

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

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2022

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

For the transition period from _____ to _____

Commission file number: 001-37862

PHUNWARE, INC.

(Exact name of registrant as specified in its charter)

Delaware

30-1205798

State or other jurisdiction of
incorporation or organization

(I.R.S. Employer
Identification Number)

1002 West Avenue, Austin, Texas

78701

(Address of principal executive offices)

(Zip Code)

Registrant's telephone number, including area code 512-693-4199

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value \$0.0001 per share	PHUN	The NASDAQ Capital Market
Warrants to purchase one share of Common Stock	PHUNW	The 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 Section 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, smaller reporting company, or an emerging growth company. See 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 a 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 Exchange Act). Yes No

The aggregate market value of voting stock held by non-affiliates of the registrant was \$00,674,230 as of June 30, 2022, the last business day of the registrant's most recently completed second fiscal quarter (based on the closing sales price for the common stock on the Nasdaq Capital Market on such date).

As of March 27, 2023, 103,969,895 shares of common stock, par value \$0.0001 per share, were issued and outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

None.

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"Phunware," "Lyte Technology" and the Phunware and Lyte Technology design logos and the trademarks or service marks of Phunware, Inc. and its subsidiaries appearing in this Annual Report on Form 10-K are the property of Phunware, Inc. Trade names, trademarks and service marks of other companies that may appear in this report are the property of their respective holders. We have omitted the ® and ™ designations, as applicable, for the trademarks used in this Annual Report on Form 10-K.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Report includes forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the “Securities Act”) and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”). These forward-looking statements are intended to be covered by the safe harbor for forward-looking statements provided by the Private Securities Litigation Reform Act of 1995. All statements other than statements of historical facts contained in this Annual Report, including statements regarding our future results of operations and financial position, business strategy and plans and our objectives for future operations, are forward-looking statements. The words “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “intend,” “may,” “might,” “plan,” “possible,” “potential,” “predict,” “project,” “should,” “will,” “would” and similar expressions that convey uncertainty of future events or outcomes are intended to identify forward-looking statements, but the absence of these words does not mean that a statement is not forward-looking.

The forward-looking statements contained in this Annual Report are based on our current expectations and beliefs concerning future developments and their potential effects on us. Future developments affecting us may not be those that we have anticipated. These forward-looking statements involve a number of risks, uncertainties (some of which are beyond our control) and other assumptions that may cause actual results or performance to be materially different from those expressed or implied by these forward-looking statements. These risks and uncertainties include, but are not limited to, those factors described under the heading “*Risk Factors*.” Should one or more of these risks or uncertainties materialize, or should any of our assumptions prove incorrect, actual results may vary in material respects from those projected in these forward-looking statements. We undertake no obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as may be required under applicable securities laws. These risks and others described under “*Risk Factors*” may not be exhaustive.

By their nature, forward-looking statements involve risks and uncertainties because they relate to events and depend on circumstances that may or may not occur in the future. We caution you that forward-looking statements are not guarantees of future performance and that our actual results of operations, financial condition and liquidity, and developments in the industry in which we operate may differ materially from those made in or suggested by the forward-looking statements contained in this Annual Report. In addition, even if our results or operations, financial condition and liquidity, and developments in the industry in which we operate are consistent with the forward-looking statements contained in this Annual Report, those results or developments may not be indicative of results or developments in subsequent periods.

SUMMARY OF RISK FACTORS

Below is a summary of the principal factors that could materially harm our business, operating results and/or financial condition, impair our future prospects and/or cause the price of our common stock to decline. This summary does not address all of the risks that we face. Additional discussion of the risks summarized in this risk factor summary, and other risks that we face, can be found below under the heading “*Risk Factors*” and should be carefully considered, together with other information in this Form 10-K and our other filings with the Securities and Exchange Commission (“SEC”) before making an investment decision regarding our common stock.

Risks Related to Our Business, Operations and Industry

- We have a history of losses, we expect to continue to incur losses and we may not achieve or sustain profitability in the future.
- Our consolidated financial statements include an explanatory paragraph expressing substantial doubt about our ability to continue as a going concern.
- Our future performance will depend on the successful transition of our Chief Executive Officer (CEO).
- We are currently operating in a period of significant macro-economic uncertainty, including supply-chain disruptions, COVID-related disruptions and inflationary pressures. Weakened economic conditions may have an adverse impact on our business and results of operations.
- If we are unable to expand or renew sales to existing customers, or attract new customers, our growth could be slower than expected and our business may be harmed.
- We have incurred a goodwill impairment charge and goodwill continues to comprise a significant portion of our total assets. In the future, we could incur additional impairment charges, which could result in a material, non-cash write-down and could have a material adverse effect on our results of operations, financial condition and our future operating results.
- Current and future litigation could adversely affect us.
- Our results of operations and ability to grow could be negatively affected if we cannot adapt and expand our technology, product and service offerings in response to ongoing market changes.
- Demand for our technology, product and service offerings could be adversely affected by volatile, negative or uncertain economic conditions, including, but not limited to those caused by the COVID-19 pandemic, and the effects of these conditions on our customers' businesses.
- If we fail to maintain the efficiency of our supply chain as we respond to changes in customer demand for our products, our business could be materially adversely affected.
- Global political conditions may adversely affect demand for our products.
- The actual market for our products and services solutions could be significantly smaller than estimates.
- Substantial competition could reduce our market share and significantly harm our financial performance.
- Our future results will depend on our ability to continue to focus our resources and manage costs effectively.
- Our business strategy is evolving. Investments in new services and technologies may not be successful and may involve pursuing new lines of business or strategic transactions and investments, or dispositions of assets or businesses that may no longer help us meet our objectives.
- Future acquisitions could disrupt our business and may divert management's attention and, if unsuccessful, harm our business.
- We may not be able to recognize revenue in the period in which our services are performed, which may cause our margins to fluctuate.
- Our financial results may be adversely affected by changes in accounting principles applicable to us.
- We may experience quarterly fluctuations in our operating results due to a number of factors, which makes our future results difficult to predict and could cause our operating results to fall below expectations.
- We could be held liable for damages or our reputation could suffer from security breaches or disclosure of confidential information or personal data.
- If we cause disruptions in our customers' businesses or provide inadequate service, our customers may have claims for substantial damages against us, which could cause us to lose customers, have a negative effect on our corporate reputation and adversely affect our results of operations.
- Our technology offerings and services could infringe upon the intellectual property rights of others.
- If we are unable to protect our intellectual property rights from unauthorized use or infringement by third parties, our business could be adversely affected.
- If we are unable to collect our receivables from, or bill our unbilled services to, our customers, our business, results of operations or financial condition could be adversely affected.
- Increased costs of labor and employee health and welfare benefits may adversely impact our results of operations.
- Our global operations are subject to complex risks, some of which might be beyond our control.

- Economic uncertainties or downturns in the global economy or the industries in which our customers operate could disproportionately affect the demand for our products and services solutions and negatively impact our operating results.
- If platform subscription renewal rates decrease, or we do not accurately predict subscription renewal rates, our future revenue and operating results may be harmed.
- If we are unable to attract new customers or sell additional products or services to our existing customers, our revenue growth will be adversely affected.
- Because we recognize revenue from application development services as deliverables are transferred to customers and platform subscriptions over the term of the relevant contract, downturns or upturns in sales are not immediately reflected in full in our operating results.
- If we fail to forecast our revenue accurately, or if we fail to match our expenditures with corresponding revenue, our operating results could be adversely affected.
- The length and unpredictability of the sales cycle for our technology, products and services could delay new sales and cause our revenue and cash flows for any given quarter to fail to meet our projections or market expectations.
- If we fail to detect advertising fraud or other actions that impact our advertising campaign performance, we could harm our reputation with advertisers or agencies, which could cause our revenue and business to suffer.
- If we do not maintain and grow a critical mass of advertisers and distribution partners, the value of our services could be adversely affected.
- Any inability to deliver successful mobile advertising campaigns due to technological challenges or an inability to persuasively demonstrate success will prevent us from growing or retaining our current advertiser base.
- We may be unable to deliver advertising in a context that is appropriate for mobile advertising campaigns, which could harm our reputation and cause our business to suffer.
- Activities of our application transaction customers with which we do business could damage our reputation or give rise to legal claims against us.
- Our business depends on our ability to collect and use data to deliver ads and to disclose data relating to the performance of our ads; any limitation on these practices could significantly diminish the value of our solutions and cause us to lose customers and revenue.
- Our business practices with respect to data could give rise to liabilities, restrictions on our business or reputational harm as a result of evolving governmental regulation, legal requirements or industry standards relating to consumer privacy and data protection.
- Our agreements with partners, employees and others may not adequately prevent disclosure of trade secrets and other proprietary technology and information.
- We could be subject to additional income tax liabilities.
- Taxing authorities may successfully assert that we should have collected or in the future should collect sales and use, value-added or similar taxes, and we could be subject to liability with respect to past or future sales, which could adversely affect our operating results.
- Our net operating loss carryforwards may expire unutilized or underutilized, which could prevent us from offsetting future taxable income.
- Our large customers have substantial negotiating leverage, which may require that we agree to terms and conditions that may have an adverse effect on our business.
- If some of our customers experience financial distress or suffer disruptions in their business, their weakened financial position could negatively affect our own financial position and results.
- If we are unable to obtain and maintain adequate insurance, our financial condition could be adversely affected in the event of uninsured or inadequately insured loss or damage. Our ability to effectively recruit and retain qualified officers and directors may also be adversely affected if we experience difficulty in maintaining adequate directors' and officers' liability insurance.
- The requirements of being a public company may strain our systems and resources, divert management's attention and be costly.
- We are a "smaller reporting company" and, because we have opted to use the reduced reporting requirements available to us, our common stock may be less attractive to investors.
- Our business is subject to the risks of natural disasters, public health crises, political crises and other natural catastrophic events and to interruption by man-made problems such as computer viruses or terrorism.

Risks Related to Capitalization Matters, Corporate Governance and Market Volatility

- We have and may sell additional equity or debt securities or enter into other arrangements to fund our operations, which may result in dilution to our stockholders and impose restrictions or limitations on our business. Future sales or issuances of our common stock, or the perception that such sales could occur, could depress the trading price of our common stock.

- Shares of our common stock may be issued pursuant to the terms of an outstanding warrant, which could cause the price of our common stock to decline.
- The failure of financial institutions or transactional counterparties could adversely affect our current and projected business operations and our financial condition and results of operations.
- Our business is subject to evolving corporate governance and public disclosure regulations and expectations that have increased both our compliance costs and the risk of noncompliance, which could have an adverse effect on our stock price.
- The Small Business Administration ("SBA") may review our Paycheck Protection Program ("PPP") forgiveness application and if the SBA disagrees with our certification we could be subject to penalties and the repayment of our PPP loan, which could negatively impact our business, financial condition and results of operations and prospects.
- The price of our common stock and warrants has been, and may continue to be, volatile, and you could lose all or part of your investment.
- It may be difficult for us to retain or attract qualified officers and directors, which could adversely affect our business and our ability to maintain the listing of our common stock on the Nasdaq Capital Market.
- If securities or industry analysts do not publish or cease publishing research or reports about us, our business or our market, or if they change their recommendations regarding our common stock adversely, the price and trading volume of our common stock could decline.
- We do not currently intend to pay dividends on our common stock.
- Delaware law and our certificate of incorporation and bylaws contain certain provisions, including anti-takeover provisions that limit the ability of stockholders to take certain actions and could delay or discourage takeover attempts that stockholders may consider favorable.
- Our certificate of incorporation designates a state or federal court located within the State of Delaware as the exclusive forum for substantially all disputes between us and our stockholders, and also provide that the federal district courts will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act or Exchange Act, each of which could limit our stockholders' ability to choose the judicial forum for disputes with us or our directors, officers, or employees.

Risks Related to our Digital Asset Holdings

- Our bitcoin acquisition strategy exposes us to various risks associated with bitcoin.
- The prices of digital assets, including bitcoin and ethereum, may be influenced by regulatory, commercial, and technical factors that are highly uncertain, and fluctuations in the price of bitcoin are likely to influence our financial results and the market price of our common stock.
- Our historical financial statements do not reflect the potential variability in earnings that we may experience in the future relating to our digital asset holdings.
- Due to the unregulated nature and lack of transparency surrounding the operations of many bitcoin trading venues, they may experience fraud, security failures or operational problems, which may adversely affect the value of our digital asset holdings.
- The concentration of our digital asset holdings enhances the risks inherent in our bitcoin treasury strategy.
- We may be required to access our digital assets as a source of liquidity during a time of market volatility, which may result in selling our digital assets at a significant loss.
- If we or our third-party service providers experience a security breach or cyberattack and unauthorized parties obtain access to our digital asset holdings, we may lose some or all of our bitcoin and our financial condition and results of operations could be materially adversely affected.
- The loss or destruction of a private key required to access our bitcoin may be irreversible. If we are unable to access our private keys or if we experience a cyberattack or other data loss relating to our digital assets, our financial condition and results of operations could be materially adversely affected.
- A determination that bitcoin or any other digital asset is a "security" could lead to our classification as an "investment company" under the Investment Company Act of 1940 and could adversely affect the market price of our digital asset holdings and the market price of our common stock.

Risks Related to our Token Ecosystem and Tokens

- We have raised capital to fund a token generation event of rights to receive future PhunCoin and, beginning in 2021, we created and sold PhunToken. There can be no assurance that PhunCoin or PhunToken will ever be issued, and any significant difficulties we may experience with the offerings of PhunCoin or sales of PhunToken could result in claims against us. Additionally, the token generation event and the offerings of PhunCoin and sales of PhunToken could subject us to various other business and regulatory uncertainties.

- The further development and acceptance of blockchain networks, which are part of a new and rapidly changing industry, are subject to a variety of factors that are difficult to evaluate.
- Because our tokens will be digital assets built and transacted initially on top of existing third-party blockchain technology, we will be reliant on another blockchain network, and users could be subject to the risk of wallet incompatibility and blockchain protocol risks.
- The development and operation of the Token Ecosystem (hereinafter defined) will likely require additional technology and intellectual property rights.
- Our Token Ecosystem is designed to distribute PhunCoin or PhunToken to consumers who provide certain personal information to us. Providing this data exposes us to risks of privacy data breach and cybersecurity attacks.
- Our Token Ecosystem may be the target of malicious cyberattacks or may contain exploitable flaws in its underlying code, which may result in security breaches and the loss or theft of PhunCoin or PhunToken. If our Token Ecosystem's security is compromised or if our Token Ecosystem is subjected to attacks that frustrate or thwart our users' ability to access the Token Ecosystem, their PhunCoin or PhunToken or the Token Ecosystem products and services, users may cut back on or stop using the Token Ecosystem altogether.
- Our Token Ecosystem is susceptible to mining attacks.
- There is no trading market for PhunCoin.
- The delay, or perceived delay, in the full development of our Token Ecosystem may result in declines in PhunToken revenue.
- The regulatory regime governing blockchain technologies, digital assets, digital asset exchanges and offerings of and transactions in digital assets is uncertain, and new regulations or policies may materially adversely affect the development and the value of our tokens.
- The sale of PhunToken or the offerings of PhunCoin may subject us to additional regulatory requirements. We will be adversely affected if we are, or any of our subsidiaries is, determined to have been subject to registration as an investment company under the Investment Company Act.
- The prices of digital assets are extremely volatile. Fluctuations in the prices of digital assets and/or waning interest of investors in the digital asset markets could materially and adversely affect our business.

PART I

Item 1. Business.

General

Phunware, Inc. and its subsidiaries (the "Company", "we", "us", or "our") offers a fully integrated software platform that equips companies with the products, services and solutions necessary to engage, manage and monetize their mobile application portfolios globally at scale. Our Multiscreen-as-a-Service ("MaaS") platform provides the entire mobile lifecycle of applications and media in one login through one procurement relationship. Our MaaS technology is available in software development kit form for organizations developing their own application, via customized development services and prepackaged solutions. Through our integrated mobile advertising platform of publishers and advertisers, we provide in-app application transactions for mobile audience building, user acquisition, application discovery, audience engagement and audience monetization. During 2021, we began to sell PhunToken to consumers, developers and brands. PhunToken is an innovative digital asset, which is intended to be used or consumed within our Token Ecosystem to help drive engagement between or among Phunware, its customers and business partners and consumers by unlocking features and capabilities of our MaaS platform (the "Token Ecosystem"). PhunToken is also designed to reward consumers for their activity within our Token Ecosystem, such as watching branded videos, completing surveys and visiting points of interest. In October 2021, we acquired Lyte Technology, Inc. ("Lyte"), a provider of high-performance personal computer systems which we market and sell to individual consumers. Founded in 2009, we are a Delaware corporation headquartered in Austin, Texas.

Overview of Business

Our MaaS platform is a fully integrated cloud platform for mobile that provides companies the products, services and solutions necessary to engage, manage and monetize their mobile application portfolios and audiences at scale. According to eMarketer, adults in the U.S. spend more than four hours daily on mobile internet, of which approximately 90% of that time is spent in mobile apps (versus mobile web). Given this reality, we believe brands must establish a strong identity on mobile, especially on devices and platforms specific to the Apple iOS and Google Android operating systems and ecosystems. Phunware helps brands define, create, launch, promote, monetize and scale their mobile identities as a means to anchor the consumer journey and improve brand interactions. Our MaaS platform provides the entire mobile lifecycle of applications through one procurement relationship.

Our MaaS platform allows for the licensing and creation of category-defining mobile experiences for customers and their application users worldwide. Since our founding in 2009, we have amassed a database of proprietary Phunware IDs. Phunware IDs are unique identifiers assigned to a mobile device when it becomes first visible across our network of mobile application portfolios. We measure and accumulate Phunware IDs through queries that count unique devices that access our mobile application portfolio across our network of mobile applications that we have developed and/or support.

Through our subsidiary Lyte, we also derive revenue by manufacturing and selling custom and pre-packaged personal computer systems.

Business Model

Our business model includes a combination of service, subscription and media transaction offerings that enable customers to engage, manage and monetize their mobile application portfolios throughout the mobile application lifecycle, which occurs in four phases:

- **Strategize** — We help brands define the application experience and determine the operating systems, feature sets and use cases they want their mobile application to support.
- **Create** — We help brands build their application portfolio.
- **Launch** — We help brands launch their applications and build their mobile audience.
- **Engage, Monetize and Optimize** — We help brands activate, monetize and optimize their mobile application portfolios.

Our product and service offerings include cloud-based recurring software license subscriptions, with terms ranging from one to three years, application development and support services and application transaction-based media. Although a

majority of our product and service offerings have been sold utilizing an internal sales team, we have also sold our product and service offerings through various sales partners. We continue to invest in these relationships.

Lyte Technology, Inc.

In October 2021, we acquired Lyte Technology, Inc., a provider of high-performance computer systems to individual consumers. Lyte derives its revenue by manufacturing and selling custom and pre-packaged personal computer systems. Total consideration for the acquisition consisted of cash and common stock of the Company valued at approximately \$10.5 million. During second quarter of 2022, we relocated Lyte from Gurnee, Illinois to Round Rock, Texas. Our acquisition of Lyte enabled us to enter the personal computer hardware market. We will continue to pursue a direct to consumer selling strategy. During 2022, we began selling Lyte computers in Canada. We intend to grow Lyte revenue and its customer base by expanding its business to offer laptops and selling into additional international markets. We believe our acquisition of Lyte will also leverage a new distribution network for our blockchain initiatives, which are more fully described below.

In conjunction with the acquisition, we also entered into a note purchase agreement with an original principal amount of \$5.22 million in a private placement that closed on October 18, 2021. This note was paid in full in 2022.

Our Products and Services

Our mobile software subscriptions and services, application transaction solutions and hardware product offerings include the following:

- Cloud-based mobile software licenses in software development kits (“SDKs”) form utilized inside mobile applications for the following:
 - Analytics (SDK that provides data related to application use and engagement);
 - Content Management (SDK that allows application administrators to create and manage app content in a cloud-based portal);
 - Alerts, Notifications & Messaging (SDK that enables brands to send messages to app users through the app);
 - Marketing Automation (SDK that enables location-triggered messages and workflow);
 - Advertising (SDK that enables in-app audience monetization); and
 - Location-Based Services (module that include mapping, navigation, wayfinding, workflow, asset management and policy enforcement);
- Integration of our SDK licenses into existing applications maintained by our customers, as well as custom application development and support services;
- Cloud-based vertical solutions, which are off-the-shelf, iOS- and Android-based mobile application portfolios, solutions and services that address: the patient experience for healthcare, the shopper experience for retail, the fan experience for sports, the traveler experience for aviation, the luxury resident experience for real estate, the luxury guest experience for hospitality, the student experience for education and the generic user experience for all other verticals and applications;
- Application transactions, including re-occurring and one-time transactional media purchases for application discovery, user acquisition and audience building, audience engagement and audience monetization; and
- Pre-packaged and custom high-end personal computer systems for gaming, streaming and cryptocurrency mining enthusiasts.

Competitive Strengths

Fully integrated and comprehensive solutions: Our comprehensive solutions can be used across mobile application experience definition, application portfolio creation, user discovery, user acquisition, user engagement and user monetization. Data from application analytics and our database of over one petabyte can be used to inform business decisions related to mobile strategy, marketing, operations and more.

Built to be mobile-first, native-first, cloud-based: Phunware was built from the ground up to focus on native mobile development, while other companies in the mobile space have attempted to create shortcuts with “write once, run anywhere” software. The result is almost a decade of platform-specific mobile expertise, a major competitive differentiator.

Results-driven culture: Our employees are granted restricted stock units upon and from time to time after commencement of their employment and are encouraged to think of Phunware as a company they own rather than a company for which they work. We also promote from within to reward top performers and encourage leadership development. The result is an employee base singularly focused on solving problems and driving results.

Intellectual property portfolio development and world-class engineering resources Through our world-class in-house technical and engineering organization, we have focused developing our patents and other intellectual property, including methods of accessing wireless account information, rendering content on a wireless device, indoor and outdoor navigation with a mobile device and more. We are developing creative solutions to solve complex technical problems and create competitive advantages for our customers.

Our Growth Strategy

Key elements of our growth strategy include:

Expansion of Lyte customer base and footprint We plan to grow our Lyte operations, both domestically and internationally, as the gaming and cryptocurrency market expands. We may also offer different technology offerings and computer-builds that keep up with changing demand.

Expansion of mobile products and services. Mobile applications and in-application advertising media are among the fastest-growing and complex technology markets. We have made significant investments in research and development and plan to continue extending the functionality and breadth of our applications in the future, including, but not limited to, our healthcare and luxury hospitality solutions.

Deepening of existing customer relationships. We believe that we are well positioned to identify new opportunities or enhance existing services and solutions within and provide additional products and services to our existing customer base. We expect to create cross and upsell opportunities as our customers seek to deepen their approach to mobile application lifecycle management.

Development of new relationships to expand our customer base. We intend to continue to grow our customer base by developing our indirect sales and distribution relationships. We also have partnered with technology providers, who serve as a referral source and provide us with quality leads for businesses interested in our products and services and enable us to integrate our products into their offerings. We are able to leverage our mobile expertise and capabilities to compete effectively for new customers both directly and indirectly. Primary indirect channels and distributors include hardware, software, carriers and systems integrators/consultancies.

Continued growth of our customer base through targeted marketing and outreach. We intend to continue to opportunistically expand into and within industry verticals that benefit from our integrated solutions, comprehensive lifecycle approach and ability to engage users in both digital and physical worlds, particularly healthcare and hospitality.

Addition of new capabilities and geographic regions through strategic transactions. We operate in a fragmented market that offers significant consolidation opportunities. We plan to continue to evaluate strategic acquisitions, partnerships and other transactions that enhance our capabilities and expand our geographic footprint, both domestically and internationally.

Expansion of our partnership network with third-party providers of products and services. We are able to leverage our mobile expertise and capabilities to compete effectively for new customers both directly and indirectly. Primary indirect channels include hardware, software, carriers and systems integrators/consultancies. We are focused on building our brand to grow within existing and target end markets where there is strong demand for the products and solutions we provide.

Our Customers

Our target customers for our mobile software subscription and services are companies that are looking to enact digital transformation in their business — whether it is retail, healthcare, hospitality, entertainment, real estate, smart living and workspaces or any other industry. We provide technology and solutions to support these organizations through every stage of the mobile application lifecycle.

We believe the multi-year nature of our software and managed services projects, agreements and related recurring revenues provides revenue visibility. Our subscription and services agreements with our customers consist of terms relating to length of agreement (for subscriptions and application support), payment, performance, cancellation and termination,

confidentiality, indemnification obligations and limitation of liability, among other provisions. All of these agreements contain terms of service that are generally consistent across our customers. Our subscription and services agreements generally do not impose obligation upon us, such as exclusivity or other terms.

Our application transaction agreements, also known as insertion orders, are, for the most part, governed by the standard terms and conditions from the Interactive Advertising Bureau's ("IAB") Standard Terms and Conditions for Internet Advertising for Media Buys One Year or Less ("IAB Terms"). The IAB Terms provide that in the event that payments are not paid to the agency, then the media company, or us, agrees to hold the advertiser solely liable. We view the agreements as contracts that ordinarily accompany the business conducted by Phunware and, because of the lack of any commitments to provide a certain amount of business, we are not substantially dependent on the agreements.

We sell our Lyte computer systems directly to individual consumers with a focus on for gaming, streaming and cryptocurrency mining enthusiasts. Lyte customers purchase their systems via Lyte's website. Purchasers of Lyte game systems agree to terms and conditions governing the purchase during the online check-out process.

Concentration of Major Customers

Due to the nature of our business, we have in the past and may, at times, in the future have a material concentration of our revenue with a small number of customers. However, with the acquisition of Lyte and sales of PhunToken, we expect this to be less frequent. For the year ended December 31, 2022, no individual customer represented greater than 10% of our net revenue.

Sales and Marketing

Our internal salesforce is focused on direct sales opportunities for our platform subscription and services and application transaction product lines. They are experienced across all verticals in which we serve and can assist small, mid-sized and large organizations. Our indirect sales function works with our partners to identify sales opportunities, as well as identify new sales partner relationships. Our marketing efforts focus on building brand reputation, expanding market awareness, driving customer demand and enabling our sales team.

Our platform subscription and services sales organization is supported by our customer solutions team, which has deep technical expertise. Once contracted, our program management team collaborates with customers to ensure timely deliverables of contracted licenses and services. Post implementation, customers are supported post-sale by our customer success function managed within our program management team. Our sales cycle can range many months for large organizations.

We market our application transaction product line direct to businesses and agencies. We are also hoping to expand our media offerings by attracting new business from local and national advertising agencies. Our contract term for application transactions can be as short as a few days to three months for larger advertising campaigns. Our sales cycle is typically short for direct to business customers, whereby it may be longer when partnering with agencies.

Our marketing efforts for our Lyte operations currently consist of purchasing advertisements on various social media platforms. We do not maintain an internal salesforce, as sales are e-commerce based and derived from Lyte's website. We also maintain a customer service and success function for our Lyte computer customers.

Research and Development

Our ability to compete depends in large part on our continuous commitment to research and development and our ability to rapidly introduce new applications, technologies, features and functionality into our products, services and solutions. Our research and development efforts are focused on improving and enhancing our existing product and service offerings by working closely with our customers, conducting quality assurance testing and improving our core technology as well as developing new proprietary services and solutions. Performance, security, depth and breadth of functionality and usability of our solutions drive our technology decisions and research and development. Our research and development expenses were \$6.1 million and \$4.2 million for the fiscal years ended December 31, 2022 and 2021, respectively.

PhunCoin and PhunToken

Our research and development team is also working to continue our vision of a future in which consumers own, control and are rewarded for the access to and use of their personal data and information. In 2018, we began offering rights to future issuances of PhunCoin, and in 2019 we expanded to a dual token structure by creating PhunToken. The dual-token ecosystem is designed to both empower consumers and brands to engage with each other and other audiences by creating a blockchain-enabled data and engagement exchange that recognizes the value of data and engagement, the Token Ecosystem. PhunCoin is intended to be the “Value of Data” that empowers consumers to take control of and be compensated for their data and will allow holders to participate in the economics of the Token Ecosystem. PhunToken is intended to be the “Value of Engagement” that empowers consumers to monetize their data and to use PhunToken to engage with brands and others in the Token Ecosystem. In 2021, we commenced the selling of PhunToken to third parties. Upon the sale of PhunToken to customers, we transfer the PhunToken purchased to the customers' ethereum-based wallet address. We sell and will continue to sell PhunToken.

During 2018 and 2019, we sold rights to the future issuances of PhunCoin. To date, we have recorded the rights purchases as a liability in our consolidated balance sheets as of December 31, 2022 and 2021, as we have yet to issue any PhunCoin pursuant to our rights offerings. Although we currently do not anticipate the selling of additional PhunCoin rights, we may generate additional funding from sales of PhunCoin in the future.

A multidisciplinary team (design, engineering, quality assurance, crypto, product and legal) is actively developing all aspects of the Token Ecosystem for iOS and Android. PhunCoin security features and compliance protocols have been and continue to be implemented. We are planning for future enhancements of the Token Ecosystem in 2023; however, there can be no assurance as to when (or if) we will be able to successfully complete the development of the Token Ecosystem.

Competition

The market for technology and solutions related to mobile application lifecycle management is evolving, highly competitive and significantly fragmented. With the introduction of new technologies and the potential entry of new competitors into the market, we expect competition to increase and intensify in the future, which could harm our ability to increase sales, maintain or increase renewals and maintain our prices.

We compete primarily with companies offering cloud-based software solutions for location-based services, mobile marketing automation, content management, analytics and audience monetization, as well as data and campaign management for audience building and engagement. We also sometimes compete with application development agencies, in-house mobile teams and products developed by software providers that allow customers to build and scale new mobile applications. Our competitors include Airship, Apadmi, Appcelerator, Mutual Mobile, Pointr, Purple and as well as many competitors in the desktop personal computing business.

We believe the principal competitive factors in our market include the following:

- product features and functionality;
- location accuracy and latency;
- technology architecture;
- level of customer satisfaction;
- ease of use and integration of products and services;
- deployment options and hardware flexibility;
- breadth and depth of application functionality;
- professional services and customer support;
- total costs of ownership;
- brand awareness and reputation;
- sophistication of technology platform;
- actionable insights through big data analytics;
- capability for customization, configurability, integration, security, scalability and reliability of applications;
- ability to innovate and respond to customer needs rapidly;
- domain expertise;
- global reach;
- size of customer base and level of user adoption; and
- ability to integrate with legacy enterprise infrastructures and third-party applications.

Some of our current competitors have, and future competitors may have, greater financial, technical, marketing and other resources, greater resources to devote to the development, promotion, sale and support of their products and services, more extensive customer bases and broader customer relationships, and/or longer operating histories and greater name recognition. As a result, these competitors may be better able to respond quickly to new technologies and to undertake more extensive marketing campaigns. In a few cases, some competitors may also be able to offer competing solutions at little or no additional cost by bundling them with their existing suite of solutions.

Government Regulation

We are subject to a variety of laws and regulations in the United States and abroad that involve matters central to our business. Many of these laws and regulations are still evolving and being tested in courts, and could be interpreted in ways that could harm our business including, but not limited to, privacy, data protection and personal information, rights of publicity, content, intellectual property, advertising, marketing, distribution, data security, data retention and deletion, and other communications, protection of minors, consumer protection, telecommunications, product liability, taxation, economic or other trade prohibitions or sanctions, anti-corruption law compliance and securities law compliance. In particular, we are subject to federal, state and foreign laws regarding privacy and protection of consumer data. Foreign data protection, privacy, content and other laws and regulations can impose different obligations or be more restrictive than those in the United States. U.S. federal and state and foreign laws and regulations, which in some cases can be enforced by private parties in addition to government entities, are constantly evolving and can be subject to significant change. As a result, the application, interpretation and enforcement of these laws and regulations are often uncertain, particularly in the new and rapidly evolving industry in which we operate and may be interpreted and applied inconsistently from country to country and inconsistently with our current policies and practices.

