal control over financial reporting, as of December 31, 2022, and determined it to be effective.

Changes in Internal Controls over Financial Reporting

There were no significant changes in our internal controls over financial reporting identified in connection with this evaluation that occurred during our last fiscal quarter that have materially affected, or are reasonably likely to materially affect, the Company’s internal controls over financial reporting.

Attestation Report of the Registered Public Accounting Firm

This Annual Report does not include an attestation report of our registered public accounting firm regarding internal control over financial reporting. As a smaller reporting company, the management’s report is not subject to attestation by our registered public accounting firm.

ITEM OTHER INFORMATION

9B.

None.

ITEM DISCLOSURE REGARDING FOREIGN JURISDICTION THAT PREVENT INSPECTIONS

9C.

Not applicable.

PART III.

ITEM DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

10

Executive Officers and Directors

The following discussion sets forth information regarding the executive officers and directors of the Company as of April 17, 2023. The board of directors is comprised of only one class. All of the directors will serve until the next annual meeting of stockholders and until their successors are elected and qualified, or until their earlier death, retirement, resignation or removal. Provided below is a brief description of our executive officers' and directors' business experience during the past five years.

Name	Age	Other positions with Company; other directorships held in last five years	Has served as Company director since
Handong Cheng	52	Chairman of the Board, Chief Executive Officer and President	September 2007
George Kai Chu	47	Director	June 2015
Pau Chung Ho	64	Independent Non-Executive Director	August 2019
Zhiqing Chen	50	Independent Non-Executive Director	November 2009
Chang Qiu	59	Independent Non-Executive Director	December 2014

The business experience during at least the last five years of each of these individuals is as follows:

Handong Cheng, Chairman of the Board, Chief Executive Officer and President. Mr. Cheng has served as Chief Executive Officer of our company since September 2007. Prior to that role, from October 2003 to September 2007, Mr. Cheng acted as President of ChinaNet Online Advertising Limited. Mr. Cheng holds an EMBA degree from Guanghua School of Management at the Peking University, and a degree in economic law from the College of Law of Wuhan University.

George Kai Chu, Director. Mr. Chu had been our Chief Operating Officer and Secretary from May 2010 to August 2020. From December 2007 to May 2010, Mr. Chu served as the Special Executive to the Chairman of Dachan Food (Asia) Ltd. in Beijing and also served at Dachan Food as the Head of the Beijing and Hebei Operations. From June 2007 to December 2007, Mr. Chu acted as Senior Business Advisor to the Chinese Aviation and Space Industry Development Association (CASIDA) in Taipei. From January 2005 to June 2007, Mr. Chu served as a Senior Vice President at the Royal Bank of Canada Financial Group, Asset Management in Vancouver, Toronto and New York. Mr. Chu has a joint major bachelor's degree in accounting and management information systems from Simon Fraser University, an MBA degree from Harvard University and an EMBA degree from Guanghua School of Management at the Peking University.

Pau Chung Ho, Director. Mr. Pau has served as an independent director of our company since August 2019. Prior to joining the Company, Mr. Pau served as the General Manager of The Regal Riverfront Hotel Jiangmen from April 2018 to June 2019. From February 2014 to June 2017, Mr. Pau served as the General Manager of The Holiday Inn Resort Chaohu, and from September 2011 to February 2014, Mr. Pau served as the General Manager of The Regal Poly Guiyang Hotel. Mr. Pau holds a Bachelors of Arts in Hospitality Management from the University of Birmingham, United Kingdom.

Zhiqing Chen, Director. Mr. Chen has been a partner at Chen & Partners Law Firm since July 2010. From January 2002 to June 2010, Mr. Chen was a partner at Jin Mao P.R.C. Lawyers in Shanghai, a law firm specializing in corporate law, including foreign investments and mergers and acquisitions. Mr. Chen's clients include local PRC enterprises as well as international corporations. Prior to joining the Company, Mr. Chen served as a non-management director for Shanghai Fumai Investment Management Co., Ltd., Shanghai Zhijinwu Investment Management Co., Ltd, and Shanghai Merciful Groups Co., Ltd. Mr. Chen received a bachelor's degree in international law from East China University and an EMBA degree from Guanghua School of Management at the Peking University.

Chang Qiu, Director. Mr. Qiu has served as the President and Chief Executive Officer of Forun Technologies Inc. since July 2018. From April 2007 to June 2018, he served as a Principal of Sansar Capital Management. From 2001 through March 2007, Mr. Qiu served as the Founder, Managing Director and Senior Equity Analyst of Forun Technologies Inc. Prior to that, Mr. Qiu worked at IBM and other organizations in business and research functions. Mr. Qiu received an MBA degree from Columbia Business School, a Ph.D. degree from Colorado School of Mines, and a bachelor's degree from Wuhan University, China.

The business experience during at least the last five years of the Company's executive officers not included above is as follows:

Mark Li, Chief Financial Officer, Treasurer and Secretary. Mr. Li has served as our Chief Financial Officer and Treasurer since July 2019 and as our Secretary since August 2020. Mr. Li has twenty years of experience working in financial roles. Prior to joining the Company, Mr. Li served as Chief Financial Officer for DMG Entertainment & Media, a global entertainment and media company with operations in North America and Asia. Prior to this role, Mr. Li served as Financial Director at China Digital Culture and in other senior financial management positions. Mr. Li holds a bachelor's degree in Economics from Chongqing Institute of Industry Management and a master's degree in Finance from Central University of Finance and Economics. Mr. Li is a member of both the China Institute of Certified Public Accounts (CICPA) and Association of Chartered Certified Accounts (ACCA).

Family Relationships

No director or executive officer is related to any other director or executive officer.

Board Operations

Board Leadership Structure

Mr. Handong Cheng holds the positions of chief executive officer and chairman of the Board of the Company. The Board believes that Mr. Cheng's services as both chief executive officer and chairman of the Board is in the best interest of the Company and its shareholders. Mr. Cheng possesses detailed and in-depth knowledge of the issues, opportunities and challenges facing the Company in its industries and businesses and is thus best positioned to develop agendas that ensure the Board's time and attention are focused on the most critical matters relating to the business of the Company. His combined role enables decisive leadership, ensures clear accountability, and enhances the Company's ability to communicate its message and strategy clearly and consistently to the Company's shareholders, employees and customers.

The Board has not designated a lead director. Given the limited number of directors comprising the Board, the independent directors call and plan their executive sessions collaboratively and, between meetings of the Board, communicate with management and one another directly. Under these circumstances, the directors believe designating a lead director to take on responsibility for functions in which they all currently participate might detract from rather than enhance performance of their responsibilities as directors.

Director Qualifications

The Company seeks directors with established strong professional reputations and experience in areas relevant to the strategy and operations of its businesses. The Company also seeks directors who possess the qualities of integrity and candor, who have strong analytical skills and who are willing to engage management and each other in a constructive and collaborative fashion, in addition to the ability and commitment to devote time and energy to service on the Board and its committees. We believe that all of our directors meet the foregoing qualifications.

The Nominating and Corporate Governance Committee and the Board believe that the leadership skills and other experience of the Board members, as described below, provide the Company with a range of perspectives and judgment necessary to guide our strategies and monitor their execution.

Handong Cheng. Mr. Cheng is the founder of the Company and has been serving the franchise and advertising media industries for nearly twenty years. In 2003, he participated in the establishment of Beijing CNET Online Advertising Co., Ltd. and Business Opportunity Online (Beijing) Networking Technology Ltd. (www.28.com), and engaged in operational, administration and management activities. Mr. Cheng has contributed to the Board's strong leadership and vision for the development of the Company.

George Chu. Mr. Chu had been our Chief Operating Officer and Secretary from May 2010 to August 2020. Mr. Chu has years of experience in capital markets, financial and business management.

Zhiqing Chen. Mr. Chen contributes to the Board extensive legal knowledge with respect to foreign investments and mergers and acquisitions. Mr. Chen also has experience working with PRC enterprises and international corporations.

Chang Qiu. Mr. Qiu has extensive experience working with PRC enterprises and international corporations. Mr. Qiu contributes to the Board his knowledge with respect to foreign investments, business strategy and corporate finance.

Pau Chung Ho. Mr. Pau has extensive experience in operation management, business strategy development and corporate governance.

Meetings of the Board of Directors

The Board held three meetings during 2022. During 2022, no director attended fewer than 75% of the meetings of the Board and Board committees of which the director was a member.

The Company's directors are expected to attend board meetings as frequently as necessary to properly discharge their responsibilities and to spend the time needed to prepare for each such meeting. The Company's directors are expected to attend annual meetings of stockholders, but we do not have a formal policy requiring them to do so. All directors of ours attended the 2022 annual meeting of stockholders held on December 15, 2022.

Code of Ethics

The Company adopted a Code of Ethics applicable to its directors, officers and employees on December 21, 2009. The Code of Ethics is designed to deter wrongdoing and to promote ethical conduct and full, fair, accurate, timely and understandable reports that the Company files or submits to the Securities and Exchange Commission and others. A printed copy of the Code of Ethics may be obtained free of charge by writing to us at our headquarters located at Room 1811, Xinghuo Keji Plaza, No. 2 Fufeng Road, Fengtai District, Beijing, PRC 100070 or on our website, www.zdat.com.

Board Committees

The Board has a standing audit, compensation, and nominating and corporate governance committee, comprised solely of independent directors. Each committee has a charter, which is available at the Company's website, www.zdat.com.

Audit Committee

The Audit Committee, which is established in accordance with Section 3(a)(58)(A) of the Exchange Act, engages Company's independent accountants, reviewing their independence and performance; reviews the Company's accounting and financial reporting processes and the integrity of its financial statements; the audits of the Company's financial statements and the appointment, compensation, qualifications, independence and performance of the Company's independent auditors; the Company's compliance with legal and regulatory requirements; and the performance of the Company's internal audit function and internal control over financial reporting. The Audit Committee held four meetings during 2022.

The members of the Audit Committee are Chang Qiu, Zhiqing Chen and Pau Chung Ho. The Board has determined that Mr. Qiu is an audit committee financial expert, as defined in the Exchange Act.

Compensation Committee

The Compensation Committee reviews annually the Company's corporate goals and objectives relevant to the officers' compensation, evaluates the officers' performance in light of such goals and objectives, determines and approves the officers' compensation level based on this evaluation; makes recommendations to the Board regarding approval, disapproval, modification, or termination of existing or proposed employee benefit plans, makes recommendations to the Board with respect to non-CEO and non-CFO compensation and administers the Company's incentive-compensation plans and equity-based plans. The Compensation Committee has the authority to delegate any of its responsibilities to subcommittees as it may deem appropriate in its sole discretion. The chief executive officer of the Company may not be present during voting or deliberations of the Compensation Committee with respect to his compensation. The Company's executive officers do not play a role in suggesting their own salaries. Neither the Company nor the Compensation Committee has engaged any compensation consultant who has a role in determining or recommending the amount or form of executive or director compensation. The Compensation Committee held two meetings during 2022.

The members of the Compensation Committee are Zhiqing Chen, Chang Qiu and Pau Chung Ho.

Nominating and Corporate Governance Committee

The Nominating and Corporate Governance Committee assists the Board in identifying qualified individuals to the Board as its nominees for election as directors, in determining the composition of the Board, and in assessing the Board's effectiveness. The Nominating and Corporate Governance Committee did not hold any meeting during 2022.

The members of the Nominating and Corporate Governance Committee are Zhiqing Chen, Chang Qiu and Pau Chung Ho.

The Nominating and Corporate Governance Committee will consider director candidates recommended by security holders. Potential nominees to the Board are required to have such experience in business or financial matters as would make such nominee an asset to the Board and may, under certain circumstances, be required to be "independent", as such term is defined under Rule 5605 of the listing standards of Nasdaq and applicable SEC regulations. Security holders wishing to submit the name of a person as a potential nominee to the Board must send the name, address, and a brief (no more than 500 words) biographical description of such potential nominee to the Nominating and Corporate Governance Committee at the following address: Nominating and Corporate Governance Committee of the Board of Directors, c/o ZW Data Action Technologies Inc., Room 1811, Xinghuo Keji Plaza, No. 2 Fufeng Road, Fengtai District, Beijing, PRC. Potential director nominees will be evaluated by personal interview, such interview to be conducted by one or more members of the Nominating and Corporate Governance Committee, and/or any other method the Nominating and Corporate Governance Committee deems appropriate, which may, but need not, include a questionnaire. The Nominating and Corporate Governance Committee may solicit or receive information concerning potential nominees from any source it deems appropriate. The Nominating and Corporate Governance Committee need not engage in an evaluation process unless (i) there is a vacancy on the Board, (ii) a director is not standing for re-election, or (iii) the Nominating and Corporate Governance Committee does not intend to recommend the nomination of a sitting director for re-election. A potential director nominee recommended by a security holder will not be evaluated differently from any other potential nominee. Although it has not done so in the past, the Nominating and Corporate Governance Committee may retain search firms to assist in identifying suitable director candidates.

The Board does not have a formal policy on Board candidate qualifications. The Board may consider those factors it deems appropriate in evaluating director nominees made either by the Board or stockholders, including judgment, skill, strength of character, experience with businesses and organizations comparable in size or scope to the Company, experience and skill relative to other Board members, and specialized knowledge or experience. Depending upon the current needs of the Board, certain factors may be weighed more or less heavily. In considering candidates for the Board, the directors evaluate the entirety of each candidate's credentials and do not have any specific minimum qualifications that must be met. "Diversity," as such, is not a criterion that the Committee considers. The directors will consider candidates from any reasonable source, including current Board members, stockholders, professional search firms or other persons. The directors will not evaluate candidates differently based on who has made the recommendation.

Stockholder Communications

Stockholders can mail communications to the Board, c/o Secretary, ZW Data Action Technologies Inc., Room 1811, Xinghuo Keji Plaza, No. 2 Fufeng Road, Fengtai District, Beijing, PRC, who will forward the correspondence to each addressee.

Section 16(a) Beneficial Ownership Reporting Compliance

Section 16(a) of the Securities Exchange Act of 1934 requires Company's directors and executive officers and any beneficial owner of more than 10% of any class of Company equity security to file reports of ownership and changes in ownership with the Securities and Exchange Commission and furnish copies of the reports to Company. Based solely on the Company's review of copies of such forms and written representations by Company's executive officers and directors received by it, Company believes that during 2022, all such reports were filed timely, except for the following:

Name	Late Reports	Transactions Covered	Number of Shares
Mark Li	Form 4	Common Stock	13,000 (1)
Chang Qiu	Form 4	Common Stock	6,000 (1)
Chi Wa Chiu (2)	Form 4	Common Stock	90,000 (3)
George Kai Chu	Form 4	Common Stock	80,000 (3)

(1) Common Stock granted and issued under the Company's 2020 Omnibus Equity Incentive Plan during 2022.

(2) On February 15, 2023, Chi Wa Chiu resigned as our Chief Operating Officer.

(3) Common Stock sold during 2022.

ITEM EXECUTIVE COMPENSATION

11

Compensation of Executive Officers

Our Board of Directors has not adopted or established a formal policy or procedure for determining the amount of compensation paid to our executive officers. No pre-established, objective performance goals or metrics have been used by the Board of Directors in determining the compensation of our executive officers.

Elements of Compensation

Our executive officers receive a base salary to compensate them for services rendered during the year. In addition to their base salary, we also provide equity incentives to attract and retain executive talent for the Company's continued success.

Base Salary and Bonus. The value of base salary and bonus for each our executive reflects his skill set and the market value of that skill set in the sole discretion of the Board of Director.

Equity Incentives. The ZW Data Action Technologies Inc. (f/k/a) ChinaNet Online Holdings, Inc. 2020 Equity Incentive Plan (the "2020 Plan") provides for the granting of distribution equivalent rights, incentive stock options, non-qualified stock options, performance share awards, performance unit awards, restricted stock awards, restricted stock unit awards, stock appreciation rights, tandem stock appreciation rights, unrestricted stock awards or any combination of the foregoing, as may be best suited to the circumstances of the particular employee, director or consultant as provided therein (the "Awards"). Certain Awards are intended to qualify as "incentive stock options" within the meaning of the Internal Revenue Code (the "Code"). The 2020 Plan was approved by our stockholders on October 12, 2020.

Retirement Benefits. Our executive officers are not presently entitled to company-sponsored retirement benefits.

Perquisites. We have not provided our executive officers with any material perquisites and other personal benefits and, therefore, we do not view perquisites as a significant or necessary element of our executive's compensation.

Deferred Compensation. We do not provide our executives the opportunity to defer receipt of annual compensation.

Summary Compensation Table

The following table sets forth information regarding compensation of the named executive officers for each of the two fiscal years in the period ended December 31, 2022.

SUMMARY COMPENSATION OF NAMED EXECUTIVE OFFICERS					
Name and Principal Position	Year	Salary (\$)	Stock Awards (\$) ⁽²⁾	Option Awards (\$)	Total
Handong Cheng (Chief Executive Officer)	2022	36,477	-	-	36,477
	2021	46,113	1,670,000	-	1,716,113
Mark Li (Chief Financial Officer and Secretary)	2022	-	41,600	-	41,600
	2021	20,796	-	-	20,796
Chi Wa Chiu (Chief Operating Officer) ⁽¹⁾	2022	-	-	-	-
	2021	-	751,500	-	751,500

(1) On February 15, 2023, Chi Wa Chiu resigned as our Chief Operating Officer.

(2) The aggregate grant date fair value of the restricted stock awarded to each named executive officer is computed in accordance with FASB ASC Topic 718.

Our executive officers are reimbursed by us for any out-of-pocket expenses incurred in connection with activities conducted on our behalf. There is no limit on the amount of these out-of-pocket expenses and there will be no review of the reasonableness of such expenses by anyone other than our Board, which includes persons who may seek reimbursement, or a court of competent jurisdiction if such reimbursement is challenged.

Employment Agreements

We enter into a standard employment contract with our executive officers for a set period of years. According to the contracts, these executive officers will devote substantially all of his/her time to the service of our company and may not compete directly or indirectly with us. These executive officers also agreed that in the event that his/her employment with us is terminated, for a period of two year following the date of his/her termination of employment, he/she will not contact, for any commercial purpose, or provide to a third party, information about clients or entities with which we were acquainted during the term of his employment with us. Subject to certain exceptions, either party may terminate the employment agreement upon 30 days prior written notice.

We do not have change-in-control agreements with any of our directors or executive officers, and we are not obligated to pay severance or other enhanced benefits to executive officers upon termination of their employment.

Outstanding Equity Awards

There were none outstanding equity incentive awards held by the named executive officers as of the fiscal year ended December 31, 2022.

Compensation of Directors

The following table sets forth information regarding compensation of each director, other than named executive officers, for fiscal 2022.

FISCAL 2022 DIRECTOR COMPENSATION							
Name	Fees Earned or Paid in Cash (\$)	Stock Awards (1) (\$)	Option Awards (\$)	Non-Equity Incentive Plan Compensation (\$)	Nonqualified Deferred Compensation Earnings (\$)	All Other Compensation (\$)	Total (\$)
Zhiqing Chen	6,102	-	-	-	-	-	6,102
Chang Qiu	6,102	21,300	-	-	-	-	27,402

(1) The aggregate grant date fair value of the restricted stock awarded to each director is computed in accordance with FASB ASC Topic 718.

Certain Relationships and Related Transactions

It is our policy to not enter any transaction (other than compensation arrangements in the ordinary course) with any director, executive officer, employee, or principal stockholder or party related to them, unless authorized by a majority of the directors having no interest in the transaction, upon a favorable recommendation by the Audit Committee (or a majority of its disinterested members).

ITEM 12 SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The following table sets forth certain information regarding beneficial ownership of Common Stock, as of April 17, 2023, by each of the Company's directors and executive officers; all executive officers and directors as a group, and each person known to the Company to own beneficially more than 5% of Company's Common Stock. Except as otherwise noted, the persons identified have sole voting and investment powers with respect to their shares.

Name and Address of Beneficial Owner (1)	Common Stock	
	Number of Shares	Percent of Class (2)
Handong Cheng (3)(5)	1,107,094	15.43%
Mark Li (6)	21,356	*
George Kai Chu (7)	96,947	1.35%
Zhiqing Chen (8)	14,000	*
Chang Qiu (9)	30,000	*
Pau Chung Ho	-	-
All Directors and Executive Officers as a Group (6 persons)	1,269,397	17.69%
Rise King Investments Limited (3)(4)	588,396	8.20%
Zhige Zhang (3)(10)	593,056	8.27%
Xuanfu Liu (3)(11)	598,396	8.34%

* Less than one percent.

- (1) The address of each director and executive officer is c/o ZW Data Action Technologies Inc., Room 1811, Xinghuo Keji Plaza, No. 2 Fufeng Road, Fengtai District, Beijing PRC 100070.
- (2) Beneficial ownership is determined in accordance with the rules of the SEC and generally includes voting or investment power with respect to securities. Shares of Common Stock subject to securities anticipated to be exercisable or convertible at or within 60 days of April 17, 2023, are deemed outstanding for computing the percentage of the person holding such option or warrant but are not deemed outstanding for computing the percentage of any other person. The indication herein that shares are anticipated to be beneficially owned is not an admission on the part of the listed stockholder that he, she or it is or will be a direct or indirect beneficial owner of those shares.
- (3) Rise King Investments Limited (“Rise King”) is collectively owned by Handong Cheng, Xuanfu Liu and Zhige Zhang. As a result, Mr. Cheng, Mr. Liu and Mr. Zhang may be deemed to be beneficial owners of the shares of our common stock held by Rise King. Each of Mr. Cheng, Mr. Liu and Mr. Zhang disclaim such beneficial ownership, and nothing herein shall be deemed to be an admission that Mr. Cheng, Mr. Liu or Mr. Zhang is the beneficial owner of any such shares for any purpose. Information regarding this beneficial owner is furnished in reliance upon the Form 4, dated August 18, 2015.
- (4) The business address of Rise King Investments Limited is P.O. Box 957, Offshore Incorporations Center, Road Town, Tortola, British Virgin Islands. Information regarding this beneficial owner is furnished in reliance upon the Schedule 13D, dated July 6, 2009.
- (5) Consists of (i) 588,396 shares of common stock owned by Rise King and which are deemed to be beneficially owned by Mr. Cheng; and (ii) 518,698 shares of common stock owned directly by Mr. Cheng.
- (6) Consists of 21,356 shares of common stock.
- (7) Consists of 96,947 shares of common stock.
- (8) Consists of 14,000 shares of common stock.
- (9) Consists of 30,000 shares of common stock.
- (10) Consists of (i) 588,396 shares of common stock owned by Rise King and which are deemed to be beneficially owned by Mr. Zhang; and (ii) 4,660 shares of common stock owned directly by Mr. Zhang. The address of Mr. Zhang is 27th Floor, Yingdu Plaza, No. Jia 48, Zhichunlu, Haidian District, Beijing, PRC 100086.
- (11) Consists of (i) 588,396 shares of common stock owned by Rise King and which are deemed to be beneficially owned by Mr. Liu; and (ii) 10,000 shares of common stock owned directly by Mr. Liu. The address of Mr. Liu is Building 6, Block 3, Hanwei Guoji Guangchang Zhongguancun Kejiyuan Fengtaiyuan, Fengtai District, Beijing, PRC 100070.

Description of Securities

Our authorized capital stock consists of 40,000,000 shares, consisting of 20,000,000 shares of common stock par value \$.001 per share, and 20,000,000 shares of preferred stock, par value \$.001 per share. Pursuant to our articles of incorporation, our board of directors has the authority to provide for the issuance, in one or more series, of our authorized preferred stock and to fix or alter the rights, preferences, privileges and restrictions granted to or imposed upon any series of our preferred stock. As of December 31, 2022, we had 7,174,506 shares of common stock issued and outstanding, which number was restated to reflect the retrospective effect of the 1-for-5 reserve stock split on January 18, 2023. None of our preferred stock is currently outstanding.

ITEM CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

13

Certain Relationships and Related Transactions

For the year ended December 31, 2021, we generated an approximately US\$0.004 million advertising and marketing services revenues from one of our unconsolidated investee entities. The advertising and marketing services were provided to this related party in our normal course of business on the same terms as those provided to our unrelated clients.

We did not incur any related party transactions for the year ended December 31, 2022.

Director Independence

The Board has determined that Pau Chung Ho, Zhiqing Chen and Chang Qiu are “independent” under the current independence standards of Rule 5605(a)(2) of the Marketplace Rules of The Nasdaq Stock Market, LLC and meet the criteria set forth in Rule 10A(m)(3) under the U.S. Securities Exchange Act of 1934, as amended (the “Exchange Act”).

ITEM PRINCIPAL ACCOUNTANT FEE AND SERVICES

14

The following table sets forth the aggregate fees billed to us by categories specified below in connection with certain professional services rendered by Centurion ZD CPA & Co. (“CZD”) our independent registered public accounting firm, whom we engaged on October 7, 2019 and by Marcum Bernstein & Pinchuk LLP (“MarcumBP”) our former independent registered public accounting firm, we dismissed on the same date as we engaged CZD.

Fees	2022	2021
Audit Fees	\$ 150,027	\$ 272,831*
Audit Related Fees	-	-
Tax Fees	-	-
All Other Fees	-	-
Total	\$ 150,027	\$ 272,831*

* Including an approximately US\$0.02 million fees billed by MarcumBP for the year ended December 31, 2021.

Audit Fees

This category includes aggregate fees billed by our independent auditors for the audit of our annual financial statements, review of financial statements included in our quarterly reports on Form 10-Q and services that are normally provided by the auditor in connection with statutory and regulatory filings for those fiscal years.

Audit-Related Fees

This category consists of services by our independent auditors that, including accounting consultations on transaction related matters, are reasonably related to the performance of the audit or review of our financial statements and are not reported above under Audit Fees.

Tax Fees

This category consists of professional services rendered for tax compliance and preparation of our corporate tax returns and other tax advice.

All Other Fees

This category consists of professional services rendered for products and services provided, other than the services reported above under Audit Fees, Audit-Related Fees and Tax Fees.

Pre-Approval of Services

The Audit Committee must pre-approve all audit, review, attest and permissible non-audit services (including any permissible internal control-related services) to be provided to the company or its subsidiaries by the independent auditors. The Audit Committee may establish pre-approval policies and procedures in compliance with applicable SEC rules. All services described under the caption Services and Fees of Independent Accountants were pre-approved.

PART IV.

ITEM EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

15

(a) The following are filed with this report:

- (1) The financial statements listed on the Financial Statement's Table of Contents
- (2) Not applicable
- (3) The exhibits referred to below, which include the following managerial contracts or compensatory plans or arrangements:

[2.1 Share Exchange Agreement, dated as of June 26, 2009, by and among Emazing Interactive, Inc., G. Edward Hancock, China Net Online Media Group Limited, and the shareholders of China Net Online Media Group Limited. \(1\)](#)

[2.2 Agreement and Plan of Merger \(2\)](#)

[3.1 Articles of Incorporation of Emazing Interactive, Inc., as amended \(1\)](#)

[3.2 Certificate of Amendment to Articles of Incorporation \(14\)](#)

[3.3 Articles of Merger \(2\)](#)

[3.4 By-laws \(4\)](#)

[3.5 Certificate of Amendment to Articles of Incorporation \(18\)](#)

[3.6 Certificate of Amendment to Articles of Incorporation \(23\)](#)

[3.7 Certificate of Amendment to Articles of Incorporation \(24\)](#)

[4.1* 2011 Omnibus Securities and Incentive Plan \(9\)](#)

[4.2* ChinaNet Online Holdings, Inc. 2015 Equity Incentive Plan. \(13\)](#)

[4.3 Form of Common Stock Purchase Warrant \(15\)](#)

[4.4 Description of Securities +](#)

[4.5* ChinaNet Online Holdings, Inc. 2020 Omnibus Equity Incentive Plan. \(20\)](#)

[4.6 Form of Common Stock Purchase Warrant \(21\)](#)

[4.7 Form of Common Stock Purchase Warrant \(22\)](#)

- [10.1 Exclusive Business Cooperation Agreement, dated October 8, 2008, by and between Rise King Century Technology Development \(Beijing\) Co., Ltd. and Beijing CNET Online Advertising Co., Ltd. \(1\)](#)
- [10.2 Exclusive Option Agreement, dated as of October 8, 2008, by and among Rise King Century Technology Development \(Beijing\) Co., Ltd., Beijing CNET Online Advertising Co., Ltd. and Handong Cheng with respect to Mr. Cheng's equity interest in Beijing CNET Online Advertising Co., Ltd. \(1\)](#)
- [10.3 Exclusive Option Agreement, dated as of October 8, 2008, by and among Rise King Century Technology Development \(Beijing\) Co., Ltd., Beijing CNET Online Advertising Co., Ltd. and Xuanfu Liu with respect to Mr. Liu's equity interest in Beijing CNET Online Advertising Co., Ltd. \(1\)](#)
- [10.4 Exclusive Option Agreement, dated as of October 8, 2008, by and among Rise King Century Technology Development \(Beijing\) Co., Ltd., Beijing CNET Online Advertising Co., Ltd. and Li Sun with respect to Ms. Sun's equity interest in Beijing CNET Online Advertising Co., Ltd. \(1\)](#)
- [10.5 Equity Interest Pledge Agreement, dated as of October 8, 2008, by and among Rise King Century Technology Development \(Beijing\) Co., Ltd., Beijing CNET Online Advertising Co., Ltd. and Handong Cheng with respect to Mr. Cheng's equity interest in Beijing CNET Online Advertising Co., Ltd. \(1\)](#)
- [10.6 Equity Interest Pledge Agreement, dated as of October 8, 2008, by and among Rise King Century Technology Development \(Beijing\) Co., Ltd., Beijing CNET Online Advertising Co., Ltd. and Xuanfu Liu with respect to Mr. Liu's equity interest in Beijing CNET Online Advertising Co., Ltd. \(1\)](#)
- [10.7 Equity Interest Pledge Agreement, dated as of October 8, 2008, by and among Rise King Century Technology Development \(Beijing\) Co., Ltd., Beijing CNET Online Advertising Co., Ltd. and Li Sun with respect to Ms. Sun's equity interest in Beijing CNET Online Advertising Co., Ltd. \(1\)](#)
- [10.8 Power of Attorney of Handong Cheng, dated as of October 8, 2008, appointing Rise King Century Technology Development \(Beijing\) Co., Ltd. as his agent and attorney in connection with his equity interest in Beijing CNET Online Advertising Co., Ltd. \(1\)](#)
- [10.9 Power of Attorney of Xuanfu Liu, dated as of October 8, 2008, appointing Rise King Century Technology Development \(Beijing\) Co., Ltd. as his agent and attorney in connection with his equity interest in Beijing CNET Online Advertising Co., Ltd. \(1\)](#)
- [10.10 Power of Attorney of Li Sun, dated as of October 8, 2008, appointing Rise King Century Technology Development \(Beijing\) Co., Ltd. as her agent and attorney in connection with her equity interest in Beijing CNET Online Advertising Co., Ltd. \(1\)](#)
- [10.11 Exclusive Business Cooperation Agreement, dated October 8, 2008, by and between Rise King Century Technology Development \(Beijing\) Co., Ltd. and Business Opportunity Online \(Beijing\) Network Technology Co., Ltd. \(1\)](#)
- [10.12 Exclusive Option Agreement, dated as of October 8, 2008, by and among Rise King Century Technology Development \(Beijing\) Co., Ltd., Business Opportunity Online \(Beijing\) Network Technology Co., Ltd. and Handong Cheng with respect to Mr. Cheng's equity interest in Business Opportunity Online \(Beijing\) Network Technology Co., Ltd. \(1\)](#)
- [10.13 Exclusive Option Agreement, dated as of October 8, 2008, by and among Rise King Century Technology Development \(Beijing\) Co., Ltd., Business Opportunity Online \(Beijing\) Network Technology Co., Ltd. and Xuanfu Liu with respect to Mr. Liu's equity interest in Business Opportunity Online \(Beijing\) Network Technology Co., Ltd. \(1\)](#)

- [10.14 Exclusive Option Agreement, dated as of October 8, 2008, by and among Rise King Century Technology Development \(Beijing\) Co., Ltd., Business Opportunity Online \(Beijing\) Network Technology Co., Ltd. and Li Sun with respect to Ms. Sun's equity interest in Business Opportunity Online \(Beijing\) Network Technology Co., Ltd. \(1\)](#)
- [10.15 Equity Interest Pledge Agreement, dated as of October 8, 2008, by and among Rise King Century Technology Development \(Beijing\) Co., Ltd., Business Opportunity Online \(Beijing\) Network Technology Co., Ltd. and Handong Cheng with respect to Mr. Cheng's equity interest in Business Opportunity Online \(Beijing\) Network Technology Co., Ltd. \(1\)](#)
- [10.16 Equity Interest Pledge Agreement, dated as of October 8, 2008, by and among Rise King Century Technology Development \(Beijing\) Co., Ltd., Business Opportunity Online \(Beijing\) Network Technology Co., Ltd. and Xuanfu Liu with respect to Mr. Liu's equity interest in Business Opportunity Online \(Beijing\) Network Technology Co., Ltd. \(1\)](#)
- [10.17 Equity Interest Pledge Agreement, dated as of October 8, 2008, by and among Rise King Century Technology Development \(Beijing\) Co., Ltd., Business Opportunity Online \(Beijing\) Network Technology Co., Ltd. and Li Sun with respect to Ms. Sun's equity interest in Business Opportunity Online \(Beijing\) Network Technology Co., Ltd. \(1\)](#)
- [10.18 Power of Attorney of Handong Cheng, dated as of October 8, 2008, appointing Rise King Century Technology Development \(Beijing\) Co., Ltd. as his agent and attorney in connection with his equity interest in Business Opportunity Online \(Beijing\) Network Technology Co., Ltd. \(1\)](#)
- [10.19 Power of Attorney of Xuanfu Liu, dated as of October 8, 2008, appointing Rise King Century Technology Development \(Beijing\) Co., Ltd. as his agent and attorney in connection with his equity interest in Business Opportunity Online \(Beijing\) Network Technology Co., Ltd. \(1\)](#)
- [10.20 Power of Attorney of Li Sun, dated as of October 8, 2008, appointing Rise King Century Technology Development \(Beijing\) Co., Ltd. as her agent and attorney in connection with her equity interest in Business Opportunity Online \(Beijing\) Network Technology Co., Ltd. \(1\)](#)
- [10.21 Securities Purchase Agreement, dated as of August 21, 2009. \(3\)](#)
- [10.22 Securities Escrow Agreement, dated as of August 21, 2009. \(3\)](#)
- [10.23* Independent Director Agreement effective as of November 30, 2009 by and between the Company and Douglas MacLellan. \(5\)](#)
- [10.24* Independent Director Agreement effective as of November 30, 2009 by and between the Company and Mototaka Watanabe. \(5\)](#)
- [10.25* Independent Director Agreement effective as of November 30, 2009 by and between the Company and Zhiqing Chen. \(5\)](#)
- [10.26 Letter Agreement, dated January 8, 2018, between ChinaNet Online Holdings, Inc. and FT Global Capital, Inc. \(15\)](#)
- [10.27 Form of Securities Purchase Agreement dated January 12, 2018, among ChinaNet Online Holdings, Inc. and certain institutional investors. \(15\)](#)
- [10.28 Securities Purchase Agreement, dated August 7, 2019. \(16\)](#)
- [10.29 English translation of the Technical Development \(Commission\) Contract dated as of February 28, 2018 by and among the Company, ChinaNet Online Technology Co., Ltd. and RedRun Limited \(17\)](#)

- [10.30 English translation of the Technical Development \(Commission\) Contract dated as of March 8, 2018 by and between Rise King Century Technology Development \(Beijing\) Co., Ltd. and Beijing Shengshi Kaida Technical Service Co., Ltd. \(17\)](#)
- [10.31 Letter Agreement, dated October 28, 2020, between ZW Data Action Technologies Inc. and FT Global Capital, Inc. \(21\)](#)
- [10.32 Form of Securities Purchase Agreement dated December 10, 2020, among ZW Data Action Technologies Inc. and certain institutional investors. \(21\)](#)
- [10.33 Letter Agreement, dated February 16, 2021, between ZW Data Action Technologies Inc. and FT Global Capital, Inc. \(22\)](#)
- [10.34 Form of Securities Purchase Agreement dated February 16, 2021 among ZW Data Action Technologies Inc. and certain institutional investors. \(22\)](#)
- [14 Code of Ethics \(6\)](#)
- [21.1 Subsidiaries of the Registrant +](#)
- [23.1 Consent of Centurion ZD CPA & Co. +](#)
- [31.1 Certification pursuant to Rule 13a-14\(a\) and 15d-14\(a\), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. +](#)
- [31.2 Certification pursuant to Rule 13a-14\(a\) and 15d-14\(a\), as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002. +](#)
- [32.1 Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. +](#)
- 101 The following materials are filed herewith: (i) Inline XBRL Instance, (ii) Inline XBRL Taxonomy Extension Schema, (iii) Inline XBRL Taxonomy Extension Calculation, (iv) XBRL Taxonomy Extension Labels, (v) XBRL Taxonomy Extension Presentation, and (vi) Inline XBRL Taxonomy Extension Definition. +
- 104 Cover Page Interactive Data File – The cover page interactive data file does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document. +
- + Filed herewith
- * Denotes managerial contracts or compensatory plans or arrangements:
- (1) Incorporated by reference herein to the Report on Form 8-K filed on July 2, 2009.
 - (2) Incorporated by reference herein to the Company’s Current Report on Form 8-K filed with the Securities and Exchange Commission on July 24, 2009.
 - (3) Incorporated by reference herein to the Company’s Current Report on Form 8-K filed with the Securities and Exchange Commission on August 27, 2009.
 - (4) Incorporated by reference herein to the Company’s Registration Statement on Form SB-1 filed with the Securities and Exchange Commission on October 20, 2006.

- (5) Incorporated by reference herein to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on December 2, 2009.
- (6) Incorporated by reference herein to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on December 21, 2009.
- (7) Incorporated by reference herein to the Company's Annual Report on Form 10-K filed with the Securities and Exchange Commission on March 31, 2011.
- (8) Incorporated by reference herein to the Company's Registration Statement on Form S-1 filed with the Securities and Exchange Commission on May 11, 2011.
- (9) Incorporated by reference herein to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on December 16, 2011.
- (10) Incorporated by reference herein to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on September 11, 2012.
- (11) Incorporated by reference herein to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on May 7, 2015.
- (12) Incorporated by reference herein to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on May 28, 2015.
- (13) Incorporated by reference herein to Appendix A to the Company's Proxy Statement on Schedule 14A filed with the Securities and Exchange Commission on April 30, 2015.
- (14) Incorporated by reference herein to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on August 18, 2016.
- (15) Incorporated by reference herein to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on January 12, 2018.
- (16) Incorporated by reference herein to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on August 9, 2019.
- (17) Incorporated by reference herein to the Company's Registration Statement on Form S-3, as amended, filed with the Securities and Exchange Commission on February 12, 2020.
- (18) Incorporated by reference herein to Exhibit 3.1 of the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on October 14, 2020.
- (19) Incorporated by reference herein to the Exhibit 4.4 of the Company's Annual Report on Form 10-K filed with the Securities and Exchange Commission on May 27, 2020.
- (20) Incorporated by reference herein to the Appendix A of the Company's Definitive Proxy Statement on Schedule 14A filed with the Securities and Exchange Commission on September 2, 2020.
- (21) Incorporated by reference herein to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on December 11, 2020.
- (22) Incorporated by reference herein to the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on February 17, 2021.

(23) Incorporated by reference herein to Exhibit 3.1 of the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on July 9, 2021.

(24) Incorporated by reference herein to Exhibit 3.1 of the Company's Current Report on Form 8-K filed with the Securities and Exchange Commission on January 20, 2023.

(b) The exhibits listed on the Exhibit Index are filed as part of this report.

(c) Not applicable.

ITEM FORM 10-K SUMMARY.

16.

None.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities and Exchange Act of 1934, the Registrant has duly caused this Report to be signed on its behalf by the undersigned thereunto duly authorized.

ZW Data Action Technologies Inc.

Dated: April 17, 2023

By: /s/ Handong Cheng
Name: Handong Cheng
Title: Chairman and Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Dated: April 17, 2023

By: /s/ Handong Cheng
Name: Handong Cheng
Title: Chairman and Chief Executive Officer
(Principal Executive Officer)

Dated: April 17, 2023

By: /s/ Mark Li
Name: Mark Li
Title: Chief Financial Officer
(Principal Financial Officer)

Dated: April 17, 2023

By: /s/ George Kai Chu
Name: George Kai Chu
Title: Director

Dated: April 17, 2023

By: /s/ Zhiqing Chen
Name: Zhiqing Chen
Title: Director

Dated: April 17, 2023

By: /s/ Pau Chung Ho
Name: Pau Chung Ho
Title: Director

Dated: April 17, 2023

By: /s/ Chang Qiu
Name: Changhua Qiu
Title: Director

The PCAOB had historically been unable to inspect our auditor in relation to their audit work performed for our financial statements and the inability of the PCAOB to conduct inspections over our auditor has deprived our investors with the benefits of such inspections.

Our auditor, the independent registered public accounting firm that issues the audit report in our SEC filings, as an auditor of companies that are traded publicly in the United States and a firm registered with the PCAOB, is subject to laws in the United States pursuant to which the PCAOB conducts regular inspections to assess its compliance with the applicable professional standards. Our auditor is located in Hong Kong Special Administrative Region of the PRC ("Hong Kong"), China, a jurisdiction where the PCAOB was unable to conduct inspections and investigations before 2022. As a result, we and investors in our securities were deprived of the benefits of such PCAOB inspections. 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 China mainland and Hong Kong in 2022. However, the inability of the PCAOB to conduct inspections of auditors in Hong Kong in the past made it more difficult to evaluate the effectiveness of our independent registered public accounting firm's audit procedures or quality control procedures as compared to auditors outside of China mainland and Hong Kong that have been subject to the PCAOB inspections, which could cause investors and potential investors in our securities to lose confidence in our audit procedures and reported financial information and the quality of our financial statements.

Our common stock may be delisted and prohibited from trading in the United States under the Holding Foreign Companies Accountable Act, or the HFCAA, as amended by the Accelerating Holding Foreign Companies Accountable Act, if the PCAOB is unable to inspect or investigate completely auditors located in China mainland and Hong Kong. The delisting of our common stock or the threat of their being delisted could cause the value of our common stock to significantly decline or be worthless, and thus you could lose all or substantial portion of your investment.