Proposed or new legislation and regulations could also significantly affect our business. For example, the European General Data Protection Regulation (GDPR) took effect in May 2018 and applies to all of our products and services used by people in Europe. The GDPR includes operational requirements for companies that receive or process personal data of residents of the European Union that are different from those previously in place in the European Union, and includes significant penalties for non-compliance. Effective August 2020, the Brazilian General Data Protection Law imposes requirements similar to GDPR on products and services offered to users in Brazil. The California Consumer Privacy Act (CCPA), which took effect in January 2020, also establishes certain transparency rules and creates new data privacy rights for users. Furthermore, voters in California approved Proposition 24, which expanded the CCPA by limiting businesses' use of "sensitive business information," such as precise geolocating. Proposition 24 took effect January 1, 2023 for personal data collected after January 1, 2022.

Following California's lead, Colorado, Connecticut, Utah and Virginia have been or will be enforcing new laws around data privacy and protection in 2023. Similarly, there are a number of legislative proposals in the European Union, the United States, at both the federal and state level, as well as other jurisdictions that could impose new obligations or limitations in areas affecting our business, such as digital assets. In addition, some countries are considering or have passed legislation implementing data protection requirements or requiring local storage and processing of data or similar requirements that could increase the cost and complexity of delivering our services.

New laws enacted by government or regulatory authorities could cause us to incur substantial costs, expose us to unanticipated civil and criminal liability or penalties (including substantial monetary remedies), interrupt or require us to change our business practices in a manner materially adverse to our business, divert resources and the attention of management from our business or subject us to other remedies that adversely affect our business.

Intellectual Property

Our ability to protect our intellectual property, including our technologies, is an important factor in the success and continued growth of our business. We protect our intellectual property through trade secrets law, patents, copyrights, trademarks and contracts. We have established business procedures designed to maintain the confidentiality of our proprietary information such as the use of our license agreements with customers and our use of our confidentiality agreements and intellectual property assignment agreements with our employees, consultants, business partners and advisors where appropriate. Some of our technologies rely upon third party licensed intellectual property.

In the United States, we have 15 patents issued and 5 pending non-provisional patent applications. The issued patents expire between the years 2027 and 2037, which are subject to the payment of maintenance fees. We also have one patent in Japan, which expires in 2031, that is subject to the payment of annual fees. In addition, we have registered "Phunware" as a trademark in the United States and Canada. We cannot provide assurance that any of our patent applications will result in the issuance of a patent or whether the examination process will require us to narrow our claims. Furthermore, even if a patent is issued, we cannot assure that such patent will be adequate to protect our business. We also license software from third parties for integration into our solutions, including open source software and other software available on commercially reasonable terms.

Despite our efforts to protect our technology and proprietary rights through intellectual property rights, licenses and confidentiality agreements, unauthorized parties may still copy or otherwise obtain and use our software and other technology. In addition, if we expand international operations, an effective patent, copyright, trademark and trade secret protections may not be available or may be limited in foreign countries.

Our industry is characterized by the existence of a large number of patents and claims and related litigation regarding patent and other intellectual property rights. In particular, leading companies in our markets have extensive patent portfolios and are regularly involved in litigation. From time to time, third parties, including certain of these leading companies, may assert patent, copyright, trade secret and other intellectual property rights against us, our channel partners or our customers. Our standard license and other agreements may obligate us to indemnify our indirect sales partners and customers against such claims. Successful claims of infringement by a third party could prevent us from continuing to offer our solution or performing certain services, require us to expend time and money to develop non-infringing solutions or force us to pay substantial damages, including treble damages if we are found to have willfully infringed patents or copyrights, royalties or other fees. Competitors may also be more likely to claim that our solutions infringe their proprietary rights and seek an injunction against us from continuing to offer our platform and/or components thereof. We cannot provide assurance that we do not currently infringe, or that we will not in the future infringe, upon any third-party patents or other proprietary rights.

Employees

We leverage our employees' long-standing, deep customer relationships and strong technical expertise to deliver complex solutions that meet customer needs and advance mobile technology. As of December 31, 2022, we had 106 full-time employees: including 50 software developers, engineers, QA engineers and product managers; a sales and marketing force of approximately 20 professionals and 19 employees at Lyte. In addition, we have a team of 11 individuals responsible for the assembly of Lyte computers. None of our employees are currently covered under any collective bargaining agreements. We believe our relations with our employees are good.

Corporate Information

Our principal executive offices are located at 1002 West Avenue, Austin, Texas 78701, and our telephone number is (512) 693-4199. Our website address is <https://www.phunware.com>. The information on, or that can be accessed through, our website is not part of this Annual Report on Form 10-K. We have included our website address as an inactive textual reference only.

Available Information

Our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K and amendments to reports filed or furnished pursuant to Sections 13(a) and 15(d) of the Exchange Act are available free of charge on the investor relations section of our website, which we post as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. The SEC also maintains an Internet website that contains reports and other information regarding issuers, such as Phunware, that can be filed electronically with the SEC. The SEC's Internet website is located at <http://www.sec.gov>.

Item 1A. Risk Factors.

Risk Factors

An investment in our securities involves a high degree of risk. You should consider carefully the risks and uncertainties described below, together with all of the other information contained in this Annual Report, including our consolidated financial statements and related notes, before deciding to invest in our securities. If any of the following events occur, our business, financial condition and operating results may be materially adversely affected. In that event, the trading price of our securities could decline, and you could lose all or part of your investment. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties that we are unaware of, or that we currently believe are not material, may also become important factors that adversely affect our business or results of operations.

Risks Related to Our Business, Operations and Industry

We have a history of losses, we expect to continue to incur losses and we may not achieve or sustain profitability in the future.

We have incurred significant losses in each fiscal year since our inception. We experienced a consolidated net loss for the years ended December 31, 2022 and December 31, 2021. These losses were due to both a decline in platform revenue in 2021 and 2022, as compared to previous years, losses related to our digital asset holdings and the substantial investments we made to build our products and services, grow and maintain our business, acquire customers and service our various debt obligations. You should not consider our historical revenue levels or operating expenses prior to recent periods as indicative of our future performance. Key elements of our growth strategy include acquiring new customers and continuing to innovate and expand our product offerings. As a result, our operating expenses may continue to increase in the future due to expected increased sales and marketing expenses, operating costs, research and development costs and general and administrative costs and, therefore, our operating losses may continue or even potentially increase for the foreseeable future. In addition, as a public company we incur significant legal, accounting and other expenses, including, but not limited to additional costs in resolving our existing legal matters. Furthermore, to the extent that we are successful in increasing our customer base, we may also incur increased expenses because costs associated with generating and supporting customer agreements are generally incurred up front. Revenue recognition may not occur during the same the same period in which we incur costs associated with our agreements. Our efforts to grow our business may be costlier than we expect and we may not be able to increase our revenue enough to offset our higher operating expenses. We may incur significant losses in the future for many reasons, including the other risks described in this Annual Report and unforeseen expenses, difficulties, complications and delays and other unknown events. You should not rely upon future bookings we may announce or revenue growth as indicative of our future performance. We cannot assure you that we will reach profitability in the future or at any specific time in the future or that, if and when we do become profitable, we will sustain profitability. If we are ultimately unable to generate sufficient revenue to meet our financial targets, become profitable and have sustainable positive cash flows, investors could lose their investment.

Our consolidated financial statements include an explanatory paragraph expressing substantial doubt about our ability to continue as a going concern.

The notes accompanying our consolidated financial statements contain an explanatory paragraph expressing substantial doubt about our ability to continue as a going concern due to our recurring losses from operations and substantial decline in our working capital. If we are unsuccessful in our efforts to raise outside financing, we may be required to significantly reduce or cease operations. The report of our independent registered public accounting firm on our audited financial statements for the year ended December 31, 2022 included a "going concern" explanatory paragraph.

We current have an effective registration statement on Form S-3 filed with the SEC. We may use the shelf registration statement on Form S-3 to offer from time to time any combination of common stock, preferred stock, warrants and units. Contained therein, is a prospectus supplement in which we may sell up to \$100 million of our common stock in an "at the market" offering pursuant to a sales agreement we entered into with H.C. Wainwright & Co., LLC on January 31, 2022. As of the date of this Annual Report on Form 10-K, a total of \$95.4 million of shares of our common stock remains issuable pursuant to the sales agreement.

There can be no assurance that we will be able to raise sufficient additional capital on acceptable terms or at all. A "going concern" qualification could impair our ability to finance our operations through the sale of equity, to incur debt or to pursue other financing alternatives. Our ability to continue as a going concern will depend upon the availability and terms of future funding, growth in revenue, improved operating margins and our ability to profitably meet our after-sale service

commitments with existing customers. If we are unable to achieve these goals, our business could be jeopardized and may not be able to continue. If we ceased operations, it is likely that all of our investors would lose their investment.

Our future performance will depend on the successful transition of our Chief Executive Officer (CEO).

In October 2022, our co-founder and CEO, Alan Knitowski, submitted notice of resignation to the Company effective upon the expiration of his employment contract on December 26, 2022. In November 2022, we announced the hiring of Russell Buyse to serve as our Chief Executive Officer effective as of December 28, 2022. If we are unable to execute a timely and orderly transition and successfully integrate our new CEO into our leadership team, revenue, operating results and our financial condition may be adversely impacted.

Our future performance also will continue to depend on the services and contributions of our other senior management and key employees to execute on our business plan and to identify and pursue new opportunities as well as service and product innovations. These changes, and any future changes, in our operations and management team could be disruptive to our operations. Further, if our new CEO formulates different or changed views, the future strategy and plans of our business may differ materially from those of the past.

We are currently operating in a period of significant macro-economic uncertainty, including supply-chain disruptions, COVID-related disruptions and inflationary pressures. Weakened economic conditions may have an adverse impact on our business and results of operations.

Adverse macroeconomic conditions, including inflation, slower growth or recession, new or increased tariffs, changes to fiscal and monetary policy, tighter credit, higher interest rates, high unemployment and currency fluctuations could materially adversely affect demand for our products and services. Inflationary pressures and supply chain disruptions could impact the price at which we acquire components required in the assembly of Lyte computer systems. Our principal operating expense is compensation related costs. Inflation rates, particularly in the United States, have increased recently to levels not seen in years, and increased inflation may result in decreased demand for our products and services, increases in our operating costs (including our labor costs), reduced liquidity and limits on our ability to access credit or otherwise raise capital. The effects of inflation on customer and consumer budgets could result in the reduction of our customers' spending plans. These and other economic factors could materially adversely affect our business, results of operations and financial condition.

In addition, the effects of macro-economic uncertainty, including, but not limited to the COVID-19 pandemic, may heighten many of the other risks described in this "Risk Factors" section.

If we are unable to expand or renew sales to existing customers, or attract new customers, our growth could be slower than expected and our business may be harmed.

Our future growth depends upon expanding sales and renewals of sales of our technology, products and services to existing customers and expansion of our personal computer offerings. Our customers may not continue to purchase our technology offerings and services, or our customers may reduce their purchase rate of services, if we do not demonstrate the value proposition for their investment and we may not be able to replace existing customers with new customers. In addition, our customers may not renew their contracts with us on the same terms, or at all, because of dissatisfaction with our product or service offerings. If our customers do not renew their contracts, our revenue may grow more slowly than expected, may not grow at all, or may decline.

Additionally, increasing incremental sales to our current customer base may require increasingly sophisticated and costly sales efforts that are targeted at senior management. We plan to continue expanding our sales efforts but we may be unable to hire qualified sales personnel, may be unable to successfully train those sales personnel that we are able to hire and sales personnel may not become fully productive on the timelines that we have projected, or at all. Additionally, although we dedicate significant resources to sales and marketing programs, these sales and marketing programs may not have the desired effect and may not expand sales. We cannot provide assurance that our efforts will increase sales to existing customers or generate additional revenue. If our efforts to upsell to our customers are not successful or we cannot find additional expansion opportunities, our future growth may grow more slowly than expected, may not grow at all, or may decline.

Our ability to achieve significant growth in revenue in the future will also depend upon our ability to attract and sell our technology, products and services to new customers. This may be particularly challenging where an organization has already invested substantial personnel and financial resources to integrate competing technology, products and services. An organization may be reluctant or unwilling to invest in new technology offerings and services. If we fail to attract new

customers and maintain and expand those customer relationships, our revenue may grow more slowly than expected, may not grow at all, or may decline and our business may be harmed.

We have incurred a goodwill impairment charge and goodwill continues to comprise a significant portion of our total assets. In the future, we could incur additional impairment charges, which could result in a material, non-cash write-down and could have a material adverse effect on our results of operations, financial condition and our future operating results.

The carrying value of our goodwill was \$31.1 million, or approximately 57% of our total assets, as of December 31, 2022. We perform an analysis on our goodwill balances to test for impairment on an annual basis or whenever events occur that may indicate impairment possibly exists. Goodwill is deemed to be impaired if the net book value of a reporting unit exceeds the estimated fair value.

We periodically review the carrying values of goodwill and intangible assets to determine whether such carrying values exceed their fair market values. Declines in the profitability of the Company, due to economic or market conditions or otherwise, as well as adverse changes in financial, competitive and other conditions, could adversely affect the values of our reporting units, resulting in an impairment of goodwill or intangible assets. In addition, adverse changes to the key valuation assumptions contributing to the fair value of our reporting units could result in an impairment of goodwill or intangible assets.

We completed our annual goodwill impairment analysis during the fourth quarter of 2022, and we concluded goodwill was impaired. Goodwill impairment charges of \$2.1 million were recorded during the year ended December 31, 2022. For additional details, refer to Note 6 "Goodwill" of the notes to the consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K for further discussion on our goodwill impairment. We cannot be certain that a future downturn in our business, changes in market conditions or a longer-term decline in the quoted market price of our stock will not result in future impairments of goodwill and the recognition of resulting expenses in future periods, which could adversely affect our results of operations for those periods.

Current and future litigation could adversely affect us.

We, along with certain of our former and current executive officers and certain former and current board members, are parties to litigation with Wild Basin Investments, LLC as further described on our Current Report on Form 8-K filed with the SEC on January 10, 2020. We, along with our officers and directors, may also become subject to other legal proceedings in our ordinary course of business. We cannot predict with certainty the outcome of this legal proceeding. The outcome of this or future legal proceeding could require us to take, or refrain from taking, actions which could negatively affect our operations. Such legal proceedings involve substantial costs, including the costs associated with investigation, litigation and possible settlement, judgment, penalty, or fine. As a smaller company, the collective costs of litigation proceedings represent a drain on our cash resources, and require an inordinate amount of our management's time and attention. An adverse ruling with respect to our current or any other litigation could have a material adverse effect on our results of operations and financial condition. Negative publicity surrounding such legal proceedings may also harm our reputation and adversely impact our business and results.

Our results of operations and ability to grow could be negatively affected if we cannot adapt and expand our technology and product and service offerings in response to ongoing market changes.

The collaboration and technology solutions business and markets are characterized by rapid technological change, evolving industry standards, changing customer preferences and new product and service introductions. Our success depends on our ability to continue to develop and implement technology, product and service offerings that anticipate or timely respond to rapid and continuing changes in technology and industry developments and offerings by new technology providers to serve the evolving needs of our customers. Examples of areas of significant change in the industry include cloud, software defined infrastructure, virtualization, security, mobility, data analytics and IoT, the continued shift from maintenance to managed services and ultimately to cloud based services, as-a-service solutions, security and information technology automation. In addition, enterprises are continuing to shift from on-premise, hardware infrastructure to software centric hosted solutions. Technological developments such as these may materially affect the cost and use of technology and services by our customers and could affect the nature of how our revenue is generated. These technologies and others that may emerge, could reduce and, over time, replace some of our current business. In addition, customers may delay spending under existing contracts and engagements and may delay entering into new contracts while they evaluate new technologies. If we do not sufficiently invest in new technology, industry developments and our personnel, or evolve and expand our business at sufficient speed and scale, or if we do not make the right strategic investments to respond to these developments and successfully drive innovation, our technology, products and services, our results of operations and our ability to develop and maintain a competitive advantage and growth could be negatively affected.

In addition, if we are unable to keep up with changes in technology and new hardware, software and services offerings, for example, by providing the appropriate training to our customer solutions team, sales directors, program management team, channel partners and software development and product engineers to enable them to effectively sell and deliver such new offerings to customers, our business, results of operations, or financial condition could be adversely affected.

Demand for our technology, product and service offerings could be adversely affected by volatile, negative, or uncertain economic conditions, including, but not limited to those caused by the COVID-19 pandemic, and the effects of these conditions on our customers' businesses.

Our revenue and profitability depend on the demand for our technology, product and service offerings, which could be negatively affected by numerous factors, many of which are beyond our control. Volatile, negative, or uncertain economic conditions, including those caused by the COVID-19 pandemic affect our customers' businesses and the markets we serve. Such economic conditions in our markets have undermined and could in the future undermine business confidence in our markets and cause our customers to reduce or defer their spending on new technology offerings and services, or may result in customers reducing, delaying or eliminating spending under existing contracts with us, which would negatively affect our business. Growth in the markets we serve could be at a slow rate, or could stagnate or contract, in each case for an extended period of time. Ongoing economic volatility and uncertainty and changing demand patterns affect our business in a number of other ways, including making it more difficult to accurately forecast customer demand and effectively build our revenue and resource plans.

Economic volatility and uncertainty is particularly challenging because it may take some time for the effects and changes in demand patterns resulting from these and other factors to manifest themselves in our business and results of operations. Changing demand patterns from economic volatility and uncertainty could have a significant negative impact on our business, results of operations, or financial condition.

If we fail to maintain the efficiency of our supply chain as we respond to changes in customer demand for our products, our business could be materially adversely affected.

Our ability to meet customer demand for our products depends, in part, on our ability to deliver the products our customers want on a timely basis. For example, we rely on our supply chain for the manufacturing, distribution and fulfillment of Lyte personal computers. As we continue to grow Lyte, expand to international markets and acquire new customers, the efficiency of our supply chain will become increasingly important because many of our customers tend to have specific requirements for Lyte products, and specific time-frames in which they require delivery of these products. If we are unable to consistently deliver the right personal computers to our customers on a timely basis in the right locations, our customers may not order computers from us, which could have a material adverse effect on our business.

Global political conditions may adversely affect demand for our products.

Global political conditions may create uncertainties that could adversely affect our business. The United States has been and may continue to be involved in armed conflicts that could have a further impact on our sales and our supply chain related to acquiring necessary inventory to assemble Lyte computers. The consequences of armed conflict, political instability or civil or military unrest are unpredictable, and we may not be able to foresee events that could have a material adverse effect on us. Terrorist attacks or other hostile acts may negatively affect our operations, or adversely affect demand for our products, and such attacks or related armed conflicts may impact our physical facilities or those of our suppliers or customers. Furthermore, these attacks or hostile acts may make travel and the transportation of our products more difficult and more expensive, which could materially adversely affect us. Any of these events could cause consumer spending to decrease or result in increased volatility in the United States economy and global financial markets.

The actual market for our products and services could be significantly smaller than estimates of total potential market opportunity and if customer demand for our products and services does not meet expectations, our ability to generate revenue and meet our financial targets could be adversely affected.

While we expect growth in the markets for our products, it is possible that the growth in some or all of these markets may not meet our expectations, or materialize at all. The methodology on which our estimate of our total potential market opportunity is based includes several key assumptions based on our industry knowledge and customer experience. If any of these assumptions proves to be inaccurate, then the actual market for our solutions could be significantly smaller than our estimates of our total potential market opportunity. If the customer demand for our products or services or the adoption rate in our target markets does not meet our expectations, our ability to generate revenue from customers and meet our financial targets could be adversely affected.

Substantial competition could reduce our market share and significantly harm our financial performance.

The markets in which we operate are highly competitive, with relatively low barriers to entry for some software, product or service organizations. Some customers may be hesitant to switch vendors or to adopt cloud-based software such as ours and prefer to maintain their existing relationships. Some of our competitors are larger and have greater name recognition, much longer operating histories, larger marketing budgets and significantly greater resources than we do. We also face competition from custom-built software vendors and from vendors of specific applications, some of which offer cloud-based solutions, as well as custom-built personal computer hardware vendors. We may also face competition from a variety of vendors of software and products that address only a portion of our platform. In addition, other companies that provide cloud-based software in different target markets may develop software or acquire companies that operate in our target markets, and some potential customers may elect to develop their own internal software. With the introduction of new technologies and market entrants, we expect this competition to intensify in the future.

Many of our competitors are able to devote greater resources to the development, promotion and sale of their products and services. Furthermore, our current or potential competitors may be acquired by third parties with greater available resources and the ability to initiate or withstand substantial price competition. In addition, many of our competitors have established marketing relationships, access to larger customer bases and major distribution agreements with consultants, system integrators and resellers. Our competitors may also establish cooperative relationships among themselves or with third parties that may further enhance their product offerings or resources. If our technology, products and services do not become more accepted relative to those of our competitors, or if our competitors are successful in bringing their products or services to market earlier than ours, or if the products or services of our competitors are more technologically capable than ours, then our revenues could be adversely affected. In addition, some of our competitors may offer their products and services at lower prices. If we are unable to achieve our target pricing levels, our operating results may be negatively affected. Pricing pressures and increased competition could result in reduced sales, reduced margins, losses or a failure to maintain or improve our competitive market position, any of which could adversely affect our business.

Our future results will depend on our ability to continue to focus our resources and manage costs effectively.

We are continually focusing on measures intended to further improve cost efficiency. We may be unable to realize all expected cost savings in connection with these efforts within the expected time frame, or at all, and we may incur additional and/or unexpected costs to realize them. Further, we may not be able to sustain any achieved savings in the future. Future results will depend on the success of these efforts.

If we are unable to control costs, our operating margins could decrease and we may incur additional losses. Our future profitability will depend on our ability to manage costs or increase productivity. An inability to effectively manage costs could adversely impact our business, results of operations or financial condition.

Our profitability could suffer if we are not able to manage large and complex projects and complete fixed price, fixed timeframe contracts on budget and on time.

Our profitability and operating results are dependent on the scale of our projects and the prices we are able to charge for our technology, products and services. We perform a significant portion of our work through fixed price contracts, in which we assume full control of the project team and manage all facets of execution. As a significant portion of our projects are on a fixed price model, we may be unable to accurately estimate the appropriate project price and successfully manage such projects. Although we use specified technical processes and our past experience to reduce the risks associated with estimating, planning and performing fixed price and fixed timeframe projects, we face the risk of cost overruns, completion delays and wage inflation in connection with these projects. If we fail to accurately estimate the resources or time required for a project or future rates of wage inflation, or if we fail to perform contractual obligations within the contractual timeframe, our profitability could suffer.

The challenges of managing larger and more complex projects include:

- maintaining high quality control and process execution standards;
- maintaining planned resource utilization rates on a consistent basis;
- maintaining productivity levels and implementing necessary process improvements;
- controlling project costs;
- maintaining close customer contact and high levels of customer satisfaction;
- recruiting and retaining sufficient numbers of skilled engineering, design and program management professionals; and
- maintaining effective customer relationships.

In addition, large and complex projects may involve multiple engagements or stages and there is a risk that a customer may choose not to retain us for additional stages or may cancel or delay additional planned engagements. Such cancellations or delays may make it difficult to plan our project resource requirements and may result in lower profitability levels than we anticipated upon commencing engagements.

Our business strategy is evolving. Investments in new services and technologies may not be successful and may involve pursuing new lines of business or strategic transactions and investments, or dispositions of assets or businesses that may no longer help us meet our objectives. Such efforts may not be successful.

We continue to invest in new services and technologies, including adding additional vertical solutions to our product offerings and blockchain. We have expanded our Lyte computer offerings into Canada and may plan additional international expansion. The complexity of these solutions, our learning curve in developing and supporting them and significant competition in the markets for these solutions could make it difficult for us to market and implement these solutions successfully. Additionally, there is a risk that our customers may not adopt these solutions widely, which could prevent us from realizing expected returns on these investments. Even if these solutions are successful in the market, they may rely on third-party technology, software, services and our ability to meet stringent service levels. If we are unable to deploy these solutions successfully or profitably, it could adversely impact our business, results of operations or financial condition.

Our industry is undergoing significant change and our business strategy is continuing to evolve to meet these changes. In order to profitably grow our business, we may need to expand into new lines of business beyond our current focus of mobile engagement analytics products, mobile application advertising and services, which may involve pursuing strategic transactions, including potential acquisitions of, or investments in, related or unrelated businesses and assets. In addition, we may seek divestitures of existing businesses or assets. There can be no assurance that we will be successful with our efforts to evolve our business strategy and we could suffer significant losses as a result, which could have a material adverse effect on our business, financial condition and results of operations.

If we decide to sell assets or a business, we may encounter difficulty in finding buyers or alternative exit strategies on acceptable terms in a timely manner, which could delay the achievement of our strategic objectives. We may also dispose of assets or a business at a price or on terms that are less desirable than we had anticipated. In addition, we may experience greater dis-synergies than expected and the impact of the divestiture on our revenue may be larger than projected.

Future acquisitions could disrupt our business and may divert management's attention and, if unsuccessful, harm our business.

We may choose to expand by making additional acquisitions that could be material to our business. We have in the past made several acquisitions of complementary businesses, including acquisitions of Odyssey, Simplikate, Digby, Tapit!, GoTV and our most recently completed acquisition of Lyte.

Acquisitions involve many risks, including the following:

- an acquisition may negatively affect our results of operations and financial condition because it may require us to incur charges or assume substantial debt or other liabilities, may cause adverse tax consequences or unfavorable accounting treatment, may expose us to claims and disputes by third parties, including intellectual property claims and disputes, or may not generate sufficient financial return to offset additional costs and expenses related to the acquisition;
- we may encounter difficulties or unforeseen expenditures in integrating the business, technologies, products, personnel, or operations of any company that we acquire, particularly if key personnel of the acquired company decide not to work for us;
- an acquisition may disrupt our ongoing business, divert resources, increase our expenses, or distract our management;
- an acquisition may result in a delay or reduction of customer purchases for both us and the company we acquired due to customer uncertainty about continuity and effectiveness of service from either company;
- we may encounter difficulties in, or may be unable to, successfully sell any acquired technology, products or services;
- an acquisition may involve the entry into geographic or business markets in which we have little or no prior experience or where competitors have stronger market positions;
- the challenges inherent in effectively managing an increased number of employees in diverse locations;
- the potential strain on our financial and managerial controls and reporting systems and procedures;
- the potential known and unknown liabilities associated with an acquired company;
- our use of cash to pay for acquisitions would limit other potential uses for our cash;
- if we incur additional debt to fund such acquisitions, such debt may subject us to additional material restrictions on our ability to conduct our business as well as additional financial maintenance covenants;
- the risk of impairment charges related to potential write-downs of acquired assets or goodwill in future acquisitions;
- to the extent that we issue a significant amount of equity or equity linked securities in connection with future acquisitions, existing stockholders may be diluted and earnings per share may decrease; and
- managing the varying intellectual property protection strategies and other activities of an acquired company.

We may not succeed in addressing these or other risks or any other problems encountered in connection with the integration of any acquired business. The inability to integrate successfully the business, technologies, products, services, personnel or operations of any acquired business, or any significant delay in achieving integration, could harm our business, results of operations or financial condition.

We may not be able to recognize revenue in the period in which our services are performed, which may cause our margins to fluctuate.

Our services are performed under both fixed-price and time and material contract arrangements. All revenue is recognized pursuant to applicable accounting standards. Our failure to meet all the obligations, or otherwise meet a customer's

expectations, may result in us having to record the cost related to the performance of services in the period that services were rendered, but delay the timing of revenue recognition to a future period in which all service obligations have been met.

Our financial results may be adversely affected by changes in accounting principles applicable to us.

U.S. generally accepted accounting principles (“GAAP”) are subject to interpretation by the Financial Accounting Standards Board (“FASB”), the SEC, and other various bodies formed to promulgate and interpret appropriate accounting principles. A change in these principles or interpretations could have a significant effect on our reported financial results for periods prior and subsequent to such change. We may adopt changes in accounting standards retrospectively to prior periods and the adoption may result in an adverse change to previously reported results.

To adopt new standards, we may have to implement new modules in our accounting system, hire consultants and increase our spending on audit fees, thereby increasing our general and administrative expense. Any difficulties in implementing changes in accounting standards or adequately accounting after adoption could cause us to fail to meet our financial reporting obligations, which could result in regulatory discipline and harm investors’ confidence in us.

We may experience quarterly fluctuations in our operating results due to a number of factors, which makes our future results difficult to predict and could cause our operating results to fall below expectations.

Our quarterly operating results have fluctuated in the past and we expect them to fluctuate in the future due to a variety of factors, many of which are outside of our control. As a result, our past results may not be indicative of our future performance and comparing our operating results on a period-to-period basis may not be meaningful. In addition to the other risks described herein, factors that may affect our quarterly operating results include:

- the amount and timing of completion of application development services and other service-related engagements;
- changes in spending on subscriptions, services and application transactions media offerings and services by our current or prospective customers;
- our ability to scale and expand the Lyte business;
- pricing our technology, product, and services effectively so that we are able to attract and retain customers without compromising our operating results;
- one-time, non-recurring revenue events;
- attracting new customers and increasing our existing customers' use of our technology offerings and services;
- the mix between new contracts and renewals of existing contracts;
- customer renewal rates and the amounts for which agreements are renewed;
- seasonality and its effect on customer demand for Lyte personal computers;
- awareness of our brand;
- changes in the competitive dynamics of our market, including consolidation among competitors or customers and the introduction of new technologies and technology enhancements;
- our ability to manage our existing business and future growth;
- unforeseen costs and expenses related to the expansion of our business, operations and infrastructure, including disruptions in our hosting network infrastructure and privacy and data security;
- customer delays in purchasing decisions in anticipation of new products or product enhancements by us or our competitors;
- budgeting cycles of our customers;
- changes in the competitive dynamics of our market, including consolidation among competitors or customers;
- the amount and timing of payment for operating expenses, particularly research and development and sales and marketing expenses (including marketing events and commissions and bonuses associated with performance) and employee benefit expenses;
- changes to the commission plans, quotas and other compensation related metrics for our sales representatives;
- the amount and timing of non-cash expenses, including stock-based compensation, goodwill impairments and other non-cash charges;
- the amount and timing of costs associated with recruiting, training and integrating new employees;
- the amount and timing of cash collections from our customers and the mix of quarterly and annual billings;
- unforeseen costs and expenses related to the expansion of our business, operations and infrastructure;
- changes in the levels of our capital expenditures;
- foreign currency exchange rate fluctuations; and
- general economic and political conditions.

We may not be able to accurately forecast the amount and mix of future technology, products and services, size or duration of contracts, revenue and expenses and, as a result, our operating results may fall below our estimates.

We could be held liable for damages or our reputation could suffer from security breaches or disclosure of confidential information or personal data.

In the normal course of business as a seller of personal computers via the internet, we obtain large amounts of personal data, including credit and debit card information. We are also dependent on technology networks and systems to process, transmit and securely store electronic information and to communicate among our locations and with our customers. Security breaches of this infrastructure could lead to shutdowns or disruptions of our systems and potential loss or unauthorized disclosure of confidential information or data, including personal data. In addition, many of our engagements involve projects that are critical to the operations of our customers' businesses. The theft and/or unauthorized use or publication of our, or our customers', confidential information or other proprietary business information as a result of such an incident could adversely affect our competitive position and reduce marketplace acceptance of our products and services. Any failure in the networks or computer systems used by us or our customers could result in a claim for substantial damages against us and significant reputational harm, regardless of our responsibility for the failure.