On December 18, 2020, the Holding Foreign Companies Accountable Act, or the HFCAA, was signed into law that states if the SEC determines that issuers have filed audit reports issued by a registered public accounting firm that has not been subject to PCAOB inspection for three consecutive years beginning in 2021, the SEC shall prohibit its common stock from being traded on a national securities exchange or in the over-the-counter trading market in the U.S. Furthermore, on June 22, 2021, the U.S. Senate passed the Accelerating Holding Foreign Companies Accountable Act, to prohibit securities of any registrant from being listed on any of the U.S. securities exchanges or traded over-the-counter if the auditor of the registrant's financial statements is not subject to PCAOB inspection for two consecutive years, instead of three consecutive years as enacted in the HFCAA. On December 2, 2021, the SEC adopted final amendments implementing the disclosure and submission requirements of the HFCAA, pursuant to which the SEC will identify an issuer as a "Commission-Identified Issuer" if the issuer has filed an annual report containing an audit report issued by a registered public accounting firm that the PCAOB has determined it is unable to inspect or investigate completely, and will then impose a trading prohibition on an issuer after it is identified as a Commission-Identified Issuer for three consecutive years. On December 29, 2022, the Accelerating Holding Foreign Companies Accountable Act was signed into law.

On December 16, 2021, the PCAOB issued a HFCAA Determination Report (the "2021 PCAOB Determinations") to notify the SEC of its determination that the PCAOB was unable to inspect or investigate completely registered public accounting firms headquartered in China mainland and Hong Kong because of positions taken by the Chinese authorities, and our auditor was subject to this determination. On May 13, 2022, the SEC conclusively identified us as a Commission-Identified Issuer under the HFCAA following the filing of our annual report on Form 10-K for the fiscal year ended December 31, 2021.

On August 26, 2022, the PCAOB signed a Statement of Protocol on agreement governing on inspections of audit firms based in mainland China and Hong Kong, with China Securities Regulatory Commission ("CSRC") and Ministry of Finance ("MOF") of the PRC, in regarding to governing inspections and investigations of audit firms headquartered in mainland China and Hong Kong (the "Agreement"). As stated in the Agreement, the Chinese authorities committed that the PCAOB has direct access to view complete audit work papers under its inspections or investigations and has sole discretion to the selected audit firms and audit engagements. The Agreement opens access for the PCAOB to inspect and investigate the registered public accounting firms in mainland China and Hong Kong completely. The PCAOB then thoroughly tested compliance with every aspect of the Agreement necessary to determine complete access. This included sending a team of PCAOB staff to conduct on-site inspections and investigations in Hong Kong over a nine-week period from September to November 2022.

On December 15, 2022, the PCAOB issued its 2022 HFCAA Determination Report to notify the SEC of its determination that the PCAOB was able to secure complete access to inspect and investigate PCAOB-registered public accounting firms headquartered in China mainland and Hong Kong completely in 2022. The PCAOB Board vacated its 2021 PCAOB Determinations that the PCAOB was unable to inspect or investigate completely registered public accounting firms headquartered in China mainland and Hong Kong. For this reason, we do not expect to be identified as a Commission-Identified Issuer following the filing of our annual report for the fiscal year ended December 31, 2022. However, whether the PCAOB will continue to be able to satisfactorily conduct inspections of PCAOB-registered public accounting firms headquartered in China mainland and Hong Kong is subject to uncertainty and depends on a number of factors out of our, and our auditor's, control.

The PCAOB is continuing to demand complete access in China mainland and Hong Kong moving forward and is already making plans to resume regular inspections in early 2023 and beyond, as well as to continue pursuing ongoing investigations and initiate new investigations as needed. The PCAOB does not have to wait another year to reassess its determinations. Should the PRC authorities obstruct the PCAOB's access to inspect or investigate completely in any way and at any point, the PCAOB will act immediately to consider the need to issue new determinations consistent with the HFCAA.

We cannot assure you that our auditor will not be determined as a register public accounting firm that the PCAOB is unable to inspect or investigate completely for two consecutive years because of positions taken by the Chinese authorities and/or any other causes in the future. If the PCAOB in the future again determines that it is unable to inspect and investigate completely auditors in China mainland and Hong Kong, we may be identified as a Commission-Identified Issuer accordingly. If this happens, Nasdaq may determine to delist our common stock, and there is no certainty that we will be able to continue listing our common stock on other non-U.S. stock exchanges or that an active market for our common stock will immediately develop outside of the U.S. The prohibiting from trading in the United States or delisting of our common stock or the threat of their being delisted could cause the value of our common stock to significantly decline or be worthless, and thus you could lose all or substantial portion of your investment.

**ZW DATA ACTION TECHNOLOGIES INC.
INDEX TO CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEARS ENDED DECEMBER 31, 2022 AND 2021**

	<u>Pages</u>
<u>Report of Independent Registered Public Accounting Firm (PCAOB ID: 2769)</u>	<u>F-1 - F-3</u>
<u>Consolidated Balance Sheets as of December 31, 2022 and 2021</u>	<u>F-4 - F-5</u>
<u>Consolidated Statements of Operations and Comprehensive Loss for the Years ended December 31, 2022 and 2021</u>	<u>F-6 - F-7</u>
<u>Consolidated Statements of Cash Flows for the Years ended December 31, 2022 and 2021</u>	<u>F-8 - F-9</u>
<u>Consolidated Statements of Changes in Equity for the Years ended December 31, 2022 and 2021</u>	<u>F-10</u>
<u>Notes to Consolidated Financial Statements</u>	<u>F-11 - F-43</u>

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To The Board of Directors and Shareholders of
ZW Data Action Technologies Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of ZW Data Action Technologies Inc. and subsidiaries (the “Company”) as of December 31, 2022 and 2021, and the related consolidated statements of operations and comprehensive loss, changes in stockholders’ equity and cash flows for each of the two years in the period ended December 31, 2022, and the related notes (collectively referred to as the “consolidated financial statements”). In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Company as of December 31, 2022 and 2021, and the consolidated results of its operations and its cash flows for each of the two years in the period ended December 31, 2022, in conformity with accounting principles generally accepted in the United States of America.

Basis for Opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's 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. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company’s internal control over financial reporting. Accordingly, we express no such opinion.

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.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Impairment assessment of trade receivables

As of December 31, 2022, the Company recorded trade receivables of approximately US\$5.51 million before impairment of US\$3.76 million. Accounts receivable are recorded at net realizable value consisting of the carrying amount less an allowance for uncollectible accounts as needed. The allowance for doubtful accounts is the Company's best estimate of the amount of probable credit losses in the Company's existing accounts receivable balance. The Company's determination of allowance for doubtful accounts is combining with collection history and various subjective factors and considerations. Specifically, there was a high degree of subjective auditor judgment in evaluating how the Company's estimation on the amount of probable credit losses and related impairment of accounts receivable affected the net realizable value of accounts receivable.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included the following, among others: (i) obtaining an understanding of and evaluating the Company's process over the collection and the assessment of the recoverability of trade receivables; (ii) testing the completeness and accuracy of the historical data used in management's calculation; (iii) testing the ageing of trade receivables at the year ended date on a sampling basis; (iv) testing the subsequent settlements by customers on a sampling basis; and (v) evaluating the reasonableness of the factors included in considering of probable credit losses such as customer-specific risks, changes in economic conditions that may not be captured in the quantitatively derived results, and other relevant factors.

Going Concern Assessment

The Company's primary sources of working capital are cash flows from operations and fund raising activities from existing and new shareholders. The Company's cash flows from operations are primarily impacted by the Company's service income, and any change in timing or amount of service income may influence the Company's operating cash flows. Based on the Company's operating plan and evaluation on its ability to continue as a going concern, as set forth in Note 3 to the consolidated financial statements, management believes that the current working capital combined with expected operating and financing cash inflows will be sufficient to fund the Company's operations and satisfy the Company's obligations as they come due for at least one year from the date that the consolidated financial statements are issued.

We identified management's assessment of the Company's ability to continue as a going concern as a critical audit matter. The going concern assessment requires management judgment to critically evaluate its forecasts and liquidity projections, incorporating the significant and unusual impacts of the COVID-19 pandemic. Auditing management's going concern assessment involved especially challenging auditor judgment and audit effort due to the nature and extent of effort required to address these matters.

The primary procedures we performed to address this critical audit matter included:

- Evaluating the reasonableness of management's assumptions and revision on forecasts and liquidity projections, which included: (i) obtaining an understanding of management's process for developing cash flow forecasts; (ii) comparing prior period forecasts to actual results; and (iii) assessing the Company's ability to meet its trailing twelve-month profitability covenant, including the commitment to increasing in revenues generation; implementing measures that enable it to manage the payment schedules and reducing operating expenditures for the twelve months from the date that the consolidated financial statements are issued.
- Assessing management's projections in the context of other audit evidences obtained during the audits and historical performance to determine whether it was contradictory to the conclusion reached by management.
- Assessing the adequacy of the Company's going concern disclosures included as set forth in Note 3 to the consolidated financial statements.

Impairment assessment on intangible assets

The Company's Internal-use software is initially recorded at cost and amortized on a straight-line basis over the estimated useful economic life of 3 to 10 years. Impairment was reviewed whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of long-lived assets to be held and used is measured by a comparison of the carrying amount of the asset to the estimated undiscounted future cash flows expected to be generated by the asset. If the carrying amount of an asset exceeds its estimated future undiscounted cash flows, an impairment loss is recognized.

The Company estimates the undiscounted future cash flows and uses the income method to determine the fair value of an intangible asset, which is based on the present value of the estimated future cash flows attributable to the respective assets. This requires management to make significant estimates and assumptions related to forecasts of future net sales and earnings expected to be generated by the intangible assets, including growth rates beyond a 3-year time period and applicable discount rates. Changes in the assumptions could have a significant impact on either the undiscounted future cash flows, the amount of any impairment charge, or both. The Company performed impairment assessments of its intangible assets as of December 31, 2022. An impairment of approximate US\$2.12 million in the aggregate was recognized because the carrying values exceeded the estimated future undiscounted cash flows of the respective assets.

We identified the Company's impairment evaluations of intangible assets as a critical audit matter because of the significant judgments made by management to estimate the undiscounted future cash flows of the assets. A high degree of auditor judgment and an increased extent of effort were required when performing audit procedures to evaluate the reasonableness of management's estimates and assumptions related to the forecasts of future net sales and earnings expected to be generated by the intangible assets as well as the selection of discount rates.

Our audit procedures related to forecasts of future net sales and earnings expected to be generated by the intangible assets and the selection of discount rates for the intangible assets included the following:

- We evaluated management's ability to accurately forecast net sales and earnings expected to be generated by the intangible assets by comparing actual results to management's historical forecasts.
- We evaluated the reasonableness of management's forecast of net sales and earnings expected to be generated by the intangible assets by comparing the forecasts to:
 - Historical net sales and earnings generated by the intangible assets;
 - Underlying analysis detailing business strategies and growth plans;
 - Internal communications to management and the Board of Directors.

/s/ Centurion ZD CPA & Co.
Centurion ZD CPA & Co.

We have served as the Company's auditor since 2019.
Hong Kong, China
April 17, 2023

ZW DATA ACTION TECHNOLOGIES INC.
CONSOLIDATED BALANCE SHEETS
(In thousands, except for number of shares and per share data)

	As of December 31,	
	2022	2021
	(US \$)	(US \$)
Assets		
Current assets:		
Cash and cash equivalents	\$ 4,391	\$ 7,173
Accounts receivable, net of allowance for doubtful accounts of \$3,760 and \$2,236, respectively	1,745	3,439
Prepayment and deposit to suppliers	4,567	7,559
Due from related parties, net	-	90
Other current assets, net	1,610	1,657
Total current assets	12,313	19,918
Long-term investments, net	1,596	2,280
Operating lease right-of-use assets	1,761	2,019
Property and equipment, net	249	375
Intangible assets, net	3,264	7,523
Long-term deposits and prepayments	69	75
Deferred tax assets, net	406	441
Total Assets	\$ 19,658	\$ 32,631
Liabilities and Equity		
Current liabilities:		
Accounts payable *	\$ 205	\$ 1,119
Advances from customers *	739	1,245
Accrued payroll and other accruals *	438	389
Taxes payable *	3,248	3,534
Operating lease liabilities *	347	202
Lease payment liabilities related to short-term leases *	101	152
Other current liabilities *	437	141
Warrant liabilities	185	2,039
Total current liabilities	5,700	8,821

ZW DATA ACTION TECHNOLOGIES INC.
CONSOLIDATED BALANCE SHEETS (CONTINUED)
(In thousands, except for number of shares and per share data)

	As of December 31,	
	2022	2021
	(US \$)	(US \$)
Long-term liabilities:		
Operating lease liabilities-Non current *	1,535	1,907
Long-term borrowing from a related party	126	137
Total Liabilities	7,361	10,865
Commitments and contingencies		
Equity:		
ZW Data Action Technologies Inc.'s stockholders' equity		
Common stock (US\$0.001 par value; authorized 20,000,000 shares; issued and outstanding 7,174,506 shares and 7,075,506 shares at December 31, 2022 and 2021, respectively **)	7	7
Additional paid-in capital **	62,017	61,813
Statutory reserves	2,598	2,598
Accumulated deficit	(53,525)	(43,734)
Accumulated other comprehensive income	1,200	1,082
Total ZW Data Action Technologies Inc.'s stockholders' equity	12,297	21,766
Noncontrolling interests	-	-
Total equity	12,297	21,766
Total Liabilities and Equity	\$ 19,658	\$ 32,631

*Liabilities recognized as a result of consolidating the VIEs do not represent additional claims on the Company's general assets (Note 2).

**Retrospectively restated for effect of the 1-for-5 reverse stock split on January 18, 2023, see Note 4(l).

See notes to consolidated financial statements

ZW DATA ACTION TECHNOLOGIES INC.
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(In thousands, except for number of shares and per share data)

	Year Ended December 31,	
	2022	2021
	(US \$)	(US \$)
Revenues		
From unrelated parties	\$ 26,235	\$ 47,324
From related parties	-	4
Total revenues	26,235	47,328
Cost of revenues	26,429	47,230
Gross (loss)/profit	(194)	98
Operating expenses		
Sales and marketing expenses	269	730
General and administrative expenses	8,304	12,632
Research and development expenses	229	326
Impairment on intangible assets	2,123	-
Total operating expenses	10,925	13,688
Loss from operations	(11,119)	(13,590)
Other income/(expenses)		
Change in fair value of warrant liabilities	1,854	11,329
Interest income	116	4
Impairment on long-term investments	(596)	-
Loss on disposal of long-term investments	-	(38)
Other expenses, net	(49)	(216)
Total other income	1,325	11,079
Loss before income tax benefit/(expense) and noncontrolling interests	(9,794)	(2,511)
Income tax benefit/(expenses)	3	(177)
Net loss	(9,791)	(2,688)
Net income attributable to noncontrolling interests	-	(66)
Net loss attributable to ZW Data Action Technologies Inc.	\$ (9,791)	\$ (2,754)

ZW DATA ACTION TECHNOLOGIES INC.
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS (CONTINUED)
(In thousands, except for number of shares and per share data)

	Year Ended December 31,	
	2022	2021
	(US \$)	(US \$)
Net loss	\$ (9,791)	\$ (2,688)
Foreign currency translation income/(loss)	118	(47)
Comprehensive loss	\$ (9,673)	\$ (2,735)
Comprehensive income attributable to noncontrolling interests	-	(66)
Comprehensive loss attributable to ZW Data Action Technologies Inc.	\$ (9,673)	\$ (2,801)
Loss per share		
Loss per common share		
Basic and diluted **	\$ (1.37)	\$ (0.42)
Weighted average number of common shares outstanding :		
Basic and diluted **	7,136,290	6,618,754

**Retrospectively restated for effect of the 1-for-5 reverse stock split on January 18, 2023, see Note 4(l).

See notes to consolidated financial statements

ZW DATA ACTION TECHNOLOGIES INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In thousands)

	Year Ended December 31,	
	2022	2021
	(US \$)	(US \$)
Cash flows from operating activities		
Net loss	\$ (9,791)	\$ (2,688)
Adjustments to reconcile net loss to net cash used in operating activities		
Depreciation and amortization	2,215	632
Amortization of operating lease right-of-use assets	341	207
Share-based compensation expenses	186	7,028
Loss on disposal of long-term investment	-	38
Impairment on long-term investments	596	-
Impairment on intangible assets	2,123	-
Provision of allowances for doubtful accounts	2,394	-
Change in fair value of warrant liabilities	(1,854)	(11,329)
Deferred taxes	(3)	177
Other non-operating (income)/losses	(113)	524
Changes in operating assets and liabilities		
Accounts receivable	(276)	(986)
Prepayment and deposit to suppliers	1,652	(2,061)
Due from related parties	59	-
Other current assets	2	6
Long-term deposits and prepayments	-	(74)
Accounts payable	(848)	495
Advances from customers	(420)	(221)
Accrued payroll and other accruals	60	(90)
Other current liabilities	836	(355)
Taxes payable	(6)	29
Operating lease liabilities	(302)	(116)
Lease payment liability related to short-term leases	(40)	(54)
Net cash used in operating activities	(3,189)	(8,838)
Cash flows from investing activities		
Payment for leasehold improvements and purchase of vehicles, furniture and office equipment	-	(334)
Cash effect of deconsolidation of VIE's subsidiaries	-	(8)
Investment and advances to ownership investee entities	-	(2,263)
Repayment of short-term loans from ownership investee entities	12	-
Short-term loans to unrelated parties	(2,600)	(1,507)
Repayment of short-term loans and interest income from unrelated parties	2,140	1,305
Deposit and prepayment repaid from/(paid for) contracts of other investing activities	1,000	(1,500)
Payment for purchase of software technology and other intangible assets	-	(1,160)
Net cash provided by/(used in) investing activities	552	(5,467)

ZW DATA ACTION TECHNOLOGIES INC.
CONSOLIDATED STATEMENTS OF CASH FLOWS (CONTINUED)
(In thousands)

	Year Ended December 31,	
	2022	2021
	(US \$)	(US \$)
Cash flows from financing activities		
Proceeds from issuance of common stock and warrants (net of cash offering cost of \$1,600)	-	17,111
Net cash provided by financing activities	-	17,111
Effect of exchange rate fluctuation on cash and cash equivalents	(145)	70
Net (decrease)/increase in cash and cash equivalents	(2,782)	2,876
Cash and cash equivalents, at beginning of the year	7,173	4,297
Cash and cash equivalents, at end of the year	<u>\$ 4,391</u>	<u>\$ 7,173</u>
Supplemental disclosure of cash flow information		
Income taxes paid	\$ -	\$ -
Interest expense paid	\$ -	\$ -

See notes to consolidated financial statements

ZW DATA ACTION TECHNOLOGIES INC.
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
(In thousands, except for number of shares)

	Common stock **		Additional paid-in capital **	Statutory reserves	Accumulated deficit	Accumulated other comprehensive income/(loss)	Noncontrolling interests	Total equity
	Number of shares	Amount (US \$)	(US \$)	(US \$)	(US \$)	(US \$)	(US \$)	(US \$)
Balance, January 1, 2021	5,221,552	5	49,793	2,598	(40,980)	1,129	(66)	12,479
Issuance of common stock for private placement, net of \$10,476 proceeds allocated to investor warrants liabilities and \$3,045 direct offering costs (including \$1,445 proceeds allocated to placement agent warrants liabilities and \$1,600 cash offering cost, respectively), respectively	1,042,400	1	5,189	-	-	-	-	5,190
Share-based compensation in exchange for services from employees and directors	803,148	1	6,749	-	-	-	-	6,750
Cashless exercise of warrants	8,406	-	82	-	-	-	-	82
Net loss/(income) for the year	-	-	-	-	(2,754)	-	66	(2,688)
Foreign currency translation adjustment	-	-	-	-	-	(47)	-	(47)
Balance, December 31, 2021	7,075,506	\$ 7	\$ 61,813	\$ 2,598	\$ (43,734)	\$ 1,082	\$ -	\$ 21,766
Share-based compensation in exchange for services from employees and directors	19,000	-	64	-	-	-	-	64
Share-based compensation in exchange for services from nonemployees	80,000	-	140	-	-	-	-	140
Net loss for the year	-	-	-	-	(9,791)	-	-	(9,791)
Foreign currency translation adjustment	-	-	-	-	-	118	-	118
Balance, December 31, 2022	7,174,506	\$ 7	\$ 62,017	\$ 2,598	\$ (53,525)	\$ 1,200	\$ -	\$ 12,297

**Retrospectively restated for effect of the 1-for-5 reverse stock split on January 18, 2023, see Note 4(l).

See notes to consolidated financial statements

ZW DATA ACTION TECHNOLOGIES INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Organization and nature of operations

ZW Data Action Technologies Inc. (f/k/a ChinaNet Online Holdings, Inc.) (the “Company”) was incorporated in the State of Texas in April 2006 and re-domiciled to become a Nevada corporation in October 2006. On June 26, 2009, the Company consummated a share exchange transaction with China Net Online Media Group Limited (the “Share Exchange”), a company organized under the laws of British Virgin Islands (“China Net BVI”). As a result of the Share Exchange, China Net BVI became a wholly owned subsidiary of the Company and the Company is now a holding company, which, through certain contractual arrangements with operating companies in the People’s Republic of China (the “PRC”), is engaged in providing Internet advertising, precision marketing, e-commerce online to offline (O2O) advertising and marketing services as well as the related data and technical services to small and medium enterprises (SMEs) in the PRC. The Company also develops blockchain enabled web/mobile applications and provides software solutions, i.e., Software-as-a-Service (“SaaS”) services for clients.