In addition, we often have access to or are required to manage, utilize, collect and store sensitive or confidential customer or employee data, including personal data. As a result, we are subject to numerous U.S. and non-U.S. laws and regulations designed to protect this information, such as the European Union's GDPR and various U.S. federal and state laws governing the protection of personal data. If any person, including any of our employees, negligently disregards or intentionally breaches controls or procedures with which we are responsible for complying with respect to such data, or otherwise mismanages or misappropriates that data, or if unauthorized access to or disclosure of data in our possession or control occurs, we could be subject to liability and penalties in connection with any violation of applicable privacy laws and/or criminal prosecution, as well as significant liability to our customers or our customers' clients for breaching contractual confidentiality and security provisions or privacy laws. These risks will increase as we continue to grow our cloud-based product offerings and services and store and process increasingly large amounts of our customers' confidential information and data and host or manage parts of our customers' businesses, especially in industries involving particularly sensitive data such as the healthcare industry which we serve. The loss or unauthorized disclosure of sensitive or confidential customer or employee data, including personal data, whether through breach of computer systems, systems failure, employee negligence, fraud or misappropriation, or otherwise, could damage our reputation and cause us to lose customers. Similarly, unauthorized access to or through our information systems and networks or those we develop or manage for our customers, whether by our employees or third parties, could result in negative publicity, legal liability and damage to our reputation, which could in turn harm our business, results of operations, or financial condition.

If we cause disruptions in our customers' businesses or provide inadequate service, our customers may have claims for substantial damages against us, which could cause us to lose customers, have a negative effect on our corporate reputation and adversely affect our results of operations.

If we make errors in the course of delivering services to our customers or fail to consistently meet our service-level obligations to or other service requirements of our customers, such errors or failures could disrupt our customers' business, which could result in a reduction in our revenue or a claim for substantial damages against us. In addition, a failure or inability by us to meet a contractual requirement could subject us to penalties, cause us to lose customers or damage our brand or corporate reputation and limit our ability to attract new business.

The services we provide are often critical to our customers' businesses. Certain of our customer contracts require us to comply with security obligations including maintaining network security and backup data, ensuring our network is virus free, maintaining business continuity planning procedures and ensuring our employees conduct their job functions with a high level of integrity. Any failure in a customer's system, failure of our data center, cloud or other offerings, or breach of security relating to the services we provide to a customer could damage our reputation or result in a claim for substantial damages against us. Any significant failure of our equipment or systems, or any major disruption to basic infrastructure in the locations in which we operate, such as power and telecommunications, could impede our ability to provide services to our customers, have a negative impact on our reputation, cause us to lose customers and adversely affect our results of operations.

Under our customer contracts, our liability for breach of our obligations is in some cases limited pursuant to the terms of the contract. Such limitations may be unenforceable or otherwise may not protect us from liability for damages. In addition, certain liabilities, such as claims of third parties for which we may be required to indemnify our customers, are generally not limited under our contracts. The successful assertion of one or more large claims against us in amounts greater than those covered by our current insurance policies could harm our business, results of operations, or financial condition. Even if such assertions against us are unsuccessful, we may incur reputational harm and substantial legal fees.

Our technology offerings and services could infringe upon the intellectual property rights of others or we might lose our ability to use intellectual property of others.

We cannot be sure that our brand, software solution and personal computing products and services do not infringe upon the intellectual property rights of third parties, who could claim that we or our customers are infringing upon their intellectual property rights. These claims could harm our reputation, cause us to incur substantial costs or prevent us from offering some products or services in the future, or require us to rebrand. Any related proceedings could require us to expend significant resources over an extended period of time. In most of our contracts, we agree to indemnify our customers for expenses and liabilities resulting from claimed infringements of the intellectual property rights of third parties. In some instances, the amount of these indemnities could be greater than the revenue we receive from the customer. Any claims or litigation in this area, regardless of merit, could be time-consuming and costly, damage our reputation, and/or require us to incur additional costs to obtain the right to continue to offer a product, service or solution to our customers. If we cannot secure this right at all or on reasonable terms, or, alternatively, substitute a non-infringing technology, our business, results of operations, or financial condition could be harmed. Similarly, if we are unsuccessful in defending a trademark claim, we could be forced to re-brand, which could harm our business, results of operations or financial condition. Additionally, in recent years, individuals and firms have purchased intellectual property assets where their sole or primary purpose is to assert claims of infringement against technology providers and customers that use such technology. Any such action naming us or our customers could be costly to defend or lead to an expensive settlement or judgment against us. Moreover, such an action could result in an injunction being ordered against our customer or our own services or operations, causing further damages.

If we are unable to protect our intellectual property rights from unauthorized use or infringement by third parties, our business could be adversely affected.

Our success depends, in part, upon our ability to protect our proprietary methodologies and other intellectual property. Existing laws offer only limited protection of our intellectual property rights and the protection in some countries in which we operate or may operate in the future may be very limited. We rely upon a combination of confidentiality policies, nondisclosure and other contractual arrangements and trade secret, copyright and trademark laws to protect our intellectual property rights. These laws are subject to change at any time and could further limit our ability to protect our intellectual property. There is uncertainty concerning the scope of available intellectual property protection for software and business methods, which are fields in which we rely on intellectual property laws to protect our rights. The validity and enforceability of any intellectual property rights we obtain may be challenged by others and, to the extent we have enforceable intellectual property rights, those intellectual property rights may not prevent competitors from reverse engineering our proprietary information or independently developing technology, products and services similar to or duplicative of us. Further, the steps we take in this regard might not be adequate to prevent or deter infringement or other misappropriation of our intellectual property by competitors, former employees or other third parties and we might not be able to detect unauthorized use of, or take appropriate and timely steps to enforce, our intellectual property rights. Enforcing our intellectual property rights might also require considerable time, money and oversight and we may not be successful in enforcing our rights.

If we are unable to collect our receivables from, or bill our unbilled services to, our customers, our business, results of operations or financial condition could be adversely affected.

Our business depends on our ability to successfully obtain payment from our customers of the amounts they owe us for products sold or services performed. We typically evaluate the financial condition of our customers and usually bill and collect on relatively short cycles. We maintain allowances against receivables and unbilled services for which we believe collection is doubtful. Actual losses on customer balances could differ from those that we currently anticipate and, as a result, we might need to adjust our allowances. There is no guarantee that we will accurately assess the creditworthiness of our customers. Macroeconomic conditions could also result in financial difficulties for our customers, including limited access to the credit markets, insolvency, or bankruptcy, and, as a result, could cause customers to delay payments to us, request modifications to their payment arrangements that could increase our receivables balance, or default on their payment obligations to us. Timely collection of customer balances also depends on our ability to perform obligations to customers and bill and collect our contracted revenue. If we are unable to meet our contractual requirements, we might experience delays in collection of and/or be unable to collect our customer balances and if this occurs, our business, results of operations, or financial condition could be adversely affected. In addition, if we experience an increase in the time to bill and collect for our services, our cash flows could be adversely affected.

Increased costs of labor and employee health and welfare benefits may adversely impact our results of operations.

Labor related costs represent a significant portion of our expenses and we have experienced increases compensation related expenses. Additional increases in labor costs, for example, as a result of increased competition for skilled labor, or

employee benefit costs, such as healthcare costs or otherwise, could further impact our business, results of operations or financial condition.

Our global operations are subject to complex risks, some of which might be beyond our control.

Although international revenue currently represents a small portion of our revenue, our business from outside of the United States may expand in the future as we expand our international presence, including but not limited to our subscription, application transaction, Lyte personal computing, services and digital asset offerings. As a result, we may be subject to risks inherently associated with international operations, including risks associated with foreign currency exchange rate fluctuations, difficulties in enforcing intellectual property and/or contractual rights, the burdens of complying with a wide variety of foreign laws and regulations, potentially adverse tax consequences, tariffs, quotas and other barriers, potential difficulties in collecting accounts receivable, international hostilities, terrorism and natural disasters. Expansion of international operations also increases the likelihood of potential or actual violations of domestic and international anti-corruption laws, such as the Foreign Corrupt Practices Act, or of U.S. and international export control and sanctions regulations. We may also face difficulties integrating any new facilities in different countries into our existing operations, as well as integrating employees that we hire in different countries into our existing corporate culture. If we are unable to manage the risks of our global operations, our business, results of operations, or financial condition could be adversely affected.

Economic uncertainties or downturns in the global economy or the industries in which our customers operate could disproportionately affect the demand for our products and services solutions and negatively impact our operating results.

Global economic conditions could experience a significant downturn causing market volatility widespread uncertainty. As a result, we and our customers could find it extremely difficult to accurately forecast and plan future business activities. In addition, these conditions could cause our customers or prospective customers to reduce their information technology and other budgets, which could decrease corporate and individual spending on our product and service offerings, resulting in delayed and lengthened sales cycles, a decrease in new customer acquisition and/or loss of customers. Furthermore, during challenging economic times, our customers may face issues with their cash flows and with gaining timely access to sufficient credit or obtaining credit on reasonable terms, which could impair their ability to make timely payments to us, impact customer renewal rates and adversely affect our revenue. If such conditions occur, we may be required to increase our reserves, allowances for doubtful accounts and write-offs of accounts receivable and our operating results would be harmed. In addition, a downturn in the technology-related spend by our customers may disproportionately affect us. We cannot predict the timing, strength or duration of any economic slowdown or recovery, whether global, regional or within specific markets. If the conditions of the global economy or markets in which we operate worsen, our business could be harmed. In addition, even if the global economy does not worsen or improves, the market for product and service offerings may not experience growth or we may not experience growth.

If platform subscription renewal rates decrease, or we do not accurately predict subscription renewal rates, our future revenue and operating results may be harmed.

Our customers have no obligation to renew their subscriptions for our solutions after the expiration of their subscription period, which generally ranges from one to three years. In addition, our customers may renew for lower subscription amounts or for shorter contract lengths. We may not accurately predict renewal rates for our customers. Our renewal rates may decline or fluctuate as a result of a number of factors, including customer usage, pricing changes, number of applications used by our customers, customer satisfaction with our service, increased competition, the acquisition of our customers by other companies and deteriorating general economic conditions. If our customers do not renew their subscriptions for our solutions or decrease the amount they spend with us, our revenue will decline and our business will suffer.

If we are unable to attract new customers or sell additional products or services to our existing customers, our revenue growth will be adversely affected.

To increase our revenue, we must add new customers, encourage existing customers to renew their subscriptions on terms favorable to us, increase their usage of our solutions and sell additional products, services and functionality to existing customers. As our industry matures, as interactive channels develop further, or as competitors introduce lower cost and/or differentiated products or services that are perceived to compete with ours, our ability to sell and renew based on pricing, technology and functionality could be impaired. In addition, attracting, retaining and growing our relationship with customers may require us to effectively employ different strategies than we have historically used with current customers and we may face challenges in doing so. As a result, we may be unable to renew our agreements with existing customers or attract new customers or new business from existing customers on terms that would be favorable or comparable to prior periods, which could have an adverse effect on our revenue and growth.

Because we recognize revenue from application development services as deliverables are transferred to customers and platform subscriptions over the term of the relevant contract, downturns or upturns in sales are not immediately reflected in full in our operating results.

We recognize revenue related to application development services upon the transfer of control to the customer of those services. We recognize software subscription revenue over the term of each of our contracts, which, generally ranges from one to three years. As a result, much of the revenue we report each quarter results from contracts entered into during previous quarters. Consequently, a shortfall in demand for our professional services and software solutions or a decline in new, expanded or renewed contracts in any one quarter may not significantly reduce our revenue for that quarter but could negatively affect our revenue in the future. Accordingly, the effect of significant downturns in new or expanded sales or renewals of our professional services or software license solutions will not be reflected in full in our operating results until future periods. Our revenue recognition model also makes it difficult for us to rapidly increase our revenue through additional sales in any period.

If we fail to forecast our revenue accurately, or if we fail to match our expenditures with corresponding revenue, our operating results could be adversely affected.

The lengthy sales cycle for the evaluation and implementation of our platform software and service solutions, which typically extends for several months, may cause us to experience a delay between increasing operating expenses for such sales efforts, and, upon successful sales, the generation of corresponding revenue. Accordingly, we may be unable to prepare accurate internal financial forecasts or replace anticipated revenue that we do not receive as a result of delays arising from these factors. As a result, our operating results in future reporting periods may be significantly below the expectations of the public market, equity research analysts or investors, which could harm the price of our common stock.

The length and unpredictability of the sales cycle for our technology, products and services could delay new sales and cause our revenue and cash flows for any given quarter to fail to meet our projections or market expectations.

The sales cycle between our initial contact with a potential customer and the signing of a contract to provide technology, products and services varies. As a result of the length and unpredictability of the sales cycle, we have a limited ability to forecast the timing of sales. A delay in or failure to complete transactions could harm our business and financial results and could cause our financial results to vary significantly from quarter to quarter. Our sales cycle varies widely, reflecting differences in our potential customers' decision-making processes, procurement requirements and budget cycles and is subject to significant risks over which we have little or no control, including:

- our customers' budgetary constraints and priorities;
- the timing of our customers' budget cycles;
- the impact of the COVID-19 pandemic and related disruptions on our customers; and
- the length and timing of customers' approval processes.

If we fail to detect advertising fraud or other actions that impact our advertising campaign performance, we could harm our reputation with advertisers or agencies, which could cause our revenue and business to suffer.

Our advertising business relies on our ability to deliver successful and effective advertising campaigns. Some of those campaigns may experience fraudulent and other invalid impressions, clicks or conversions that advertisers may perceive as undesirable, such as non-human traffic generated by machines that are designed to simulate human users and artificially inflate user traffic on websites. These activities could overstate the performance of any given advertising campaign and could harm our reputation. It may be difficult for us to detect advertising-related fraud and other malicious activity because we do not own content and rely in part on our digital media partners to control such activity. These risks become more pronounced as the digital video industry shifts to programmatic buying. Both governmental and industry self-regulatory bodies have increased their scrutiny and awareness of and have taken recent actions to address advertising-related fraud and other malicious activity. While we routinely review the campaign performance, such reviews may not detect or prevent advertising-related fraud or malicious activity. If we fail to detect or prevent fraud or other malicious activity, the affected advertisers may experience or perceive a reduced return on their investment and our reputation may be harmed. High levels of fraud or malicious activity could lead to dissatisfaction with our solutions, refusals to pay, prompt refund or future credit demands or withdrawal of future business. In addition, advertisers increasingly rely on third party vendors to measure campaigns against audience guarantee, viewability and other requirements and to detect fraud. If we are unable to successfully integrate our technology with such vendors, or our measurement and fraud detection differs from their findings, our customers could lose confidence in our solutions, we may not get paid for certain campaigns and our revenues could decrease. If we fail to detect fraud or other

malicious activities that impact the performance of our brand advertising campaigns, we could harm our reputation with our advertisers or agencies and our revenue and business could suffer. Further, if advertisers demand fraud-free inventory, our supply could fall drastically, making it impossible to sustain our current business model.

If we do not maintain and grow a critical mass of advertisers and distribution partners, the value of our services could be adversely affected.

Our success depends, in large part, on the maintenance and growth of a critical mass of advertisers and distribution partners. Advertisers will generally seek the most competitive return on investment from advertising and marketing services. Distribution partners will also seek the most favorable payment terms available in the market. Advertisers and distribution partners may change providers or the volume of business with a provider, unless the product and terms are competitive. In this environment, we must compete to acquire and maintain our network of advertisers and distribution partners. If our business is unable to maintain and grow our base of advertisers, our current distribution partners may be discouraged from continuing to work with us and this may create obstacles for us to enter into agreements with new distribution partners. Our business also depends in part on certain of our large reseller partners and agencies to grow their base of advertisers, as these advertisers become increasingly important to our business and our ability to attract additional distribution partners and opportunities. Similarly, if our distribution network does not grow and does not continue to improve over time, current and prospective advertisers and distribution partners and agencies may reduce or terminate this portion of their business with us. Any decline in the number of advertisers and distribution partners could adversely affect the value of our services.

Any inability to deliver successful mobile advertising campaigns due to technological challenges or an inability to persuasively demonstrate success will prevent us from growing or retaining our current advertiser base.

It is critical that we deliver successful mobile advertising campaigns on behalf of our advertisers. Factors that may adversely affect our ability to deliver successful mobile advertising campaigns include:

- Inability to accurately process data and extract meaningful insights and trends, such as the failure to accurately process data to place ads effectively at digital media properties;
- Faulty or out-of-date algorithms that fail to properly process data or result in inability to capture brand-receptive audiences at scale;
- Technical or infrastructure problems causing digital video not to function, digital video or impressions to not display properly or be placed next to inappropriate context;
- Inability to control video completion rates, maintain user attention or prevent end users from skipping advertisements;
- Inability to detect and prevent advertising fraud and other malicious activity;
- Inability to fulfill audience guarantee or viewability requirements of advertiser customers;
- Inability to integrate with third parties that measure campaigns against audience guarantee or viewability requirements;
- Unavailability of campaign data for advertisers to effectively measure the success of their campaigns; and
- Access to quality inventory at sufficient volumes to meet the needs of advertisers' campaigns.

Our ability to deliver successful advertising campaigns also depends on the continuing and uninterrupted performance of our own internal and third party managed systems, which we utilize to place ads, monitor the performance of advertising campaigns and manage advertising inventory. Our revenue depends on the technological ability of our solutions to deliver ads and measure them. Sustained or repeated system failures that interrupt our ability to provide advertising campaigns and solutions to customers, including security breaches and other technological failures affecting our ability to deliver ads quickly and accurately and to collect and process data in connection with these ads, could significantly reduce the attractiveness of our solutions to advertisers, negatively impact operations and reduce our revenue. Our systems are vulnerable to damage from a variety of sources, including telecommunications failures, power outages, malicious human acts and natural disasters. In addition, any steps we take to increase the reliability and redundancy of systems may be expensive and may not be successful in preventing system failures. Also, advertisers may perceive any technical disruption or failure in ad performance on digital media partners' platforms to be attributable to us and our reputation could similarly suffer, or advertisers may seek to avoid payment or demand future credits for disruptions or failures, any of which could harm our business and results of operations. If

we are unable to deliver successful advertising campaigns, our ability to attract potential advertisers and retain and expand business with existing advertisers could be harmed and our business, financial condition and operating results could be adversely affected.

We may be unable to deliver advertising in a context that is appropriate for mobile advertising campaigns, which could harm our reputation and cause our business to suffer.

It is very important to advertisers that their brand advertisements not be placed in or near content that is unlawful or could be deemed offensive or inappropriate by their customers. Unlike advertising on television, where the context in which an advertiser's ad will appear is highly predictable and controlled, digital media content is more unpredictable and we cannot guarantee that digital video advertisements will appear in a context that is appropriate for the brand. We rely on continued access to premium ad inventory in high-quality and brand-safe environments, viewable to consumers across multiple screens. If we are not successful in delivering context appropriate advertising campaigns for advertisers, our reputation will suffer and our ability to attract potential advertisers and retain and expand business with existing advertisers could be harmed, or our customers may seek to avoid payment or demand future credits for inappropriately placed advertisements, any of which could harm our business, financial condition and operating results.

Activities of our application transaction customers with which we do business could damage our reputation or give rise to legal claims against us.

We do not monitor or have the ability to control whether our advertising customers' advertising of their products and solutions complies with federal, state, local and foreign laws. Failure of our advertising customers to comply with federal, state, local or foreign laws or our policies could damage our reputation and expose us to liability under such laws. We may also be liable to third parties for content in the ads we deliver if the content involved violates copyrights, trademarks or other intellectual property rights of third parties or if the content is defamatory, unfair and deceptive or otherwise in violation of applicable laws. A third party or regulatory authority may file a claim against us even if our advertising customer has represented that its ads are lawful and that they have the right to use any copyrights, trademarks or other intellectual property included in an ad. Any of these claims could be costly and time-consuming to defend and could also hurt our reputation within the advertising industry. Further, if we are exposed to legal liability, we could be required to pay substantial fines or penalties, redesign our business methods, discontinue some of our solutions or otherwise expend significant resources. Similarly, we do not monitor or have the ability to control whether digital media property owners with which we do business are in compliance with applicable laws and regulations, or intellectual property rights of others and their failure to do so could expose us to legal liability. Third parties may claim that we should be liable to them for content on digital media properties if the content violates copyrights, trademarks or other intellectual property rights of third parties or if the content is defamatory, unfair and deceptive, or otherwise in violation of applicable laws or other brand protection measures. These risks become more pronounced as the digital video industry shifts to programmatic buying.

Our business depends on our ability to collect and use data to deliver ads and to disclose data relating to the performance of our ads; any limitation on these practices could significantly diminish the value of our solutions and cause us to lose customers and revenue.

When we deliver an ad to an internet-connected device, we are able to collect information about the placement of the ad and the interaction of the device user with the ad, such as whether the user visited a landing page or watched a video. We are also able to collect information about the user's IP address, device, mobile location and some demographic characteristics. We may also contract with one or more third parties to obtain additional pseudonymous information about the device user who is viewing a particular ad, including information about the user's interests. As we collect and aggregate this data provided by billions of ad impressions, we analyze it in order to optimize the placement and scheduling of ads across the advertising inventory provided to us by digital media properties.

Although the data we collect does not enable us to determine the actual identity of any individual, our customers or end users might decide not to allow us to collect some or all of the data or might limit our use of it. For example, a digital media partner might not agree to provide us with data generated by interactions with the content on its apps, or device users might not consent to share their information about device usage. Any limitation on our ability to collect data about user behavior and interaction with content could make it more difficult for us to deliver effective advertising programs that meet the demands of our customers. This in turn could harm our revenue and impair our business.

Although our contracts with advertisers generally permit us to aggregate data from advertising campaigns, sometimes an advertiser declines to permit the use of this data, which limits the usefulness of the data that we collect. Furthermore, advertisers may request that we discontinue using data obtained from their campaigns that have already been aggregated with

other advertisers' campaign data. It would be difficult, if not impossible, to comply with these requests and complying with these kinds of requests could cause us to spend significant amounts of resources. Interruptions, failures or defects in our data collection, mining, analysis and storage systems, as well as privacy concerns and regulatory restrictions regarding the collection, use and processing of data, could also limit our ability to aggregate and analyze the data from our customers' advertising campaigns. If that happens, we may not be able to optimize the placement of advertising for the benefit of our advertising customers, which could make our solutions less valuable, and, as a result, we may lose customers and our revenue may decline.

Our business practices with respect to data could give rise to liabilities, restrictions on our business or reputational harm as a result of evolving governmental regulation, legal requirements or industry standards relating to consumer privacy and data protection.

In the course of providing our solutions, we collect, transmit and store information related to and seeking to correlate internet-connected devices, user activity and the ads we place. Federal, state and international laws and regulations govern the collection, use, processing, retention, sharing and security of data that we collect across our advertising solutions. We strive to comply with all applicable laws, regulations, policies and legal obligations relating to privacy and data collection, processing use and disclosure. However, the applicability of specific laws may be unclear in some cases and domestic and foreign government regulation and enforcement of data practices and data tracking technologies is expansive, not clearly defined and rapidly evolving. In addition, it is possible that these requirements may be interpreted and applied in a manner that is new or inconsistent from one jurisdiction to another and may conflict with other rules or our practices. Any actual or perceived failure by us or our customers or partners to comply with U.S. federal, state or international laws, including laws and regulations regulating privacy, data, security or consumer protection, or disclosure or unauthorized access by third parties to this information, could result in investigations, proceedings or actions against us by governmental entities, competitors, private parties or others. Any investigations, proceedings or actions against us alleging violations of consumer or data protection laws or asserting privacy-related theories could hurt our reputation, force us to spend significant amounts in defense of these proceedings, distract our management, increase our costs of doing business, adversely affect the demand for our solutions and ultimately result in the imposition of monetary liability. We may also be contractually liable to indemnify and hold harmless our customers from the costs or consequences of litigation resulting from using our solutions or from the unauthorized disclosure of confidential information, which could damage our reputation among our current and potential customers, require significant expenditures of capital and other resources and cause us to lose business and revenue.

The regulatory framework for privacy issues is evolving worldwide. It is possible that new laws and regulations will be adopted in the United States and internationally, or existing laws and regulations may be interpreted in new ways, that could affect our business, particularly with regard to collection or use of data to target ads and communication with consumers and the international transfer of data from Europe to the U.S. In particular, the GDPR extends the jurisdictional scope of European data protection law. As a result, we are subject to the GDPR when we provide our targeting services in Europe. The GDPR imposes stricter data protection requirements that may necessitate changes to our services and business practices. Potential penalties for non-compliance with the GDPR include administrative fines of up to 4% of annual worldwide revenue.

While we have not collected data that is traditionally considered identifiable personal data, such as name, email address, physical address, phone numbers or social security numbers, we typically collect and store IP addresses, geolocation information and device or other persistent identifiers that are or may be considered personal data in some jurisdictions or otherwise may be subject to applicable laws or regulations. For example, some jurisdictions in the EU regard IP addresses as personal data and certain regulators have advocated for including IP addresses, GPS-level geolocation data and unique device identifiers as personal data. Moreover, with the effectiveness of the CCPA in California on January 1, 2020, the use of geolocation gathering in California should be approached with care to ensure compliance. Furthermore, the GDPR makes clear that online identifiers (such as IP addresses and other device identifiers) will be treated as "personal data" going forward and therefore subject to stricter data protection rules.

Evolving definitions of personal data within the United States, European Union and elsewhere, especially relating to the classification of IP addresses, machine or device identifiers, geolocation data and other such information, may cause us to change our business practices, diminish the quality of our data and the value of our solution and hamper our ability to expand our offerings.

Complying with any new legal requirements relating to privacy and data protection could force us to incur substantial costs or require us to change our business practices in a manner that could reduce our revenue or compromise our ability to effectively pursue our growth strategy. Our failure to comply with evolving interpretations of applicable laws and regulations relating to privacy and data protection, or to adequately protect personal data, could result in enforcement action against us or reputational harm, which could have a material adverse impact on our business, financial condition and results of operations.

In addition to compliance with applicable laws and regulations, we voluntarily participate in trade associations and industry self-regulatory groups that promulgate best practices or codes of conduct addressing the provision of internet advertising. We could be adversely affected by changes to these guidelines and codes in ways that are inconsistent with our practices or in conflict with the laws and regulations of U.S. or international regulatory authorities. For instance, new guidelines, codes, or interpretations, by self-regulatory organizations or government agencies, may require additional disclosures, or additional consumer consents, such as “opt-in” permissions to share, link or use data, such as health data obtained from third parties, in certain ways. If we fail to abide by, or are perceived as not operating in accordance with, industry best practices or any industry guidelines or codes with regard to privacy, our reputation may suffer and we could lose relationships with advertisers and digital media partners.

Our agreements with partners, employees and others may not adequately prevent disclosure of trade secrets and other proprietary technology and information.

We rely in part on confidentiality agreements and other restrictions with our customers, partners, employees, consultants and others to protect our proprietary technology and other proprietary information. These agreements may not effectively prevent disclosure of confidential information and may not provide an adequate remedy in the event of unauthorized disclosure of confidential information. Despite our efforts to protect our proprietary technology, processes and methods, unauthorized parties may attempt to misappropriate, reverse engineer or otherwise obtain and use them. Moreover, policing unauthorized use of our trade secrets, technologies, products, intellectual property and proprietary information is difficult, expensive and time-consuming, particularly in foreign countries where applicable laws may be less protective of intellectual property rights than those in the United States and where enforcement mechanisms for intellectual property rights may be weak. Costly and time-consuming litigation could be necessary to enforce and determine the scope of our proprietary rights and failure to obtain or maintain trade secret protection could adversely affect our competitive business position.

We could be subject to additional income tax liabilities.

We are generally subject to income taxes in the United States. We use significant judgment in evaluating our worldwide income-tax provision. In the ordinary course of business, we conduct many transactions for which the ultimate tax determination is uncertain. For example, our effective tax rates could be adversely affected by changes in the valuation of our deferred tax assets and liabilities or by changes in the relevant tax, accounting and other laws, regulations, principles and interpretations. We are subject to audit in various jurisdictions, and such jurisdictions may assess additional income tax against us. Although we believe our tax estimates are reasonable, the final determination of tax audits and any related litigation could be materially different from our historical income-tax provisions and accruals. The results of an audit or litigation could have a material effect on our operating results or cash flows in the period or periods for which that determination is made.

Taxing authorities may successfully assert that we should have collected or in the future should collect sales and use, value-added or similar taxes, and we could be subject to liability with respect to past or future sales, which could adversely affect our operating results.

We do not collect sales and use, value-added or similar taxes in all jurisdictions in which we have sales and for all products and services that we sell, based on our belief that such taxes are either not applicable or an exemption from such taxes applies. Sales and use, value-added and similar tax laws and rates vary greatly by jurisdiction. Certain jurisdictions in which we do not collect such taxes may assert that such taxes are applicable, which could result in tax assessments, penalties and interest, and we may be required to collect such taxes in the future, including as a result of a change in law. Such tax assessments, penalties and interest or future requirements may adversely affect our business, financial condition and results of operations.

Our net operating loss carryforwards may expire unutilized or underutilized, which could prevent us from offsetting future taxable income.

We may be limited in the portion of net operating loss carryforwards that we can use in the future to offset taxable income for U.S. Federal income tax purposes, including any limitations that may be imposed under Section 382 of the Code as a result of our past ownership changes or an ownership change in connection with our reverse merger and recapitalization on December 26, 2018. As of December 31, 2022, we had federal net operating loss carryforwards of approximately \$195.0 million, of which \$109.4 million will never expire and \$85.7 million will expire at various dates beginning in 2030. At December 31, 2022, we had state and local net operating loss carryforwards of approximately \$95.9 million, with the majority beginning to expire in 2030 if not utilized.

We periodically assess the likelihood that we will be able to recover net deferred tax assets. We consider all available evidence, both positive and negative, including historical levels of income, expectations and risks associated with estimates of

future taxable income and ongoing prudent and feasible profits. As a result of this analysis of all available evidence, both positive and negative, we concluded that a valuation allowance against our net U.S. deferred tax assets should be applied as of December 31, 2022. To the extent we determine that all or a portion of our valuation allowance is no longer necessary, we will recognize an income tax benefit in the period this determination is made for the reversal of the valuation allowance. Once the valuation allowance is eliminated or reduced, its reversal will no longer be available to offset our current tax provision. These events could have a material impact on our reported results of operations.

Our large customers have substantial negotiating leverage, which may require that we agree to terms and conditions that may have an adverse effect on our business.

Our large customers have substantial purchasing power and leverage in negotiating contractual arrangements with us. These customers may request for us to develop additional features without providing us additional revenue, may require penalties for failure to deliver such features, may seek discounted product or service pricing and may seek more favorable contractual terms. As we sell more products and services to this class of customer, we may be required to agree to such terms and conditions. Such large customers also have substantial leverage in negotiating the resolution of any disagreements or disputes that may arise between us. Any of the foregoing factors could have a material adverse effect on our business, financial condition and results of operations.

If some of our customers experience financial distress or suffer disruptions in their business, their weakened financial position could negatively affect our own financial position and results.

We have a diverse customer base and, at any given time, one or more customers may experience financial distress, file for bankruptcy protection, go out of business, or suffer disruptions in their businesses. If a customer with whom we do a substantial amount of business experiences financial difficulty or suffers disruptions in its business, it could delay or jeopardize the collection of accounts receivable, result in significant reductions in services provided by us and may have a material adverse effect on our business, financial condition and results of operations.

If we are unable to obtain and maintain adequate insurance, our financial condition could be adversely affected in the event of uninsured or inadequately insured loss or damage. Our ability to effectively recruit and retain qualified officers and directors may also be adversely affected if we experience difficulty in maintaining adequate directors' and officers' liability insurance.

We may not be able to obtain and maintain insurance policies on terms affordable to us that would adequately insure our business and property against damage, loss or claims by third parties. To the extent our business or property suffers any damages, losses or claims by third parties that are not covered or adequately covered by insurance, our financial condition may be materially adversely affected. We currently have directors' and officers' liability insurance. If we are unable to maintain sufficient insurance as a public company to cover liability claims made against our officers and directors, we may not be able to retain or recruit qualified officers and directors to manage our company, which could have a material adverse effect on our business, financial condition and results of operations.

The requirements of being a public company may strain our systems and resources, divert management's attention and be costly.

As a public company, we are subject to the reporting requirements of the Exchange Act, the Sarbanes-Oxley Act of 2002, the Dodd-Frank Wall Street Reform and Consumer Protection Act and the rules and regulations of Nasdaq Capital Market. The requirements of these rules and regulations will increase our legal, accounting and financial compliance costs, will make some activities more difficult, time consuming and costly and may also place undue strain on our personnel, systems and resources. The Exchange Act requires, among other things, that we file annual, quarterly and current reports with respect to our business and results of operations.

We are required to maintain various other control and business systems related to our equity, finance, treasury, information technology, other recordkeeping systems and other operations. As a result of these maintenance obligations, management's attention may be diverted from other business concerns, which could adversely affect our business. Furthermore, we supplement our internal team with third party software and system providers to support our reporting obligations to achieve effective internal controls.

To the extent we do not sufficiently manage third party service providers, and they fail to provide us with adequate service, we may not effectively manage our future growth which may result in ineffective internal controls over financial reporting and an increased cost of compliance. The Sarbanes-Oxley Act requires, among other things, that we maintain

effective disclosure controls and procedures and internal control over financial reporting. In addition, changing laws, regulations and standards relating to corporate governance and public disclosure are creating uncertainty for public companies, increasing legal and financial compliance costs and making some activities more time consuming. These laws, regulations and standards are subject to varying interpretations, in many cases due to their lack of specificity, and as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices. We intend to invest resources to comply with evolving laws, regulations and standards, and this investment may result in increased general and administrative expenses and a diversion of management's time and attention from revenue-generating activities to compliance activities. If our efforts to comply with new laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to their application and practice, regulatory authorities may initiate legal proceedings against us, and our business may be adversely affected.

In addition, compliance with new laws, rules and regulations would make it more difficult and more expensive for us to obtain director and officer liability insurance, and we may be required to incur substantial costs to maintain appropriate levels of coverage. These factors could also make it more difficult for us to attract and retain qualified executive officers and members of our board of directors, particularly members to serve on our audit committee.

As a result of disclosure of information in this Annual Report and in other filings required of a public company, our business and financial condition will become more visible, which we believe may result in threatened or actual litigation by third parties. If such claims are successful, our business and results of operations could be adversely affected, and even if the claims do not result in litigation or are resolved in our favor, these claims, and the time and resources necessary to resolve them, could divert the time and resources of our management and adversely affect our business and results of operations.

We are a "smaller reporting company" and, because we have opted to use the reduced reporting requirements available to us, our common stock may be less attractive to investors.

We are a "smaller reporting company" as defined by the SEC. For as long as we continue to be a smaller reporting company, we may take advantage of exemptions from various reporting requirements that are applicable to other public companies that are not smaller reporting companies, including not being required to comply with auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act and reduced disclosure obligations regarding executive compensation and corporate governance in our periodic reports and proxy statements.

We cannot predict if investors will find our common stock less attractive because we may rely on these exemptions. If some investors find our common stock less attractive as a result, there may be a less active trading market for our common stock and our stock price may be more volatile.

Our business is subject to the risks of natural disasters, public health crises, political crises and other natural catastrophic events and to interruption by man-made problems such as computer viruses or terrorism.

Our systems and operations are vulnerable to damage or interruption from earthquakes, fires, floods, power losses, telecommunications failures, terrorist attacks, acts of war, human errors, break-ins and similar events. For example, a significant natural disaster, such as a tornado, earthquake, hurricane, mudslides, fire, flood, snow, ice or extreme temperatures could have a material adverse effect on our business, results of operations and financial condition and our insurance coverage may be insufficient to compensate us for losses that may occur. We have an office and at least one data center located in California, a region known for earthquakes and mudslides. A significant amount of our development and ad operations work is also located in California. We also have corporate offices in Texas and Florida, both of which are susceptible to floods, hurricanes and extreme temperatures and Texas is an area that is vulnerable to heavy winds, ice, snow and tornadoes. In addition, acts of terrorism, which may be targeted at metropolitan areas that have higher population density than rural areas, could cause disruptions in our or our advertisers' businesses or the economy as a whole. Our servers may also be vulnerable to computer viruses, break-ins, denial-of-service attacks and similar disruptions from unauthorized tampering with our computer systems, which could lead to interruptions, delays, loss of critical data. We may not have sufficient protection or recovery plans in some circumstances, such as natural disasters affecting California, Texas or Florida. In late 2019, a strain of the coronavirus was reported to have surfaced and spread to the United States. The ongoing extent to which COVID-19 and its variants impact on our results is unknown. As we rely heavily on our data centers, computer and communications systems and the internet to conduct our business and provide high-quality customer service, such disruptions could negatively impact our ability to run our business and either directly or indirectly disrupt our customers' business, which could have a material adverse effect on our business, results of operations and financial condition.

Risks Related to Capitalization Matters, Corporate Governance and Market Volatility

We have and may sell additional equity or debt securities or enter into other arrangements to fund our operations, which may result in dilution to our stockholders and impose restrictions or limitations on our business. Future sales or issuances of our common stock, or the perception that such sales could occur, could depress the trading price of our common stock.

In February 2022, we filed a registration statement on Form S-3, which was subsequently declared effective by the SEC, pursuant to which we may issue up to \$200 million in common stock, preferred stock, warrants and units, and contained therein was a prospectus supplement in which we may sell up to \$100 million in sales of our common stock deemed to be an "at the market" offering. During 2022, we issued common stock in various sales of our common stock via at-the-market offerings. Additional capital may be needed in the future to continue our planned operations, and we may seek additional funding through a combination of equity offerings, debt financings, strategic alliances, licensing and collaboration arrangements, or other third-party business arrangements. These financing activities may have an adverse effect on our stockholders' rights, the market price of our common stock and on our operations and may require us to relinquish rights to some of our technologies, intellectual property or products, issue additional equity or debt securities, or otherwise agree to terms unfavorable to us. Any sale or issuance of securities pursuant to a registration statement or otherwise may result in dilution to our stockholders and may cause the market price of our stock to decline, and new investors could gain rights superior to our existing stockholders.

In addition, any debt financings that we may enter into in the future may impose restrictive covenants or otherwise adversely affect the holdings or the rights of our stockholders, and any additional equity financings will be dilutive to our stockholders. The perception that such sales or issuances may occur could also negatively impact the market price of our common stock. Furthermore, additional equity or debt financing might not be available to us on reasonable terms, if at all.

Shares of our common stock may be issued pursuant to the terms of an outstanding warrant, which could cause the price of our common stock to decline.

On July 15, 2020 we issued a Series A Senior Convertible Note (a "Series A Note") and a Series B Senior Convertible Note (a "Series B Note," and together with the Series A Note, the "2020 Convertible Notes") to an institutional investor. We paid the 2020 Convertible Notes in full in April 2021. However, in connection with the issuance of the 2020 Convertible Notes, we issued a warrant to the holder. As of December 31, 2022, 2,811,315 shares may be issued under the warrant at an exercise price of \$1.4246 per share. The issuance of these shares will dilute our other equity holders, which could cause the price of our common stock to decline.

The failure of financial institutions or transactional counterparties could adversely affect our current and projected business operations and our financial condition and results of operations.

On March 10, 2023, Silicon Valley Bank (SVB) was closed by the California Department of Financial Protection and Innovation, which appointed the Federal Deposit Insurance Corporation (FDIC) as receiver. Similarly, on March 12, 2023, Signature Bank and Silvergate Capital Corp. were each swept into receivership. A statement by the Department of the Treasury, the Federal Reserve and the FDIC stated that all depositors of SVB would have access to all of their money after only one business day of closure, including funds held in uninsured deposit accounts. However, there is no guarantee that the U.S. Department of Treasury, FDIC and Federal Reserve Board will provide access to uninsured funds in the future in the event of the closure of other banks or financial institutions in a timely fashion or at all.

Although we do not have any funds deposited with SVB and Signature Bank, we regularly maintain cash balances with other financial institutions in excess of the FDIC insurance limit. Access to our cash and cash equivalents in amounts adequate to finance our operations could be significantly impaired by the financial institutions with which we have arrangements directly facing liquidity constraints or failures. In addition, investor concerns regarding the U.S. or international financial systems could result in less favorable commercial financing terms, including higher interest rates or costs and tighter financial and operating covenants, or systemic limitations on access to credit and liquidity sources, thereby making it more difficult for us to acquire financing on acceptable terms or at all. Any material decline in available funding or our ability to access our cash and cash equivalents could adversely impact our ability to meet our operating expenses, result in breaches of our contractual obligations or result in violations of federal or state wage and hour laws, any of which could have material adverse impacts on our operations and liquidity.

Furthermore, should our customers have relationships with financial institutions that fail, this may result in a delay of collecting outstanding receivables, if at all, which could have a material adverse affect on our business.

The SBA may review our Paycheck Protection Program (“PPP”) forgiveness application and if the SBA disagrees with our certification we could be subject to penalties and the repayment of our PPP loan, which could negatively impact our business, financial condition and results of operations and prospects.

During 2021, we received notification of forgiveness of our \$2.85 million PPP loan received in calendar year 2020. We must retain PPP loan documentation in our files for six years after the date of forgiveness. We believe we met the SBA’s certification requirement based on our weakened business operations during the COVID-19 pandemic and small market value. However, no assurance can be given as to the outcome if the SBA re-evaluates our loan certification. The SBA could determine we did not qualify in whole or in part for loan forgiveness. In addition, it is unknown what type of penalties could be assessed against us if the SBA disagrees with our certification. We could be required to repay the PPP loan. Any penalties in addition to the potential repayment of the PPP loan could negatively impact our business, financial condition and results of operations and prospects.

The price of our common stock and warrants has been, and may continue to be, volatile, and you could lose all or part of your investment.

Technology stocks have historically experienced high levels of volatility. The trading price and volume of our common stock and warrants have fluctuated, and may continue to fluctuate, substantially due to a variety of factors, including those described in this “*Risk Factors*” section, many of which are beyond our control and may not be related to our operating performance. These fluctuations could cause you to lose all or part of your investment in our common stock.

In addition, if the market for technology stocks or the stock market in general experiences a loss of investor confidence, the trading price of our common stock and/or warrants could decline for reasons unrelated to our business, results of operations or financial condition. The trading price of our common stock and warrants might also decline in reaction to events that affect other companies in our industry even if these events do not directly affect us. In the past, following periods of volatility in the trading price of a company’s securities, securities class action litigation has often been brought against that company. If our stock price is volatile, we may become the target of securities litigation. Securities litigation could result in substantial costs and divert our management’s attention and resources from our business. This could have an adverse effect on our business, results of operations and financial condition.

Specifically, while we cannot state for certainty what circumstances are causing volatility in our stock price, such volatility may be attributable in part to the following factors:

- price and volume fluctuations in the overall stock market from time to time;
- the announcement of new products, solutions or technologies, investments, commercial relationships, acquisitions or other events by us or our competitors;
- changes in how customers perceive the benefits of our products and future offerings;
- the addition or departure of key personnel, including, but not limited to the successful transition of our Chief Executive Officer;
- the public's reaction to our press releases, other public announcements and filings with the SEC;
- sales of large blocks of our common stock or warrants;
- developments concerning intellectual property rights;
- changes in legal, regulatory and enforcement frameworks impacting our products;
- variations in our and our competitors' results of operations;
- whether our results of operations meet the expectations of securities analysts or investors;
- actual or anticipated fluctuations in our quarterly and annual results and those of other public companies in our industry;
- the failure of securities analysts to publish research about us, or shortfalls in our results of operations compared to levels forecast by securities analysts;
- actual or perceived significant data breach involving our products or website;
- litigation involving us, our industry or both;
- governmental or regulatory actions or audits;
- general economic conditions and trends;
- "flash crashes," "freeze flashes" or other glitches that disrupt trading on the securities exchange on which we are listed; and
- major catastrophic events in our domestic and foreign markets, such as, but not limited to, natural disasters, terrorist attacks, cyber-attacks or disease outbreak, epidemic or pandemic, including the ongoing effects of COVID-19 and its variants.

Furthermore, the trading price of our Common Stock has recently been volatile during relatively short time periods. For example, on December 28, 2022 our Common Stock traded at an intraday low of \$0.75, whereas on February 2, 2023 our Common Stock traded at an intraday high of \$1.15. We believe the volatility in the trading price and price range of our Common Stock may be the result of a number of factors, many of which are outside our control. Any increase in the trading price of our Common Stock may not be sustained. In the event of a rapid decrease in the trading price of our Common Stock, investors could lose a significant portion of their investment.

Our failure to meet the continued listing requirements of the Nasdaq Capital Market could adversely affect our business and our ability to maintain the listing of our common stock on the Nasdaq Capital Market.

If we fail to satisfy the continued listing requirements of Nasdaq Capital Market, such as corporate governance requirements or the minimum bid requirement, Nasdaq may take steps to delist our common stock. Such a delisting would likely have a negative effect on the price of our common stock and would impair our stockholders' ability to sell or purchase shares of our common stock when they wish to do so. In the event of a delisting, we can provide no assurance that any action taken by us to restore compliance with listing requirements would allow our common stock to be listed again, stabilize the market price or improve the liquidity of our common stock, prevent our common stock from dropping below the Nasdaq minimum bid price requirement or prevent future non-compliance with Nasdaq listing requirements.

If securities or industry analysts do not publish or cease publishing research or reports about us, our business or our market, or if they change their recommendations regarding our common stock adversely, the price and trading volume of our common stock could decline.

The trading market for our common stock may be influenced by the research and reports that industry or securities analysts may publish about us, our business, our market or our competitors. We currently have a limited number of securities and industry analysts who publish research on us. If we are unable to increase our analysts coverage or these current analysts cease to publish research on us, our stock price and trading volume could be negatively impacted. If any of the analysts who cover us change their recommendation regarding our stock adversely, or provide more favorable relative recommendations about our competitors, the price of our common stock could decline. If any analyst who may cover us were to cease coverage of us or fail to regularly publish reports, we could lose visibility in the financial markets, which could cause our stock price or trading volume to decline.

We do not currently intend to pay dividends on our common stock and, consequently, your ability to achieve a return on your investment will depend on appreciation in the price of our common stock.

We have never declared nor paid any cash dividends on our capital stock. We do not expect to declare or pay any cash dividends in the foreseeable future. Any determination to pay dividends in the future will be at the discretion of our board of directors. As a result, stockholders must rely on sales of their common stock after price appreciation as the only way to realize any future gains on their investment, if any.

Delaware law and our certificate of incorporation and bylaws contain certain provisions, including anti-takeover provisions that limit the ability of stockholders to take certain actions and could delay or discourage takeover attempts that stockholders may consider favorable.

Our certificate of incorporation, bylaws and the Delaware General Corporation Law ("DGCL") contain provisions that could have the effect of rendering more difficult, delaying, or preventing an acquisition deemed undesirable by our board of directors and therefore could depress the trading price of our common stock and warrants. These provisions could also make it difficult for stockholders to take certain actions, including effecting changes in our management. Among other things, our certificate of incorporation and bylaws include provisions regarding:

- a classified board of directors with three-year staggered terms, which could delay the ability of stockholders to change the membership of a majority of our board of directors;
- the ability of our board of directors to issue shares of preferred stock, including "blank check" preferred stock and to determine the price and other terms of those shares, including preferences and voting rights, without stockholder approval, which could be used to significantly dilute the ownership of a hostile acquirer;
- the limitation of the liability of, and the indemnification of, our directors and officers;
- the exclusive right of our board of directors to elect a director to fill a vacancy created by the expansion of our board of directors or the resignation, death or removal of a director, which prevents stockholders from being able to fill vacancies on our board of directors;
- the requirement that directors may only be removed from our board of directors for cause;
- a prohibition on stockholder action by written consent, which forces stockholder action to be taken at an annual or special meeting of stockholders and could delay the ability of stockholders to force consideration of a stockholder proposal or to take action, including the removal of directors;
- the requirement that a special meeting of stockholders may be called only by our board of directors, the chairperson of our board of directors, chief executive officer or president (in the absence of a chief executive officer), which could delay the ability of stockholders to force consideration of a proposal or to take action, including the removal of directors;
- controlling the procedures for the conduct and scheduling of board of directors and stockholder meetings;
- the requirement for the affirmative vote of holders of at least 66 $\frac{2}{3}$ % of the voting power of all of the then outstanding shares of the voting stock, voting together as a single class, to amend, alter, change or repeal any provision of our certificate of incorporation or bylaws, which could preclude stockholders from bringing matters before annual or special meetings of stockholders and delay changes in our board of directors and also may inhibit the ability of an acquirer to effect such amendments to facilitate an unsolicited takeover attempt;
- the ability of our board of directors to amend the bylaws, which may allow our board of directors to take additional actions to prevent an unsolicited takeover and inhibit the ability of an acquirer to amend the bylaws to facilitate an unsolicited takeover attempt; and
- advance notice procedures with which stockholders must comply to nominate candidates to our board of directors or to propose matters to be acted upon at a stockholders' meeting, which could preclude stockholders from bringing matters before annual or special meetings of stockholders and delay changes in our board of directors and also may discourage or deter a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of the Company.

These provisions, alone or together, could delay or prevent hostile takeovers and changes in control or changes in our board of directors or management.

In addition, as a Delaware corporation, we are subject to provisions of Delaware law, including Section 203 of the DGCL, which may generally prohibit certain stockholders holding 15% or more of our outstanding capital stock from engaging in certain business combinations with us for a specified period of time unless certain conditions are met.

Any provision of our certificate of incorporation, bylaws or Delaware law that has the effect of delaying or preventing a change in control could limit the opportunity for stockholders to receive a premium for their shares of our capital stock and could also affect the price that some investors are willing to pay for our common stock.

Our certificate of incorporation designates a state or federal court located within the State of Delaware as the exclusive forum for substantially all disputes between us and our stockholders, and also provides that the federal district courts will be the exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act or Exchange Act, each of which could limit our stockholders' ability to choose the judicial forum for disputes with us or our directors, officers, or employees.

Our certificate of incorporation provides that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware shall be sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of the Company, (ii) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee or agent to us or our stockholders, (iii) any action asserting a claim against us arising pursuant to any provision of the DGCL or our certificate of incorporation or bylaws, (iv) any action to interpret, apply, enforce or determine the validity of our certificate of incorporation or bylaws, or (v) any action asserting a claim against us governed by the internal affairs doctrine, in each such case subject to said Court of Chancery having personal jurisdiction over the indispensable parties named as defendants therein. Unless we consent in writing to the selection of an alternative forum, the federal district courts of the United States of America shall be the exclusive forum for the resolution of any complaint asserting a cause of action arising under the Securities Act or the Exchange Act.

Any person or entity purchasing or otherwise acquiring any interest in any of our securities shall be deemed to have notice of and consented to this provision. These exclusive-forum provisions may limit a stockholder's ability to bring a claim in a judicial forum of its choosing for disputes with us or our directors, officers or other employees, which may discourage lawsuits against us and our directors, officers and other employees. If a court were to find either exclusive-forum provision in our certificate of incorporation to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving the dispute in other jurisdictions, which could harm its results of operations.

Risks Related to our Digital Asset Holdings

Our bitcoin acquisition strategy exposes us to various risks associated with bitcoin.

During the fourth quarter of 2021, our board of directors approved certain purchases by the Company of bitcoin, which we currently hold.

We are continually examining the risks and rewards of our bitcoin acquisition strategy. This strategy has not been tested over time or under various market conditions. Some investors and other market participants may disagree with this strategy or actions we undertake to implement it. If the price of bitcoin falls or our bitcoin acquisition strategy otherwise proves unsuccessful, it would adversely impact our financial condition, results of operations, and the market price of our common stock.

As of December 31, 2022, we held approximately 605 bitcoins that were acquired at an aggregate purchase price of approximately \$35 million and an average purchase price of approximately \$57,804 per bitcoin, inclusive of fees and expenses. As part of our overall corporate strategy, we may purchase additional bitcoin in future periods, and may also sell bitcoin in future periods as needed to generate cash for operating purposes.

While our bitcoin is currently owned directly by us, we may investigate other potential approaches to holding our bitcoin assets. If we change the means by which we hold our bitcoin assets, the accounting treatment for our bitcoin may correspondingly change. A change in the accounting treatment of our bitcoin holdings could have a material impact on our results of operations in future periods and could increase the volatility of our reported results of operations as well as affect the carrying value of our bitcoin on our balance sheet, which in turn could have a material adverse effect on our financial results and the market price of our common stock.

Bitcoin is a highly volatile asset that has traded below \$16,000 and above \$48,000 per bitcoin during 2022. Bitcoin does not pay interest or other returns and so our ability to generate cash from our bitcoin holdings depends on sales or implementing strategies that we may consider to create income streams or otherwise generate funds using our bitcoin holdings, including financing our bitcoin with loans from third parties. Furthermore, the impact of our bitcoin holdings on our financial results and the market price of our common stock may be impacted by the trading price of bitcoin at any given time.

The prices of digital currencies, including bitcoin and ethereum, may be influenced by regulatory, commercial, and technical factors that are highly uncertain, and fluctuations in the price of bitcoin are likely to influence our financial results and the market price of our common stock.

Fluctuations in the trading prices of digital assets are likely to influence our financial results and the market price of our common stock. Our financial results and the market price of our common stock would be adversely affected and our business and financial condition could be negatively impacted if the price of bitcoin decreased substantially, including as a result of:

- decreased user and investor confidence in digital assets;
- investment and trading activities of highly active retail and institutional users, speculators, miners and investors;
- negative publicity or events relating to digital assets;
- negative or unpredictable media or social media coverage on digital assets;
- public sentiment related to the actual or perceived environmental impact of bitcoin, ethereum and related activities, including environmental concerns raised by private individuals and governmental actors related to the energy resources consumed in the bitcoin mining process;
- changes in consumer preferences and the perceived value of bitcoin or ethereum;
- competition from other crypto assets that are believed to exhibit better speed, security, scalability, or other characteristics, or that are backed by governments, including the U.S. government;
- correlations between the prices of digital assets, including the potential that a crash in one digital asset or widespread defaults on one digital asset exchange or trading venue may cause a crash in the price of bitcoin, or a series of defaults by counterparties on bitcoin asset exchanges or trading venues;
- the identification of Satoshi Nakamoto, the pseudonymous person or persons who purportedly developed bitcoin, or the transfer of Satoshi's bitcoin;
- interruptions in service or failures of the principal markets for or market participants active in trading involving bitcoin, ethereum or other digital assets;
- further reductions in mining rewards of bitcoin, including block reward halving events, which are events that occur after a specific period of time that reduce the block reward earned by "miners" who validate bitcoin and ethereum transactions;
- transaction congestion and fees associated with processing transactions on the bitcoin or ethereum network;
- changes in the level of interest rates and inflation, monetary policies of governments, trade restrictions, and fiat currency devaluations;
- developments in mathematics or technology, including in digital computing, algebraic geometry and quantum computing, that could result in the cryptography being used by digital assets becoming insecure or ineffective; and
- national and international economic and political conditions.

In addition, bitcoin, ethereum and other digital assets are relatively novel and are subject to various risks and uncertainties that may adversely impact their prices. The application of securities, commodities and other laws and other regulations to such assets is unclear in certain respects, and it is possible that new laws and regulations, or interpretations of existing laws and regulations, in the United States or foreign countries may adversely affect the price of our bitcoin, ethereum and other digital assets. For example, foreign government authorities have recently expanded their efforts to restrict certain activities related to bitcoin and other digital assets. In China, the People's Bank of China and the National Development and Reform Commission have outlawed cryptocurrency mining and declared all cryptocurrency transactions illegal within the country. In India, based on statements made by government personnel, including the Finance Minister, one can conclude that cryptocurrency is illegal in the country. In July 2022, Russia enacted a law banning payments in cryptocurrency for goods and services. Moreover, the risks of engaging in a bitcoin-focused treasury strategy are relatively novel and have created, and may create further, complications due to the lack of experience that third parties have with companies engaging in such a business, such as the unavailability of director and officer liability insurance on acceptable terms.

The growth of the digital assets industry in general, and the use and acceptance of bitcoin and ethereum in particular, may also impact the price of our digital asset holdings and is subject to a high degree of uncertainty. The pace of worldwide growth in the adoption and use of bitcoin may depend, for instance, on public familiarity with digital assets, ease of buying and accessing bitcoin, institutional demand for bitcoin as an investment asset or store of value, consumer demand for bitcoin as a means of payment or store of value, and the availability and popularity of alternatives to bitcoin. Even if growth in bitcoin adoption occurs in the near or medium-term, there is no assurance that bitcoin usage will continue to grow over the long-term.

Because bitcoin and ethereum have no physical existence beyond the record of transactions on their respective blockchains, a variety of technical factors related to the bitcoin blockchain could also impact the price of bitcoin. For example, malicious attacks by miners, inadequate mining fees to incentivize validating of transactions, hard "forks" of the blockchain into multiple blockchains, and advances in digital computing, algebraic geometry and quantum computing could undercut the integrity of the blockchain and negatively affect the price of our digital asset holdings. The liquidity of bitcoin and ethereum may also be reduced and damage to the public perception of bitcoin and ethereum may occur, if financial institutions were to

deny banking services to businesses that hold digital assets, provide digital asset-related services or accept digital assets as payment, which could also decrease the price of our digital asset holdings.

Our historical financial statements do not reflect the potential variability in earnings that we may experience in the future relating to our digital asset holdings.

Our historical financial statements do not fully reflect the potential variability in earnings that we may experience in the future from holding or selling significant amounts of digital assets.

The prices of bitcoin and ethereum have historically been subject to dramatic price fluctuations and are highly volatile. As explained more fully in Note 2 to our consolidated financial statements for the year ended December 31, 2022 included in this Annual Report on Form 10-K, as required by current accounting standards, we determine the fair value of our digital assets based on quoted (unadjusted) prices. We perform an analysis each quarter to identify whether events or changes in circumstances, principally decreases in the quoted (unadjusted) prices of digital assets on an active exchange, indicate that it is more likely than not that any of our digital assets are impaired. In determining if an impairment has occurred, we consider the lowest price of one digital asset quoted on an active exchange at any time since acquiring the specific asset. If the carrying value exceeds that lowest price at any time during the quarter, an impairment loss is deemed to have occurred with respect to that digital asset in the amount equal to the difference between its carrying value and such lowest price, and subsequent increases in the price will not be adjusted upward. Gains (if any) are not recorded until realized upon sale. In determining the gain to be recognized upon sale, we calculate the difference between the sale price and carrying value of the specific digital asset sold immediately prior to sale.

As a result, any decrease in the fair value of our digital assets below their respective carrying value for such assets at any time since their acquisition requires us to incur an impairment charge, and such charge could be material to our financial results for the applicable reporting period, which may create significant volatility in our reported earnings and decrease the carrying value of our digital assets, which in turn could have a material adverse effect on the market price of our common stock.

As of December 31, 2022, we held \$10.1 million of digital assets on our balance sheet and recognized \$22.9 million digital asset impairment losses during the year ended December 31, 2022, which represented 45% of our net losses.

We have purchased and may purchase from time to time additional digital assets, and we may engage in other non-traditional treasury strategies in future periods. As a result, the proportion of our total assets represented by digital asset holdings may increase in the future, and volatility in our earnings in future periods may be significantly more than what we experienced in prior periods.

Due to the unregulated nature and lack of transparency surrounding the operations of many digital asset trading venues, they may experience fraud, security failures or operational problems, which may adversely affect the value of our digital asset holdings. In the event of a bankruptcy filing by a custodian, bitcoin held in custody could be determined to be property of a bankruptcy estate and we could be considered a general unsecured creditor thereof.

Digital asset trading venues are relatively new and, in some cases, unregulated or subject to regulatory uncertainty. Furthermore, many digital asset trading venues do not provide the public with significant information regarding their ownership structure, management teams, corporate practices and regulatory compliance. As a result, the marketplace may lose confidence in these trading venues, including prominent digital asset exchanges that handle a significant volume of trading, in the event one or more trading venues experience fraud, security failures or operational problems.

For example, in the first half of 2022, each of Celsius Network, Voyager Digital Ltd., and Three Arrows Capital declared bankruptcy, resulting in a loss of confidence in participants of the digital asset ecosystem and negative publicity surrounding digital assets more broadly. In November 2022, FTX, the third largest digital asset exchange by volume at the time, halted customer withdrawals and shortly thereafter, FTX and its subsidiaries filed for bankruptcy.

In response to these events, the digital asset markets, including the market for bitcoin specifically, have experienced extreme price volatility and several other entities in the digital asset industry have been, and may continue to be, negatively affected, further undermining confidence in the digital assets markets and in bitcoin. If the liquidity of the digital assets markets continues to be negatively impacted by these events, digital asset prices (including the price of bitcoin) may continue to experience significant volatility and confidence in the digital asset markets may be further undermined. These events are continuing to develop, and it is not possible to predict at this time all of the risks that they may pose to us, our service providers or on the digital asset industry as a whole.

A perceived lack of stability among digital asset exchanges and the closure or temporary shutdown of any significant digital asset exchanges due to business failure, hackers or malware, government-mandated regulation, or fraud, may reduce

confidence in digital asset networks and result in greater volatility in digital asset values. To the extent investors view our common stock as linked to the value of our digital asset holdings, particularly bitcoin, these potential consequences of a trading venue's failure could have a material adverse effect on the market price of our common stock.

Furthermore, the treatment of bitcoins held by custodians that file for bankruptcy protection is uncharted territory in U.S. Bankruptcy law. We cannot say with certainty whether bitcoin held in custody by a bankrupt custodian would be treated as property of a bankruptcy estate and, accordingly, whether the owner of that bitcoin would be treated as a general unsecured creditor.

The concentration of our digital asset holdings enhances the risks inherent in our digital asset treasury strategy.

As of December 31, 2022, the carrying value of our digital asset holdings represented approximately 18% of our total assets, a majority of which is held in bitcoin and ethereum. We may purchase additional digital assets and increase our overall holdings of bitcoin and ethereum in the future, as well as, accept bitcoin and ethereum as payment for PhunToken and our products and services. The concentration of our digital asset holdings limit the risk mitigation that we could take advantage of by purchasing a more diversified portfolio of treasury assets, and the absence of diversification enhances the risks inherent of a traditional treasury strategy. If there is a significant decrease in the price of bitcoin or ethereum, we will experience a more pronounced impact on our financial condition than if we used our cash to purchase a more diverse portfolio of assets.

We have sold a portion of our bitcoin holdings as a source of liquidity and may be required to continue this in the future during a time of market volatility, which may result in selling our digital assets at a significant loss.