The Company’s wholly owned subsidiary, China Net BVI was incorporated in the British Virgin Islands on August 13, 2007. On April 11, 2008, China Net BVI became the parent holding company of a group of companies comprised of CNET Online Technology Co. Limited, a Hong Kong company (“China Net HK”), which established and is the parent company of Rise King Century Technology Development (Beijing) Co., Ltd., a wholly foreign-owned enterprise (“WFOE”) established in the PRC (“Rise King WFOE”). The Company refers to the transactions that resulted in China Net BVI becoming an indirect parent company of Rise King WFOE as the “Offshore Restructuring.”

PRC regulations prohibit direct foreign ownership of business entities providing Internet content, or ICP services in the PRC, and used to restrict foreign ownership of business entities engaging in the advertising business, which was subsequently lifted in June 2015. To satisfy PRC laws and regulations, the Company conducts certain business in the PRC through its Variable Interest Entities (“VIEs”). Through a series of contractual agreements (the “Contractual Agreements” or “VIE Agreements”) between Rise King WFOE and Business Opportunity Online (Beijing) Network Technology Co., Ltd. (“Business Opportunity Online”), Beijing CNET Online Advertising Co., Ltd. (“Beijing CNET Online”) (collectively the “PRC Operating Entities” or the “VIEs”) and its common individual owners (the “PRC Shareholders” or the “Control Group”), the Company, through Rise King WFOE, secures significant rights to influence the PRC Operating Entities’ business operations, policies and management, approve all matters requiring shareholder approval, and the right to receive the income earned by the PRC Operating Entities. In return, Rise King WFOE provides consulting services to the PRC Operating Entities. In addition, to ensure that the PRC Operating Entities and the PRC Shareholders perform their obligations under the Contractual Arrangements, the PRC Shareholders have pledged all of their equity interests in the PRC Operating Entities to Rise King WFOE. They also entered into an option agreement with Rise King WFOE which provides that at such time as when the restrictions under PRC law on foreign ownership of Chinese companies engaging in the Internet content, information services or advertising business in China are lifted, Rise King WFOE may exercise its option to purchase the equity interests in the PRC Operating Entities, directly.

As a result of these Contractual Agreements, Rise King WFOE has the power to direct activities of the PRC Operating Entities that most significantly impact the economic performance of the PRC Operating Entities and the obligation to absorb the losses and the right to receive benefits of the PRC Operating Entities that could potentially be significant to the PRC Operating Entities in a manner that does not violate the related PRC laws. As such, Rise King WFOE is deemed to be the primary beneficiary of the PRC Operating Entities, or the VIEs, that are parties to the relevant VIE agreements, for accounting purposes only, which serves the purpose of consolidating the VIEs’ operating results in the preparation of the Company’s consolidated financial statements in accordance with the provisions of FASB Accounting Standards Codification (“ASC”) Topic 810 “Consolidation”, subtopic 10.

As of December 31, 2022, the Company’s consolidated subsidiaries, VIEs and VIEs’ subsidiaries are summarized as follows:

<u>Name of the entity</u>	<u>Place and date of incorporation</u>	<u>Percentage of legal ownership</u>	<u>Principal activities</u>
<u>Subsidiaries:</u>			
China Net Online Media Group Limited (“China Net BVI”)	British Virgin Islands August 13, 2007	100%	Investment holding company

CNET Online Technology Co. Limited (“China Net HK”)	Hong Kong, PRC September 4, 2007	100%	Investment holding company
ChinaNet Investment Holding Ltd. (“ChinaNet Investment BVI”)	British Virgin Islands January 12, 2015	100%	Investment holding company
Grandon Investments Limited (“Grandon BVI”)	British Virgin Islands February 13, 2006	100%	Investment holding company, providing e-commerce advertising services and blockchain-based SaaS services
Winner Glory Limited (“Winner Glory HK”)	Hong Kong, PRC August 12, 2020	100%	Investment holding company
Rise King Century Technology Development (Beijing) Co., Ltd. (“Rise King WFOE”)	PRC January 17, 2008	100%	Investment holding company, providing advertising, marketing and related services
ChinaNet Online Holdings Co., Ltd. (“ChinaNet Online Holdings”)	PRC August 31, 2015	100%	Investment holding company
ChinaNet Online (Guangdong) Holdings Co., Ltd. (“ChinaNet Online Guangdong Holdings”)	PRC May 12, 2021	100%	Investment holding company
<u>VI Es:</u>			
Business Opportunity Online (Beijing) Network Technology Co., Ltd. (“Business Opportunity Online”)	PRC December 8, 2004	Consolidated VIE	Providing online advertising, precision marketing and the related data services
Beijing CNET Online Advertising Co., Ltd. (“Beijing CNET Online”)	PRC January 27, 2003	Consolidated VIE	Providing advertising, marketing and related value-added services
<u>VI Es’ subsidiaries:</u>			
Beijing Chuang Fu Tian Xia Network Technology Co., Ltd. (“Beijing Chuang Fu Tian Xia”)	PRC March 1, 2011	VIE’s subsidiary	Providing online advertising, precision marketing and the related data services
Business Opportunity Online (Hubei) Network Technology Co., Ltd. (“Business Opportunity Online Hubei”)	PRC January 28, 2011	VIE’s subsidiary	Providing online advertising, precision marketing and the related data services
Beijing Chuang Shi Xin Qi Advertising Media Co., Ltd. (“Beijing Chuang Shi Xin Qi”)	PRC April 16, 2014	VIE’s subsidiary	Providing online advertising, precision marketing and the related data services
Beijing Hong Da Shi Xing Network Technology Co., Ltd. (“Beijing Hong Da Shi Xing”)	PRC April 16, 2014	VIE’s subsidiary	Providing online advertising, precision marketing and the related data services
ChinaNet Online (Guangdong) Technology Co., Ltd. (“ChinaNet Online Guangdong Technology”)	PRC May 26, 2020	VIE’s subsidiary	Developing and operating blockchain technology-based products and services, and other related value-added services

2. Variable Interest Entities

To satisfy PRC laws and regulations, the Company conducts certain business in the PRC through its Variable Interest Entities (“VIEs”).

The significant terms of the Company’s VIE Agreements are summarized below:

Exclusive Business Cooperation Agreements: Pursuant to the Exclusive Business Cooperation Agreements entered into by and between Rise King WFOE and each of the PRC Operating Entities, Rise King WFOE has the exclusive right to provide to the PRC Operating Entities complete technical support, business support and related consulting services during the term of these agreements, which includes but is not limited to technical services, business consultations, equipment or property leasing, marketing consultancy system integration, product research and development, and system maintenance. In exchange for such services, each PRC Operating Entity has agreed to pay a service fee consisting of a management fee and a fee for services provided, to Rise King WFOE, which shall be determined by Rise King WFOE according to the following factors: the complexity and difficulty of the services, seniority of and time consumed by the employees, specific contents, scope and value of the services, market price of the same type of services, and operation conditions of the PRC Operating Entities. Each agreement shall remain effective unless terminated in accordance with the provisions thereof or terminated in writing by Rise King WFOE.

Exclusive Option Agreements: Under the Exclusive Option Agreements entered into by and among Rise King WFOE, each of the PRC Shareholders irrevocably granted to Rise King WFOE or its designated person an exclusive option to purchase, to the extent permitted by PRC law, a portion or all of their respective equity interest in any PRC Operating Entities for a purchase price of RMB 10, or a purchase price to be adjusted to be in compliance with applicable PRC laws and regulations. Rise King WFOE, or its designated person, has the sole discretion to decide when to exercise the option, whether in part or in full. Each of these agreements shall become effective upon execution and remain effective until all equity interests held by the relevant PRC Shareholder(s) in the PRC Operating Entities have been transferred or assigned to Rise King WFOE and/or any other person designated by Rise King WFOE.

Equity Pledge Agreements: Under the Equity Pledge Agreements entered into by and among Rise King WFOE, the PRC Operating Entities and each of the PRC Shareholders, the PRC Shareholders pledged all of their equity interests in the PRC Operating Entities to guarantee the PRC Operating Entities’ and the PRC Shareholders’ performance of the relevant obligations under the Exclusive Business Cooperation Agreements and other Contractual Agreements. If the PRC Operating Entities or any of the PRC Shareholders breaches its/his/her respective contractual obligations under these agreements, or upon the occurrence of one of the events regarded as an event of default under each such agreement, Rise King WFOE, as pledgee, will be entitled to certain rights, including the right to dispose of the pledged equity interests. The PRC Shareholders of the PRC Operating Entities agreed not to dispose of the pledged equity interests or take any actions that would prejudice Rise King WFOE’s interest, and to notify Rise King WFOE of any events or upon receipt of any notices which may affect Rise King WFOE’s interest in the pledge. Each of the equity pledge agreements will be valid until all the obligations under the Exclusive Business Cooperation Agreements and other Contractual Agreements have been fulfilled, including the service fee payments related to the Exclusive Business Cooperation Agreement are paid in full.

Irrevocable Powers of Attorney: The PRC Shareholders have each executed an irrevocable power of attorney to appoint Rise King WFOE as their exclusive attorneys-in-fact to vote on their behalf on all PRC Operating Entities matters requiring shareholder approval. The term of each power of attorney is valid so long as such shareholder is a shareholder of the respective PRC Operating Entity.

As a result of these VIE Agreements, the Company through its wholly-owned subsidiary, Rise King WFOE, was granted with unconstrained decision making rights and power over key strategic and operational functions that would significantly impact the PRC Operating Entities or the VIEs’ economic performance, which includes, but is not limited to, the development and execution of the overall business strategy; important and material decision making; decision making for merger and acquisition targets and execution of merger and acquisition plans; business partnership strategy development and execution; government liaison; operation management and review; and human resources recruitment and compensation and incentive strategy development and execution. Rise King WFOE also provides comprehensive services to the VIEs for their daily operations, such as operational technical support, office automation technical support, accounting support, general administration support and technical support for products and services. As a result of the Exclusive Business Cooperation Agreements, the Equity Pledge Agreements and the Exclusive Option Agreements, Rise King WFOE has the obligation to absorb the losses and the right to receive benefits of the VIEs that could potentially be significant to the VIEs. Rise King WFOE is deemed to be the primary beneficiary of the PRC Operating Entities, or the VIEs, that are parties to the relevant VIE agreements, for accounting purposes only, which serves the purpose of consolidating the VIEs’ operating results in the preparation of the Company’s consolidated financial statements under the U.S. GAAP.

ZW DATA ACTION TECHNOLOGIES INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In the opinion of the Company's PRC legal counsel, as of the date hereof, the Company's current contractual arrangements with the VIEs and their respective shareholders are valid, binding and enforceable. However, there exist substantial uncertainties and risks regarding regulations and their potential effect on the Company's VIE structure and contractual arrangements.

On March 15, 2019, the National People's Congress of the PRC approved the Foreign Investment Law, which came into effect on January 1, 2020. 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. However, since it is relatively new, uncertainties still exist in relation to its interpretation and implementation. Though it does not explicitly classify contractual arrangements as a form of foreign investment, there is no assurance that foreign investment via contractual arrangement would not be interpreted as a type of indirect foreign investment activities under the definition in the future. In addition, the definition contains a catch-all provision which includes investments made by foreign investors 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. In any of these cases, it will be uncertain whether the Company's contractual arrangements will be deemed to be in violation of the market access requirements for foreign investment under the PRC laws and regulations. Furthermore, 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, the Company may face substantial uncertainties as to whether it can complete such actions in a timely manner, or at all. Failure to take timely and appropriate measures to cope with any of these or similar regulatory compliance challenges could materially and adversely affect the Company's current corporate structure, corporate governance and business operations.

In addition, these contractual arrangements may not be as effective in providing the Company with control over the VIEs as would direct ownership. Due to its VIE structure, the Company has to rely on contractual rights to effect control and management of the VIEs, which exposes it to the risk of potential breach of contract by the shareholders of the VIEs for a number of reasons. For example, their interests as shareholders of the VIEs and the interests of the Company may conflict, and the Company may fail to resolve such conflicts; the shareholders may believe that breaching the contracts will lead to greater economic benefit for them; or the shareholders may otherwise act in bad faith. If any of the foregoing were to happen, the Company may have to rely on legal or arbitral proceedings to enforce its contractual rights, including specific performance or injunctive relief, and claiming damages. Such arbitral and legal proceedings may cost substantial financial and other resources, and result in a disruption of its business, and the Company cannot assure that the outcome will be in its favor. In addition, as all of these contractual arrangements are governed by PRC law and provide for the resolution of disputes through either arbitration or litigation in the PRC, they would be interpreted in accordance with PRC law and any disputes would be resolved in accordance with PRC legal procedures. The legal environment in the PRC is not as developed as in other jurisdictions, such as the United States. As a result, uncertainties in the PRC legal system could further limit the Company's ability to enforce these contractual arrangements. Furthermore, these contracts may not be enforceable in China if PRC government authorities or courts take a view that such contracts contravene PRC laws and regulations or are otherwise not enforceable for public policy reasons. In the event that the Company is unable to enforce any of these agreements, the Company would not be able to exert effective control over the affected VIEs and consequently, the results of operations, assets and liabilities of the affected VIEs and their subsidiaries would not be included in the Company's consolidated financial statements. If such were the case, the Company's cash flows, financial position and operating performance would be materially adversely affected.

As of the date hereof, to the best knowledge of the Company and its directors and management, the Company's VIE agreements have not been tested in a court of law in the PRC and may not be effective in providing control over the VIEs as would direct equity ownership.

Summarized below is the information related to the VIEs' assets and liabilities reported in the Company's consolidated balance sheets as of December 31, 2022 and 2021, respectively:

ZW DATA ACTION TECHNOLOGIES INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

	As of December 31,	
	2022	2021
	US\$('000)	US\$('000)
Assets		
Current assets:		
Cash and cash equivalents	\$ 578	\$ 181
Accounts receivable, net	1,745	2,796
Prepayment and deposit to suppliers	2,020	5,287
Due from related parties, net	-	90
Other current assets	2	4
Total current assets	4,345	8,358
Long-term investments, net	165	496
Operating lease right-of-use assets	145	21
Property and equipment, net	113	168
Deferred tax assets	406	441
Total Assets	\$ 5,174	\$ 9,484
Liabilities		
Current liabilities:		
Accounts payable	\$ 205	\$ 1,119
Advances from customers	515	1,113
Accrued payroll and other accruals	63	83
Taxes payable	2,602	2,849
Operating lease liabilities	146	9
Lease payment liabilities related to short-term leases	101	110
Other current liabilities	320	53
Total current liabilities	3,952	5,336
Operating lease liabilities-Non current	-	10
Total Liabilities	\$ 3,952	\$ 5,346

Liabilities recognized as a result of consolidating the VIEs do not represent additional claims on the Company's general assets.

Summarized below is the information related to the financial performance of the VIEs reported in the Company's consolidated statements of operations and comprehensive loss for the years ended December 31, 2022 and 2021, respectively:

	Year Ended December 31,	
	2022	2021
	US\$('000)	US\$('000)
Revenues	\$ 24,188	\$ 42,136
Cost of revenues	25,599	45,730
Total operating expenses	3,117	1,409
Net loss before allocation to noncontrolling interests	4,873	5,182

3. Liquidity and capital resource and going concern evaluation

For the years ended December 31, 2022 and 2021, the Company incurred a loss from operations of US\$11.12 million and US\$13.59 million, respectively. Net operating cash outflow for the years ended December 31, 2022 and 2021 was US\$3.19 million and US\$8.84 million, respectively. As of December 31, 2022, the Company had cash and cash equivalents of US\$4.39 million and working capital of US\$6.61 million.

ZW DATA ACTION TECHNOLOGIES INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The Company experienced temporary decreases in revenues, incurred a gross loss, and did not generate a positive net cash flow from its existing core business, i.e., Internet advertising and related data service business for the year ended December 31, 2022. This was primarily attributable to the repeated severe COVID-19 cases rebound in many provinces in China during fiscal 2022, and the strict zero-COVID policy adopted by the Chinese government to constrain the spread of the virus. The COVID-19 pandemic in China during fiscal 2022 resulted in regional large-scale quarantine and business shutdown, and further resulted in pandemic fears and in return severely affected the SMEs owners' confidence to further expand their businesses, and thus adversely affected the SMEs owners' demands on the Company's online advertising and marketing services. As a result, the Company has been relying on proceeds generated from financing activities for its liquidity in fiscal 2022. In December 2022, after a severe lockdown in most parts of mainland China, the Chinese government ended its three-year zero-COVID policy, most of the travel restrictions and quarantine requirements were lifted accordingly. Although there remain uncertainties as to the future development and impact of the COVID-19 pandemic, the Company anticipates a slow recovery of performance and improvement of cash flow status of its core business in the next 12 months.

In order to improve operation performance, from early 2022, the Company started to introduce its new SaaS services to customers. The Company's SaaS services are provided based on technologies of its self-developed Blockchain Integrated Framework ("BIF") platform. The subscriptions of the Company's BIF platform would enable its clients to utilize the BIF platform as an enterprise management software to record, share and storage operating data on-chain, and/or to generate unique designed Non-fungible Token ("NFTs") for their IPs and certificates. Although the unexpected long-time quarantine and business shutdown measures for COVID-19 epidemic control incurred throughout fiscal 2022 adversely affected the Company's promotion of the new SaaS services, and revenues from the new SaaS services business and its profitability have not met the Company's expectations, it is still expected to bring the Company positive cash flow and help to improve liquidity, as these services are provided based on technologies of the Company's self-developed software platform, which does not need any further material cash outflow to other third-party service providers.

In addition, to further improve its liquidity, the Company plans to negotiate with its major suppliers for more favorable payment terms, collect short-term loan principals provided to unrelated parties and the related interest income, when they become due, reduce its operating costs through optimizing the personnel structure among different offices, and reduce its office leasing spaces, if needed. The Company also intends to obtain revolving credit facilities to supplement its short-term working capital, as needed, from the commercial banks in the PRC. The Company has not experienced any difficulties in obtaining such credit facility before.

Based on the above discussion, the Company believes that its current cash and cash equivalents, its anticipated new cash flows from operations and from investing and financing activities, and other liquidity improving measures will ensure the Company has sufficient cash to meet its obligations as they become due with the next 12 months from the date hereof.

4. Summary of significant accounting policies

a) Basis of presentation

The consolidated financial statements are prepared and presented in accordance with generally accepted accounting principles in the United States of America ("U.S. GAAP").

b) Principles of consolidation

The consolidated financial statements include the accounts of all the subsidiaries and VIEs of the Company. All transactions and balances between the Company and its subsidiaries and VIEs have been eliminated upon consolidation.

c) Use of estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the related disclosure of contingent assets and liabilities at the date of these consolidated financial statements, and the reported amounts of revenue and expenses during the reporting period. The Company continually evaluates these estimates and assumptions based on the most recently available information, historical experience and various other assumptions that the Company believes to be reasonable under the circumstances. Since the use of estimates is an integral component of the financial reporting process, actual results could differ from those estimates.

ZW DATA ACTION TECHNOLOGIES INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

d) Foreign currency translation and transactions

The Company conducts substantially all of its operations through its PRC operating subsidiaries and VIEs, PRC is the primary economic environment in which the Company operates. For financial reporting purposes, the financial statements of the Company's PRC operating subsidiaries and VIEs, which are prepared using the functional currency of the PRC, Renminbi ("RMB"), are translated into the Company's reporting currency, the United States Dollar ("U.S. dollar"). Assets and liabilities are translated using the exchange rate at each balance sheet date. Revenue and expenses are translated using average rates prevailing during each reporting period, and stockholders' equity is translated at historical exchange rates. Adjustments resulting from the translation are recorded as a separate component of accumulated other comprehensive income in stockholders' equity.

Transactions denominated in currencies other than the functional currency are translated into the functional currency at the exchange rates prevailing at the dates of the transactions. The resulting exchange differences are included in the determination of net loss of the consolidated statements of operations and comprehensive loss for the respective periods.

The exchange rates used to translate amounts in RMB into US\$ for the purposes of preparing the consolidated financial statements are as follows:

	As of December 31,	
	2022	2021
Balance sheet items, except for equity accounts	6.9646	6.3757
	Year Ended December 31,	
	2022	2021
Items in the statements of operations and comprehensive loss	6.7261	6.4515

No representation is made that the RMB amounts could have been or could be converted into US\$ at the above rates.

e) Cash and cash equivalents

Cash and cash equivalents consist of cash on hand and bank deposits. The Company considers all highly liquid investments with original maturities of three months or less at the time of purchase to be cash equivalents.

The Company's cash is held in accounts at major financial institutions located in the U.S. and the PRC. As of December 31, 2022, US\$1.66 million of the Company's cash was held in accounts at financial institutions located in the U.S., and the remaining US\$2.73 million was held in the accounts at financial institutions located in the PRC. The Company believes that these financial institutions are of high credit quality, all of which have participated in the federal/national deposit insurance scheme of their respective jurisdiction. The Company's cash held in accounts at the financial institutions in the U.S. are insured by the Federal Deposit Insurance Corporation (FDIC) for up to US\$0.25 million per depositor per insured bank and the cash held in accounts at the financial institutions in the PRC are insured by the Deposit Insurance Capital Corporation (DICC), a wholly-owned subsidiary of the People's Bank of China, for up to RMB0.50 million per depositor per insured bank. The Company, its subsidiaries, VIEs and VIEs' subsidiaries have not experienced any losses in such accounts in the U.S. and the PRC and do not believe their cash is exposed to any significant risk.