We have currently adopted bitcoin as our primary treasury reserve asset. During 2022, we sold some of our bitcoin holdings as a source of liquidity to fund operations. Historically, the digital asset markets have been characterized by more price volatility, a relative anonymity, a developing regulatory landscape, susceptibility to market abuse and manipulation, and various other risks inherent in its entirely electronic, virtual form and decentralized network. During times of market instability, we may not be able to sell our bitcoin or other digital asset holdings at reasonable prices or at all. If we are unable to sell our digital assets, or if we are forced to sell our digital assets at a significant loss in order to meet our working capital requirements, our business and financial condition could be negatively impacted.

If we or our third-party service providers experience a security breach or cyberattack and unauthorized parties obtain access to our digital asset holdings, we may lose some or all of our digital assets and our financial condition and results of operations could be materially adversely affected.

Security breaches and cyberattacks are of particular concern with respect to digital assets. Bitcoin, ethereum and other digital assets have been, and may in the future be, subject to security breaches, cyberattacks, or other malicious activities. A successful security breach or cyberattack could result in:

- a partial or total loss of our holdings in a manner that may not be covered by insurance;
- harm to our reputation and brand;
- improper disclosure of data and violations of applicable data privacy and other laws; or
- significant regulatory scrutiny, investigations, fines, penalties, and other legal, regulatory, contractual and financial exposure.

Further, any actual or perceived security breach or cybersecurity attack directed at other companies with digital assets or companies that operate digital asset networks or exchanges, whether or not we are directly impacted, could lead to a general loss of confidence in the broader digital asset ecosystem or in the use of networks to conduct financial transactions, which could negatively impact us.

Attacks upon systems across a variety of industries, including industries related to digital assets, are increasing in frequency, persistence and sophistication, and, in many cases, are being conducted by sophisticated, well-funded and organized groups and individuals, including state actors. The techniques used to obtain unauthorized, improper or illegal access to systems and information (including personal data and digital assets), disable or degrade services, or sabotage systems are constantly evolving, may be difficult to detect quickly, and often are not recognized or detected until after they have been launched against a target. These attacks may occur on our systems or those of our third-party service providers or partners. We may experience breaches of our security measures due to human error, malfeasance, insider threats, system errors or vulnerabilities or other irregularities. In particular, unauthorized parties have attempted, and we expect that they will continue to attempt, to gain access to our systems and facilities, as well as those of our partners and third-party service providers, through various means, such as hacking, social engineering, phishing and fraud. Threats can come from a variety of sources, including criminal hackers,

hacktivists, state-sponsored intrusions, industrial espionage and insiders. In addition, certain types of attacks could harm us even if our systems are left undisturbed. For example, certain threats are designed to remain dormant or undetectable, sometimes for extended periods of time, or until launched against a target and we may not be able to implement adequate preventative measures. Further, there has been an increase in such activities as a result of the COVID-19 pandemic, and there could be additional breaches as a result of the ongoing conflicts involving Ukraine and other countries. Any future security breach of our operations or those of others in the digital asset industry, including third-party services on which we rely, could materially and adversely affect our digital asset holding and financial condition.

The loss or destruction of a private key required to access our digital asset wallets may be irreversible. If we are unable to access our private keys or if we experience a cyberattack or other data loss relating to our digital asset holdings, our financial condition and results of operations could be materially adversely affected.

Our digital assets are controllable only by the possessor of both the unique public keys and private keys relating to the local or online digital wallets in which our digital assets are held. While the blockchain ledger requires a public key relating to a digital wallet to be published when used in a transaction, private keys must be safeguarded and kept private in order to prevent a third party from accessing the assets held in such wallet. To the extent our private key is lost, destroyed, or otherwise compromised and no backup of the private key is accessible, we will be unable to access our digital assets held in the related digital wallet. Furthermore, we cannot provide assurance that our digital wallets will not be compromised as a result of a cyberattack. The blockchain ledger, as well as digital assets and blockchain technologies, have been, and may in the future be, subject to security breaches, cyberattacks or other malicious activities.

A determination that bitcoin or any other digital asset is a "security" could lead to our classification as an "investment company" under the Investment Company Act of 1940 and could adversely affect the market price of our digital asset holdings and the market price of our common stock.

The SEC has stated that certain digital assets may be considered "securities" under the federal securities laws. The test for determining whether a particular digital asset is a "security" is complex and the outcome is difficult to predict. It is possible that the SEC could take a contrary position to the one taken by its senior officials or a federal court could conclude that bitcoin or any other digital assets we hold are securities. Such a determination could lead to our classification as an "investment company" under the Investment Company Act of 1940, as amended (the "Investment Company Act"), which would subject us to significant additional regulatory controls, potential fines and regulatory charges, all of which could have a material adverse effect on our business and operations and also may require us to substantially change the manner in which we conduct our business.

In addition, if bitcoin or any other digital asset we hold are determined to be securities for purposes of the federal securities laws, the additional regulatory restrictions imposed by such a determination could adversely affect the market price of bitcoin or such other digital assets and in turn adversely affect the market price of our common stock.

Risks Related to our Token Ecosystem and Tokens

We have raised capital to fund a Token Generation Event of rights to receive future PhunCoin, and beginning in 2021 we created and sold PhunToken. There can be no assurance that PhunCoin will ever be issued, and any significant difficulties we may experience with the offerings of PhunCoin or sales of PhunToken could result in claims against us. Additionally, the Token Generation Event and the offerings of PhunCoin and sales of PhunToken could subject us to various other business and regulatory uncertainties.

In June 2018, we raised capital by offering investors rights to acquire PhunCoin ("Rights") pursuant to Rule 506(c) of Regulation D as promulgated under the Securities Act. In addition, in 2019, PhunCoin, Inc. commenced an offering of Rights pursuant to Regulation CF, which closed May 1, 2019. As of December 31, 2022, a total of \$1.2 million has been raised in both Rights offerings.

During the second quarter of 2019, Phunware announced the launch of a separate token, PhunToken, by our wholly owned subsidiary, Phun Token International, which enables holders to participate in our blockchain-enabled data exchange and mobile loyalty engagement ecosystem. As of December 31, 2022, we sold an aggregate of \$2.6 million of PhunToken. Upon sale of PhunToken to customers, we deliver PhunToken to the respective customer's Ethereum-based wallet.

We will use commercially reasonable efforts to develop the Token Ecosystem, deliver PhunCoin and PhunToken, respectively, but there is no assurance that such efforts will be successful. If the Token Generation Event, defined as the launch of the Token Ecosystem, is not consummated, our sales of PhunCoin and additional sales of PhunToken may not result in substantial proceeds. If the Token Generation Event is not consummated and/or PhunCoin or PhunToken is not adopted commercially, we may have to reduce our planned expenditures. Also, any significant difficulties we may experience with the Token Generation Event, the delivery of PhunCoin or the continued sales and delivery of PhunToken could result in claims against us which could have a material adverse effect on our financial condition.

The further development and acceptance of blockchain networks, which are part of a new and rapidly changing industry, are subject to a variety of factors that are difficult to evaluate. The slowing or stopping of the development or acceptance of blockchain networks and blockchain assets could have a material adverse effect on our business plans, which may have a material adverse effect on the Company and our stockholders.

The growth of the blockchain industry in general, as well as the networks on which we will rely to consummate the Token Generation Event, is subject to a high degree of uncertainty. The digital asset and digital asset industries as a whole have been characterized by rapid changes and innovations and are constantly evolving. The slowing or stopping of the development, general acceptance and adoption and usage of blockchain networks and digital assets may materially adversely affect our business plans to launch and maintain PhunCoin, sell PhunToken and continue to develop the Token Ecosystem. For example, given the regulatory complexity and uncertainty with respect to digital assets, complying with such laws and regulations, which could change in the future or be subject to new interpretations, could have a material and adverse effect on our ability to develop, launch and continue to operate PhunCoin, PhunToken and the Token Ecosystem. In addition, the tax and accounting consequences to us of the Token Generation Event, PhunCoin, PhunToken and the Token Ecosystem could lead to incorrect reporting, classification or liabilities. If the Token Generation Event occurs and PhunCoin is launched and developed and PhunToken is further developed, the structural foundation of PhunCoin and PhunToken, and the software applications and other interfaces or applications upon which PhunCoin, PhunToken and the Token Ecosystem rely or on which PhunCoin, PhunToken and the Token Ecosystem may rely in the future, are and will be unproven. There can be no assurances that PhunCoin or PhunToken will be fully secure, which may result in impermissible transfers, a complete loss of users' PhunCoin or PhunToken, or an unwillingness of users to access, adopt and utilize PhunCoin or PhunToken or the Token Ecosystem, whether through system faults or malicious attacks. Any such faults or attacks on PhunCoin or PhunToken may materially and adversely affect our business.

Because our tokens will be digital assets built and transacted initially on top of existing third-party blockchain technology, Phunware is reliant on another blockchain network, and users could be subject to the risk of wallet incompatibility and blockchain protocol risks.

Reliance upon another blockchain technology to create, develop and maintain the Token Ecosystem subjects us and Token Ecosystem users to the risk of digital wallet incompatibility, or additional ecosystem malfunction, unintended function, unexpected functioning of, or attack on, the providers' blockchain protocol, which may cause PhunCoin or PhunToken to malfunction or function in an unexpected manner, including, but not limited to, slowdown or complete cessation in functionality of the Token Ecosystem.

The development and operation of the Token Ecosystem will likely require additional technology and intellectual property rights.

Our ability to develop and operate the Token Ecosystem may depend on technology and intellectual property rights that we may license from unaffiliated third parties. If for any reason we were to fail to comply with our obligations under any applicable license agreement, or were unable to provide or were to fail to provide the technology and intellectual property that the Token Ecosystem requires, it would be unable to operate, which could have a material adverse effect on the Company's operations and financial condition and its ability to develop, enhance, and maintain the Token Ecosystem.

Some of our Token Ecosystem code and protocols rely on open source code publicly available. The open-source structure of some of the Token Ecosystem protocols means that the Token Ecosystem may be susceptible to developments by users or contributors that could damage the Token Ecosystem and our reputation and could affect the sale and utilization of PhunCoin, PhunToken and the Token Ecosystem.

The open-source nature of the Token Ecosystem protocol also means that it may be difficult for the Company or contributors maintain or develop the Token Ecosystem and the Company may not have adequate resources to address emerging issues or malicious programs that develop within the Token Ecosystem or expand functionality of the Token Ecosystem adequately or in a timely manner. Third parties not affiliated with us may introduce weaknesses or bugs into the core infrastructure elements of the Token Ecosystem and open-source code which may negatively impact the Token Ecosystem. Such events may result in a loss of trust in the security and operation of the Token Ecosystem and a decline in user activity and could negatively impact the sale and utilization of and development, acceptance and adoption of the Token Ecosystem, PhunCoin and PhunToken.

Open source software is generally freely accessible, usable and modifiable. Certain open source licenses may, in certain circumstances, require us to offer the components of our Token Ecosystem that incorporate the open source software for no cost, that we make available source code for modifications or derivative works we create based upon, incorporating or using the open source software and that we license such modifications or derivative works under the terms of the particular open source license. If an author or other third party that distributes open source software we use were to allege that we had not complied with the conditions of one or more of these licenses, we could be required to incur significant legal expenses defending against such allegations and could be subject to significant damages, including being enjoined from the offering of the components of our Token Ecosystem that contained the open source software and being required to comply with the foregoing conditions, which could disrupt our ability to offer the affected software. We could also be subject to suits by parties claiming ownership of what we believe to be open source software. Litigation could be costly for us to defend, have a negative effect on our operating results and financial condition and require us to devote additional research and development resources to change our products.

The Token Ecosystem is designed to distribute PhunCoin or PhunToken to consumers who provide certain personal information to us. Providing this data exposes us to risks of privacy data breach and cybersecurity attacks.

We utilize a substantial amount of electronic information. This includes transaction information and sensitive personal information of the users of the Token Ecosystem. The service providers used by us, may also use, store, and transmit such information. We intend to implement detailed privacy and cybersecurity policies and procedures and an incident response plan designed to protect such sensitive personal information and prevent data loss and security breaches.

There can be no assurances that PhunCoin, PhunToken or a user's data will be fully secure, which may result in impermissible transfer, a complete loss of users' PhunCoin, PhunToken or data on the Token Ecosystem, whether through system faults or malicious attacks, or an unwillingness of users to access, adopt and utilize PhunCoin and PhunToken. Any such faults or attacks on PhunCoin, PhunToken or users' data may materially and adversely affect PhunCoin, PhunToken and the Token Ecosystem. There are a number of data protection, security, privacy and other government- and industry-specific requirements, including those that require companies to notify individuals of data security incidents involving certain types of personal data. Security compromises could harm the Token Ecosystem's reputation, erode user confidence in the effectiveness of its security measures, negatively impact its ability to attract new users, or cause existing users to stop using the Token Ecosystem, or purchasing and using or consuming PhunCoin and PhunToken. We may be compelled to disclose personal information about a user or users of the Token Ecosystem to federal or state government regulators or taxation authorities. Accordingly, certain information concerning users may be shared outside Phunware.

The Token Ecosystem may be the target of malicious cyberattacks or may contain exploitable flaws in its underlying code, which may result in security breaches and the loss or theft of PhunCoin or PhunToken. If Token Ecosystem's security is compromised or if the Token Ecosystem is subjected to attacks that frustrate or thwart our users' ability to access the Token Ecosystem, their PhunCoin, PhunToken or the Token Ecosystem products and services, users may cease using the Token Ecosystem altogether.

The Token Ecosystem uses and will use new technology. There are no guarantees that such technology will be bug-free or accepted by the marketplace. Thus, even if the Token Ecosystem is operational, our tokens may be subject to the risk of theft, loss, malfunction, or reputational risk, any of which can significantly degrade the potential use of PhunCoin and PhunToken.

The Token Ecosystem structural foundation, the open-source protocols, the software application and other interfaces or applications built upon the Token Ecosystem are still in an early development stage and are unproven, and there can be no assurances that the Token Ecosystem and the creation, transfer or storage of PhunCoin and PhunToken will be uninterrupted or fully secure which may result in a complete loss of users' PhunCoin or PhunToken or an unwillingness of users to access, adopt and utilize the Token Ecosystem. Further, the Token Ecosystem may also be the target of malicious attacks seeking to identify and exploit weaknesses in the software or the Token Ecosystem which may result in the loss or theft of PhunCoin or PhunToken. For example, if our tokens and the Token Ecosystem are subject to unknown and known security attacks (such as double-spend attacks, 51% attacks, or other malicious attacks), such attacks may materially and adversely affect the Token Ecosystem. In any such event, if the Token Ecosystem is not widely adopted, Purchasers of PhunCoin may lose all of their investment and customers of PhunToken may hold a coin for which there is no market to transact.

The Token Ecosystem is susceptible to mining attacks.

As with other decentralized digital assets, the blockchain used in connection with PhunCoin, PhunToken and the Token Ecosystem may be susceptible to mining attacks, including double-spend attacks, majority mining power attacks, selfish-mining attacks, and race condition attacks. Any successful attacks present a risk to the Token Ecosystem and our tokens. Despite efforts by us, the risk of known or novel mining attacks exists.

Alternative platforms or networks may be established that compete with or are more widely used than the Token Ecosystem. It is possible that alternative platforms or networks could be established that utilize the same or similar protocols underlying the Token Ecosystem or attempt to facilitate services or strategies that are materially similar to the Token Ecosystem's services or strategies. The introduction of these alternative networks and the potential entry of new competitors into the market could harm our ability to increase sales, which could negatively impact the Token Ecosystem, PhunCoin and PhunToken.

There is no trading market for PhunCoin.

There is no established public market for PhunCoin. Peer-to-peer transfers will not be permitted unless and until rights holders are notified otherwise by us and informed of the requirements and conditions to do so. There can be no assurance that a secondary market will develop or, if a secondary market does develop, that it will provide the holders of the PhunCoin rights with liquidity of investment or that it will continue for the life of PhunCoin. The liquidity of any market will depend on a number of factors, including, but not limited: (i) the number of holders; (ii) the performance of PhunCoin; (iii) the market for similar crypto assets; (iv) the interest of traders in making a market for PhunCoin; (v) regulatory developments in the digital token or cryptocurrency industries and (vi) legal restrictions on transfer. In the event that PhunCoin remains untradeable for a significant period of time or indefinitely, their value could be materially adversely affected.

The delay, or perceived delay, in the full development of our Token Ecosystem may result in declines in PhunToken revenue.

PhunToken is intended to be used or consumed within our Token Ecosystem. We can provide no assurance, as to when, or if, we will be able to successfully complete the development of the Token Ecosystem. If we are unable to fully develop the Token Ecosystem, PhunToken customers or potential PhunToken customers may seek to find alternate methods to use, consume or transact their PhunToken. Secondary markets, some of which we may not be aware of, may develop as a result. The development of an alternative "marketplace" in which consumers can, or believe they can, purchase PhunToken at a price lower than our current sales price, may result in lower sales and harm our financial performance.

The regulatory regime governing blockchain technologies, digital assets, digital asset exchanges and offerings of and transactions in digital assets is uncertain, and new regulations or policies may materially adversely affect the development and the value of our tokens.

Regulation of digital assets, like PhunCoin and PhunToken, blockchain technologies and digital asset exchanges, is currently expanding and likely to rapidly evolve and increase as government agencies take greater interest in them. Regulation also varies significantly among U.S. federal, state and foreign jurisdictions and is subject to significant uncertainty at this time. Various legislative and executive bodies in the United States and in other countries may in the future adopt laws, regulations, or guidance, or take other actions, which may severely impact the permissibility of tokens generally and the technology behind them or digital asset transactions. In addition, any violations of laws and regulations relating to the safeguarding of private information in connection with PhunCoin and PhunToken could subject us to fines, penalties or other regulatory actions, as well as to civil actions by affected parties. Any such violations could adversely affect our ability to maintain PhunCoin and PhunToken, which could have a material adverse effect on our operations and financial condition. Failure by us to comply with any laws, rules and regulations, some of which may not exist yet or are subject to interpretation and may be subject to change, could result in a variety of adverse consequences, including civil penalties and fines.

The sale of PhunToken or the offerings of PhunCoin may subject us to additional regulatory requirements. We will be adversely affected if we are, or any of our subsidiaries is, determined to have been subject to registration as an investment company under the Investment Company Act.

We are currently not deemed an “investment company” subject to regulation under the Investment Company Act. There is no guarantee we will continue to be exempt from registration under the Investment Company Act and were we to be deemed to be an investment company under the Investment Company Act, and thus subject to regulation under the Investment Company Act, the increased reporting and operating requirements could have an adverse impact on our business, operating results and financial condition.

In addition, if the SEC or a court of competent jurisdiction were to find that we are in violation of the Investment Company Act for having failed to register as an investment company thereunder, possible consequences include, but are not limited to, the following: (i) the SEC could apply to a district court to enjoin the violation; (ii) we could be sued by investors in us and in our securities for damages caused by the violation; and (iii) any contract to which we are a party that is made in, or whose performance involves a, violation of the Investment Company Act would be unenforceable by any party to the contract unless a court were to find that under the circumstances enforcement would produce a more equitable result than nonenforcement and would not be inconsistent with the purposes of the Investment Company Act. Should we be subjected to any or all of the foregoing, our business would be materially and adversely affected.

The prices of digital assets are extremely volatile. Fluctuations in the prices of digital assets and/or waning interest of investors in the digital asset markets could materially and adversely affect our business.

The prices of blockchain assets such as bitcoin and ethereum have historically been subject to dramatic fluctuations and are highly volatile. Several factors may influence the interest in digital assets such as PhunCoin and PhunToken, including, but not limited to:

- global digital asset supply;
- businesses' acceptance of digital assets like cryptocurrencies as payment for goods and services, the security of online digital asset exchanges and digital wallets that hold blockchain assets, the perception that the use and holding of digital assets is safe and secure, and the regulatory restrictions on their use;
- purchasers' expectations with respect to the rate of inflation;
- changes in the software, software requirements or hardware requirements underlying the Token Ecosystem;
- changes in the rights, obligations, incentives, or rewards for the users of and other participants in the Token Ecosystem;
- interest rates;
- currency exchange rates, including the rates at which digital assets may be exchanged for fiat currencies;
- fiat currency withdrawal and deposit policies of digital asset exchanges on which users may trade digital assets and liquidity on such exchanges;
- interruptions in service from or failures of major digital asset exchanges in which users may trade digital assets;
- investment and trading activities of large investors, including private and registered funds, that may directly or indirectly purchase PhunCoin or other digital assets;
- monetary policies of governments, trade restrictions, currency devaluations and revaluations;
- regulatory measures that may affect the purchase or use of digital assets, including PhunCoin and PhunToken;
- the maintenance and development of the open-source software protocol of certain digital assets;
- global or regional political, economic or financial events and conditions; or
- expectations among the Token Ecosystem or other digital asset market participants that the value and/or utility of certain digital assets will soon change.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

Our corporate headquarters is located in Austin, Texas, where, in June 2022, we entered into a lease agreement for approximately 7,458 square feet of professional office space. In March 2022, we entered into a lease agreement for approximately 21,830 square feet of manufacturing and warehouse space for our Lyte operations in Round Rock, Texas, and we relocated our Lyte operations from Gurnee, Illinois to Round Rock during the second quarter of 2022. We also currently lease professional office facilities in Irvine, California; San Diego, California; and Miami, Florida. We are currently subleasing our Irvine, California and Miami, Florida office facilities. We may also further sublease certain of these facilities where space is not fully utilized.

We currently do not anticipate difficulty in either retaining occupancy of any of our facilities through lease renewals prior to expiration or through month-to-month occupancy arrangements or replacing them with equivalent facilities. We believe that our existing facilities are suitable and adequate for our present purposes.

Item 3. Legal Proceedings.

The information set forth under the subheading "*Litigation*" in Note 10, "*Commitments and Contingencies*" of the notes to the consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K is incorporated herein by reference.

Item 4. Mine Safety Disclosures.

Not applicable.

PART II

Item 5. Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities.

Market Information

Our common stock, \$0.0001 par value, began trading on the Nasdaq Capital Market on December 28, 2018 under the symbol “PHUN”.

Holders

On March 27, 2023, there were approximately 171 holders of record of our common stock. We believe the number of beneficial owners of our common stock is substantially greater than the number of record holders because a large portion of our outstanding common stock is held of record in broker “street name” for the benefit of individual investors.

Dividends

We have not paid any cash dividends on our common stock to date. The payment of any cash dividends will be dependent upon our revenue, earnings and financial condition from time to time. The payment of any dividends is within the discretion of our board of directors. It is presently expected that we will retain all earnings for use in our business operations and, accordingly, it is not expected that our board of directors will declare any dividends in the foreseeable future.

Securities Authorized for Issuance Under Equity Compensation Plans

The information set forth under the subheading “*Securities Authorized for Issuance Under Equity Compensation Plans*” included in Part III, Item 12 of this Annual Report on Form 10-K is incorporated herein by reference.

Recent Sales of Unregistered Securities

None.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

None.

Item 6. [Reserved]

Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations.

References in this section to “we,” “us,” “our” or “the Company” refer to Phunware, Inc. References to “management” or “management team” refer to our officers and directors.

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our consolidated financial statements and the related notes thereto appearing elsewhere in this Annual Report on Form 10-K. As discussed in the section titled “*Special Note Regarding Forward-Looking Statements*,” the following discussion and analysis contains forward-looking statements that involve risks, uncertainties and assumptions. Our actual results and timing of selected events may differ materially from those anticipated in these forward-looking statements as a result of many factors, including, but not limited to, those discussed in the section titled “*Risk Factors*” and elsewhere in this Annual Report.

Certain figures, such as interest rates and other percentages, included in this section have been rounded for ease of presentation. Percentage figures included in this section have not in all cases been calculated on the basis of such rounded figures but on the basis of such amounts prior to rounding. For this reason, percentage amounts in this section may vary slightly from those obtained by performing the same calculations using the figures in our consolidated financial statements or in the associated text. Certain other amounts that appear in this section may similarly not sum due to rounding.

Key Events and Recent Developments

In October 2022, Alan S. Knitowski, our Chief Executive Officer, submitted notice of resignation to the Company effective December 27, 2022.

In November 2022, we entered into an employment agreement with Russell Buyse to serve as our Chief Executive Officer effective December 28, 2022. Our board of directors also appointed Mr. Buyse to serve as a Class III director until the 2024 annual meeting of stockholders. Mr. Buyse filled the vacancy on our board of directors created by the resignation of Randall Crowder, which occurred in September 2022.

In addition, in January 2023, we announced that we had entered into a separation agreement with Luan Dang, our Chief Technology Officer.

Overview

Phunware, Inc. offers a fully integrated software platform that equips companies with the products, solutions and services necessary to engage, manage and monetize their mobile application portfolios globally at scale. Our MaaS platform provides the entire mobile lifecycle of applications, media and data in one login through one procurement relationship. Our offerings include:

- Enterprise mobile software development kits (SDKs) including content management, location-based services, marketing automation, business intelligence and analytics, alerts, notifications and messaging, audience engagement and audience monetization;
- Integration of our SDK licenses into existing applications maintained by our customers, as well as custom application development and support services;
- Cloud-based vertical solutions, which are off-the-shelf, iOS- and Android-based mobile application portfolios, solutions and services that address: the patient experience for healthcare, the shopper experience for retail, the fan experience for sports, the traveler experience for aviation, the luxury resident experience for real estate, the luxury guest experience for hospitality, the student experience for education and the generic user experience for all other verticals and applications; and
- Application transactions for mobile audience building, user acquisition, application discovery, audience engagement and monetization, including our engagement-driven digital asset PhunToken.

We also offer and sell pre-packaged and custom high-end personal computer systems for gaming, streaming and cryptocurrency mining enthusiasts.

We intend to continue investing for long-term growth. We have invested and expect to continue investing in the expansion of our ability to market, sell and provide our current and future products and services to customers globally. We also expect to continue investing in the development and improvement of new and existing products and services to address customers' needs. We currently do not expect to be profitable in the near future.

Key Business Metrics

Our management regularly monitors certain financial measures to track the progress of our business against internal goals and targets. We believe that the most important of these measures include backlog and deferred revenue.

Backlog and Deferred Revenue. Backlog represents future amounts to be invoiced under our current software subscription and services customer agreements. At any point in the contract term, there can be amounts that we have not yet been contractually able to invoice. Until such time as these amounts are invoiced, they are not recorded in revenue, deferred revenue, accounts receivable or elsewhere in our consolidated financial statements, and are considered by us to be backlog. We expect backlog to fluctuate up or down from period to period for several reasons, including the timing and duration of customer contracts, varying billing cycles and the timing and duration of customer renewals. We reasonably expect approximately 40% of our backlog as of December 31, 2022 will be invoiced during the subsequent 12-month period, primarily due to the fact that our contracts are typically one to three years in length.

In addition, our deferred revenue consists of amounts that have been invoiced but have not yet been recognized as revenues as of the end of a reporting period. Together, the sum of deferred revenue and backlog represents the total billed and unbilled contract value yet to be recognized in revenue, and provides visibility into future revenue streams.

The following table sets forth our backlog and deferred revenue:

	December 31,	
	2022	2021
(in thousands)		
Backlog	\$ 3,824	\$ 3,316
Deferred revenue	4,178	5,272
Total backlog and deferred revenue	\$ 8,002	\$ 8,588

For further information regarding our deferred revenue balances, refer to Note 4 "Revenue" of the notes to the consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K.

Non-GAAP Financial Measures

Adjusted Gross Profit, Adjusted Gross Margin and Adjusted EBITDA

We report our financial results in accordance with GAAP. We also use certain non-GAAP financial measures that fall within the meaning ascribed in SEC Regulation G and Regulation S-K Item 10(e), which may provide users of the financial information with additional meaningful comparison to prior period results. Our non-GAAP financial measures include adjusted gross profit, adjusted gross margin and adjusted earnings before interest, taxes, depreciation and amortization ("EBITDA") (our "non-GAAP financial measures"). Management uses these measures (i) to compare operating performance on a consistent basis, (ii) to calculate incentive compensation for our employees, (iii) for planning purposes including the preparation of our internal annual operating budget and (iv) to evaluate the performance and effectiveness of operational strategies.

Our non-GAAP financial measures should be considered in addition to, not as a substitute for, or superior to, financial measures calculated in accordance with GAAP. They are not measurements of our financial performance under GAAP and should not be considered as alternatives to revenue or net loss, as applicable, or any other performance measures derived in accordance with GAAP and may not be comparable to other similarly titled measures of other businesses. Our non-GAAP financial measures have limitations as analytical tools and should not be considered in isolation or as a substitute for analysis of our operating results as reported under GAAP. Some of these limitations include:

- Non-cash compensation is and will remain a key element of our overall long-term incentive compensation package, although we exclude it as an expense when evaluating our ongoing operating performance for a particular period;
- Our non-GAAP financial measures do not reflect the impact of certain cash charges resulting from matters we consider not to be indicative of ongoing operations; and
- Other companies in our industry may calculate our non-GAAP financial measures differently than we do, limiting their usefulness as comparative measures.

We compensate for these limitations to our non-GAAP financial measures by relying primarily on our GAAP results and using our non-GAAP financial measures only for supplemental purposes. Our non-GAAP financial measures include adjustments for items that may not occur in future periods. However, we believe these adjustments are appropriate because the amounts recognized can vary significantly from period to period, do not directly relate to the ongoing operations of our business and complicate comparisons of our internal operating results and operating results of other peer companies over time. For example, it is useful to exclude non-cash, stock-based compensation expenses because the amount of such expenses in any specific period may not directly correlate to the underlying performance of our business operations and these expenses can vary significantly across periods due to timing of new stock-based awards. We may also exclude certain discrete, unusual, one-time, or non-cash costs in order to facilitate a more useful period-over-period comparison of our financial performance. Each of the normal recurring adjustments and other adjustments described in this paragraph help management with a measure of our operating performance over time by removing items that are not related to day-to-day operations or are non-cash expenses.

The following table sets forth the non-GAAP financial measures we monitor.

	Year Ended December 31,	
	2022	2021
<i>(in thousands, except percentages)</i>		
Adjusted gross profit ⁽¹⁾	\$ 5,286	\$ 4,670
Adjusted gross margin ⁽¹⁾	24.3 %	43.9 %
Adjusted EBITDA ⁽²⁾	\$ (23,480)	\$ (11,662)

(1) Adjusted gross profit and adjusted gross margin are non-GAAP financial measures. We believe that adjusted gross profit and adjusted gross margin provide supplemental information with respect to gross profit and gross margin regarding ongoing performance. We define adjusted gross profit as net revenues less cost of revenue, adjusted to exclude one-time revenue adjustments, stock-based compensation and amortization of intangible assets. We define adjusted gross margin as adjusted gross profit as a percentage of net revenues.

(2) Adjusted EBITDA is a non-GAAP financial measure. We believe adjusted EBITDA provides helpful information with respect to operating performance as viewed by management, including a view of our business that is not dependent on (i) the impact of our capitalization structure and (ii) items that are not part of day-to-day operations. We define adjusted EBITDA as net loss plus (i) interest expense, (ii) income tax expense (benefit), (iii) depreciation, (iv) amortization, and further adjusted for (v) one-time adjustments and (vi) stock-based compensation expense.

Reconciliation of Non-GAAP Financial Measures

The following tables set forth a reconciliation of the most directly comparable GAAP financial measure to each of the non-GAAP financial measures discussed above.

	Year Ended December 31,	
	2022	2021
<i>(in thousands, except percentages)</i>		
Gross profit	\$ 5,076	\$ 3,613
Add back: Amortization of intangibles	—	7
Add back: Stock-based compensation	210	1,050
Adjusted gross profit	<u>\$ 5,286</u>	<u>\$ 4,670</u>
Adjusted gross margin	24.3 %	43.9 %

	Year Ended December 31,	
	2022	2021
<i>(in thousands)</i>		
Net loss	\$ (50,894)	\$ (53,522)
Add back: Depreciation and amortization	739	240
Add back: Interest expense	2,406	4,481
Add back (Less): Income tax expense (benefit)	4	(426)
EBITDA	<u>(47,745)</u>	<u>(49,227)</u>
Add back: Stock-based compensation	3,009	4,941
Add back: Loss on extinguishment of debt	—	7,952
Add back: Impairment of digital assets	22,911	9,383
Add back: Impairment of goodwill	2,061	—
Less (Add back): Fair value adjustment for warrant liabilities	(3,349)	18,139
Less: Gain on forgiveness of Paycheck Protection Program loan	—	(2,850)
Less: Gain on sale of digital assets	(367)	—
Adjusted EBITDA	<u>\$ (23,480)</u>	<u>\$ (11,662)</u>

Components of Results of Operations

Revenue and Gross Profit

There are a number of factors that impact the revenue and margin profile of the product, service and technology offerings we provide, including, but not limited to, solution and technology complexity, technical expertise requiring the combination of products and types of services provided, as well as other elements that may be specific to a particular client solution.

Platform Revenue and Gross Profit

Our platform revenue consists of software subscriptions, application development services and support, application transactions (which are comprised of in-app advertising) and PhunToken sales.

Subscription revenue is derived from software license fees, which comprise subscription fees from customers licensing our Software Development Kits (SDKs), that includes accessing the MaaS platform. Subscription revenue from SDK licenses gives the customer the right to access our MaaS platform.

Application development revenue is derived from development services around designing and building new applications or enhancing existing applications. Support revenue is comprised of support and maintenance fees of customer applications, software updates and technical support for application development services for a support term. From time to time, we may also provide professional services by outsourcing employees' time and materials to customers.

We generate application transaction revenue by charging advertisers to deliver advertisements (ads) to users of mobile connected devices. Depending on the specific terms of each advertising contract, we generally recognize revenue based on the activity of mobile users viewing these ads. Fees from advertisers are commonly based on the number of ads delivered or views, clicks or actions by users on mobile advertisements delivered, and we recognize revenue at the time the user views, clicks or otherwise acts on the ad. We sell ads through several offerings: cost per thousand impressions and cost per click. During 2021, we announced the commencement of PhunToken sales. PhunToken is designed to reward consumers for their activity, such as watching branded videos, completing surveys and visiting points of interest. We recognize revenue related to PhunToken at time of delivery to a customer's ethereum-based wallet.

Platform gross profit is equal to subscriptions and services revenue less the cost of personnel and related costs for our support and professional services employees, external consultants, stock-based compensation and allocated overhead. Costs associated with our development and project management teams are generally recognized as incurred. Costs directly attributable to the development or support of applications relating to subscription customers are included in cost of sales, whereas costs related to the ongoing development and maintenance of Phunware's MaaS platform are expensed in research and development. Furthermore, gross profit related to application transactions is equal to application transaction revenue less cost of revenue associated with application transactions, which is impacted by the cost of advertising traffic we pay to our suppliers, the amount of traffic which we can purchase from those suppliers and ethereum blockchain fees paid to deliver PhunToken.

As a result, platform gross profit may fluctuate from period to period.

Hardware Revenue and Gross Profit

We acquired Lyte in October 2021. Revenue from Lyte is primarily derived from the sale of high-performance personal computers. Lyte computers are sold with a variety of pre-packaged solutions, as well as customizable solutions selected by our customers. A majority of Lyte's customers pay us via credit card payments, which is managed through a third party processor. We recognize revenue at the time a completed unit ships from our facility.

Hardware gross profit is equal to hardware revenue less the costs associated with the assembly of computers. Hardware gross profit is impacted by the costs that we pay for parts incorporated into a Lyte computer system, as well as labor costs of our employees directly attributable to building computer systems and shipping. Demand may exceed available supply at times, which may hamper our ability to deliver computer systems timely and may increase the costs at which we can obtain inventory needed for computer builds. Customizable solutions we offer our customers may also vary from time to time. As a result, computer hardware revenue and gross profit may fluctuate from period to period. Although we plan to invest in Lyte for future growth, we may experience revenue and gross profit fluctuations as a result of seasonality.

Gross Margin

Gross margin measures gross profit as a percentage of revenue. Gross margin is generally impacted by the same factors that affect changes in the mix of platform and hardware revenue.

Operating Expenses

Our operating expenses include sales and marketing expenses, general and administrative expenses, research and development expenses, depreciation and amortization of acquired intangible assets. Personnel costs are the most significant component of operating expenses and consist of salaries, benefits, bonuses, stock-based compensation and, in sales and marketing expense, commissions. Legal settlements pertaining to litigation brought as a result of the Company's operations is also included in operating expenses.

Sales and Marketing Expense. Sales and marketing expense is comprised of compensation, commission expense, variable incentive pay and benefits related to sales personnel, along with travel expenses, other employee related costs, including stock-based compensation and expenses related to marketing programs and promotional activities. Our sales and marketing expense may increase in absolute dollars as we increase our sales and marketing organizations as we plan to increase revenue but may fluctuate as a percentage of our total revenue from period to period.

General and Administrative Expense. General and administrative expense is comprised of compensation and benefits of administrative personnel, including variable incentive pay and stock-based compensation, bad debt expenses and other administrative costs such as facilities expenses, professional fees and travel expenses. We expect to incur additional general and administrative expenses as a result of operating as a public company, including expenses related to compliance with the rules and regulations of the SEC and listing standards of Nasdaq, additional insurance expenses, investor relations activities and other administrative and professional services. We also expect to increase the size of our general and administrative function to support the growth of our business. As a result, our general and administrative expenses may increase in absolute dollars but may fluctuate as a percentage of our total revenue from period to period.

Research and Development Expense. Research and development expenses consist primarily of employee compensation costs and overhead allocation. We believe that continued investment in our platform is important for our growth. As a result, our research and development expenses may increase in absolute dollars as our business grows but may fluctuate as a percentage of revenue from period to period.

Impairment of Goodwill. Goodwill impairment consists of non-cash impairment charges related to goodwill. We review goodwill for impairment annually on October 1 and more frequently if events or changes in circumstances indicate an impairment may exist. If the carrying value of the reporting unit continues to exceed its fair value, the fair value of the Company's goodwill is calculated and an impairment charge equal to the excess is recorded.

Interest Expense

Interest expense includes interest related to our outstanding debt, including amortization of discounts and deferred issuance costs.

Refer to Note 8 "Debt" of the notes to consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K for more information on debt offerings.

We also may seek additional debt financings to fund the expansion of our business or to finance strategic acquisitions in the future, which may have an impact on our interest expense.

Income Tax Expense

We are subject to U.S. Federal income taxes, state income taxes net of federal income tax effect and nondeductible expenses. Our effective tax rate will vary depending on permanent non-deductible expenses and other factors.

Refer to Note 14 "Income Taxes" of the notes to consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K for further discussion.

Results of Operations

Comparison of Fiscal Years Ended December 31, 2022 and 2021

Net Revenue

(in thousands, except percentages)

	Year Ended December 31,		Change	
	2022	2021	Amount	%
Net Revenue				
Platform revenue	\$ 6,521	\$ 7,548	\$ (1,027)	(13.6) %
Hardware revenue	15,273	3,095	12,178	393.5 %
Total revenue	\$ 21,794	\$ 10,643	\$ 11,151	104.8 %
Platform revenue as percentage of total revenue	29.9 %	70.9 %		
Hardware revenue as percentage of total revenue	70.1 %	29.1 %		

Total revenue increased \$11.2 million, or 104.8%, in the year ended December 31, 2022 compared to the corresponding period in 2021.

Platform revenue decreased \$1.0 million, or (13.6)% as a result of a \$1.5 million decrease of development, licensing and support services provided to two customers, one of which whose contract has expired. These decreases were minimally offset by an increase in PhunToken revenue of \$0.5 million.

Computer hardware revenue increased by \$12.2 million, which was the result of the acquisition of Lyte in October 2021.

Cost of Revenue, Gross Profit and Gross Margin

(in thousands, except percentages)	Year Ended December 31,		Change	
	2022	2021	Amount	%
Cost of Revenue				
Platform revenue	\$ 3,012	\$ 4,013	\$ (1,001)	(24.9) %
Hardware revenue	13,706	3,017	10,689	354.3 %
Total cost of revenue	\$ 16,718	\$ 7,030	\$ 9,688	137.8 %
Gross Profit				
Platform revenue	\$ 3,509	\$ 3,535	\$ (26)	(0.7) %
Hardware revenue	1,567	78	1,489	1,909.0 %
Total gross profit	\$ 5,076	\$ 3,613	\$ 1,463	40.5 %
Gross Margin				
Platform revenue	53.8 %	46.8 %		
Hardware revenue	10.3 %	2.5 %		
Total gross margin	23.3 %	33.9 %		

Total gross profit increased \$1.5 million, or 40.5%, in the year ended December 31, 2022, compared to the corresponding period of 2021 primarily due to revenue items discussed above. The decrease in platform revenue noted above was offset by a decrease of \$0.8 million of stock-based compensation.

Increase in platform gross margin is the result of higher PhunToken revenue in 2022, as compared to 2021. Increase in Lyte gross margin is the result of operational efficiencies captured as we integrated Lyte during 2022. Total gross margin percentage decreased primarily due to product mix between platform and hardware revenue, as Lyte comprised of larger percentage of our revenue mix in 2022, as compared to 2021.

Operating Expenses

(in thousands, except percentages)	Year Ended December 31,		Change	
	2022	2021	Amount	%
Operating expenses				
Sales and marketing	\$ 6,814	\$ 3,022	\$ 3,792	125.5 %
General and administrative	19,554	13,256	6,298	47.5 %
Research and development	6,149	4,179	1,970	47.1 %
Impairment of goodwill	2,061	—	2,061	100.0 %
Total operating expenses	\$ 34,578	\$ 20,457	\$ 14,121	69.0 %

Sales and Marketing

Sales and marketing expense increased \$3.8 million, or 125.5% for the year ended December 31, 2022 compared to the corresponding period of 2021, primarily due to an increase of \$3.1 million of marketing related expenditures mostly related to Lyte and PhunToken. Other increases of \$0.9 million of employee compensation costs were due to higher headcount. These increases were minimally offset by the decrease in stock-based compensation of \$0.3 million.

General and Administrative

General and administrative expense increased \$6.3 million, or 47.5%, for the year ended December 31, 2022 compared to the corresponding period of 2021, as a result of an increase of \$1.8 million in legal fees attributable to legal matters more fully described under the subheading "Litigation" in Note 10, "Commitments and Contingencies" of the notes to the consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K. We also experienced an increase of \$1.2 million in payroll costs, as a result of an higher headcount in our general and administrative function and employee retention credit received during 2021. Increases in these payroll-related items were partially offset by a decrease in accruals for employee bonuses. Other increases are the result of \$0.8 million of facility expenses for new corporate office space

in Austin, Texas and the Lyte warehouse facility, \$0.6 million in audit and other professional services, \$0.6 million in bad debt recoveries and accounts payable settlements that occurred in 2021, \$0.6 million in other general and administrative expenses, \$0.4 million related to amortization of trade name related to the Lyte acquisition and a \$0.3 million increase in credit card processing fees for Lyte.

Research and Development

Research and development expense increased \$2.0 million, or 47.1% for the year ended December 31, 2022, compared to the corresponding period of 2021, primarily resulting from increased headcount dedicated to research and development projects. This increase was minimally offset by in decrease in stock-based compensation.

Impairment of Goodwill

We recorded an impairment of goodwill of \$2.1 million related to the Lyte operating segment of our business for the year ended December 31, 2022. Refer to Note 6 "Goodwill" of the notes to the consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K for further discussion on our goodwill impairment.

Other income (expense)

<i>(in thousands, except percentages)</i>	Year Ended December 31,	
	2022	2021
Other income (expense)		
Interest expense	\$ (2,406)	\$ (4,481)
Loss on extinguishment of debt	—	(7,952)
Impairment of digital assets	(22,911)	(9,383)
Fair value adjustment for warrant liabilities	3,349	(18,139)
Gain on forgiveness of Paycheck Protection Program ("PPP") loan	—	2,850
Other income, net	580	1
Total other expense	<u>\$ (21,388)</u>	<u>\$ (37,104)</u>

During 2022, we recorded other expense of \$21.4 million, which primarily consisted of impairment charges related to our digital asset holdings. Refer to Note 2, "Summary of Significant Accounting Policies" of the notes to the consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K for further discussion regarding our digital asset holdings. We also recorded interest expense related to our 2021 Promissory Note and 2022 Promissory Note (defined elsewhere herein) and accretion of debt discounts thereunder. These expenses were offset by a gain related to the change in the fair value of our warrants issued in connection with our 2020 Convertible Notes. Reference is made to Note 8 "Debt" of the notes to the consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K for further discussion on our debt holdings.

During 2021, we recorded other expense related to a fair value adjustment of the warrants issued in connection with our 2020 Convertible Notes, which included a fair value adjustment related to a partial exercise of the warrant. We also recorded interest expense and losses on extinguishment of debt related to payments and the payoff of our 2020 Convertible Notes. These expenses were partially offset by the gain on forgiveness of our Paycheck Protection Program loan.

Liquidity and Capital Resources

As of December 31, 2022, we held total cash of \$2.0 million, all of which was held in the United States. We have a history of operating losses and negative operating cash flows. As we continue to focus on growing our revenues, we expect these trends to continue into the foreseeable future.

We may, if needed, sell our digital asset holdings for cash to fund our ongoing operations. As of December 31, 2022, we held 605 bitcoins and 400 ethereum, of which consist of the majority of the digital assets recorded on our balance sheet. The digital asset market historically has been characterized by significant volatility in its price, limited liquidity and trading volumes compared to sovereign currencies markets, relative anonymity, a developing regulatory landscape, susceptibility to market abuse and manipulation, and various other risks inherent in its entirely electronic, virtual form and decentralized network. During times of instability in the digital asset market, we may not be able to sell our digital asset holdings at reasonable prices, or at all. As a result, our digital assets are less liquid than our existing cash and cash equivalents and may not be able to serve as a source of liquidity for us to the same extent as cash and cash equivalents.

On February 1, 2022, we filed a registration statement on Form S-3, which was subsequently declared effective by the SEC on February 9, 2022, pursuant to which we may issue up to \$200 million in common stock, preferred stock, warrants and units. Contained therein, was a prospectus supplement in which we may sell up to \$100 million of our common stock in an "at the market" offering pursuant to an At Market Issuance Sales Agreement we entered into with H.C. Wainwright & Co., LLC on January 31, 2022. As of December 31, 2022, 2,623,460 shares of our common stock have been sold for aggregate cash proceeds of \$4.6 million, net of transaction costs of \$0.1 million. We also incurred additional transaction costs paid outside of closing of \$0.2 million.

On July 6, 2022, we entered into a note purchase agreement and completed the sale of an unsecured promissory note with an original principal amount of \$12.8 million in a private placement (the "2022 Promissory Note"). After deducting all transaction fees paid by us at closing, net cash proceeds to us at closing were \$11.8 million. No interest will accrue on the 2022 Promissory Note unless and until the occurrence of an event of default (as defined in the 2022 Promissory Note). Beginning on November 1, 2022 and on the same day of each month thereafter until the promissory note is paid in full, we are required to make monthly amortization payments in the amount of \$1.6 million until the maturity date of July 1, 2022, which is subject to adjustment for any payment deferrals we elect. We may prepay any or all outstanding balance of the 2022 Promissory Note earlier than it is due with a prepayment premium of 110%. The prepayment premium also applies to the monthly amortization payments. On March 15, 2023, we entered into a waiver agreement with the holder of our 2022 Promissory Note, waiving the Payment Deferral Conditions, as defined in the 2022 Promissory Note. For agreeing to waive the Payment Deferral Conditions, we agreed to compensate the noteholder an amount equal to 5% of the outstanding balance immediately before entering into the waiver agreement. In connection therewith, we elected to defer the monthly payments under the 2022 Promissory Note for the months of April, May, June and July 2023. As a result of our election to defer the monthly payments, the outstanding balance of the 2022 Promissory Note will be increased by 1.85% on the first day of each month beginning on April 1, 2023 and concluding on July 1, 2023. The waiver fee and the additional principal will be paid in connection with our monthly installment payments once the deferral period concludes. Beginning on August 1, 2023 and on the same day of each month thereafter, we will be required to pay to the noteholder the new monthly amortization payment in the amount of \$1,769 until the new maturity date of November 1, 2023.

Our expectation to generate operating losses and negative operating cash flows in the future and the need for additional funding to support our planned operations, raise substantial doubt regarding our ability to continue as a going concern. Management believes that our existing cash and liquidation of some, or all, of our digital asset holdings are not sufficient to satisfy our operating cash needs for the year after the filing of this Annual Report on Form 10-K, and substantial doubt exists about our ability to continue as a going concern for a period of at one year following the filing date of this Annual Report on Form 10-K.

Additional plans may include selling shares of our common stock in our "at the market" offering, and as of the date of this Annual Report on Form 10-K, a total of \$95.4 million may be sold pursuant to the sales agreement. We may also issue shares of our common stock, preferred stock, warrants and units in other offerings pursuant to our effective registration statement.

Our future capital requirements will depend on many factors, including our pace of growth, subscription renewal activity, the timing and extent of spend to support development efforts, the pace at which we can scale Lyte, the expansion of sales and marketing activities and the market acceptance of our products and services. We believe that it is likely we will in the future enter into arrangements to acquire or invest in complementary businesses, technologies and intellectual property rights. We may be required to seek additional equity or debt financings, or issue securities under our effective registration statement described above. In the event that additional financing is required from outside sources, we may not be able to raise it on terms

acceptable to us, or at all. If we are unable to raise additional capital when desired and/or on acceptable terms, our business, operating results and financial condition could be adversely affected.

The accompanying consolidated financial statements have been prepared assuming we will continue to operate as a going concern, which contemplates the realization of assets and settlement of liabilities in the ordinary course of business.

The following table summarizes our cash flows for the periods presented:

<i>(in thousands, except percentages)</i>	Year Ended December 31,	
	2022	2021
Consolidated statement of cash flows		
Net cash used in operating activities	\$ (26,827)	\$ (22,514)
Net cash used in investing activities	(2,287)	(46,385)
Net cash provided by financing activities	8,055	88,019

Operating Activities

Our primary source of cash from operating activities is receipts sales for our various product and service offerings as further described elsewhere in this Annual Report. Our primary uses of cash from operating activities are payments to employees for compensation and related expenses, publishers and other vendors for the purchase of digital media inventory and related costs, vendors for costs of inventory related to the assembly of Lyte computers, sales and marketing expenses and general operating expenses.

We utilized \$26.8 million of cash from operating activities during 2022 resulting from a net loss of \$50.9 million. The net loss included non-cash charges of \$27.1 million, primarily consisting of the change in fair value of warrants, impairment of digital assets, impairment of goodwill, amortization of debt issuance costs primarily related to our 2022 Promissory Note, as well as stock-based compensation. In addition, certain changes in our operating assets and liabilities resulted in significant cash (decreases) as follows: \$(0.1) million from a decrease in accounts payable, accrued expenses and an installment payments to Uber related to the settlement of our lawsuit, as well as \$(2.9) million from other working capital changes, primarily related to a decrease in deferred revenue and lease liability payments.

We utilized \$22.5 million of cash from operating activities during 2021 resulting from a net loss of \$53.5 million. The net loss included non-cash charges of \$40.0 million, primarily consisting of the change in fair value of warrants, impairment of digital assets, the loss on the extinguishment and amortization of debt issuance costs related to our 2020 Convertible Notes, as well as stock-based compensation. In addition, certain changes in our operating assets and liabilities resulted in significant cash (decreases) as follows: \$(5.7) million from a decrease in accounts payable, accrued expenses and an installment payments to Uber related to the settlement of our lawsuit, as well as \$(3.3) million from other working capital changes, primarily related to a decrease in post-acquisition deferred revenue and inventory purchases.

Investing Activities

Our investing activities during 2022 consisted of the purchase of digital assets and cash payments for the acquisition of Lyte. This was partially offset by proceeds from the sale of digital assets.

Our investing activities during 2021 consisted of the purchase of digital assets and the acquisition of Lyte.

Financing Activities

Our financing activities during 2022 consisted of proceeds from equity financings and debt borrowings offset by payments on debt. We acquired \$8.1 million of cash from financing activities resulting primarily from \$11.8 million in proceeds from our 2022 Promissory Note and \$4.3 million in proceeds from the sale of our common stock. These sources of financings were partially offset by \$8.1 million of payments on debt.

Our financing activities during 2021 consisted of proceeds from equity financings and debt borrowings offset by payments on debt. We acquired \$88.0 million of cash from financing activities resulting primarily from \$94.7 million in proceeds from the sale of our common stock, \$14.7 million in proceeds from our Series B Convertible Note and 2021 Promissory Note and \$4.6 million from a partial exercise of a warrant held by the holder of our 2020 Convertible Notes. These

sources of financing were partially offset by \$26.2 million of payments on debt, a majority of which related to payments on the 2020 Convertible Notes.

Contractual Obligations

We lease various office facilities, including our corporate headquarters in Austin, Texas, our Lyte warehouse facility in Round Rock, Texas, as well as offices in California and Florida, under non-cancellable operating lease agreements that expire through 2027. The terms of the lease agreements provide for rental payments on a graduated basis. We recognize rent expense on a straight-line basis over the lease periods. Rent expense under operating leases totaled \$1.1 million and \$0.8 million for the years ended December 31, 2022 and 2021, respectively.

The following table sets forth our contractual obligations as of December 31, 2022 (in thousands):

Contractual obligations	Payments due by period				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Operating lease obligations	\$ 4,782	\$ 1,296	\$ 2,234	\$ 1,252	\$ —

Off-Balance Sheet Arrangements

During the years ended December 31, 2022 and 2021, we did not have any off-balance sheet arrangements, as defined in Item 303(a)(4)(ii) of SEC Regulation S-K, such as the use of unconsolidated subsidiaries, structured finance, special purpose entities or variable interest entities.

Indemnification Agreements

In the ordinary course of business, we provide indemnifications of varying scope and terms to customers, vendors, lessors, business partners and other parties with respect to certain matters, including, but not limited to, losses arising out of breach of such agreements, solutions to be provided by the Company or from intellectual property infringement claims made by third parties. In addition, we have entered into indemnification agreements with directors and certain current and former officers and employees that will require the Company, among other things, to indemnify them against certain liabilities that may arise by reason of, or are related to, their status or service as directors, officers or employees.

Critical Accounting Policies and Estimates

Our management's discussion and analysis of our financial condition and results of operations is based on our financial statements, which have been prepared in accordance with GAAP. The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, as well as the reported revenues generated and expenses incurred during the reporting periods. Our estimates are based on our historical experience and on various other factors that we believe are reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

The critical accounting policies requiring estimates, assumptions and judgments that we believe have the most significant impact on our consolidated financial statements are set forth below. For further information on all significant accounting policies, refer to Note 2 "Summary of Significant Accounting Policies" of the notes to the consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K.

Revenue

We derive our revenue primarily from MaaS subscription fees, application development and support fees, as well as revenue from the sale of high-performance personal computer systems. Revenue is recognized when control of these products or services are transferred to our customers in an amount that reflects the consideration we expect to be entitled to in exchange for those services. Our revenue recognition policy follows guidance from Accounting Standards Codification ("ASC") No. 606, *Revenue from Contracts with Customers (Topic 606)*.

We determine revenue recognition through the following five-step framework:

- Identification of the contract, or contracts, with a customer;
- Identification of the performance obligations in the contract or contracts;
- Determination of the transaction price;
- Allocation of the transaction price to the performance obligations in the contract; and
- Recognition of revenue when, or as, we satisfy a performance obligation.

Our software subscription and services contracts often include promises to transfer multiple products and services to a customer. Determining whether products and services are considered distinct performance obligations that should be accounted for separately versus together may require significant judgment. When a customer contract consists of licensing, application development and support services, we consider these separate performance obligations, which would require an allocation of consideration. For contracts with multiple performance obligations, the contract price is allocated to separate performance obligations on a relative standalone basis for which significant judgment is required. Judgment is required to determine whether a software license is considered distinct and accounted for separately, or not distinct and accounted for together with the software support and services and recognized over time.

Digital Assets

We account for our digital assets as indefinite-lived intangible assets in accordance with ASC 350 *Intangibles—Goodwill and Other*. We have ownership of and control over our digital assets and we may use third-party custodial services or self-custody solutions to secure them. The digital assets are initially recorded at cost and are subsequently remeasured, net of any impairment losses incurred since acquisition.

We determine the fair value of our digital assets on a nonrecurring basis in accordance with ASC 820 *Fair Value Measurement*, based on quoted prices on the active exchange(s) that we have determined is the principal market for bitcoin and ethereum (Level 1 inputs). We perform an analysis each quarter to identify whether events or changes in circumstances, principally decreases in the quoted prices on active exchanges, indicate that it is more likely than not that our digital assets are impaired. In determining if an impairment has occurred, we consider the lowest intra-day market price quoted on an active exchange since acquiring the respective digital asset. If the then current carrying value of a digital asset exceeds the fair value, an impairment loss has occurred with respect to those digital assets in the amount equal to the difference between their carrying values and the fair value.

The impaired digital assets are written down to their fair value at the time of impairment and this new cost basis will not be adjusted upward for any subsequent increase in fair value. Gains are not recorded until realized upon sale. In determining the gain or loss to be recognized upon sale, we calculate the difference between the sales price and carrying value of the digital assets sold immediately prior to sale. Impairment losses and gains or losses on sales are recognized within other expense in our consolidated statements of operations and comprehensive loss.

Goodwill

We review goodwill for impairment annually during the fourth quarter or more frequently if events or changes in circumstances would more-likely-than-not reduce the fair value of a reporting unit below its carrying value. As of December 31, 2022, we identified an impairment related to our Lyte computer division of approximately \$2.1 million. Refer to Note 6 "Goodwill" of the notes to the consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K for further discussion on our goodwill impairment.

Derivative Liabilities

When the Company issues warrants, it evaluates the proper balance sheet classification of the warrant to determine whether the warrant should be classified as equity or as a derivative liability on the consolidated balance sheet. In accordance with ASC 815-40, *Derivatives and Hedging - Contracts in the Entity's Own Equity* ("ASC 815-40"), we classify a warrant as equity if it is indexed to our equity and several specific conditions for equity classification are met. A warrant is not considered indexed to our equity, in general, when it contains certain types of exercise contingencies or adjustments to exercise price. If a warrant is not indexed to our equity or it has net cash settlement that results in the warrants to be accounted for under ASC 480, *Distinguishing Liabilities from Equity*, or ASC 815-40, it is classified as a derivative liability which is carried on the consolidated balance sheet at fair value with any changes in its fair value recognized currently in the statement of operations. As

of December 31, 2022 and 2021, we had a warrant that was classified as a liability and other warrants that were classified as equity.

We used a Black-Scholes option-pricing model to value the warrant classified as a liability at inception and subsequent valuation dates. Furthermore, the holder partially exercised its warrant for 2,060,000 shares of our common stock, in October 2021, which resulted in a revaluation of the warrant at the time of exercise. The initial and subsequent valuations of the warrant require significant judgment. For the assumptions used to value at warrant as of December 31, 2022, refer to Note 8 “*Debt*” of the notes to the consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K.

Business Combination

We account for business combinations using the acquisition method of accounting as prescribed in ASC 805, *Business Combinations (Topic 805)*. We record the assets acquired, liabilities assumed and acquisition-related contingent consideration at fair value on the date of acquisition. The difference between the purchase price, including any contingent consideration, and the fair value of net assets acquired is recorded as goodwill. We may adjust the preliminary purchase price and purchase price allocation, as necessary, during the measurement period of up to one year after the acquisition closing date as we obtain more information as to facts and circumstances that impact the determination of fair value at the acquisition date. Any change in fair value of acquisition-related contingent consideration resulting from events after the acquisition date is recognized in earnings. Acquisition-related costs are recognized separately from the acquisition and are expensed as incurred.

Recent Accounting Standards

Recent accounting standards applicable to our business are described under the subheading “*Recently Adopted Accounting Policies*” in Note 2 “*Summary of Significant Accounting Policies*” of the notes to consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk.

We are a “smaller reporting company” as defined by Rule 12b-2 of the Exchange Act, and as such, we are not required to provide the information required under this Item.

Item 8. Financial Statements and Supplementary Data.

INDEX TO THE CONSOLIDATED FINANCIAL STATEMENTS

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and Board of Directors of
Phunware, Inc.

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Phunware, Inc. (the "Company") as of December 31, 2022 and 2021, the related consolidated statements of operations and comprehensive loss, changes in stockholders' equity (deficit) 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 "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, and the 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.

Explanatory Paragraph – Going Concern

The accompanying financial statements have been prepared assuming that the Company will continue as a going concern. As more fully described in Note 1, the Company has a significant working capital deficiency, has incurred significant losses and needs to raise additional funds to meet its obligations and sustain its operations. These conditions raise substantial doubt about the Company's ability to continue as a going concern. Management's plans in regard to these matters are also described in Note 1. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's 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 audits to obtain reasonable assurance about whether the 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 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 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 financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

The critical audit matter communicated below is a matter arising from the current period audit of the financial statements that was communicated or required to be communicated to the audit committee and that: (1) relates to accounts or disclosures that are material to the 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 financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Evaluation of the Accounting for and Disclosure of Digital Assets

Description of the Matter

As described in Note 2 to the financial statements, the Company's digital assets held as of December 31, 2022, which consist mainly of Bitcoin and Ethereum, are accounted for as indefinite-lived intangible assets, and have been included in current assets on the consolidated balance sheet. The Company's digital assets as of December 31, 2022 were approximately \$10.1 million.

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For the year ended December 31, 2022, the Company generated revenue of \$1.5 million from the sale of PhunToken for which they received both cash and digital currency from customers. The Company's management has exercised significant judgment in their determination of how existing accounting principles generally accepted in the United States of America ("GAAP") should be applied to the accounting for digital assets held, the associated financial statement presentation and accompanying footnote disclosures.

We identified the accounting for and disclosures of digital assets held and sold as a critical audit matter due to the nature and extent of audit effort required to obtain sufficient appropriate audit evidence to address the risks of material misstatement related to the valuation, existence and rights and obligations of digital assets held and sold. The nature and extent of audit effort required to address the matter included significant involvement of more experienced engagement team members and subject matter experts related to the matter.

How We Addressed the Matter in Our Audit

Our audit procedures included, amongst others:

- We obtained an understanding of management's process with regards to the methodology used, and the factors considered in determining the appropriate accounting for and disclosure of its digital assets held;
- Evaluated management's rationale for the application of Accounting Standards Codification ("ASC") 350 to account for its digital assets held, including management's processes for evaluating its digital assets for impairment;
- Evaluated management's rationale for inclusion of digital assets as a current asset on the balance sheet;
- Evaluated management's disclosures of its digital assets activity, including risks related to PhunToken in the notes to the financial statements;
- In connection with the sales of digital assets, we traced and agreed the details of the transactions to the underlying documents, examined supporting sale and cash receipt evidence, tested the fair value of the assets received and determined that the sales transactions were in accordance with ASC 606;
- Tested the existence of the Company's digital assets by evaluating the Company's self-custody wallet and reconciling the Company's internal records of digital asset positions for specific wallet addresses to the quantities of digital assets held on those addresses per the Bitcoin ledger; and
- Tested the pricing sources used to value the digital assets held and tested the Company's write-downs by reperforming an independent pricing on the digital assets held using various independent pricing sources for the full year.