The cash held in accounts at the financial institutions in the PRC is in Renminbi. Renminbi is not freely convertible into other currencies. The Chinese government imposes controls on the convertibility of Renminbi into foreign currencies and, in certain cases, the remittance of currency out of China. Renminbi is currently convertible under the "current account," which includes dividends, trade and service-related foreign exchange transactions, but not under the "capital account," which includes foreign direct investment and foreign debt. Currently, our PRC subsidiaries may purchase foreign currency for settlement of current account transactions, including payment of dividends to us, without the approval of the State Administration of Foreign Exchange of China (the "SAFE") by complying with certain procedural requirements. However, the relevant Chinese governmental authorities may limit or eliminate our ability to purchase foreign currencies in the future for current account transactions. The Chinese government may continue to strengthen its capital controls, and additional restrictions and substantial vetting processes may be instituted by the SAFE for cross-border transactions falling under both the current account and the capital account. Foreign exchange transactions under the capital account remain subject to limitations and require approvals from, or registration with, the SAFE and other relevant Chinese governmental authorities. There is no restriction for the Company to transfer its cash held in accounts at the financial institutions located in the U.S. outside the border of the U.S.

ZW DATA ACTION TECHNOLOGIES INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The Company is a Nevada holding company with operations primarily conducted in China through its PRC subsidiaries, VIEs and VIEs' subsidiaries. The intercompany flow of funds within its organization is effected through capital contributions and intercompany loans, which requires prior approval by the delegated executive officers before execution.

The Company has transferred, and intends to continue to transfer, most of its cash raised from the U.S. stock market to its PRC operating entities to support their operations and expansions. The Company's ability to pay dividends to U.S. investors may depend on receiving dividends or other distributions from its PRC subsidiaries and settlement of the amounts owed under the VIE agreements from the consolidated VIEs. The Company does not have any present plan to demand the consolidated VIEs to settle their amounts owed under the VIE agreements, or make any distribution of earnings or issue any dividends directly or indirectly to the Nevada holding company. In addition, the Company also currently does not have any plan to pay any cash dividends on its common stock in the foreseeable future.

For the year ended December 31, 2022, the Company did not transfer any cash to its operating subsidiaries. One of the Company's subsidiaries paid US\$0.48 million operating expenses in cash on behalf of the Company to the service providers, as a repayment of shareholder loans provided by the Company to this subsidiary in previous years. For the year ended December 31, 2021, the Company transferred aggregately US\$16.33 million cash to its operating subsidiaries to support their business operations and expansions, of which US\$5.0 million was transferred in form of capital contributions and US\$11.33 million was transferred in form of shareholder loans, of which a US\$2.0 million loan was subsequently converted to capital contribution during 2022.

For the years ended December 31, 2022 and 2021, the Company's operating subsidiaries transferred US\$0.34 million and US\$4.25 million cash to the consolidated VIEs in form of loans, respectively.

For the years ended December 31, 2022 and 2021, the Company's PRC subsidiaries, the VIEs, and VIE's subsidiaries did not transfer any cash outside of the PRC.

f) Accounts receivable, net

Accounts receivable are recorded at net realizable value consisting of the carrying amount less an allowance for uncollectible accounts as needed. The allowance for doubtful accounts is the Company's best estimate of the amount of probable credit losses in the Company's existing accounts receivable. The Company determines the allowance based on aging data, historical collection experience, customer specific facts and economic conditions. Account balances are charged off against the allowance after all means of collection have been exhausted and the potential for recovery is considered remote. The Company did not have any off-balance-sheet credit exposure relating to its customers, suppliers or others. For the year ended December 31, 2022, the Company recorded approximately US\$1.76 million of allowance for doubtful accounts against its accounts receivable. For the year ended December 31, 2021, the Company did not provide any allowance for doubtful accounts against its accounts receivable.

g) Long-term investments

The Company's investments in equity securities and other ownership interests (except those accounted for under the equity method of accounting or those that resulted in consolidation of the investee), i.e. investments in investee companies that are not consolidated, and over which the Company does not exercise significant influence, are accounted for in accordance with ASC Topic 321: "Investments-Equity securities". The Company generally owns less than 20% interest in the voting securities of these investee companies. In accordance with ASC 321-10-35-2, the Company chooses to measure these investments which do not have readily determinable fair values at cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the Company and records the carrying value of these investments as "Long-term investments" in the Company's consolidated balance sheets.

In accordance with ASC 321-10-35-3, the Company writes down the carrying value of these investments 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, as determined using the guidance in ASC 321-10-35-2.

ZW DATA ACTION TECHNOLOGIES INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the year ended December 31, 2022, the Company recorded approximately US\$0.60 million impairment loss associated with its long-term investments. For the year ended December 31, 2021, the Company did not record any impairment loss associated with its long-term investments.

h) Property and equipment, net

Property and equipment are recorded at cost less accumulated depreciation/amortization. Depreciation/amortization is calculated on the straight-line method after taking into account their respective estimated residual values over the following estimated useful lives:

Leasehold improvements (years)	3		
Vehicles (years)	5		
Office equipment (years)	3	-	5
Electronic devices (years)	5		

Depreciation/amortization expenses of fixed assets are included in sales and marketing expenses, general and administrative expenses and research and development expenses. Leasehold improvements are amortized over the lesser of the lease term or estimated useful life.

When property and equipment are retired or otherwise disposed of, resulting gain or loss is included in net income or loss in the period of disposition. Maintenance and repairs which do not improve or extend the expected useful lives of the assets are charged to expenses as incurred, whereas the cost of renewals and betterments that extend the useful life of the assets are capitalized as additions to the related assets.

i) Intangible assets, net

The Company accounted for cost related to internal-used software in accordance with ASC Topic 350-40 "Intangibles-Goodwill and Other-Internal-Use Software". Internal-use software is initially recorded at cost and amortized on a straight-line basis over the estimated useful economic life of 3 to 10 years.

j) Impairment of long-lived assets

In accordance with ASC 360-10-35, long-lived assets, which include tangible long-lived assets and intangible long-lived assets, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. Recoverability of long-lived assets to be held and used is measured by a comparison of the carrying amount of the asset to the estimated undiscounted future cash flows expected to be generated by the asset. If the carrying amount of an asset exceeds its estimated future undiscounted cash flows, an impairment loss is recognized for the difference between the carrying amount of the asset and its fair value.

For the year ended December 31, 2022, the Company recorded aggregately US\$2.12 million impairment loss associated with its intangible assets. For the year ended December 31, 2021, the Company did not record any impairment loss associated with its long-lived assets.

k) Fair value

The Company's financial instruments primarily consist of cash and cash equivalents, accounts receivable, short-term loans to unrelated parties and accounts payable. The carrying values of these financial instruments approximate fair values due to their short maturities.

ASC Topic 820 "Fair Value Measurement and Disclosures," defines fair value as the exchange price that would be received for an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. This topic also establishes a fair value hierarchy which requires classification based on observable and unobservable inputs when measuring fair value. There are three levels of inputs that may be used to measure fair value:

ZW DATA ACTION TECHNOLOGIES INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Level 1 - Quoted prices in active markets for identical assets or liabilities.

Level 2 - Observable inputs other than Level 1 prices such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

Level 3 - Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

Determining which category an asset or liability falls within the hierarchy requires significant judgment. The Company evaluates its hierarchy disclosures each quarter.

Liabilities measured at fair value on a recurring basis by level within the fair value hierarchy as of December 31, 2022 and 2021 is as follows:

	<u>Fair value measurement at reporting date using</u>			
	<u>As of</u>	<u>Quoted Prices</u>	<u>Significant</u>	<u>Significant</u>
	<u>December</u>	<u>in Active</u>	<u>Other</u>	<u>Unobservable</u>
	<u>31, 2022</u>	<u>Markets</u>	<u>Observable</u>	<u>Inputs</u>
	<u>(Level 1)</u>	<u>for Identical</u>	<u>Inputs</u>	<u>(Level 3)</u>
	<u>US\$('000)</u>	<u>Assets/Liabilities</u>	<u>(Level 2)</u>	<u>(Level 3)</u>
		<u>US\$('000)</u>	<u>US\$('000)</u>	<u>US\$('000)</u>
Warrant liabilities	185	-	-	185

	<u>Fair value measurement at reporting date using</u>			
	<u>As of</u>	<u>Quoted Prices</u>	<u>Significant</u>	<u>Significant</u>
	<u>December</u>	<u>in Active</u>	<u>Other</u>	<u>Unobservable</u>
	<u>31, 2021</u>	<u>Markets</u>	<u>Observable</u>	<u>Inputs</u>
	<u>(Level 1)</u>	<u>for Identical</u>	<u>Inputs</u>	<u>(Level 3)</u>
	<u>US\$('000)</u>	<u>Assets/Liabilities</u>	<u>(Level 2)</u>	<u>(Level 3)</u>
		<u>US\$('000)</u>	<u>US\$('000)</u>	<u>US\$('000)</u>
Warrant liabilities	2,039	-	-	2,039

Significant unobservable inputs utilized to determine the fair value of the Company's warrant liabilities was disclosed in Note 16.

l) Reverse stock split

The Board of Directors of the Company approved a reverse stock split of the Company's issued and outstanding shares of common stock, par value \$0.001 per share (the "Common Stock") at a ratio of 1-for-5 (the "Reverse Stock Split"). The Reverse Stock Split became effective on January 18, 2023 (the "Effective Date"). As a result, the number of shares of the Company's authorized Common Stock was reduced from 100,000,000 shares to 20,000,000 shares and the issued and outstanding number of shares of the Common Stock was correspondingly decreased. The Reverse Stock Split has no effect on the par value of the Company's Common Stock or authorized shares of preferred stock.

When the Reverse Stock Split became effective, each five shares of issued and outstanding Common Stock were automatically converted into one newly issued and outstanding share of Common Stock. No fractional shares were issued in connection with the Reverse Stock Split. Any fractional shares of Common Stock that would have otherwise resulted from the Reverse Stock Split were rounded up to the nearest full share. No cash or other consideration was paid in connection with any fractional shares that would otherwise have resulted from the Reverse Stock Split.

As a result of the Reverse Stock Split, 35,827,677 shares of Common Stock that were issued and outstanding at January 18, 2023 was reduced to 7,174,506 shares of Common Stock (taking into account the rounding of fractional shares).

ZW DATA ACTION TECHNOLOGIES INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Except where otherwise specified, all number of shares, number of warrants, share prices, exercise prices and per share data in the consolidated financial statements and notes to the consolidated financial statements have been retroactively restated as if the Reverse Stock Split occurred at the beginning of the periods presented.

m) Revenue recognition

In accordance with ASC Topic 606, revenues are recognized when control of the promised goods or services is transferred to the Company's customers, in an amount that reflects the consideration the Company expects to be entitled to in exchange for those goods or services. In determining when and how much revenue is recognized from contracts with customers, the Company performs the following five-step analysis: (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; (5) recognize revenue when (or as) the entity satisfies a performance obligation.

Multiple performance obligations included in the Company's contracts with customers are neither capable of being distinct, that is, can benefit the customer on its own or together with other readily available resources, nor is distinct within the context of the contract, that is, the promise to transfer the service separately identifiable from other promises in the contract.

The Company's contract with customers do not include significant financing component and any variable consideration.

Advance from customers related to unsatisfied performance obligations are generally refundable. Refund of advance from customers was insignificant for both the years ended December 31, 2022 and 2021.

The Company does not believe that significant management judgements are involved in revenue recognition, but the amount and timing of the Company's revenues could be different for any period if management made different judgments or utilized different estimates. Generally, the Company recognizes revenue under ASC Topic 606 for each type of its performance obligation either over time or at a point in time as follows:

Distribution of the right to use search engine marketing service

Revenue from distribution of the right to use search engine marketing service is recognized on a monthly basis based on the direct cost consumed through search engines for providing such services with a premium ("over time"). The Company recognizes the revenue on a gross basis, because the Company determines that it is a principal in the transaction who control the goods or services before they are transferred to the customers.

Online advertising placement service/ecommerce advertising placement service

For online advertising placement service contracts and other ecommerce advertising placement service contracts that are established based on a fixed price scheme with the related advertisement placements obligation, the Company provides advertisement placements in specified locations on the Company's advertising portals for agreed periods and/or place the advertisements onto the Company's purchased advertisement time on specific outdoor billboards for agreed periods. Revenue is recognized ratably over the period the advertisement is placed and, as such, the Company considers the services to have been delivered ("over time").

Blockchain-based SaaS services

The Company develops blockchain enabled web/mobile applications and provides Software-as-a-Service ("SaaS") services for clients. Fixed periodical subscription fee revenues for the use of the Company's Blockchain Integrated Framework ("BIF") platform are recognized ratably on a monthly basis over the period of the subscription service ("over time"). Revenues related to the Non-fungible Token ("NFT") generation service provided through the BIF platform are recognized based on a fixed price per NFT generation, when a NFT is generated, delivered and accepted by customers ("point in time").

The following tables present the Company's revenues disaggregated by products and services and timing of revenue recognition:

ZW DATA ACTION TECHNOLOGIES INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

	Year Ended December 31,	
	2022	2021
	US\$('000)	US\$('000)
Internet advertising and related service		
--distribution of the right to use search engine marketing service	22,262	39,224
--online advertising placements	3,548	7,442
Ecommerce O2O advertising and marketing services	-	662
Blockchain-based SaaS services	425	-
Total revenues	\$ 26,235	\$ 47,328

	Year Ended December 31,	
	2022	2021
	US\$('000)	US\$('000)
Revenue recognized over time	25,835	47,328
Revenue recognized at a point in time	400	-
Total revenues	\$ 26,235	\$ 47,328

Contract costs

For the years ended December 31, 2022 and 2021, the Company did not have any significant incremental costs of obtaining contracts with customers incurred and/or costs incurred in fulfilling contracts with customers, that shall be recognized as an asset and amortized to expenses in a pattern that matches the timing of the revenue recognition of the related contract.

Contract balances

The Company evaluates overall economic conditions, its working capital status and customer specific credit and negotiates the payment terms of a contract with individual customer on a case-by-case basis in its normal course of business.

Advances received from customers related to unsatisfied performance obligations are recoded as contract liabilities (advance from customers), which will be realized as revenues upon the satisfaction of performance obligations through the transfer of related promised goods and services to customers.

For contracts without a full or any advance payments required, the Company bills the customers any unpaid contract price immediately upon satisfaction of the related performance obligations when revenue is recognized.

The Company does not have any contract assets (unbilled receivables) since revenue is recognized when control of the promised goods or services is transferred and the payment from customers is not contingent on a future event.

The Company's contract liabilities primarily consist of advance from customers related to unsatisfied performance obligations in relation to online advertising placement service and distribution of the right to use search engine marketing service. All contract liabilities are expected to be recognized as revenue within one year. The table below summarized the movement of the Company's contract liabilities for the two years ended December 31, 2022:

	Contract liabilities
	US\$('000)
Balance as of January 1, 2021	1,436
Exchange translation adjustment	34
Revenue recognized from beginning contract liability balance	(1,390)
Advances received from customers related to unsatisfied performance obligations	1,165
Balance as of December 31, 2021	1,245
Exchange translation adjustment	(105)
Revenue recognized from beginning contract liability balance	(1,104)
Advances received from customers related to unsatisfied performance obligations	703
Balance as of December 31, 2022	739

ZW DATA ACTION TECHNOLOGIES INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2022 and 2021, there is no revenue recognized from performance obligations that were satisfied in prior periods.

Transaction price allocated to remaining performance obligation

The Company has elected to apply the practical expedient in paragraph ASC Topic 606-10-50-14 and did not disclose the information related to transaction price allocated to the performance obligations that are unsatisfied or partially unsatisfied as of December 31, 2022 and 2021, because all performance obligations of the Company's contracts with customers have an original expected duration of one year or less.

n) Cost of revenues

Cost of revenues primarily includes the cost of Internet and other forms of advertising resources and related technical services purchased from third parties, amortization of software platform development cost and other direct cost associated with providing services.

o) Research and development expenses

The Company accounts for expenses for the enhancement, maintenance and technical support to the Company's Internet platforms and intellectual properties that are used in its daily operations in research and development expenses. Research and development costs are charged to expense when incurred. Expenses for research and development for the years ended December 31, 2022 and 2021 were approximately US\$0.23 million and US\$0.33 million, respectively.

p) Lease

The Company leases office spaces from unrelated parties in its normal course of business. Other than these office spaces lease contracts, the Company does not have any other contract that is or contains a lease under ASC Topic 842.

The Company's lease contracts do not contain any option for the Company to extend or terminate the lease, and do not contain the option for the Company to purchase the underlying assets. Based on the noncancelable lease period in the contract, the Company considers contract-based, asset-based, market-based and entity-based factors to determine the term over which it is reasonably certain to extend the lease, and then determine the lease term of each contract, which is 1-8 years. The Company's lease contracts only contain fixed lease payments and do not contain any residual value guarantee.

The Company's office lease contracts do not contain any nonlease component and are classified as operating leases in accordance with ASC Topic 842-10-25-3.

For lease contracts with a duration of twelve months or less and thus met the definition of a short-term lease under ASC 842, the Company, in accordance with ASC 842-20-25-2, elected not to apply the recognition requirements (i.e. not to recognize right-of-use asset and related lease liability) to these short-term leases. Instead, the Company recognized the lease payments of these short-term leases in its consolidated statements of operations and comprehensive loss on a straight-line basis over the lease term. As of December 31, 2022 and 2021, lease payments liability related to these short-term leases was approximately US\$0.10 million and US\$0.15 million, respectively.

For lease contracts with a duration of over twelve months, as the implicit rates of the Company leases cannot be readily determined, in accordance with ASC Topic 842-20-30-3, the Company used its incremental borrowing rate as the discount rate to determine the present value of the lease payments for each lease contract. The Company's incremental borrowing rate was determined based on the interest rate expected to be used by the commercial banks in the PRC for long-term loans with the same maturity terms as the respective lease contracts at lease inception, if lent to the Company on a collateralized basis.

ZW DATA ACTION TECHNOLOGIES INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

As of December 31, 2022, operating lease right-of-use assets and total operating lease liabilities recognized was approximately US\$1.76 million and US\$1.88 million, respectively.

Maturity of operating lease liabilities

	Operating leases
	US\$('000)
Year ending December 31,	
-2023	447
-2024	313
-2025	328
-2026	345
-2027	362
-thereafter	444
Total undiscounted lease payments	2,239
Less: imputed interest	(357)
Operating lease liabilities as of December 31, 2022	\$ 1,882
Including:	
Operating lease liabilities	347
Operating lease liabilities-Non current	1,535
	\$ 1,882

As of December 31, 2021, operating lease right-of-use assets and total operating lease liabilities recognized was approximately US\$2.02 million and US\$2.11 million, respectively.

Operating lease expenses:

	Year Ended December 31,	
	2022	2021
	US\$('000)	US\$('000)
Long-term operating lease contracts	459	302
Short-term operating lease contracts	48	60
Total	507	362

Supplemental information related to operating leases:

	Year Ended December 31,	
	2022	2021
Operating cash flows used for operating leases (US\$'000)	361	210
Right-of-use assets obtained in exchange for new lease liabilities (US\$'000)	252	2,186
Weighted-average remaining lease term (years)	5.75	7.12
Weighted-average discount rate	6%	6%

q) Income taxes

The Company follows the guidance of ASC Topic 740 "Income taxes" and uses liability method to account for income taxes. Under this method, deferred tax assets and liabilities are determined based on the difference between the financial reporting and tax bases of assets and liabilities using enacted tax rates that will be in effect in the period in which the differences are expected to reverse. The Company records a valuation allowance to offset deferred tax assets, if based on the weight of available evidence, it is more-likely-than-not that some portion, or all, of the deferred tax assets will not be realized. The effect on deferred taxes of a change in tax rates is recognized in statement of operations and comprehensive loss in the period that includes the enactment date.

r) Uncertain tax positions

The Company follows the guidance of ASC Topic 740 “Income taxes”, which prescribes a more likely than not threshold for financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. As a result, the impact of an uncertain income tax position is recognized at the largest amount that is more-likely-than-not to be sustained upon audit by the relevant tax authority. An uncertain income tax position will not be recognized if it has less than a 50% likelihood of being sustained.

The Company recognizes interest on non-payment of income taxes under requirement by tax law and penalties associated with tax positions when a tax position does not meet the minimum statutory threshold to avoid payment of penalties. Interest and penalties on income taxes will be classified as a component of the provisions for income taxes. The tax returns of the Company and its subsidiaries and VIEs are subject to examination by the relevant local tax authorities. The statute of limitations related to these tax returns under different circumstances various from 3-10 years, and for PRC entities, there is no statute of limitation in the case of tax evasion. The Company did not have any material interest or penalties associated with tax positions for the years ended December 31, 2022 and 2021 and did not have any significant unrecognized uncertain tax positions as of December 31, 2022 or 2021.

s) Share-based payment transactions

The Company adopts ASC Topic 718 “Compensation-Stock Compensation” to account for share-based payment transactions with both employees and nonemployees, which requires that share-based payment transactions be measured based on the grant-date fair value of the instrument issued, net of an estimated forfeiture rate, if applicable, and therefore only recognizes compensation expenses for those instruments expected to vest over the requisite service period, or vesting period. Forfeitures are estimated at the time of grant and revised in the subsequent periods if actual forfeitures differ from those estimates.

For fully vested, nonforfeitable equity instruments granted to a nonemployee service provider at the date upon entering into the agreement (no specific performance is required by the nonemployee to retain those equity instruments), because of the elimination of any obligation on the part of the nonemployee to earn the equity instruments, the Company recognizes the instruments when they are granted (in most cases, when the agreement is entered into), the corresponding cost is recorded as a prepayment on the balance sheet, and amortized as share-based compensation expenses over the requisite service period.

t) Comprehensive income (loss)

The Company accounts for comprehensive income (loss) in accordance with ASC Topic 220 “Comprehensive Income”, which establishes standards for reporting and displaying comprehensive income (loss) and its components in the consolidated financial statements. Comprehensive income (loss) is defined as the change in equity of a company during a period from transactions and other events and circumstances excluding transactions resulting from investments from owners and distributions to owners. Accumulated other comprehensive income, as presented in the Company’s consolidated balance sheets are the cumulative foreign currency translation adjustments.

u) Earnings (loss) per share

Earnings (loss) per share are calculated in accordance with ASC Topic 260, “Earnings Per Share”. Basic earnings (loss) per share is computed by dividing income (loss) attributable to common stockholders by the weighted average number of shares of common stock outstanding during the period. Diluted earnings per share reflect the potential dilution that could occur if securities or other contracts to issue common stock were exercised or converted into common stock. Common shares issuable upon the conversion of the convertible preferred shares are included in the computation of diluted earnings per share on an “if-converted” basis when the impact is dilutive. The dilutive effect of outstanding common stock warrants and options are reflected in the diluted earnings per share by application of the treasury stock method when the impact is dilutive.

v) Commitments and contingencies

The Company adopts ASC Topic 450 “Contingencies” subtopic 20, in determining its accruals and disclosures with respect to loss contingencies. Accordingly, estimated losses from loss contingencies are accrued by a charge to income when information available before financial statements are issued or are available to be issued indicates that it is probable that an asset had been impaired, or a liability had been incurred at the date of the financial statements and the amount of the loss can be reasonably estimated. Legal expenses associated with the contingency are expensed as incurred. If a loss contingency is not probable or reasonably estimable, disclosure of the loss contingency is made in the financial statements when it is at least reasonably possible that a material loss could be incurred.

ZW DATA ACTION TECHNOLOGIES INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

w) Recent issued or adopted accounting standards

In June 2016, the FASB issued ASU No. 2016-13, “Financial Instruments-Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments”. The amendments in this ASU require the measurement and recognition of expected credit losses for financial assets held at amortized cost. The amendments in this ASU replace the existing incurred loss impairment model with an expected loss methodology, which will result in more timely recognition of credit losses. In November 2018, the FASB issued ASU No. 2018-19, “Codification Improvements to Topic 326, Financial Instruments-Credit Losses”, which among other things, clarifies that receivables arising from operating leases are not within the scope of Subtopic 326-20. Instead, impairment of receivables arising from operating leases should be accounted for in accordance with Topic 842, Leases. For public entities, the amendments in these ASUs are effective for fiscal years beginning after December 15, 2019, including interim periods within those fiscal years. In November 2019, the FASB issued ASU No. 2019-10, “Financial Instruments-Credit Losses (Topic 326), Derivatives and Hedging (Topic 815), and Leases (Topic 842)-Effective date”, which deferred the effective date of this ASU until fiscal years beginning after December 15, 2022, including interim periods within those fiscal years, for SEC filers that are eligible to be smaller reporting companies under the SEC’s definition. The Company, as a SEC smaller reporting company, has adopted the amendments in this ASU from January 1, 2023. The adoption of this ASU did not have a material impact on the Company’s consolidated financial position and results of operations.

5. Accounts receivable, net

	As of December 31,	
	2022	2021
	US\$('000)	US\$('000)
Accounts receivable	5,505	5,675
Allowance for doubtful accounts	(3,760)	(2,236)
Accounts receivable, net	1,745	3,439

All of the accounts receivable are non-interest bearing. Based on the assessment of the collectability of the accounts receivable as of December 31, 2022 and 2021, the Company provided approximately US\$3.76 million and US\$2.24 million allowance for doubtful accounts, respectively, which were primarily related to the accounts receivable of the Company’s Internet advertising and related services business segment with an aging over six months. The Company evaluates its accounts receivable with an aging over six months and determines the allowance based on aging data, historical collection experience, customer specific facts and economic conditions. For the years ended December 31, 2022 and 2021, approximately US\$1.76 million and US\$nil allowance for doubtful accounts was provided, respectively.

6. Prepayments and deposit to suppliers

	As of December 31,	
	2022	2021
	US\$('000)	US\$('000)
Deposits to advertising resources providers	1,077	934
Prepayments to advertising resources providers	3,036	5,185
Deposit for a potential investing contract	-	1,000
Other deposits and prepayments	454	440
	4,567	7,559

ZW DATA ACTION TECHNOLOGIES INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

As of December 31, 2022 and 2021, contractual deposits were primarily paid to the Company's major Internet advertising resources suppliers and other advertising resource suppliers. The contractual deposits will be refunded to the Company upon expiration of the contracts, which are generally for a one-year period.

According to the contracts signed between the Company and its suppliers, the Company is required to pay certain of the contract amounts in advance. These prepayments will be recognized as cost of revenues when the related services are delivered by the suppliers. As of December 31, 2022 and 2021, prepayments were primarily paid for purchasing Internet resources from the Company's major Internet advertising resources suppliers.

Other deposits and prepayments as of December 31, 2022 and 2021 represented deposits and prepayments to the Company's other services providers, which primarily included deposits for office lease contracts, prepayment for various kinds of professional services, etc.

As of December 31, 2021, deposit for a potential investing contract represented a US\$1.0 million refundable deposit paid for a potential acquisition transaction, which had been refunded in December 2022 as there was no definitive agreement reached among the contract parties by the date as agreed upon.

7. Due from related parties, net

	As of December 31,	
	2022	2021
	US\$('000)	US\$('000)
Zhongwang Xiyue Technology (Beijing) Co., Ltd. ("Zhongwang Xiyue")	-	62
Guangzhou Gong Xiang Technology Co., Ltd. ("Gong Xiang Technology")	14	28
Due from related parties, total	14	90
Allowance for doubtful accounts	(14)	-
Due from related parties, net	-	90

Related parties of the Company represented the Company's direct or indirect unconsolidated investee entities, as well as entities that the Company's officers or directors can exercise significant influence.

As of December 31, 2021, due from Zhongwang Xiyue represented the outstanding receivables for the advertising and marketing service that the Company provided to this related party in its normal course of business, which was on the same terms as those provided to its unrelated clients. Amount due from Zhongwang Xiyue had been fully collected by December 31, 2022.

As of December 31, 2022 and 2021, due from Gong Xiang Technology were the remaining outstanding balances of a short-term working capital loan with an original amount of US\$0.04 million that the Company provided to this investee entity in March 2021. The Company had provided full allowance against the remaining outstanding balance as of December 31, 2022, as the business activities of Gong Xiang Technology had become dormant as of December 31, 2022 and the potential recovery of this outstanding amount was considered remote.

8. Other current assets, net

	December 31,	December 31,
	2022	2021
	US\$('000)	US\$('000)
Short-term loans to unrelated parties	2,197	1,646
Short-term loans interest receivables	22	-
Staff advances for business operations	8	11
Total other current assets	2,227	1,657
Allowance for doubtful accounts	(617)	-
Other current assets, net	1,610	1,657

ZW DATA ACTION TECHNOLOGIES INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In fiscal 2022, the Company provided unsecured, interest-bearing short-term working capital loans to two unrelated parties, which were set forth as below. These short-term working capital loans were recorded as other current assets.

On January 5, 2022, the Company provided a short-term working capital loan of US\$2.5 million to an unrelated party, which would mature on May 5, 2022. The loan was unsecured and borne a fixed annualized interest rate of 7.5%. On April 25, 2022, the Company and this unrelated party entered into a supplementary contract, based on which, the unrelated party repaid a portion of the loan principal of US\$1.02 million, together with a loan interest of US\$0.06 million for the period from January 5, 2022 through April 30, 2022, based on the loan principal of US\$2.5 million. In addition, the Company agreed to extend the term of the remaining loan principal of US\$1.48 million to October 31, 2022 with a revised fixed annualized interest rate of 5%. On October 31, 2022, the Company further extended the term of this loan to April 30, 2023. In October 2022, the Company received the loan interest of approximately US\$0.03 million for the period from May 1, 2022 through September 30, 2022. In February 2023, the Company received the loan interest of approximately US\$0.02 million for the period from October 1, 2022 through December 31, 2022.

On April 21, 2022, the Company provided a short-term working capital loan of US\$0.10 million to another unrelated party, which would mature on December 31, 2022. The loan is unsecured and bears a fixed annualized interest rate of 5%. The loan and the related loan interest was required to be repaid in lump sum at maturity on December 31, 2022. The term of this loan was further extended to March 17, 2023 with the same interest rate for the extended period. On March 17, 2023, the Company fully collected the loan principal of US\$0.10 million together with a loan interest of approximately US\$0.005 million for the period from April 21, 2022 through March 17, 2023.

As of December 31, 2022, other current assets also included a US\$0.62 million remaining outstanding balance of a working capital loan that the Company provided to an unrelated party, Digital Sun Ventures Limited, a Hong Kong-based company (“Digital Sun”). In March 2021, the Company and Digital Sun reached an oral agreement, pursuant to which the Company provided a working capital loan of US\$1.65 million to Digital Sun. The loan has a one-year term. The loan is unsecured, interest free and is required to be repaid in lump sum at maturity by March 2022.

The Company provided this unsecured and interest free loan to Digital Sun in consideration of the promises and claims made by Digital Sun’s management that Digital Sun has close connections with international well-known media companies seeking for strategic cooperation partners in China, and Digital Sun will facilitate building strategic business partnerships among the Company and these media companies.

As of March 31, 2022, Digital Sun had repaid US\$1.03 million of this loan and defaults on the loan balance of US\$0.62 million. The Company attempted to collect the outstanding loan balance. In June 2022, the Company fully allowed the outstanding loan balance of US\$0.62 million based on the Company’s assessment of the collectability of this outstanding balance. The Company had engaged a law firm and prepared and sent a legal letter to Digital Sun in March 2023, and the Company intends to take further actions to safeguard its rights against the default, including but not limited to, arranging meetings with the management of Digital Sun to negotiate the repayment plan in person and filing a lawsuit against Digital Sun after all other means of collection have been exhausted. As of the date hereof, the Company has not received any formal responses from Digital Sun.

9. Long-term investment

	Amount
	US\$('000)
Balance as of January 1, 2021	67
Exchange translation adjustment	1
Cash investments during the year	2,250
Disposed during the year	(38)
Balance as of December 31, 2021	2,280
Exchange translation adjustment	(88)
Impairment losses provided during the year	(596)
Balance as of December 31, 2022	1,596

ZW DATA ACTION TECHNOLOGIES INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

As of December 31, 2022, except for long-term investments which were fully impaired, the Company beneficially owned a 15.38%, 10%, 9.9%, 9% and 19% equity interest in each New Business Holdings Limited (“New Business”), Guang Dong WeFriend Co., Ltd. (“Guangdong WeFriend”), Guangdong Yong Fu Xiang Health Management Co., Ltd (“Yong Fu Xiang”); Guangzhou Yuan Qi Man Man Technology Co., Ltd. (“Yuan Qi Man Man”) and Business Opportunity Chain (Guangzhou) Technology Co., Ltd. (“Business Opportunity Chain Guangzhou”), respectively.

In August 2022, the Company obtained a 9.9% equity interest in Yong Fu Xiang, through subscription of a RMB6.73 million (approximately US\$0.97 million) registered capital of the entity in cash, which amount was committed to be paid up before December 31, 2065. Yong Fu Xiang is primarily engaged in providing health care consultancy and health management services.

In September 2022, the Company obtained a 9% equity interest in Yuan Qi Man Man, through subscription of a RMB0.09 million (approximately US\$0.01 million) registered capital of the entity in cash, which amount was committed to be paid up before December 31, 2040. Yuan Qi Man Man is primarily engaged in providing franchise consultancy and marketing services.

The Company measures these investments which do not have readily determinable fair values at cost minus impairment, if any, plus or minus changes resulting from observable price changes in orderly transactions for the identical or a similar investment of the Company.

For the year ended December 31 2022, the Company provided full impairment loss provision against its investments in Shenzhen Global Best Products Import & Export Co., Ltd. (“Shenzhen Global Best Products”), Guangzhou Gong Xiang Technology Co., Ltd. (“Gong Xiang Technology”) and Xiao Peng Education Technology (Hubei) Co., Ltd. (“Xiao Peng Education”) with an aggregate amount of approximately US\$0.60 million, as the business activities of these entities had become dormant as of December 31, 2022.

10. Property and equipment, net

	As of December 31,	
	2022	2021
	US\$('000)	US\$('000)
Vehicles	855	933
Office equipment	865	944
Electronic devices	575	629
Leasehold improvement	185	202
Property and equipment, cost	2,480	2,708
Less: accumulated depreciation	(2,231)	(2,333)
Property and equipment, net	249	375

Depreciation expenses in the aggregate for the years ended December 31, 2022 and 2021 were approximately US\$0.10 million and US\$0.03 million, respectively.

11. Intangible assets, net

Items	As of December 31, 2022			
	Gross Carrying Value	Accumulated Amortization	Impairment	Net Carrying Value
	US\$('000)	US\$('000)	US\$('000)	US\$('000)
Intangible assets subject to amortization:				
<i>--10 years life:</i>				
Cloud compute software technology	1,333	(924)	(409)	-
Licensed products use right	1,201	(374)	-	827
<i>--5 years life:</i>				
Internet Ad tracking system	1,160	(405)	-	755
Live streaming technology	1,500	(625)	(875)	-
<i>--3 years life:</i>				
Blockchain Integrated Framework	4,038	(1,346)	(1,010)	1,682
Bo!News application	345	(115)	(230)	-
Other computer software	113	(113)	-	-
Total	\$ 9,690	\$ (3,902)	\$ (2,524)	\$ 3,264

ZW DATA ACTION TECHNOLOGIES INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Items	As of December 31, 2021			
	Gross Carrying Value	Accumulated Amortization	Impairment	Net Carrying Value
	US\$('000)	US\$('000)	US\$('000)	US\$('000)
Intangible assets subject to amortization:				
<i>--10 years life:</i>				
Cloud compute software technology	1,456	(1,010)	(446)	-
Licensed products use right	1,205	(255)	-	950
<i>--5 years life:</i>				
Internet Ad tracking system	1,158	(174)	-	984
Live streaming technology	1,500	(325)	-	1,175
<i>--3 years life:</i>				
Blockchain Integrated Framework	4,038	-	-	4,038
Bo!News application	376	-	-	376
Other computer software	123	(123)	-	-
Total	\$ 9,856	\$ (1,887)	\$ (446)	\$ 7,523

Amortization expenses in the aggregate for the years ended December 31, 2022 and 2021 were approximately US\$2.12 million and US\$0.60 million, respectively.

Intangible assets of the Company are tested for impairment when events or circumstances occur that could indicate that the carrying amount of an asset may not be recoverable. For the year ended December 31, 2022, the Company recorded approximately US\$2.12 million impairment loss associated with its intangible assets, due to insufficient estimated future cash flows expected to be generated by these assets. For the year ended December 31, 2021, the Company did not recognize any impairment loss associated with its intangible assets.

Based on the adjusted carrying value of the finite-lived intangible assets after the deduction of the impairment losses, which has a weighted average remaining useful life of 3.51 years as of December 31, 2022, and assuming no further subsequent impairment of the underlying intangible assets, the estimated future amortization expenses is approximately US\$1.19 million each year for the year ending December 31, 2023 and 2024, US\$0.35 million for the year ending December 31, 2025, approximately US\$0.18 million for the year ending December 31, 2026, and approximately US\$0.12 million for the year ending December 31, 2027.

ZW DATA ACTION TECHNOLOGIES INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

12. Long-term deposits and prepayment

As of December 31, 2022 and 2021, long-term deposits and prepayments represented the Company's operating deposits and prepayments that were not expected to be refunded or consumed within one year of the respective reporting date.

13. Accrued payroll and other accruals

	As of December 31,	
	2022	2021
	US\$(^{'000})	US\$(^{'000})
Accrued payroll and staff welfare	101	142
Accrued operating expenses	337	247
	438	389

14. Taxation

1) *Income tax*

The entities within the Company file separate tax returns in the respective tax jurisdictions in which they operate.

i). a. The Company is incorporated in the state of Nevada. Under the current law of Nevada, the Company is not subject to state corporate income tax. Following the Share Exchange, the Company became a holding company and does not conduct any substantial operations of its own. Before enactment of the Tax Cuts and Jobs Act ("TCJA" or the "Act") in December 2017, the Company did not provide for U.S. taxes or foreign withholding taxes on undistributed earnings from its non-U.S. subsidiaries because such earnings are intended to be reinvested indefinitely. On December 22, 2017, the U.S. enacted the Act (which is commonly referred to as "U.S. tax reform"). The Act significantly changes U.S. corporate income tax laws including but not limited to reducing the U.S. corporate income tax rate from 35% to 21% beginning in 2018, imposing a one-time mandatory tax on previously deferred foreign earnings and imposing a new tax on global intangible low-taxed income ("GILTI") effective for tax years of non-U.S. corporations beginning after December 31, 2017.

i). b. Effective from January 1, 2018, the Company is subject to the new GILTI tax rules. The GILTI provisions impose a tax on foreign income in excess of a deemed return on tangible assets of controlled foreign corporations ("CFCs"), subject to the possible use of foreign tax credits and a deduction equal to 50 percent to offset the income tax liability, subject to some limitations. Under U.S. GAAP, the Company has made an accounting policy choice of treating taxes due on future U.S. inclusions in taxable income related to GILTI as a current period expense when incurred (the "period cost method"), instead of factoring such amounts into the Company's measurement of its deferred taxes (the "deferred method"). For the years ended December 31, 2022 and 2021, no provision for federal corporate income tax has been made in the financial statements as the Company has no aggregated positive tested income.

ii). Under the current law of the BVI, the Company's subsidiaries being incorporate in the BVI are not subject to tax on income or capital gains. Additionally, upon payments of dividends by these BVI companies to its respective shareholders, no BVI withholding tax will be imposed.

iii). The Company's subsidiaries being incorporated in Hong Kong are governed by the Hong Kong Inland Revenue Ordinance (the "HK tax laws"). Effective from April 1, 2018, a two-tier corporate income tax system was officially implemented in Hong Kong. The applicable income tax rate is 8.25% for the first HK\$2.0 million profits, and the subsequent profits are taxed at 16.5%. Additionally, upon payments of dividends by these Hong Kong subsidiaries to its shareholders, no Hong Kong withholding tax will be imposed.

iv). The Company's operating subsidiaries and VIEs, being incorporated in the PRC, are governed by the income tax law of the PRC and is subject to PRC enterprise income tax ("EIT"). The EIT rate of PRC is 25%, which applies to both domestic and foreign invested enterprises.

ZW DATA ACTION TECHNOLOGIES INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

- The applicable EIT rate for all the Company’s PRC operating entities is 25% for both the years ended December 31, 2022 and 2021.
- Business Opportunity Online’s qualification as a High and New Technology Enterprise expired in November 2021, as a result, the applicable EIT rates of Business Opportunity Online had changed from 15% to 25% since the year ended December 31, 2021, and its net operating losses (NOLs) carryforward period changed to 5 years from 10 years for a High and New Technology Enterprise. The effect on deferred taxes of such changes was recognized in the statement of operations and comprehensive loss for the year ended December 31, 2021.
- Under the current PRC EIT law and related regulations, dividends, interests, rent or royalties payable by a foreign-invested enterprise to its immediate holding company outside China are subject to a 10% withholding tax. A lower withholding tax rate will be applied if there is a tax treaty arrangement between mainland China and the jurisdiction of the foreign holding company, subject to certain conditions and requirements.

2) *Turnover taxes and the relevant surcharges*

Service revenues generated by the Company’s PRC operating subsidiaries and VIEs are subject to Value Added Tax (“VAT”). VAT rate for provision of modern services (other than lease of corporeal movables) is 6%, and for small scale taxpayer, 3%. Therefore, for the years ended December 31, 2022 and 2021, the Company’s service revenues generated in the PRC are subject to VAT at a rate of 6%, after deducting the VAT paid for the resources and services purchased from suppliers, or at a rate of 3% without any deduction of VAT paid for the resources and services purchased from suppliers. The surcharges of the VAT in the aggregate is 12% of the VAT.