/s/ Marcum LLP

Marcum LLP

We have served as the Company's auditor since 2018.

Houston, Texas
March 31, 2023

Phunware, Inc.
Consolidated Balance Sheets
(In thousands, except share and per share data)

	<u>December 31,</u> <u>2022</u>	<u>December 31,</u> <u>2021</u>
Assets		
Current assets:		
Cash	\$ 1,955	\$ 23,137
Accounts receivable, net of allowance for doubtful accounts of \$198 and \$10 at December 31, 2022 and 2021, respectively	958	967
Inventory	2,780	2,636
Digital assets	10,137	32,581
Prepaid expenses and other current assets	1,033	686
Total current assets	<u>16,863</u>	<u>60,007</u>
Property and equipment, net	221	—
Goodwill	31,113	33,260
Intangible assets, net	2,524	3,213
Right-of-use asset	3,712	1,260
Other assets	402	276
Total assets	<u><u>54,835</u></u>	<u><u>98,016</u></u>
Liabilities and stockholders' equity		
Current liabilities:		
Accounts payable	\$ 7,699	\$ 6,589
Accrued expenses	2,895	9,621
Lease liability	954	399
Deferred revenue	2,904	3,973
PhunCoin deposits	1,202	1,202
Current maturities of long-term debt, net	9,667	4,904
Warrant liability	256	3,605
Total current liabilities	<u>25,577</u>	<u>30,293</u>
Deferred revenue	1,274	1,299
Lease liability	3,103	1,147
Total liabilities	<u><u>29,954</u></u>	<u><u>32,739</u></u>
Commitments and contingencies (Note 10)		
Stockholders' equity		
Common stock, \$0.0001 par value; 1,000,000,000 shares authorized at December 31, 2022 and 2021; 103,153,337 and 96,751,610 shares issued and outstanding as of December 31, 2022 and 2021, respectively	10	10
Additional paid-in capital	275,562	264,944
Accumulated other comprehensive loss	(472)	(352)
Accumulated deficit	(250,219)	(199,325)
Total stockholders' equity	<u>24,881</u>	<u>65,277</u>
Total liabilities and stockholders' equity	<u><u>54,835</u></u>	<u><u>98,016</u></u>

The accompanying notes are an integral part of these consolidated financial statements.

Phunware, Inc.
Consolidated Statements of Operations and Comprehensive Loss
(In thousands, except per share information)

	Year Ended December 31,	
	2022	2021
Net revenues	\$ 21,794	\$ 10,643
Cost of revenues	16,718	7,030
Gross profit	5,076	3,613
Operating expenses:		
Sales and marketing	6,814	3,022
General and administrative	19,554	13,256
Research and development	6,149	4,179
Impairment of goodwill	2,061	—
Total operating expenses	34,578	20,457
Operating loss	(29,502)	(16,844)
Other income (expense):		
Interest expense	(2,406)	(4,481)
Loss on extinguishment of debt	—	(7,952)
Impairment of digital assets	(22,911)	(9,383)
Fair value adjustment for warrant liabilities	3,349	(18,139)
Gain on forgiveness of Paycheck Protection Program ("PPP") loan	—	2,850
Other income, net	580	1
Total other expense	(21,388)	(37,104)
Loss before taxes	(50,890)	(53,948)
Income tax (expense) benefit	(4)	426
Net loss	(50,894)	(53,522)
Cumulative translation adjustment	(120)	(14)
Comprehensive loss	\$ (51,014)	\$ (53,536)
Loss per share, basic and diluted	\$ (0.51)	\$ (0.71)
Weighted-average common shares used to compute loss per share, basic and diluted	98,982	75,447

The accompanying notes are an integral part of these consolidated financial statements.

Phunware, Inc.
Consolidated Statements of Changes in Stockholders' Equity (Deficit)
(In thousands)

	Common Stock		Additional Paid-in Capital	Accumulated Deficit	Other Comprehensive Loss	Total Stockholders' Equity (Deficit)
	Shares	Amount				
Balances as of December 31, 2020	56,371	\$ 6	\$ 144,156	\$ (145,803)	\$ (338)	\$ (1,979)
Exercise of stock options, net of vesting of restricted shares	261	—	179	—	—	179
Release of restricted stock	2,494	—	—	—	—	—
Issuance of common stock under the 2018 employee stock purchase plan	84	—	100	—	—	100
Issuance of common stock for payment of board of director fees	99	—	66	—	—	66
Sales of common stock, net of issuance costs	35,383	4	94,733	—	—	94,737
Common stock issued pursuant to warrant exercises	2,060	—	20,782	—	—	20,782
Stock-based compensation expense	—	—	4,928	—	—	4,928
Cumulative translation adjustment	—	—	—	—	(14)	(14)
Net loss	—	—	—	(53,522)	—	(53,522)
Balances as of December 31, 2021	96,752	\$ 10	\$ 264,944	\$ (199,325)	\$ (352)	\$ 65,277
Exercise of stock options, net of vesting of restricted shares	46	—	28	—	—	28
Release of restricted stock	1,803	—	—	—	—	—
Issuance of common stock under the 2018 employee stock purchase plan	205	—	214	—	—	214
Issuance of common stock in connection with acquisition of Lyte Technology, Inc.	1,724	—	3,064	—	—	3,064
Sales of common stock, net of issuance costs	2,623	—	4,298	—	—	4,298
Stock-based compensation expense	—	—	3,014	—	—	3,014
Cumulative translation adjustment	—	—	—	—	(120)	(120)
Net loss	—	—	—	(50,894)	—	(50,894)
Balances as of December 31, 2022	103,153	\$ 10	\$ 275,562	\$ (250,219)	\$ (472)	\$ 24,881

The accompanying notes are an integral part of these consolidated financial statements.

Phunware, Inc.
Consolidated Statements of Cash Flows
(In thousands)

	Year Ended December 31,	
	2022	2021
Operating activities		
Net loss	\$ (50,894)	\$ (53,522)
Adjustments to reconcile net loss to net cash provided by operating activities:		
Accretion of debt discount and amortization of deferred financing costs	1,034	2,942
(Gain) loss on change in fair value of warrant liability	(3,349)	18,139
Loss on extinguishment of debt	—	7,952
Impairment of digital assets	22,911	9,383
Impairment of goodwill	2,061	—
Gain on forgiveness of PPP loan	—	(2,850)
Stock-based compensation	3,009	4,941
Other adjustments	1,466	(478)
Changes in operating assets and liabilities:		
Accounts receivable	4	(16)
Inventory	(412)	(949)
Prepaid expenses and other assets	(476)	(383)
Accounts payable	1,111	(1,568)
Accrued expenses	(1,258)	(1,131)
Accrued legal settlement	—	(3,000)
Lease liability payments	(905)	(802)
Deferred revenue	(1,129)	(1,172)
Net cash used by operating activities	<u>(26,827)</u>	<u>(22,514)</u>
Investing activities		
Proceeds received from sale of digital assets	1,282	—
Purchases of digital assets	(923)	(41,284)
Acquisition payments, net of cash acquired	(2,375)	(5,101)
Capital expenditures	(271)	—
Net cash used in investing activities	<u>(2,287)</u>	<u>(46,385)</u>
Financing activities		
Proceeds from borrowings, net of issuance costs	11,795	14,711
Payments on borrowings	(8,066)	(26,243)
Proceeds from sales of common stock, net of issuance costs	4,298	94,737
Proceeds from warrant exercises	—	4,635
Proceeds from exercise of stock options	28	179
Net cash provided by financing activities	<u>8,055</u>	<u>88,019</u>
Effect of exchange rate on cash and restricted cash	(123)	(14)
Net (decrease) increase in cash and restricted cash	<u>(21,182)</u>	<u>19,106</u>
Cash and restricted cash at the beginning of the period	23,137	4,031
Cash and restricted cash at the end of the period	<u>\$ 1,955</u>	<u>\$ 23,137</u>
Supplemental disclosure of cash flow information		
Interest paid	\$ 957	\$ 1,364
Income taxes paid	\$ —	\$ —

The accompanying notes are an integral part of these consolidated financial statements.

Phunware, Inc.
Consolidated Statements of Cash Flows
(In thousands)

	Year Ended December 31,	
	2022	2021
Supplemental disclosure of non-cash information		
Right-of-use assets obtained in exchange for operating lease obligations	\$ 3,053	\$ —
Non-cash exchange of digital assets	\$ 906	\$ —
Issuance of common stock in connection with acquisition of Lyte Technology, Inc.	\$ 3,064	\$ —
Issuance of common stock under the 2018 employee stock purchase plan	\$ 214	\$ 100
Issuance of common stock for payment of legal, earned bonus and board of director fees	\$ —	\$ 66
Non-cash issuance of common stock upon partial exercise of a warrant	\$ —	\$ 16,147

The accompanying notes are an integral part of these consolidated financial statements.

Phunware, Inc.
Notes to Consolidated Financial Statements
(In thousands, except share and per share information)

1. The Company and Basis of Presentation

The Company

Phunware, Inc. and its subsidiaries (the "Company", "we", "us", or "our") offers a fully integrated software platform that equips companies with the products, solutions and services necessary to engage, manage and monetize their mobile application portfolios globally at scale. Our Multiscreen-as-a-Service ("MaaS") platform provides the entire mobile lifecycle of applications and media in one login through one procurement relationship. Our MaaS technology is available in software development kit form for organizations developing their own application, via customized development services and prepackaged solutions. Through our integrated mobile advertising platform of publishers and advertisers, we provide in-app application transactions for mobile audience building, user acquisition, application discovery, audience engagement and audience monetization. During 2021, we began to sell PhunToken to consumers, developers and brands. PhunToken is an innovative digital asset utilized within our token ecosystem to help drive engagement by unlocking features and capabilities of our MaaS platform. PhunToken is designed to reward consumers for their activity, such as watching branded videos, completing surveys and visiting points of interest. In October 2021, we acquired Lyte Technology, Inc. ("Lyte"), a provider of high-performance computer systems to individual consumers. Founded in 2009, we are a Delaware corporation headquartered in Austin, Texas.

Basis of Presentation

The consolidated financial statements have been prepared in conformity with U.S. generally accepted accounting principles ("GAAP"), and include the Company's accounts and those of its wholly owned subsidiaries. All intercompany transactions and balances have been eliminated in consolidation.

Reclassification of Prior Year Presentation

Certain amounts in the consolidated balance sheet of the prior period have been reclassified to conform to the current period presentation. A reclassification was made to the consolidated balance sheet as of December 31, 2021 to net deferred tax assets with deferred tax liabilities. The reclassification had no impact on previously reported net income or cash flows.

Going Concern, Liquidity and Management's Plan

Accounting Standards Codification ("ASC") Topic 205-40, *Presentation of Financial Statements - Going Concern* ("ASC 205-40") requires management to evaluate whether conditions and/or events raise substantial doubt about our ability to meet future financial obligations as they become due within one year after the date that the financial statements are issued. As required by this standard, management's evaluation shall initially not take into consideration the potential mitigating effects of management's plans that have not been fully implemented as of the date the financial statements are issued.

We have a history of losses in each fiscal year since our inception. For the year ended December 31, 2022, we incurred a net loss of \$0,894, used \$26,827 in cash for operations and have a working capital deficiency. Total backlog and cash-on-hand for the period then ended did not meet our expectations. The foregoing conditions raise substantial doubt about our ability to meet our financial obligations as they become due.

In performing the second step of this assessment, we are required to evaluate whether our plans to mitigate the conditions above alleviate the substantial doubt. Our assessment included the preparation of a detailed cash forecast that included projected cash inflows and outflows. We continue to focus on growing our revenues, and accordingly, we expect operating expenditures to exceed future revenue for the foreseeable future. Future plans may include reducing operating expenses, liquidating our digital asset holdings, sales of our common stock under a sales agreement in an at-the-market offering, issuing additional shares of common stock, preferred stock, warrants or units pursuant to an effective shelf registration statement.

Despite a history of successfully implementing similar plans, these sources of working capital are not currently assured, and consequently do not sufficiently mitigate the risks and uncertainties disclosed above. There can be no assurance that we will be able to obtain additional funding on satisfactory terms or at all. In addition, no assurance can be given that any such financing, if obtained, will be adequate to meet our capital needs and support our growth. If additional funding cannot be

obtained on a timely basis and on satisfactory terms, our operations would be materially negatively impacted. We have therefore concluded there is substantial doubt about our ability to continue as a going concern through one year from the issuance of these financial statements.

The accompanying consolidated financial statements have been prepared on a going-concern basis, which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business.

2. Summary of Significant Accounting Policies

Use of Estimates

The preparation of financial statements in conformity with U.S. GAAP requires management to make certain estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Items subject to the use of estimates include, but are not limited to, the standalone selling price for our products and services, our various digital asset transactions, stock-based compensation, useful lives of long-lived assets including intangibles, fair value of intangible assets and the recoverability or impairment of tangible and intangible assets, including goodwill, contingent consideration for our business combination with Lyte and periodic reassessment of fair value, allocating the fair value of purchase consideration to assets acquired and liabilities assumed in our business combination, reserves and certain accrued liabilities, the benefit period of deferred commissions, assumptions used in Black-Scholes valuation method, such as the current trading price of our common stock at time of exercise of our warrant, expected volatility, risk-free interest rate and expected dividend rate and provision for (benefit from) income taxes. Actual results could differ from those estimates and such differences could be material to the consolidated financial statements.

Risks and Uncertainties

Regulation governing blockchain technologies, cryptocurrencies, digital assets, digital asset exchanges, utility tokens, security tokens and offerings of digital assets is uncertain, and new regulations or policies may materially adversely affect the development and the value of our tokens and token ecosystem. Regulation of digital assets, like PhunCoin and PhunToken, cryptocurrencies, blockchain technologies and digital asset exchanges, is evolving and likely to continue to evolve. Regulation also varies significantly among international, federal, state and local jurisdictions and is subject to significant uncertainty. Various legislative and executive bodies in the United States and in other countries may in the future adopt laws, regulations, or guidance, or take other actions, which may severely impact the permissibility of tokens generally and the technology behind them or the means of transaction or in transferring them. Any such laws, regulations, guidance or other actions could adversely affect our ability to maintain PhunCoin and PhunToken, which could have a material adverse effect on our operations and financial condition. Failure by us to comply with any such laws and regulations, some of which may not exist yet or are subject to interpretation and may be subject to change, could also result in a material adverse effect on our operations and financial condition.

Revenue Recognition

On January 1, 2019, we adopted ASC 606, *Revenue from Contracts with Customers* ("ASC 606"). Generally, the provisions of ASC 606 state that revenue is recognized upon transfer of control of promised products or services in an amount that reflects the consideration we expect to receive in exchange for those products or services. We enter into contracts that can include various combinations of products and services, which are generally capable of being distinct, distinct within the context of the contract and accounted for as separate performance obligations.

Contract Balances

The timing of revenue recognition may differ from the timing of invoicing for contracts with customers. When the timing of revenue recognition differs from the timing of invoicing, we use judgment to determine whether the contract includes a significant financing component requiring adjustment to the transaction price. Various factors are considered in this determination including the duration of the contract, payment terms and other circumstances. Generally, we determine that contracts do not include a significant financing component. We apply a practical expedient for instances where, at contract inception, the expected timing difference between when promised goods or services are transferred and associated payment will be one year or less. Payment terms vary by contract type; however, contracts typically stipulate a requirement for the customer to pay within 30 days.

The transaction price may be allocated to performance obligations that are unsatisfied or are partially unsatisfied. Amounts relating to remaining performance obligations on non-cancelable contracts include both the deferred revenue balance and amounts that will be invoiced and recognized as revenue in future periods.

Significant Judgments

When selling our platform subscriptions and services, our contracts with customers often include promises to transfer multiple products and services to a customer. Determining whether products and services are considered distinct performance

obligations that should be accounted for separately versus together may require significant judgment. For contracts with multiple performance obligations, the contract price is allocated to separate performance obligations on a relative standalone basis for which significant judgment is required. Judgment is required to determine whether a software license is considered distinct and accounted for separately, or not distinct and accounted for together with the software support and services and recognized over time. Significant judgment is also required relating to the timing of the satisfaction of performance obligations.

Platform Revenue

Our platform revenue consists of software subscriptions, application development services and support, application transactions, which are comprised of in-app advertising and PhunToken sales. Excluding PhunToken sales, in which we are paid in advance, typically our platform revenue customers pay us on net-30 day terms.

Subscriptions and Services. We derive subscription revenue from software license fees, which comprise subscription fees from customers licensing our Software Development Kits (SDKs), which include accessing the MaaS platform and/or MaaS platform data; application development service revenue from the development of customer applications, or apps, which are built and delivered to customers; and support fees. Our contract terms generally range from one to three years. License fees are typically billed annually in advance.

Subscription revenue from SDK licenses gives the customer the right to access our MaaS platform. In accordance with ASC 606, a 'right to access' license is recognized over the license period. Support and maintenance revenue is comprised of support fees for customer applications, software updates and technical support for application development services for a support term. Support revenue is recognized ratably over the support term. We typically bill subscriptions and support and maintenance annually in advance.

Application development revenue is derived from development services around designing and building new applications or enhancing existing applications. We recognize application development revenue upon the transfer of control of the completed application or application development services. We typically bill for application development revenue in advance at contract signing, but may at times, bill one-half in advance at contract execution and one-half upon completion.

When a customer contract consists of licensing, application development and support and maintenance, we consider these separate performance obligations, which would require an allocation of consideration, of which significant judgement is required.

From time to time, we may also provide professional services by outsourcing employees to customers on a time and materials basis. Revenues from these arrangements are recognized as the services are performed. We typically bill professional service customers in the month in which the services are performed.

Application Transaction Revenue. We also generate revenue by charging advertisers to deliver advertisements (ads) to users of mobile connected devices. Depending on the specific terms of each advertising contract, we generally recognize revenue based on the activity of mobile users viewing these ads. Fees from advertisers are commonly based on the number of ads delivered or views, clicks or actions by users on mobile advertisements delivered, and we recognize revenue at the time the user views, clicks or otherwise acts on the ad. We sell ads through several offerings: cost per thousand impressions, on which advertisers are charged for each ad delivered to 1,000 consumers; cost per click, on which advertisers are billed monthly for each ad clicked or touched on by a user; and cost per action, on which advertisers are charged each time a consumer takes a specified action, such as downloading an app.

In the normal course of business, we may act as an intermediary in executing transactions with third parties. The determination of whether revenue should be reported on a gross or net basis is based on an assessment of whether we are acting as the principal or an agent in our transactions with advertisers. Control is a determining factor in assessing principal versus agent relation. The determination of whether we are acting as a principal or an agent in a transaction involves judgment and is based on an evaluation of the terms of each arrangement. ASC 606 provides indicators of when an entity controls specified goods or services and is, therefore, acting as a principal. Based on the indicators of control, we have determined that we are the principal in all advertising arrangements because we are responsible for fulfilling the promise to provide the specified advertisements to advertising agencies or companies; establishing the selling prices of the advertisements sold; and credit risk with its advertising traffic providers. Accordingly, we act as the principal in all advertising arrangements and, therefore, report revenue earned and costs incurred related to these transactions on a gross basis.

PhunToken. During 2021, we announced the commencement of the selling of PhunToken to consumers, developers and brands. PhunToken is an innovative digital asset utilized within our token ecosystem to help drive engagement by

unlocking features and capabilities of our MaaS platform. We follow the guidance of ASC 606 in determination the revenue recognition of our PhunToken sales. PhunToken customers pay us at the time of purchase of PhunToken. We recognize revenue related to PhunToken at the time of delivery of PhunToken to a customer's ethereum-based digital wallet.

Hardware Revenue

We acquired Lyte Technology in October 2021. Revenue from Lyte is primarily derived from the sale of high-performance personal computers. Lyte computers are sold with a variety of pre-packaged solutions, as well as customizable solutions selected by our customers. Customers pay us in advance of shipment of their computer via the Lyte website. A majority of Lyte's customers pay us via credit card payments, which are managed through a third party processor. We recognize computer hardware revenue, including shipping, at the time a completed unit ships from our facility.

Deferred Commissions

We defer commission costs and amortize them in a manner consistent with how we recognize revenue. Key judgments that impact our commission expense include estimating our customer life and the determination of the impairment of commission assets we deem to be unrecoverable. The Company applies a practical expedient and expenses these costs as incurred if the amortization period is one year or less.

Deferred commissions are recorded in prepaid and other current assets in our consolidated balance sheets. Changes in deferred commissions for the years ended December 31, 2022 and 2021 are as follows:

	2022	2021
Balance, beginning of the year	\$ 148	\$ 210
Deferral of commissions earned	55	73
Recognition of commission expense	(67)	(135)
Balance, end of the year	<u>\$ 136</u>	<u>\$ 148</u>

Business Combination

We account for business combinations using the acquisition method of accounting as prescribed in ASC 805, *Business Combinations (Topic 805)*. We record the assets acquired, liabilities assumed and acquisition-related contingent consideration at fair value on the date of acquisition. The difference between the purchase price, including any contingent consideration, and the fair value of net assets acquired is recorded as goodwill. We may adjust the preliminary purchase price and purchase price allocation, as necessary, during the measurement period of up to one year after the acquisition closing date as we obtain more information as to facts and circumstances that impact the determination of fair value at the acquisition date. Any change in fair value of acquisition-related contingent consideration resulting from events after the acquisition date is recognized in earnings. Acquisition-related costs are recognized separately from the acquisition and are expensed as incurred.

Concentrations of Credit Risk

Our financial instruments that are exposed to concentrations of credit risk consist primarily of cash, trade accounts receivable and our digital asset holdings.

Although we limit our exposure to credit loss by depositing our cash with established financial institutions that management believes have good credit ratings and represent minimal risk of loss of principal, our deposits, at times, may exceed federally insured limits.

There is currently no clearing house for our digital assets, including our bitcoin holdings, nor is there a central or major depository for the custody of our digital assets. There is a risk that some or all of our digital asset holdings could be lost or stolen. There can be no assurance that the custodians will maintain adequate insurance or that such coverage will cover losses with respect to our digital asset holdings. Further, transactions denominated in digital assets are irrevocable. Stolen or incorrectly transferred digital assets may be irretrievable. As a result, any incorrectly executed transactions could adversely our financial condition. The aggregate cost basis of our digital asset holdings is \$37,737 at December 31, 2022.

Collateral is not required for accounts receivable, and we believe the carrying value approximates fair value. The following table sets forth our concentration of accounts receivable, net of specific allowances for doubtful accounts.

	December 31,	
	2022	2021
Customer A	23 %	— %
Customer B	7 %	20 %
Customer C	5 %	18 %

Cash, Cash Equivalents, and Restricted Cash

We consider all investments with a maturity of three months or less from the date of acquisition to be cash equivalents. The Company had no cash equivalents or restricted cash at December 31, 2022 or 2021.

Accounts Receivable and Reserves

Accounts receivable are presented net of allowances. We consider receivables past due based on the contractual payment terms. We make judgments as to our ability to collect outstanding receivables and record a bad debt allowance for receivables when collection becomes doubtful. The allowances are based upon historical loss patterns, current and prior trends in our aged receivables, credit memo activity and specific circumstances of individual receivable balances. Accounts receivable consisted of the following:

	December 31,	
	2022	2021
Accounts receivable	\$ 1,156	\$ 977
Less allowances for doubtful accounts	(198)	(10)
Accounts receivable, net	<u>\$ 958</u>	<u>\$ 967</u>

Changes in the allowance for doubtful accounts are as follows:

	December 31,	
	2022	2021
Balance, beginning of year	\$ 10	\$ 356
Provision for doubtful accounts, net of recoveries	198	(286)
Write offs	(10)	(60)
Balance, end of year	<u>\$ 198</u>	<u>\$ 10</u>

Inventory

Our inventory consists of computer hardware materials and finished computers available-for-sale and are stated at the lower of cost or net realizable value, determined using the first-in first-out (“FIFO”) method. We purchase inventory from suppliers both domestically and internationally. We believe that our products are generally available from more than one supplier and seek to maintain multiple sources for materials, both internationally and domestically. We may, at times, purchase products in bulk quantities to take advantage of quantity discounts and to ensure inventory availability. We recognize provisions for obsolete and slow-moving inventory primarily based on judgments about expected disposition of inventory, generally, through sales, or liquidations of obsolete inventory, and expected recoverable values based on currently available or historical information.

Digital Assets

Payments by customers in and purchases by us of digital assets were primarily of bitcoin and ethereum. We currently account for all digital assets held as a result of these transactions as indefinite-lived intangible assets in accordance with ASC 350, *Intangibles—Goodwill and Other*. We have ownership of and control over our digital assets and we may use third-party custodial services or self-custody solutions to secure them. The digital assets are initially recorded at cost and are subsequently remeasured, net of any impairment losses incurred since acquisition.

We determine the fair value of our digital assets on a nonrecurring basis in accordance with ASC 820 *Fair Value Measurement*, based on quoted prices on the active exchange(s) that we have determined is the principal market for bitcoin, ethereum and other digital asset holdings (Level 1 inputs). We perform an analysis each quarter to identify whether events or changes in circumstances, principally decreases in the quoted prices on active exchanges, indicate that it is more likely than not that our digital assets are impaired. In determining if an impairment has occurred, we consider the lowest intra-day market price quoted on an active exchange since acquiring the respective digital asset. If the then current carrying value of a digital asset exceeds the fair value, an impairment loss has occurred with respect to those digital assets in the amount equal to the difference between their carrying values and the fair value. The fair value of our digital asset holdings at December 31, 2022 is \$10,808.

The impaired digital assets are written down to their fair value at the time of impairment and this new cost basis will not be adjusted upward for any subsequent increase in fair value. Gains are not recorded until realized upon sale. In determining the gain or loss to be recognized upon sale, we calculate the difference between the sales price and carrying value of the digital assets sold immediately prior to sale. Impairment losses and gains or losses on sales are recognized within other expense in our consolidated statements of operations and comprehensive loss. Impairment loss was \$22,911 and \$9,383 for the years ended December 31, 2022 and 2021, respectively.

The following table sets forth our digital asset holdings as of December 31, 2022:

Asset	Gross Carrying Amount	Accumulated Digital Asset Impairment	Digital Asset Carrying Value
Bitcoin	\$ 34,994	\$ (25,534)	\$ 9,460
Ether	1,506	(1,156)	350
Other	1,237	(910)	327
Total	\$ 37,737	\$ (27,600)	\$ 10,137

The following table sets forth our digital asset holdings as of December 31, 2021:

Asset	Gross Carrying Amount	Accumulated Digital Asset Impairment	Digital Asset Carrying Value
Bitcoin	\$ 36,963	\$ (8,554)	\$ 28,409
Ethereum	4,714	(670)	4,044
Other	287	(159)	128
Total	\$ 41,964	\$ (9,383)	\$ 32,581

Gross carrying amount and accumulated digital asset impairment noted above represent carrying amount and impairment, respectively, on the remaining cost lots as of the respective dates. Changes in our digital asset holdings for the year ended December 31, 2022 were as follows:

	Bitcoin	Ethereum	Other	Total
Net balance at December 31, 2021	\$ 28,409	\$ 4,044	\$ 128	\$ 32,581
Received from customers, net of expenses	37	378	44	459
Purchases of digital assets	923	—	—	923
Exchanges of digital assets	—	(906)	906	—
Disposal proceeds	(796)	(486)	—	(1,282)
Gain on sale of digital assets	69	298	—	367
Impairment expense	(19,182)	(2,978)	(751)	(22,911)
Net balance at December 31, 2022	\$ 9,460	\$ 350	\$ 327	\$ 10,137

Goodwill and Intangible Assets

Goodwill arises from purchase business combinations and is measured as the excess of the cost of the business acquired over the sum of the acquisition-date fair values of tangible and identifiable intangible assets acquired, less any liabilities assumed. In accordance with ASC 350, *Intangibles — Goodwill and Other*, we do not amortize goodwill or intangible assets with indefinite lives but rather assesses their carrying value for indications of impairment annually, or more frequently if events or changes in circumstances indicate that the carrying amount may be impaired.

Our business is classified into two reporting units: Phunware and Lyte. In testing goodwill for impairment, we have the option to begin with a qualitative assessment, commonly referred to as “Step 0,” to determine whether it is more likely than not that the fair value of a reporting unit containing goodwill is less than its carrying value. This qualitative assessment may include, but is not limited to, reviewing factors such as macroeconomic conditions, industry and market considerations, cost factors, entity-specific financial performance and other events, such as changes in our management, strategy and primary user base. If the Company determines that it is more likely than not that the fair value of a reporting unit is less than its carrying value, we perform a quantitative goodwill impairment analysis by comparing the carrying amount to the fair value of the reporting unit. If the carrying amount exceeds the fair value, goodwill will be written down to the fair value and recorded as impairment expense in the consolidated statements of operations. We perform our impairment testing annually and when circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying value. The Company performed its annual impairment assessment of goodwill as of October 1, 2022 and concluded that goodwill was impaired. Refer to Note 6, *Goodwill*, for further discussion on our goodwill impairment.

Identifiable intangible assets consist of acquired trade names, customer lists, technology, in-process research and development and order backlog associated with the acquired businesses. Amortization of finite-lived intangible assets is calculated using either the straight-line or accelerated amortization model based on our best estimate of the distribution of the economic value of the identifiable intangible assets.

Long-Lived Assets

Long-lived assets with definite lives are reviewed for impairment whenever events or changes in circumstances indicate that an asset’s carrying value may not be recoverable. In accordance with authoritative guidance, we evaluate the recoverability of each of our long-lived assets, including property and equipment, by comparing its carrying amount to the undiscounted future cash flows expected to be generated. If the total of undiscounted future cash flows is less than the carrying amount of an asset, an impairment would be recognized for the amount by which the carrying amount of the asset exceeds its fair value.

We did not recognize any impairment losses relating to our long-lived assets during the years ended December 31, 2022 or 2021.

Debt Issuance Costs and Discount

Debt discounts and direct costs incurred to issue non-revolving debt instruments are recognized as a reduction to the related debt balance in the accompanying consolidated balance sheets and amortized to interest expense over the contractual term of the related debt using the effective interest method.

Derivative Liabilities

When the Company issues warrants, it evaluates the proper balance sheet classification of the warrant to determine whether the warrant should be classified as equity or as a derivative liability on the consolidated balance sheet. In accordance with ASC 815-40, *Derivatives and Hedging - Contracts in the Entity’s Own Equity* (“ASC 815-40”), we classify a warrant as equity if it is indexed to our equity and several specific conditions for equity classification are met. A warrant is not considered indexed to our equity, in general, when it contains certain types of exercise contingencies or adjustments to exercise price. If a warrant is not indexed to our equity or it has net cash settlement that results in the warrants to be accounted for under ASC 480, *Distinguishing Liabilities from Equity*, or ASC 815-40, it is classified as a derivative liability which is carried on the consolidated balance sheet at fair value with any changes in its fair value recognized currently in the statement of operations. As of December 31, 2022 and 2021, we had a warrant that was classified as a liability and other warrants that were classified as equity.

We used a Black-Scholes option-pricing model to value the warrant classified as a liability at inception and subsequent valuation dates. The initial and subsequent valuations of the warrant require significant judgment.

Leases

We adopted ASU 2016-02, *Leases (Topic 842)*, as of January 1, 2021, in which we recognize a right-of-use asset and lease liability for all operating leases with terms greater than twelve months. The lease liability is measured based on the present value of the lease payments not yet paid. The right-of-use asset is measured based on the initial measurement of the lease liability adjusted for any direct costs incurred upon commencement of the lease.

We have elected certain practical expedients permitted under the guidance. We have elected to apply the short-term lease exception for all leases, which we will not recognize right-of-use assets or lease liabilities for leases that, at the commencement date, have a term of twelve (12) months or less. We have also elected not to separate non-lease components from lease components. Lease components generally include rent, taxes and insurance, while non-lease components generally include common area or other maintenance.