As of December 31, 2022, and 2021, taxes payable consists of:

	As of December 31,	
	2022	2021
	US\$('000)	US\$('000)
Turnover tax and surcharge payable	1,288	1,414
Enterprise income tax payable	1,960	2,120
Taxes payable	3,248	3,534

A reconciliation of the income tax benefit determined at the U.S. federal corporate income tax rate to the Company’s effective income tax benefit/(expense) is as follows:

	Year Ended December 31,	
	2022	2021
	US\$('000)	US\$('000)
Pre-tax loss	(9,794)	(2,511)
U.S. federal rate	21%	21%
Income tax benefit computed at U.S. federal rate	2,057	527
Reconciling items:		
Rate differential for foreign earnings	(4)	(131)
Tax effect on non-taxable change in fair value of warrant liabilities	389	2,379
Tax effect enactment of new tax rate of a VIE	-	683
Provision of valuation allowance on deferred tax assets	(833)	(2,312)
Expired tax attribute carryforwards	(1,528)	(1,358)
Tax effect on other (non-deductible expenses)/non-taxable income	(78)	35
Effective income tax benefit/(expense)	3	(177)

ZW DATA ACTION TECHNOLOGIES INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the years ended December 31, 2022 and 2021, the Company's income tax (benefit)/expense consisted of:

	Year Ended December 31,	
	2022	2021
	US\$('000)	US\$('000)
Current	-	-
Deferred	3	(177)
Income tax benefit/(expense)	3	(177)

The Company's deferred tax assets at December 31, 2022 and 2021 were as follows:

	As of December 31,	
	2022	2021
	US\$('000)	US\$('000)
Tax effect of net operating losses carried forward	11,537	12,130
Operating lease cost	30	23
Impairment on long-term investments	144	-
Impairment on intangible assets	368	-
Bad debts provision	1,018	559
Valuation allowance	(12,691)	(12,271)
Deferred tax assets, net	406	441

The U.S. holding company has incurred aggregate net operating losses (NOLs) of approximately US\$31.8 million and US\$31.0 million at December 31, 2022 and 2021, respectively. The NOLs carryforwards as of December 31, 2017 gradually expire over time, the last of which expires in 2037. NOLs incurred after December 31, 2017 will no longer be available to carry back but can be carried forward indefinitely. Furthermore, the Act imposes an annual limit of 80% on the amount of taxable income that can be offset by NOLs arising in tax years ending after December 31, 2017. The Company maintains a full valuation allowance against its net U.S. deferred tax assets, since due to uncertainties surrounding future utilization, the Company estimates there will not be sufficient future earnings to utilize its U.S. deferred tax assets.

The NOLs carried forward incurred by the Company's PRC subsidiaries and VIEs were approximately US\$15.4 million and US\$18.3 million at December 31, 2022 and 2021, respectively. The losses carryforwards gradually expire over time, the last of which expires in 2027. The related deferred tax assets were calculated based on the respective net operating losses incurred by each of the PRC subsidiaries and VIEs and the respective corresponding enacted tax rate that will be in effect in the period in which the losses are expected to be utilized.

The Company recorded approximately US\$12.7 million and US\$12.3 million valuation allowance as of December 31, 2022 and 2021, respectively, because it is considered more likely than not that a portion of the deferred tax assets will not be realized through sufficient future earnings of the entities to which the operating losses related.

For the years ended December 31, 2022 and 2021, total net deferred tax assets valuation allowance provided was approximately US\$0.83 million and US\$2.31 million, respectively.

15. Long-term borrowing from a related party

Long-term borrowing from a related party is a non-interest bearing loan from a related party of the Company relating to the original paid-in capital contribution in the Company's wholly-owned subsidiary Rise King WFOE, which is not expected to be repaid within one year.

16. The Financing and warrant liabilities

On February 18, 2021 (the "Closing Date"), the Company consummated a registered direct offering of 1,042,400 shares of the Company's common stock to certain institutional investors at a purchase price of US\$17.95 per share (the "2021 Financing"). As part of the transaction, the Company also issued to the investors warrants to purchase up to 521,200 shares of the Company's common stock at an exercise price of US\$17.95 per share (the "2021 Investor Warrants"). The 2021 Investor Warrants are exercisable at any time on or after February 18, 2021 and on or prior to the close of business on August 18, 2024 (the third and one-half years anniversary of the Closing Date). The Company received gross proceeds of approximately US\$18.7 million from the 2021 Financing. The placement agent of the 2021 Financing received (i) a placement fee in the amount equal to 7% of the gross proceeds and (ii) warrants to purchase up to 72,968 shares of the Company's common stock at an exercise price of US\$22.4375 per share (the "2021 Placement Agent Warrants"). The 2021 Placement Agent Warrants are exercisable at any time on or after August 18, 2021 (the six-month anniversary of the Closing Date) and on or prior to the close of business on August 18, 2024 (the third and one-half years anniversary of the Closing Date).

ZW DATA ACTION TECHNOLOGIES INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

The Company consummated similar registered direct offerings and issued the Company’s common stock and common stock purchase warrants to certain institutional investors, and common stock purchase warrants to its placement agent, in December 2020 (the “2020 Financing”) and January 2018 (the “2018 Financing”). Warrants issued to the investors and placement agent in the 2020 Financing were referred to as the “2020 Investors Warrants” and the “2020 Placement Agent Warrants”, respectively. Warrants issued to the investors and placement agent in the 2018 Financing were referred to as the “2018 Investors Warrants” and the “2018 Placement Agent Warrants”, respectively. The warrants issued in the 2021 Financing, the 2020 Financing and the 2018 Financing (Collectively, the “Financings”) were referred to collectively as the “Warrants”.

The respective initial exercise price of the Warrants is subject to anti-dilution provisions that require adjustment of the number of shares of common stock that may be acquired upon exercise of the warrant, or to the exercise price of such shares, or both, to reflect stock dividends and splits, subsequent rights offerings, pro-rata distributions, and certain fundamental transactions. The Warrants also contain “full ratchet” price protection in the event of subsequent issuances below the applicable exercise price (the “Down round feature”).

The Warrants may not be exercised if it would result in the holder beneficially owning more than 4.99% of the Company’s outstanding common shares (the “Beneficial Ownership Limitation”). The holder of the warrants, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation, provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the Company’s outstanding common shares. Any increase in the Beneficial Ownership Limitation will not be effective until the 61st day after such notice is delivered to the Company.

Accounting for securities issued in the Financings

The Company determined that the Company’s common stock issued in the Financings should be classified as permanent equity as there was no redemption provision at the option of the holders that is not within the control of the Company on or after an agreed upon date.

The Company analyzed the Warrants issued in the Financings in accordance with ASC Topic 815 “Derivatives and Hedging”. In accordance with ASC Topic 815, the Company determined that the Warrants should not be considered index to its own stock, as the strike price of the Warrants is dominated in a currency (U.S. dollar) other than the functional currency of the Company (Renminbi or Yuan). As a result, the Warrants do not meet the scope exception of ASC Topic 815, therefore, should be accounted for as derivative liabilities and measure at fair value with changes in fair value be recorded in earnings in each reporting period.

Allocation of gross proceeds from the 2021 Financing

	Initial Measurement (USD’000)
Investor Warrants	10,476
Common Stock (par value and additional paid in capital)	8,235
Total proceeds from the Financing	18,711

The 2021 Investor Warrants were initially measurement at fair value. The residual amount, representing difference between the total proceeds from the 2021 Financing and the fair value of the 2021 Investor Warrants as of the closing date of the 2021 Financing was assigned as the carrying value of the common stock issued.

ZW DATA ACTION TECHNOLOGIES INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Offering costs of the 2021 Financing

Offering costs of the 2021 Financing in the amount of approximately US\$3.05 million consisting of cash payment of approximately US\$1.31 million placement fee, approximately US\$0.29 million other direct offering cost of professional service fees and fair value of the 2021 Placement Agent Warrants of approximately US\$1.45 million, which were charged to additional paid-in-capital.

Fair value of the Warrants

The Company used Binomial model to determine the fair value of the Warrants on their respective valuation dates, based on the assumptions summarized as below:

Warrants issued in the 2021 Financing:

	2021 Investors Warrants			2021 Placement Agent Warrants		
	December 31, 2022	December 31, 2021	February 18, 2021*	December 31, 2022	December 31, 2021	February 18, 2021*
Stock price #	\$ 0.46	\$ 1.00	\$ 4.48	\$ 0.46	\$ 1.00	\$ 4.48
Years to maturity	1.63	2.63	3.50	1.63	2.63	3.50
Risk-free interest rate	4.625%	0.87%	0.26%	4.625%	0.87%	0.26%
Dividend yield	-	-	-	-	-	-
Expected volatility	99.74%	115%	168%	99.74%	115%	168%
Exercise Price #	\$ 3.59	\$ 3.59	\$ 3.59	\$ 4.4875	\$ 4.4875	\$ 4.4875
Fair value of the warrant	\$ 0.0329	\$ 0.37	\$ 4.02	\$ 0.0256	\$ 0.36	\$ 3.96
Warrant Liabilities (US\$'000)	\$ 86	\$ 964	\$ 10,476	\$ 9	\$ 132	\$ 1,445

* Closing date of the 2021 Financing.

Warrants issued in the 2020 Financing

	2020 Investors Warrants			2020 Placement Agent Warrants		
	December 31, 2022	December 31, 2021	December 31, 2020	December 31, 2022	December 31, 2021	December 31, 2020
Stock price #	\$ 0.46	\$ 1.00	\$ 1.35	\$ 0.46	\$ 1.00	\$ 1.35
Years to maturity	0.95	1.95	2.95	0.95	1.95	2.95
Risk-free interest rate	4.716%	0.72%	0.17%	4.716%	0.72%	0.17%
Dividend yield	-	-	-	-	-	-
Expected volatility	115.61%	128%	102%	115.61%	128%	102%
Exercise Price #	\$ 2.03	\$ 2.03	\$ 2.03	\$ 2.03	\$ 2.03	\$ 2.03
Fair value of the warrant	\$ 0.0439	\$ 0.46	\$ 0.74	\$ 0.0456	\$ 0.49	\$ 0.74
Warrant Liabilities (US\$'000)	\$ 76	\$ 795	\$ 1,279	\$ 14	\$ 148	\$ 224

ZW DATA ACTION TECHNOLOGIES INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Warrants issued in the 2018 Financing:

	2018 Placement Agent Warrants	
	July 2, 2021*	December 31, 2020
Stock price #	\$ 1.94	\$ 1.35
Years to maturity	0.04	0.05
Risk-free interest rate	0.05%	0.08%
Dividend yield	-	-
Expected volatility	75%	59%
Exercise Price #	\$ 1.4927	\$ 1.4927
Fair value of the warrant	\$ 0.45	\$ 0.02
Warrant liabilities (US\$'000)	\$ 58	\$ 2

* The investor warrants issued in the 2018 Financing expired in July 2020. The placement agent warrants issued in the 2018 Financing were cashless exercised on July 2, 2021. As a result, the Company issued approximately 0.008 million shares of the Company's restricted common stock to the placement agent, with a loss of approximately US\$0.02 million recognized in other income/(loss) account for the year ended December 31, 2021, which represented the difference between the fair value of these warrants on the date of the cashless exercise and the cost of the Company's restricted common stock issued, based on the close bid price of the Company's common stock on the same date.

To reflect the actual inputs used for the determination of fair value of the Warrants, the stock prices and exercise prices presented in the above tables were not retrospectively restated for effect of the 1-for-5 reverse stock split on January 18, 2023, see Note 4(l).

Stock price is the closing bid price of the Company's common stock at the respective valuation date. Years to maturity is the respective remaining contract life of the warrants. Yield-to-maturities in continuous compounding of the United States Government Bonds with the time-to-maturities same as the respective warrant are adopted as the risk-free rate. Annualized historical stock price volatility of the Company at the respective valuation date is deemed to be appropriate to serve as the expected volatility of the stock price of the Company. The dividend yield is calculated based on management's estimate of dividends to be paid on the underlying stock. Exercise price is the respective contractual exercise price of the Warrants at the respective valuation date.

Changes in fair value of warrant liabilities

For the year ended December 31, 2022

	As of December 31, 2022 (US\$'000)	As of December 31, 2021 (US\$'000)	Change in Fair Value (Gain)/Loss (US\$'000)
Warrants issued in the 2021 Financing:			
--Investor warrants	86	964	(878)
--Placement agent warrants	9	132	(123)
Warrants issued in the 2020 Financing:			
--Investor warrants	76	795	(719)
--Placement agent warrants	14	148	(134)
Warrant liabilities	185	2,039	(1,854)

For the year ended December 31, 2021

	As of December 31, 2021 (US\$'000)	As of July 2, 2021 (US\$'000)	As of February 18, 2021 (US\$'000)	As of December 31, 2020 (US\$'000)	Change in Fair Value (Gain)/Loss (US\$'000)
Warrants issued in the 2021 Financing:					
--Investor warrants	964	*	10,476	*	(9,512)
--Placement agent warrants	132	*	1,445	*	(1,313)
Warrants issued in the 2020 Financing:					
--Investor warrants	795	*	*	1,279	(484)
--Placement agent warrants	148	*	*	224	(76)
Warrants issued in the 2018 Financing:					
--Placement agent warrants	-	58	*	2	56
Warrant liabilities	2,039			1,505	(11,329)

* Not applicable.

ZW DATA ACTION TECHNOLOGIES INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Warrants issued and outstanding on December 31, 2022 and their movements during the two years then ended are as follows:

	Warrant Outstanding			Warrant Exercisable		
	Number of underlying shares	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price	Number of underlying shares	Weighted Average Remaining Contractual Life (Years)	Weighted Average Exercise Price
Balance, January 1, 2021	431,975	2.78	\$ 9.99	25,800	0.05	\$ 7.4635
Issued/Vested	594,168	2.63	\$ 18.50	1,000,343	2.36	\$ 15.11
Exercised	(25,800)		\$ 7.4635	(25,800)		\$ 7.4635
Balance, December 31, 2021	<u>1,000,343</u>	2.36	\$ 15.11	<u>1,000,343</u>	2.36	\$ 15.11
Issued/Vested	-			-		
Exercised	-			-		
Balance, December 31, 2022	<u><u>1,000,343</u></u>	1.36	\$ 15.11	<u><u>1,000,343</u></u>	1.36	\$ 15.11

** Except where otherwise specified, the numbers of common stock and common stock purchase warrant, the purchase prices of the common stock, the exercise prices of the common stock purchase warrant discussed in this note have been retroactively restated for effect of the 1-for-5 reverse stock split on January 18, 2023, see Note 4(l).

17. Restricted Net Assets

The Company is a Nevada holding company with operations primarily conducted in China through its PRC subsidiaries, the consolidated VIEs and VIEs' subsidiaries. The Company's ability to pay dividends to U.S. investors may depend on receiving distributions from its PRC subsidiaries and settlement of the amounts owed under the VIE agreements from the consolidated VIEs. Any limitation on the ability of the Company's PRC subsidiaries and the consolidated VIEs to make payments to the Company, or the tax implications of making payments to the Company, could have a material adverse effect on its ability to pay dividends to the U.S. investors.

The PRC regulations currently permit payment of dividends only out of accumulated profits, as determined in accordance with PRC accounting standards and regulations. The Company's PRC subsidiaries, the consolidated VIEs and their subsidiaries in China are also required to set aside at least 10% of their respective after-tax profit based on the PRC accounting standards and regulations each year to the statutory surplus reserve, until the balance in the reserve reaches 50% of the registered capital of the respective PRC entities. In accordance with these PRC laws and regulations, the Company's PRC subsidiaries, the consolidated VIEs and their subsidiaries are restricted in their ability to transfer a portion of their net assets to the Nevada holding company. As of December 31, 2022 and December 31, 2021, net assets restricted in the aggregate, that are included in the Company's consolidated net assets, were approximately US\$13.31 million and US\$11.58 million, respectively. Appropriations to the enterprise expansion fund and staff welfare and bonus fund of a foreign-invested PRC entity and appropriation to the discretionary surplus reserve of other PRC entities are at the discretion of the board of directors. To date, none of the Company's PRC subsidiaries, the consolidated VIEs and their subsidiaries appropriated any of these non-mandatory funds and reserves. Furthermore, if these entities incur debt on their own in the future, the instruments governing the debt may restrict their ability to pay dividends or make other payments.

Under the PRC Enterprise Income Tax ("EIT") Law and related regulations, dividends, interests, rent or royalties payable by a foreign-invested enterprise to its immediate holding company outside China are subject to a 10% withholding tax. A lower withholding tax rate will be applied if there is a tax treaty arrangement between mainland China and the jurisdiction of the foreign holding company. Hong Kong has a tax arrangement with mainland China that provides for a 5% withholding tax on dividends subject to certain conditions and requirements, such as the requirements that the Hong Kong enterprise owns at least 25% of the PRC enterprise distributing the dividend at all times within the 12-month period immediately preceding the distribution of dividends and provides that the recipient can demonstrate it is a Hong Kong tax resident and it is the beneficial owner of the dividends. The PRC government adopted regulations in 2018 which stipulate that in determining whether a non-resident enterprise has the status as a beneficial owner, comprehensive analysis shall be conducted based on the factors listed therein and the actual circumstances of the specific case shall be taken into consideration. Specifically, it expressly excludes an agent or a designated payee from being considered as a "beneficial owner". The Company owns its PRC subsidiaries through China Net HK. China Net HK currently does not hold a Hong Kong tax resident certificate from the Inland Revenue Department of Hong Kong, there is no assurance that the reduced withholding tax rate will be available for the Company. If China Net HK is not considered to be the "beneficial owner" of the dividends by the Chinese local tax authority, any dividends paid to it by the Company's PRC subsidiaries would be subject to a withholding tax rate of 10%.

ZW DATA ACTION TECHNOLOGIES INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

There are no restrictions for the consolidated VIEs to settle the amounts owed under the VIE agreements to Rise King WFOE. However, arrangements and transactions among affiliated entities may be subject to audit or challenge by the PRC tax authorities. If at any time the VIE agreements and the related fee structure between the consolidated VIEs and Rise King WFOE is determined to be non-substantive and disallowed by Chinese tax authorities, the consolidated VIEs could, as a matter of last resort, make a non-deductible transfer to Rise King WFOE for the amounts owed under the VIE agreements. This would result in such transfer being non-deductible expenses for the consolidated VIEs but still taxable income for Rise King WFOE. If this happens, it may increase the Company's tax burden and reduce its after-tax income in the PRC, and may materially and adversely affect its ability to make distributions to the holding company. The Company's management is of the view that the likelihood that this scenario would happen is remote.

The Company's PRC subsidiaries generate all of their revenue in Renminbi, Renminbi is not freely convertible into other currencies. As a result, any restriction on currency exchange may limit the ability of the Company's PRC subsidiaries to pay dividends/make distributions to the Company. The Chinese government imposes controls on the convertibility of Renminbi into foreign currencies and, in certain cases, the remittance of currency out of China. Shortages in availability of foreign currency may then restrict the ability of the Company's PRC subsidiaries to remit sufficient foreign currency to the Nevada holding company for the holding company to pay dividends to the U.S. investors. Renminbi is currently convertible under the "current account," which includes dividends, trade and service-related foreign exchange transactions, but not under the "capital account," which includes foreign direct investment and foreign debt. Currently, the Company's PRC subsidiaries may purchase foreign currency for settlement of current account transactions, including payment of dividends to the Nevada holding company, without the approval of the State Administration of Foreign Exchange of China (the "SAFE") by complying with certain procedural requirements. However, the relevant Chinese governmental authorities may limit or eliminate the Company's ability to purchase foreign currencies in the future for current account transactions. The Chinese government may continue to strengthen its capital controls, and additional restrictions and substantial vetting processes may be instituted by the SAFE for cross-border transactions falling under both the current account and the capital account. Any existing and future restrictions on currency exchange may limit the Company's ability to utilize revenue generated in Renminbi to pay dividends in foreign currencies to holders of the Company's securities. Foreign exchange transactions under the capital account remain subject to limitations and require approvals from, or registration with, the SAFE and other relevant Chinese governmental authorities. This could affect the Company's ability to obtain foreign currency through debt or equity financing for its PRC subsidiaries.

To date, none of the Company's subsidiaries has made any distribution of earnings or issued any dividends to their respective shareholder in or outside of China, or to the Nevada holding company, and the Nevada holding company has never declared or paid any cash dividends to U.S. investors.

The Company does not have any present plan to make any distribution of earnings/issue any dividends directly or indirectly to its Nevada holding company or pay any cash dividends on its common stock in the foreseeable future, because the Company currently intend to retain most, if not all, of its available funds and any future earnings to operate and expand the Company's business.

18. Employee defined contribution plan

Full time employees of the Company in the PRC participate in a government mandated defined contribution plan, pursuant to which certain pension benefits, medical care, employee housing fund and other welfare benefits are provided to employees. Chinese labor regulations require that the PRC subsidiaries and VIEs of the Company make contributions to the government for these benefits based on certain percentages of the employees' salaries. The employee benefits were expensed as incurred. The Company has no legal obligation for the benefits beyond the contributions made. Total amounts for such employee benefits were approximately US\$0.22 million for both the years ended December 31, 2022 and 2021.

19. Concentration of risk

Credit risk

Financial instruments that potentially subject the Company to significant concentrations of credit risk consist primarily of cash and cash equivalents, accounts receivable and short-term loans to unrelated parties. As of December 31, 2022, 38% of the Company's cash and cash equivalents were held by financial institutions located in the United States of America, and the remaining 62% was held by major financial institutions located in the PRC. The Company believes that these financial institutions located in the PRC and the United States of America are of high credit quality. For accounts receivable and short-term loans to unrelated parties, the Company extends credit based on an evaluation of the customer's or other parties' financial condition, generally without requiring collateral or other security. In order to minimize the credit risk, the Company delegated a team responsible for credit approvals and other monitoring procedures to ensure that follow-up action is taken to recover overdue debts. Further, the Company reviews the recoverable amount of each individual receivable at each balance sheet date to ensure that adequate allowances are made for doubtful accounts. In this regard, the Company considers that its credit risk for accounts receivable and short-term loans to unrelated parties are significantly reduced.

ZW DATA ACTION TECHNOLOGIES INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Concentration of customers

The following tables summarized the information about the Company's concentration of customers for the years ended December 31, 2022 and 2021, respectively:

	<u>Customer A</u>	<u>Customer B</u>	<u>Customer C</u>	<u>Customer D</u>	<u>Customer E</u>
Year Ended December 31, 2022					
Revenues, customer concentration risk	*	*	*	*	-
Year Ended December 31, 2021					
Revenues, customer concentration risk	*	*	*	*	*
As of December 31, 2022					
Accounts receivable, customer concentration risk	16%	16%	33%	24%	-
As of December 31, 2021					
Accounts receivable, customer concentration risk	33%	32%	11%	-	19%

* Less than 10%.

- No transaction incurred for the reporting period/no balance existed as of the reporting date.

Concentration of suppliers

The following tables summarized the information about the Company's concentration of suppliers for the years ended December 31, 2022 and 2021, respectively:

	<u>Supplier A</u>	<u>Supplier B</u>
Year Ended December 31, 2022		
Cost of revenues, supplier concentration risk	57%	20%
Year Ended December 31, 2021		
Cost of revenues, supplier concentration risk	*	73%

* Less than 10%.

20. Commitments and contingencies

The Company may from time to time become a party to various legal or administrative proceedings arising in its ordinary course of business. The Company evaluates the status of each legal matter and assesses the potential financial exposure. If the potential loss from any legal proceedings or litigation is considered probable and the amount can be reasonably estimated, the Company accrues a liability for the estimated loss. Significant judgment is required to determine the probability of a loss and whether the amount of the loss is reasonably estimated. As of the date hereof, based on the information currently available, the Company believes that the loss contingencies that may arise as a result of currently pending legal proceedings are not reasonably likely to have a material adverse effect on the Company's business, results of operations, financial condition, and cash flows.

ZW DATA ACTION TECHNOLOGIES INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

21. Segment reporting

The Company follows ASC Topic 280 “Segment Reporting”, which requires that companies disclose segment data based on how management makes decisions about allocating resources to segments and evaluating their performance. Reportable operating segments include components of an entity about which separate financial information is available and which operating results are regularly reviewed by the chief operating decision maker (“CODM”), the Company’s Chief Executive Officer, to make decisions about resources to be allocated to the segment and assess each operating segment’s performance.

For the Year Ended December 31, 2022

	Internet Ad. and data service	Ecommerce O2O Ad and marketing services	Blockchain technology	Corporate	Inter- segment and reconciling item	Total
	US\$('000)	US\$('000)	US\$('000)	US\$('000)	US\$('000)	US\$('000)
Revenues	25,810	-	425	-	-	26,235
Cost of revenues	26,093	-	336	-	-	26,429
Total operating expenses	3,072	1,764	2,376	3,713 ⁽¹⁾	-	10,925
Depreciation and amortization expenses included in cost of revenues and operating expenses	366	300	1,465	84	-	2,215
Impairment on intangible assets included in operating expenses	-	875	1,248	-	-	2,123
Loss from operations	(3,355)	(1,764)	(2,287)	(3,713)	-	(11,119)
Impairment on long-term investments	76	-	-	520	-	596
Change in fair value of warrant liabilities	-	-	-	1,854	-	1,854
Net loss	(3,485)	(1,764)	(2,288)	(2,254)	-	(9,791)
Total assets-December 31, 2022	10,385	156	1,682	39,136	(31,701)	19,658

(1) Including approximately US\$0.19 million share-based compensation expenses.

ZW DATA ACTION TECHNOLOGIES INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

For the Year Ended December 31, 2021

	Internet Ad. and data service <u>US\$('000)</u>	Ecommerce O2O Ad and marketing services <u>US\$('000)</u>	Blockchain technology <u>US\$('000)</u>	Corporate <u>US\$('000)</u>	Inter- segment and reconciling item <u>US\$('000)</u>	Total <u>US\$('000)</u>
Revenues	46,666	662	-	-	-	47,328
Cost of revenues	45,730	1,500	-	-	-	47,230
Total operating expenses	1,423	2,529	2	9,734 ⁽¹⁾	-	13,688
Depreciation and amortization expenses included in cost of revenues and operating expenses	313	300	1	18	-	632
Loss from operations	(487)	(3,367)	(2)	(9,734)	-	(13,590)
Change in fair value of warrant liabilities	-	-	-	11,329	-	11,329
Net (loss)/income	(309)	(3,366)	(3)	990	-	(2,688)
Expenditure for long-term assets	1,214	-	-	280	-	1,494
Total assets-December 31, 2021	12,150	2,236	4,414	44,328	(30,497)	32,631

(1) Including approximately US\$7.03 million share-based compensation expenses.

22. Loss per share

Basic and diluted loss per share for each of the years presented is calculated as follows (All amounts, except number of shares and per share data, are presented in thousands of U.S. dollars):

	<u>Year Ended December 31,</u>	
	<u>2022</u>	<u>2021</u>
	<u>US\$('000)</u>	<u>US\$('000)</u>
Net loss attributable to ZW Data Action Technologies Inc. (numerator for basic and diluted loss per share)	\$ (9,791)	\$ (2,754)
Weighted average number of common shares outstanding – Basic and diluted **	7,136,290	6,618,754
Loss per share -Basic and diluted **	\$ (1.37)	\$ (0.42)

For the years ended December 31, 2022 and 2021, the diluted loss per share calculation did not include any outstanding warrants and options to purchase the Company's common stock, because they were out-of-the-money and their effect was anti-dilutive.

** Retrospectively restated for effect of the 1-for-5 reverse stock split on January 18, 2023, see Note 4(l).

23. Share-based compensation expenses

In March 2022, under its 2020 Omnibus Securities and Incentive Plan, the Company granted and issued an aggregate of 0.019 million fully-vested shares of the Company's restricted common stock to two of the Company's executive officers in exchange for their services to the Company for the year ended December 31, 2022. These shares were valued at the closing bid price of the Company's common stock on the respective date of grant. Total compensation expenses recognized was approximately US\$0.06 million for the year ended December 31, 2022.

ZW DATA ACTION TECHNOLOGIES INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In June 2022, the Company granted and issued 0.08 million fully-vested and non-forfeitable shares of the Company restricted common stock to a management consulting and advisory service provider in exchange for its service for a 12-month period until May 2023. The Company valued these shares at US\$1.75 per share, the closing bid price of the Company’s common stock on the grant date of these shares and recorded the related total cost of approximately US\$0.14 million as a prepayment asset in prepayment and deposit to suppliers account upon the grant and issuance of these shares. Total compensation expenses amortized was approximately US\$0.08 million for the year ended December 31, 2022.

In May 2021, under its 2020 Omnibus Securities and Incentive Plan, the Company granted and issued 0.797 million fully-vested shares of the Company’s restricted common stock to its management and employees for their services provided to the Company. These shares were valued at the closing bid price of the Company’s common stock on the date of grant, which was US\$8.35 per share. Total compensation expenses recognized was approximately US\$6.66 million for the year ended December 31, 2021.

In March 2021, the Company granted and issued 0.006 million shares of the Company’s restricted common stock to one of its independent directors, in exchange for his services to the Company. The shares issued were valued at US\$15.65 per share, the closing bid price of the Company’s common stock on the grant date. Total compensation expenses of approximately US\$0.09 million was recorded for the years ended December 31, 2021.

For the years ended December 31, 2022 and 2021, the Company amortized an approximately US\$0.04 million and US\$0.24 million compensation expense, respectively, which was related to fully-vested and nonforfeitable restricted common stock granted and issued to one of its service providers in March 2020 for a 24-month period until February 2022.

For the year ended December 31, 2021, the Company also amortized an approximately US\$0.04 million compensation expense, which was related to fully-vested and nonforfeitable restricted common stock granted and issued to another service provider of the Company in August 2020 for a 12-month period until July 2021.

The table below summarized share-based compensation expenses recorded for the years ended December 31, 2022 and 2021, respectively:

	Year Ended December 31,	
	2022	2021
	US\$(‘000)	US\$(‘000)
Sales and marketing expenses	-	-
General and administrative expenses	186	7,028
Research and development expenses	-	-
Total	186	7,028

The aggregate unrecognized share-based compensation expenses as of December 31, 2022 was approximately US\$0.06 million, which will be recognized for the year ending December 31, 2023.

**The numbers of restricted common stock and the related stock prices discussed in this note have been retroactively restated for effect of the 1-for-5 reverse stock split on January 18, 2023, see Note 4(l).

24. Subsequent events

The Board of Directors of the Company approved a reverse stock split of the Company’s issued and outstanding shares of common stock, par value \$0.001 per share (the “Common Stock”) at a ratio of 1-for-5 (the “Reverse Stock Split”). The Reverse Stock Split became effective on January 18, 2023 (the “Effective Date”). The Reverse Stock Split was effected by the Company filing a Certificate of Change (the “Certificate”) pursuant to Nevada Revised Statutes Section 78.209 with the Secretary of State of the State of Nevada on the Effective Date. As a result of the filing of the Certificate, the number of shares of the Company’s authorized Common Stock was reduced from 100,000,000 shares to 20,000,000 shares. The issued and outstanding number of shares of the Common Stock was decreased correspondingly from 35,827,677 shares of Common Stock at January 18, 2023 to 7,174,506 shares of Common Stock (taking into account the rounding of fractional shares). No cash or other consideration was paid in connection with any fractional shares that would otherwise have resulted from the Reverse Stock Split. The Reverse Stock Split has no effect on the par value of the Company’s Common Stock or authorized shares of preferred stock.

ZW DATA ACTION TECHNOLOGIES INC.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

In March 2020, the spread of a novel coronavirus (“COVID-19”) resulted in the World Health Organization declaring the outbreak of COVID-19 as a global pandemic. The Company’s principal business activity is to provide advertising and marketing services to small and medium enterprises in the PRC, which is particularly sensitive to changes in general economic conditions. The pandemic of COVID-19 in the PRC had caused and may continue to cause decreases in or delays in advertising spending, and had negatively impacted and may continue to negatively impact the Company’s short-term ability to grow revenues. Although the COVID-19 outbreak had been largely under control within China, and the PRC government ended its three-year zero-COVID policy in late 2022, and most of the travel restrictions and quarantine requirements were lifted in December 2022, there remains uncertainty as to the future impact of the pandemic. The Company will continue to assess its financial impacts for the future periods. There can be no assurance that this assessment will enable the Company to avoid part or all of any impact from the spread of COVID-19 or its consequences, including downturns in business sentiment generally or in the Company’s sector in particular.

Except for the above mentioned matters, no other material events which are required to be adjusted or disclosed as of the date of this consolidated financial statements.

**DESCRIPTION OF THE REGISTRANT'S COMMON STOCK
REGISTERED PURSUANT TO SECTION 12 OF THE
SECURITIES EXCHANGE ACT OF 1934**

General

ZW Data Action Technologies Inc. has one class of securities, common stock, registered under Section 12 of the Securities Exchange Act of 1934, as amended. The following is a summary of all material characteristics of our common stock as set forth in our articles of incorporation and bylaws. The summary does not purport to be complete and is qualified in its entirety by reference to our articles of incorporation and bylaws, all of which are incorporated by reference as an exhibit to the Annual Report on Form 10-K of which this Exhibit 4.4 is a part, and to the provisions of the Nevada Revised Statutes.

Our authorized capital stock consists of 40,000,000 shares, consisting of 20,000,000 shares of common stock par value \$.001 per share, of which 7,174,506 shares are issued and outstanding as of the date of this Annual Report, and 20,000,000 shares of preferred stock, par value \$.001 per share. None of our preferred stock is currently outstanding. Pursuant to our articles of incorporation, our board of directors has the authority to provide for the issuance, in one or more series, of our authorized preferred stock and to fix or alter the rights, preferences, privileges and restrictions granted to or imposed upon any series of our preferred stock.

Common Stock

Each holder of shares of common stock is entitled to one vote per share at stockholders' meetings. Our articles of incorporation do not provide for cumulative voting for the election of directors. Holders of shares of common stock are entitled to receive, pro rata, such dividends as may be declared by the board of directors out of funds legally available therefor, and are also entitled to share, pro rata, in any other distributions to the stockholders. Upon any liquidation, dissolution or winding-up, holders of shares of common stock are entitled to share ratably in all assets remaining after payment of liabilities. Holders of shares of common stock do not have any preemptive rights or other rights to subscribe for additional shares. The outstanding shares of common stock are paid for, fully paid and non-assessable. The rights, preferences and privileges of the holders of our common stock are subject to the rights of the holders of shares of any series of preferred stock which we may issue in the future.

Transfer Agent

The transfer agent for our capital stock is Empire Stock Transfer, with an address at 1859 Whitney Mesa Dr., Henderson, Nevada 89014, telephone number is 702-818-5898.

Stock Exchange Listing

Our common stock is listed on the NASDAQ Capital Market under the symbol "CNET."

Control Share Acquisitions

The "control share" provisions of Sections 78.378 to 78.3793, inclusive, of the NRS, apply to "issuing corporations" that are Nevada corporations with at least 200 stockholders of record, including at least 100 stockholders of record who are Nevada residents, and that conduct business directly or indirectly in Nevada, unless the corporation has elected to not be subject to these provisions. The control share statute prohibits an acquirer of shares of an issuing corporation, under certain circumstances, from voting its shares of a corporation's stock after crossing certain ownership threshold percentages, unless the acquirer obtains approval of the target corporation's disinterested stockholders. The statute specifies three thresholds: (a) one-fifth or more but less than one-third, (b) one-third but less than a majority, and (c) a majority or more, of the outstanding voting power. Generally, once a person acquires shares in excess of any of the thresholds, those shares and any additional shares acquired within 90 days thereof become "control shares" and such control shares are deprived of the right to vote until disinterested stockholders restore the right. These provisions also provide that if control shares are accorded full voting rights and the acquiring person has acquired a majority or more of all voting power, all other stockholders who do not vote in favor of authorizing voting rights to the control shares are entitled to demand payment for the fair value of their shares in accordance with statutory procedures established for dissenters' rights. A corporation may elect to not be governed by, or "opt out" of, the control share provisions by making an election in its articles of incorporation or bylaws, provided that the opt-out election must be in place on the 10th day following the date an acquiring person has acquired a controlling interest, that is, crossing any of the three thresholds described above. We have not opted out of these provisions and will be subject to the control share provisions of the NRS if we meet the definition of an issuing corporation upon an acquiring person acquiring a controlling interest unless we later opt out of these provisions and the opt out is in effect on the 10th day following such occurrence.

The effect of the Nevada control share statute is that the acquiring person, and those acting in association with the acquiring person, will obtain only such voting rights in the control shares as are conferred by a resolution of the stockholders at an annual or special meeting. The Nevada control share law, if applicable, could have the effect of discouraging takeovers of our company.

Subsidiaries

China Net Online Media Group Limited (“China Net BVI”), a British Virgin Islands company.

China Net BVI is the sole shareholder of CNET Online Technology Co. Limited (“China Net HK”), a Hong Kong company, and the sole shareholder of ChinaNet Investment Holding Ltd. (“ChinaNet Investment BVI”), a British Virgin Islands company.

ChinaNet Investment BVI is the sole shareholder of Grandon Investments Limited (“Grandon BVI”), a British Virgin Islands company.

Grandon BVI is the sole shareholder of Winner Glory Limited (“Winner Glory HK”), a Hong Kong company.

China Net HK is the sole shareholder of Rise King Century Technology Development (Beijing) Co., Ltd., a wholly foreign-owned enterprise (“WFOE”), established in the People’s Republic of China (the “PRC”).

The WFOE is the sole shareholder of ChinaNet Online Holdings Co., Ltd. (“ChinaNet Online Holdings”), and the sole shareholder of ChinaNet Online (Guangdong) Holdings Co., Ltd. (“ChinaNet Online Guangdong Holdings”), each of which is incorporated in the PRC.

Through a series of contractual agreements (the “VIE agreements”) between the WFOE and Business Opportunity Online (as defined below) and Beijing CNET Online (as defined below) (Business Opportunity Online and Beijing CNET Online, collectively, the “VIEs”), the Company, through the WFOE, has the power to direct activities of the VIEs that most significantly impact the economic performance of the VIEs and the obligation to absorb the losses and the right to receive benefits of the VIEs that could potentially be significant to the VIEs in a manner that does not violate the related PRC laws. As such, the WFOE is deemed to be the primary beneficiary of the VIEs, that are parties to the relevant VIE agreements, for accounting purposes only, which serves the purpose of consolidating the VIEs’ operating results in the preparation of the Company’s consolidated financial statements under the U.S. GAAP.

- Business Opportunity Online (Beijing) Network Technology Co., Ltd. (“Business Opportunity Online”), incorporated in the PRC.
- Beijing CNET Online Advertising Co., Ltd. (“Beijing CNET Online”), incorporated in the PRC.

Business Opportunity Online is the sole shareholder of Beijing Chuang Fu Tian Xia Network Technology Co., Ltd. (“Beijing Chuang Fu Tian Xia”), the sole shareholder of Business Opportunity Online (Hubei) Network Technology Co., Ltd. (“Business Opportunity Online Hubei”), the sole shareholder of Beijing Chuang Shi Xin Qi Advertising Media Co., Ltd. (“Beijing Chuang Shi Xin Qi”), and the sole shareholder of Beijing Hong Da Shi Xing Network Technology Co., Ltd. (“Beijing Hong Da Shi Xing”), each of which is incorporated in the PRC.

Business Opportunity Online Hubei is the sole shareholder of ChinaNet Online (Guangdong) Technology Co., Ltd. (“ChinaNet Online Guangdong Technology”), a PRC company.



中正達會計師事務所
Centurion ZD CPA & Co.
Certified Public Accountants (Practising)

Unit 1304, 13/F, Two Harbourfront, 22 Tak Fung Street, Hunghom, Hong Kong.
香港 紅磡 德豐街22號 海濱廣場二期 13樓1304室
Tel 電話: (852) 2126 2388 Fax 傳真: (852) 2122 9078
Email 電郵: info@czdcpa.com

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statements of ZW Data Action Technologies Inc. (“the Company”) on Form S-8 (File No. 333-178269) filed with the Securities and Exchange Commission (“SEC”) on December 1, 2011, Form S-8 (File No. 333-206979) filed with the SEC on September 16, 2015, Form S-8 (File No. 333-252776) filed with the SEC on February 5, 2021, Form S-3 (File No. 333-228061), as amended, initially filed with the SEC on October 30, 2018 and Form S-3 (File No. 333-254339), as amended, initially filed with the SEC on March 16, 2021, of our report dated April 17, 2023, with respect to our audits of the consolidated financial statements of the Company as at December 31, 2022 and 2021 and for each of the two fiscal years in the period ended December 31, 2022, which report is included in this Annual Report on Form 10-K of the Company for the year ended December 31, 2022.

/s/ Centurion ZD CPA & Co.

Centurion ZD CPA & Co.
Hong Kong, China

April 17, 2023

CERTIFICATION

I, Handong Cheng, the Chief Executive Officer of the registrant, certify that:

- (1) I have reviewed this Annual Report on Form 10-K of ZW Data Action Technologies Inc., for the fiscal year ended December 31, 2022.
- (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 registrant as of, and for, the periods presented in this report;
- (4) The registrant's other certifying officers 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 registrant 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 registrant, 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 registrant'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 registrant's internal control over financial reporting that occurred during the registrant's fourth fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- (5) The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant'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 registrant'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 registrant's internal control over financial reporting.

Date: April 17, 2023

By: /s/ Handong Cheng

Name: Handong Cheng

Title: Chief Executive Officer

CERTIFICATION

I, Mark Li, the Chief Financial Officer of the registrant, certify that:

- (1) I have reviewed this Annual Report on Form 10-K of ZW Data Action Technologies Inc., for the fiscal year ended December 31, 2022.
- (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 registrant as of, and for, the periods presented in this report;
- (4) The registrant's other certifying officers 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 registrant 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 registrant, 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 registrant'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 registrant's internal control over financial reporting that occurred during the registrant's fourth fiscal quarter that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- (5) The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant'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 registrant'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 registrant's internal control over financial reporting.

Date: April 17, 2023

By: /s/ Mark Li

Name: Mark Li

Title: Chief Financial Officer

Certification**Pursuant to 18 U.S.C. Section 1350,****As Adopted****Pursuant to Section 906 of the****Sarbanes - Oxley Act of 2002**

In connection with the Annual Report of ZW Data Action Technologies Inc. (the "Company"), on Form 10-K for the year ended December 31, 2022 as filed with the Securities and Exchange Commission ("SEC") on the date hereof (the "Report"), each of the undersigned of the Company, certifies, pursuant to 18 U.S.C. §1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

- (1) the Report fully complies, in all material respects, with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

By: /s/ Handong Cheng

Name: Handong Cheng

Title: Chief Executive Officer

April 17, 2023

By: /s/ Mark Li

Name: Mark Li

Title: Chief Financial Officer

April 17, 2023