We lease our corporate offices under operating leases and determine if an arrangement is or contains a lease at inception. The initial terms of our real property lease agreements are generally five years and typically allow for renewals in five-year increments. We may, at times, negotiate a shorter lease renewal term. We generally do not account for any renewals at the lease adoption date. We did not enter into any financing leases for the year ended December 31, 2022.

Stock-Based Compensation

Compensation expense related to stock-based transactions, including employee and non-employee director awards, is measured and recognized in the financial statements based on fair value on the grant date of the award. We recognize stock-based compensation expense for awards with only service conditions on a ratable basis over the requisite service period of the related award, generally the vesting period of the award. We have not granted any awards with market or performance conditions. Forfeitures of all stock-based awards are accounted for when they occur.

Research and Development Expense

Research and development expenses consist primarily of personnel costs for our engineering, product, design and quality assurance teams, including stock-based compensation for individuals dedicated to our research and development function. Additionally, research and development expenses include contractor fees and allocated overhead costs. Research and development costs are expensed as incurred.

Retirement Plan

At December 31, 2022, we administered one employee retirement plan that qualified as a deferred salary arrangement under Section 401(k) of the Internal Revenue Code. Under the retirement plan, participating employees may contribute a portion of their pretax earnings, up to the Internal Revenue Service annual contribution limit. No employer matching contributions were made to the retirement plan during the years ended December 31, 2022 or 2021.

Income Taxes

We account for income taxes in accordance with ASC 740, *Income Taxes* ("ASC 740"). Under ASC 740, deferred tax assets and liabilities reflect the future tax consequences of the differences between the financial reporting and tax bases of assets and liabilities using current enacted tax rates. Valuation allowances are recorded when the realizability of such deferred tax assets does not meet the more-likely-than-not threshold under ASC 740.

Significant judgment is required in determining any valuation allowance recorded against deferred tax assets. In assessing the need for a valuation allowance, we consider all available evidence, including past operating results, estimates of future taxable income and the feasibility of tax planning strategies. In the event of a change in the determination as to the amount of deferred tax assets that can be realized, an adjustment of the valuation allowance with a corresponding impact to the provision for income taxes will be made in the period in which such determination was made.

The guidance on accounting for uncertainty in income taxes prescribes a recognition threshold and measurement attribute criterion for financial statement recognition and measurement of tax positions taken or expected to be taken in a tax return. For those benefits to be recognized, a tax position must be more likely than not to be sustained upon examination by taxing authorities.

Comprehensive Loss

We apply the guidance in ASC 220, *Comprehensive Income*, for the reporting and display of comprehensive loss and its components in the consolidated financial statements. Comprehensive loss comprises net loss and cumulative foreign currency translation adjustments. Accumulated comprehensive loss at December 31, 2022 and 2021 was due to foreign currency translation adjustments.

Loss per Common Share

Basic loss per common share is computed by dividing net loss applicable to common stockholders by the weighted average number of shares of common stock outstanding during the period. Restricted shares subject to repurchase provisions relating to early exercises under our 2009 Equity Incentive Plan were excluded from basic shares outstanding. Diluted loss per common share is computed by giving effect to all potential shares of common stock, including those related to our outstanding warrants and stock equity plans, to the extent dilutive. For all periods presented, these shares were excluded from the calculation of diluted loss per share of common stock because their inclusion would have been anti-dilutive. As a result, diluted loss per common share is the same as basic loss per common share for all periods presented. The following table sets forth common stock equivalents that have been excluded from the computation of dilutive weighted average shares outstanding as their inclusion would have been anti-dilutive:

	December 31,	
	2022	2021
Warrants	6,632,561	5,636,801
Options	961,779	925,467
Restricted stock units	2,957,995	3,576,270
Total	<u>10,552,335</u>	<u>10,138,538</u>

Fair Value Measurements

We follow the guidance in ASC 820, *Fair Value Measurement*, to measure certain assets and liabilities on a recurring and nonrecurring basis. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. As such, fair value is a market-based measurement that should be determined based on assumptions that market participants would use in pricing an asset or liability. We use a fair value hierarchy, which distinguishes between assumptions based on market data (observable inputs) and an entity's own assumptions (unobservable inputs). The guidance requires fair value measurements be classified and disclosed in one of the following three categories:

- Level 1: Unadjusted quoted prices in active markets for identical assets or liabilities.
- Level 2: Quoted prices in markets that are not active or inputs which are observable, either directly or indirectly, for substantially the full term of the asset or liability.
- Level 3: Prices or valuation techniques that require inputs that are both significant to the fair value measurement and unobservable (i.e., supported by little or no market activity).

Determining which category an asset or liability falls within the hierarchy requires significant judgment. Our assets and liabilities measured at fair value on a recurring basis as of December 31, 2022 are set forth below:

	Level 1	Level 2	Level 3	Total
Liabilities:				
Warrant liability	\$ —	\$ 256	\$ —	\$ 256
Total	<u>\$ —</u>	<u>\$ 256</u>	<u>\$ —</u>	<u>\$ 256</u>

Our assets and liabilities measured at fair value on a recurring basis as of December 31, 2021 are set forth below:

	Level 1	Level 2	Level 3	Total
Liabilities:				
Warrant liability	\$ —	\$ 3,605	\$ —	\$ 3,605
Total	\$ —	\$ 3,605	\$ —	\$ 3,605

The carrying value of accounts receivable, inventory, prepaid expenses, other current assets, accounts payable and accrued expenses are considered to be representative of their respective fair values because of the short-term nature of those instruments.

Loss Contingencies

We are subject to the possibility of various loss contingencies arising in the ordinary course of business. We accrue for loss contingencies when it is probable that an asset has been impaired or a liability has been incurred and the amount of loss can be reasonably estimated. If we determine that a loss is possible and the range of the loss can be reasonably determined, then we disclose the range of the possible loss. We regularly evaluate current information available to us to determine whether an accrual is required, an accrual should be adjusted or a range of possible loss should be disclosed.

From time to time, we are involved in disputes, litigation and other legal actions. However, there are many uncertainties associated with any litigation, and these actions or other third-party claims against us may cause us to incur substantial settlement charges, which are inherently difficult to estimate and could adversely affect our results of operations. The actual liability in any such matters may be materially different from our estimates, which could result in the need to adjust our liability and record additional expenses.

Smaller Reporting Company

We are a "smaller reporting company" as defined by Rule 12b-2 of the Exchange Act, which qualifies the Company for reduced disclosure requirements and, if permitted, additional time to implement new or revised financial accounting standards. Smaller reporting company status is determined on an annual basis.

Recent Accounting Pronouncements Not Yet Adopted

In June 2016, the FASB issued ASU No. 2016-13, *Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments* ("ASU 2016-13"). ASU 2016-13 introduces a model based on expected losses for most financial assets and certain other instruments. In addition, for available-for-sale debt securities with unrealized losses, the losses will be recognized as allowances rather than reductions in the amortized cost of the securities. As a smaller reporting company, the standard is currently effective for us for annual reporting periods beginning after December 15, 2022, with early adoption permitted for annual reporting periods beginning after December 15, 2019. We currently intend to adopt this new standard effective January 1, 2023. We currently do not expect the adoption of ASU 2016-13 to have a material impact on our consolidated financial statements and disclosures.

In August 2020, the FASB issued ASU 2020-06, *Debt – Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging – Contracts in Entity's Own Equity (Subtopic 815-40)*, ("ASU 2020-06"). ASU 2020-06 simplifies the accounting for certain financial instruments with characteristics of liabilities and equity, including convertible instruments and contracts in an entity's own equity. ASU 2020-06 is effective for smaller reporting companies for fiscal years beginning after December 15, 2023, and interim periods within those fiscal years. Early adoption is permitted, but no earlier than fiscal years beginning after December 15, 2020, including interim periods within those fiscal years. We did not have any convertible debt outstanding as of December 31, 2022; accordingly, we do not expect the adoption of ASU 2020-06 to have a material impact on our consolidated financial statements and disclosures.

3. Business Combination

On October 18, 2021, we consummated the acquisition of 100% of the outstanding equity shares of Lyte, in which we paid to the seller of Lyte consideration in the form of cash and shares of our common stock valued at approximately \$10.5 million. This acquisition was accounted for using the acquisition method of accounting and, accordingly, assets acquired, liabilities assumed and consideration exchanged was recorded at estimated fair values on the date of acquisition.

The following table summarizes our current allocation of the October 18, 2021 purchase price:

	Initial Allocation	Adjustments	Final Allocation
Cash	\$ 4	\$ —	\$ 4
Inventory	1,687	—	1,687
Intangible assets	3,340	—	3,340
Accrued expenses	—	(436)	(436)
Deferred revenue	(1,369)	(35)	(1,404)
Goodwill	6,937	35	6,972
Total purchase price	10,599	(436)	10,163
Fair value adjustments	382	—	382
Total consideration paid	<u>\$ 10,981</u>	<u>\$ (436)</u>	<u>\$ 10,545</u>

The initial fair values assigned to tangible and identifiable intangible assets acquired and liabilities assumed were based on management's estimates and assumptions at the time of acquisition. Fair values are subject to refinement for up to one year after the closing date as additional information regarding the closing date fair values becomes available. The trade name represents the rights to the "Lyte Technology, Inc." brand name, which we believe is well known in the marketplace. The useful life of the identified amortizable intangible assets acquired is five years. Goodwill was recorded to reflect the excess purchase consideration over net assets acquired and primarily consists of the future economic benefits that we expect to receive as a result of the acquisition. The amount of goodwill expected to be deductible for federal and state income tax purposes is \$437. Consideration paid to the seller included \$382 of fair value adjustments, which were recorded in Other expense in the consolidated statement of operations and comprehensive loss for the year ended December 31, 2022. Expenses we incurred as a result of the acquisition of Lyte were not material and recorded in general and administrative expenses in our consolidated statement of operations and comprehensive loss for the year ended December 31, 2021.

During 2021 and 2022, we paid to the seller of Lyte cash and stock consideration at various dates, including a final payment for an earn-out provision in October 2022 for the achievement of certain revenue milestones in the first year following closing, as provided in the stock purchase agreement.

For the year ended December 31, 2021, we generated computer hardware revenue of \$,095 and an operating loss of \$609, since the acquisition closing date. The following table summarizes the unaudited pro forma condensed financial information of Phunware, Inc for the year ended December 31, 2021 as if the acquisition of Lyte had occurred on January 1, 2021:

<i>(in thousands)</i>	Year Ended December 31, 2021 (unaudited)
Net revenues	\$ 18,175
Net loss	(53,935)

4. Revenue

Disaggregation of Revenue

The following table sets forth our net revenues by category:

	Year Ended December 31,	
	2022	2021
Net revenues		
Platform revenue	\$ 6,521	\$ 7,548
Hardware revenue	15,273	3,095
Net revenues	\$ 21,794	\$ 10,643

For the years ended December 31, 2022 and 2021, we sold \$1,535 and \$1,063, respectively, of PhunToken for which we received both cash and digital assets from customers. Revenue from sales of PhunToken is recorded within platform revenue in the table above.

We generate revenue in domestic and foreign regions and attribute net revenue to individual countries based on the location of the contracting entity. We derived 97% and 93% of our net revenues from within the United States for the years ended December 31, 2022 and 2021, respectively. Revenue by geographic location is as follows:

	Year Ended December 31,	
	2022	2021
Net revenues		
United States	\$ 21,137	\$ 9,939
International	657	704
Net revenues	\$ 21,794	\$ 10,643

Deferred Revenue

Our deferred revenue balance consisted of the following:

	December 31,	
	2022	2021
Current deferred revenue		
Platform revenue	\$ 1,531	\$ 1,824
Hardware revenue	\$ 1,373	\$ 2,149
Total current deferred revenue	\$ 2,904	\$ 3,973
Non-current deferred revenue		
Platform revenue	\$ 1,274	\$ 1,299
Total non-current deferred revenue	\$ 1,274	\$ 1,299
Total deferred revenue	\$ 4,178	\$ 5,272

Deferred revenue consists of customer billings or payments received in advance of the recognition of revenue under arrangements with customers. We recognize deferred revenue as revenue only when revenue recognition criteria are met. During the year ended December 31, 2022, we recognized revenue of \$4,028 that was included in our deferred revenue balance as of December 31, 2021.

Remaining Performance Obligations

Remaining performance obligations consist of gross deferred revenue and backlog. Remaining performance obligations were \$8,002 as of December 31, 2022, of which we expect to recognize 47% as revenue over the next 12 months and the remainder thereafter.

PhunToken

In May 2021, we announced the commencement of the selling of PhunToken. PhunToken is our innovative digital asset intended to be utilized within our token ecosystem, once developed, to help drive engagement by unlocking features and capabilities of our MaaS platform. For the years ended December 31, 2022 and 2021, we recognized revenue from PhunToken sales of \$1,535 and \$1,063, respectively, for which we received both cash and digital assets from customers. Sales of PhunToken are recorded within platform revenue in the table above.

In March 2022, certain members of our senior management team purchased 827.5 million PhunToken pursuant to Restricted Token Purchase Agreements, at an aggregate purchase price of approximately \$7. The PhunToken would have been transferred to employees over a time-based delivery schedule ranging from one to four years. In October 2022, our board of directors terminated the PhunToken Restricted Purchase Agreements, with no further PhunToken to be delivered to the employees after April 1, 2022.

As of December 31, 2022 and 2021, issued PhunToken were 377.2 million and 131.7 million, respectively. Total supply of PhunToken is capped at 10 billion.

5. Inventory

Our inventory balance on the dates presented consisted of the following:

	December 31, 2022	December 31, 2021
Raw materials	\$ 2,968	\$ 2,075
Work-in-process	—	207
Finished goods	50	138
Other	30	216
Inventory reserve	(268)	—
Total inventory	<u>\$ 2,780</u>	<u>\$ 2,636</u>

6. Goodwill and Other Intangible Assets

Goodwill

Changes in the Company's goodwill balance for the years ended December 31, 2022 and 2021, are summarized in the table below:

	2022	2021
Balance, beginning of period	\$ 33,260	\$ 25,900
Acquisition of Lyte	35	7,374
Foreign currency translation	(121)	(14)
Impairment of goodwill	(2,061)	—
Balance, end of period	<u>\$ 31,113</u>	<u>\$ 33,260</u>

We test goodwill for impairment annually during the fourth quarter, or more frequently when events or changes in circumstances indicate that the fair value is below its carrying value.

We performed quantitative testing on our Lyte reporting unit as of October 1, 2022, using a combination of the discounted cash flow (income approach) utilizing Level 3 unobservable inputs and the Guideline Public Company Method (market approach). Based on the analysis performed, we concluded that the carrying amount of the reporting unit exceeded its fair value resulting in a non-cash goodwill impairment charge of \$2,061 included in Impairment of goodwill in the consolidated statement of operations and comprehensive loss for the year ended December 31, 2022. Higher than expected losses during our first full year of operations of Lyte resulted in the impairment.

We also performed quantitative testing on our Phunware reporting unit as of October 1, 2022, and determined that no further goodwill impairments existed.

The goodwill impairment analysis referenced above used the discounted cash flow model (income approach) utilizing Level 3 unobservable inputs. Significant assumptions in this analysis included, but were not limited to, future cash flow projections, the weighted average cost of capital, the terminal growth rate and the tax rate. Estimates of future cash flows are based on current regulatory and economic climates, recent operating results, and planned business strategies. These estimates could be negatively affected by changes in federal, state, or local regulations or economic downturns. Future cash flow estimates are, by their nature, subjective and actual results may differ materially from estimates. If the Company's ongoing estimates of future cash flows are not met or if discount rates change, the Company may have to record additional impairment charges in future periods. We also used the Guideline Public Company Method (market approach). The significant assumptions used in this analysis include, but are not limited to, the derived multiples from comparable market transactions and other market data. The selection of comparable businesses is based on the markets in which the reporting unit operates giving consideration to risk profiles, size, geography, and diversity of products. We applied an overall probability-weighting to the income and market approaches to determine the concluded fair value of the reporting unit. We believe the current assumptions and estimates utilized in the income and market approaches are both reasonable and appropriate.

Intangible Assets

Our intangible assets, excluding goodwill, consist of intangible assets acquired in business combinations and were recorded at their estimated fair values on the date of acquisition. The finite-lived intangible assets that are being amortized are summarized in the table below:

	Weighted Average Useful Life (years)	December 31, 2022			December 31, 2021		
		Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Trade name	5.0	\$ 3,986	\$ (1,462)	\$ 2,524	\$ 3,990	\$ (799)	\$ 3,191
Acquired technology	5.1	4,828	(4,828)	—	4,828	(4,828)	—
In-process research and development	5.0	94	(94)	—	94	(94)	—
Customer relationships	5.7	4,535	(4,535)	—	4,626	(4,604)	22
Order backlog	1.5	329	(329)	—	329	(329)	—
		<u>\$ 13,772</u>	<u>\$ (11,248)</u>	<u>\$ 2,524</u>	<u>\$ 13,867</u>	<u>\$ (10,654)</u>	<u>\$ 3,213</u>

Amortization expense for the years ended December 31, 2022 and 2021, was approximately \$89 and \$238, respectively.

Expected future annual amortization expense for finite-lived intangible assets is as follows:

Future amortization expense for the years ending December 31,	Amortization
2023	\$ 668
2024	668
2025	668
2026	520
Total	<u>\$ 2,524</u>

7. Accrued Expenses

Accrued expenses consisted of the following:

	December 31,	
	2022	2021
Acquisition and earn out payable	\$ —	\$ 5,531
Payroll related expenses	899	2,801
Interest payable	618	203
Accounts payable settlement	231	446
Taxes	457	259
Other	690	381
Total accrued expenses	\$ 2,895	\$ 9,621

8. Debt

2022 Promissory Note

On July 6, 2022, we entered into a note purchase agreement and completed the sale of an unsecured promissory note (the "2022 Promissory Note") with an original principal amount of \$12,809 in a private placement with the same investor of our 2021 Promissory Note, discussed further below. The 2022 Promissory Note was sold with an original issue discount of \$492 and we paid at closing issuance costs totaling \$522. After deducting all transaction fees paid by us at closing, net cash proceeds to the Company at closing were \$11,795. No interest will accrue on the 2022 Promissory Note unless and until the occurrence of an event of default, as defined in the 2022 Promissory Note. Beginning on November 1, 2022 and on the same day of each month thereafter until the 2022 Promissory Note is paid in full, we are required to make a monthly amortization payments in the amount of \$1,566 until the maturity date of July 1, 2023, which is subject to adjustment for any payment deferrals we elect. We have the right to defer any monthly payment by one month up to twelve times so long as certain conditions, as defined in the 2022 Promissory Note, are satisfied. In the event we exercise the deferral right for any given month: (i) the outstanding balance will automatically increase by 1.85%; (ii) we will not be obligated to make the monthly payment for such month; and (iii) the maturity date will be extended for one month. We may prepay any or all outstanding balance of the 2022 Promissory Note earlier than it is due with a prepayment premium of 110%. The prepayment premium also applies to the monthly amortization payments. The effective interest rate of the 2022 Promissory Note is 15.34%.

The 2022 Promissory Note had a principal balance of \$9,962 and debt discount of \$295 as of December 31, 2022.

On March 15, 2023, we entered into a waiver agreement with the noteholder. See Note 17 below for further discussion.

2021 Promissory Note

In connection with the acquisition of Lyte, we entered into a note purchase agreement and completed the sale of an unsecured promissory note (the "2021 Promissory Note") with an original principal amount of \$5,220 in a private placement that closed on October 18, 2021. The promissory note was sold with an original issue discount of \$300 and we paid at closing issuance costs totaling \$280. After deducting all transaction costs, net cash proceeds to the Company were \$4,740. No interest will accrue on the 2021 Promissory Note unless and until the occurrence of an event of default, as defined in the 2021 Promissory Note. We may prepay any or all outstanding balance of the 2021 Promissory Note earlier than it is due with a prepayment premium of 110%. The prepayment premium also applies to the monthly amortization payments, which amounts to an effective interest rate of approximately 18%. Beginning on January 15, 2022 and on the same day of each month thereafter until the promissory note is paid in full, we are required to make a monthly amortization payments in the amount of \$574 until the maturity date of October 15, 2022.

The 2021 Promissory Note had a principal balance of \$5,220 and debt discount \$316 as of December 31, 2021. In October 2022, we paid the final payment amount of \$574 on the 2021 Promissory Note.

2020 Convertible Notes

On July 15, 2020, we issued a Series A Senior Convertible Note (a "Series A Note") to an institutional investor with an initial principal amount of \$320 (reflecting an original issue discount of \$320) in a private placement. On the same date, we issued a Series B Senior Secured Convertible Note (a "Series B Note," and together with the Series A Note, the "2020 Convertible Notes") to the same investor with an initial principal amount of \$17,280 (reflecting an original issue discount of \$1,280). The investor paid for the Series B Note by delivering a secured promissory note (the "Investor Note") with an initial principal amount of \$16,000.

We received cash under the Series B Note only upon cash repayment of the corresponding Investor Note. The investor, at its option and at any time, had the right to voluntarily prepay the Investor Note, in whole or in part. Until the Investor Note was repaid, the principal (and related original issue discount) of the Series B Note was considered to be "restricted." The Series B Note and the Investor Note were subject to the terms of a Master Netting Agreement between us and the investor. Upon repayment of the Investor Note, an equal amount of the Series B Note became "unrestricted" and recorded as debt in our consolidated balance sheets.

The Series A Note and outstanding unrestricted principal balance on the Series B Note each bore interest at a rate of 7% per annum and includes a make-whole of interest from the date of issuance through the maturity date of December 31, 2021. The restricted principal of the Series B Note bore interest at a rate of 3% per annum. The 2020 Convertible Notes were scheduled to mature on December 31, 2021.

As a result of multiple offerings of sales of shares of our common stock in 2021, the investor elected to require us to use forty percent (40%) of the net proceeds from those offerings to satisfy obligations under the 2020 Convertible Notes. During the first quarter of 2021, we paid approximately \$11,507, of which \$5,717 was recorded as a loss on extinguishment of debt. We also recorded a loss on extinguishment of debt of \$51 related to monthly installment payments made to the investor during the same time period.

In March 2021, the investor voluntarily prepaid an aggregate of \$10,250 pursuant to the terms of the Investor Note. As a result, we received cash proceeds of \$10,250 and this amount of principal of the Series B Note, along with \$820 of original issue discount became "unrestricted" and outstanding.

On March 25, 2021, we delivered a Company Optional Redemption Notice (as defined in the Series B Note) to the holder of our Series B Note exercising our right to redeem and fully satisfy all obligations under the Series B Note on April 5, 2021. On April 5, 2021, we paid \$13,902 in cash to the noteholder of our 2020 Convertible Notes in full satisfaction of all obligations under our Series B Note, which amounted to \$11,718 of principal, interest and make-whole and \$2,184 for the loss on extinguishment of debt.

Warrant

In addition to the 2020 Convertible Notes, we issued a warrant exercisable for three (3) years for the purchase, initially, of up to an aggregate of 2,160,000 shares of the Company's common stock at an initial exercise price of \$4.00 per share. The number of shares and exercise price are each subject to adjustment provided under the warrant. As a result of our underwritten public offering in February 2021, the exercise price of each share decreased to \$2.25 per share, while the number of shares for which the warrant is exercisable increased proportionately such that the total exercise price remained unchanged. In October 2021, we issued shares to the seller of Lyte as purchase consideration at a price of \$1.4246 per share, and as a result, the exercise price of the warrant adjusted accordingly and the number of shares exercisable thereunder increased to 2,811,315.

If, at the time of exercise of the warrant, there is no effective registration statement registering, or no current prospectus available for, the issuance of the shares, then the warrant may also be exercised, in whole or in part, by means of a "cashless exercise." The registration statement registering 2,160,000 shares of our common stock issuable pursuant to the terms of the warrant was declared effective by the SEC on October 27, 2020. In February 2022, we filed a registration statement registering an additional 4,200,000 warrant shares. The warrant may not be exercised if, after giving effect to the exercise, the investor would beneficially own amounts in excess of those permissible under the terms of the warrant. As more fully discussed in Note 12, the holder partially exercised its warrant during 2021.

The following table sets forth the assumptions used and calculated aggregated fair values of the liability classified warrants:

	December 31, 2022	December 31, 2021
Strike price per share	\$ 1.42	\$ 2.25
Closing price per share	\$ 0.77	\$ 2.63
Term (years)	0.53	1.53
Volatility	102 %	186 %
Risk-free rate	4.70 %	0.56 %
Dividend Yield	—	—

Upon issuance of the warrant, we recorded a warrant liability as a discount to the 2020 Convertible Notes of \$2,486. A summary of the change in fair value of the warrant liability is set forth below:

	2022	2021
Balance, beginning of year	\$ 3,605	\$ 1,614
Warrant issued	—	—
Warrant Exercised	—	(16,148)
Change in fair value of warrant liability	(3,349)	18,139
Balance, end of year	<u>\$ 256</u>	<u>\$ 3,605</u>

Participation Rights

In addition, the Company granted the 2020 Convertible Notes investor participation rights in future equity and equity-linked offerings of securities, subject to certain limited exceptions, during the two years after the later of (a) the closing or (b) the date the 2020 Convertible Notes no longer remain outstanding, in an amount of up to 30% of the securities being sold in such offerings.

Paycheck Protection Program ("PPP") Loan

On April 10, 2020, we received loan proceeds in the amount of \$2,850 from JPMorgan Chase, N.A. pursuant to the PPP under the Coronavirus Aid, Relief and Economic Security Act (the "CARES Act"), which was enacted on March 27, 2020. The loan, which was in the form of a note dated April 9, 2020, was originally scheduled to mature on April 9, 2022 and bore interest at a rate of 0.98% per annum. The Paycheck Protection Flexibility Act of 2020, extended the deferral period for loan payments to either (i) the date that the U.S. Small Business Administration ("SBA") remits the borrower's loan forgiveness amount to the lender or (ii) if the borrower does not apply for loan forgiveness, ten months after the end of the borrower's loan forgiveness covered period. The note may be prepaid by us at any time prior to the maturity with no prepayment penalties.

The principal amount of our PPP loan was subject to forgiveness under the PPP. On July 7, 2021, we submitted our request to the SBA to forgive the full principal amount of the loan and on August 16, 2021, we received notification that the SBA approved our PPP loan forgiveness application. We recorded a gain on the forgiveness of the PPP loan and related interest for the year ended December 31, 2021.

Promissory Notes

In October 2019, our board of directors authorized the issuance of \$20,000 of promissory notes (the "Notes"), which may be paid by investors in the form of cash or, in our discretion, cryptocurrency, such as bitcoin or ethereum. The Notes were sold in reliance on an exemption from registration. We may prepay the Notes at any time without penalty. We may not issue Notes under the Purchase Agreement in excess of \$20,000, in the aggregate, unless otherwise agreed by the holders of a majority in interest of the principal outstanding under the Notes. Transaction costs related to the issuance of the Notes were immaterial.

The Notes bore ordinary interest at a rate of 10% per annum. Interest under the Notes was payable monthly beginning on November 30, 2019. During the term of the Notes, we were required to maintain a restricted bank account with a minimum balance of one year of interest payments on the aggregate principal balance of all Notes, which will be available for use exclusively to satisfy any payments owed by us under the Notes. The principal and unpaid accrued interest on the Notes were due and payable on demand by the majority Note holders on or after the date that is 60 months following November 15, 2019.

During 2019, the Company issued a Note in the principal amount of \$195, in exchange for cash consideration, to Cane Capital, LLC, an entity owned in part by Alan S. Knitowski, who at the time of issuance of the Note was our Chief Executive Officer and a member of its board of directors. Interest expense recognized for this Note was not significant.

On October 27, 2021, we paid \$905 in cash to each Note holder in full satisfaction of all obligations under the Notes.

Interest Expense

The following table sets forth interest expense for our various debt obligations included in the consolidated statements of operations and comprehensive loss:

	Year Ended December 31,	
	2022	2021
2022 Promissory Note	\$ 903	\$ —
2021 Promissory Note	318	203
2020 Convertible Notes	—	1,111
Accretion of debt discount - issuance costs	1,034	1,913
Accretion of debt discount - warrants	—	1,029
All other debt and financing obligations	151	225
Total	\$ 2,406	\$ 4,481

9. Leases

We lease four corporate offices located in Austin, Texas; Irvine, California; San Diego, California; and Miami, Florida and a warehouse facility in Round Rock, Texas for our Lyte operations. As of December 31, 2022, the earliest lease agreement currently ends in June 2023 with the latest terminating in September 2027.

On March 15, 2022, we entered into a lease agreement, in which we lease approximately 21,830 square feet in Round Rock, Texas, which we intend to use as manufacturing and warehouse space for our Lyte computer division. The term of the lease is five years and commenced in July 2022. The lease provides for initial base rent payments of approximately \$27 per month, subject to escalations. In addition, we are responsible for payments equal to our proportionate share of operating expenses, which is currently estimated to be approximately \$7 per month, which is also subject to adjustment to actual costs and expenses according to provisions of the lease. During the third quarter of 2022, we recorded a right-of-use asset and corresponding lease liability of \$1,545.

On June 3, 2022, we entered into a lease agreement pursuant to which we lease approximately 7,458 square feet in Austin, Texas, which we intend to use as professional office space for our corporate headquarters. The lease commenced on June 10, 2022 and has a term of sixty-four (64) months, with an option to renew the lease for an additional five-year term at the conclusion of the initial term. The lease provides for rent abatement until September 30, 2022. Beginning on October 1, 2022, initial base rent payments are approximately \$28 per month, subject to escalations contained therein. In addition, we will be responsible for payments equal to our proportionate share of operating expenses, which is currently estimated to be approximately \$9 per month, plus electrical and janitorial services, which are to be contracted and paid separately by us. As a result of entering into this lease agreement, we recorded a right-of-use asset and corresponding lease liability of \$1,508 on the commencement date noted above.

The weighted-average remaining lease term for our operating leases as of December 31, 2022 and 2021 was 3.98 years and 3.14 years, respectively. As our leases generally do not include an implicit rate, we compute our incremental borrowing rate based on information available at the lease commencement date applying a rate to each lease. This approach requires significant judgment. We used incremental borrowing rates that match the duration of the remaining lease terms of our operating leases on a fully collateralized basis at the time we enter into the lease to initially measure our lease liability. The weighted average

incremental borrowing rate used to measure our lease liability was 9.80% and 19.13% at December 31, 2022 and 2021, respectively.

We recognize lease expense on a straight-line basis over the lease term with variable lease expense recognized in the period in which the costs are incurred. The components of lease expense are included in general and administrative expense in our consolidated statement of operations and comprehensive loss. Rent expense under operating leases totaled \$1,102 and \$809 for the years ended December 31, 2022 and 2021, respectively.

Future minimum annual lease payments under the Company's operating leases are as follows:

Future minimum lease obligations for the years ending December 31,	Lease obligations
2023	\$ 1,296
2024	1,305
2025	929
2026	744
2027	508
	<hr/>
	\$ 4,782
Less: Portion representing interest	\$ (725)
	<hr/>
	\$ 4,057
	<hr/> <hr/>

In 2021, we entered into two sublease agreements for our Miami, Florida and Irvine, California office spaces, in which the subtenants will pay us monthly base rent, subject to escalations throughout the term of the sublease. The sublease agreements terminate on June 30, 2023 and March 31, 2025, respectively. We recognized an impairment of our right-of-use assets related to the subleases of \$77 and \$51 in our consolidated statement of operations and comprehensive loss for the year ended December 31, 2022 and 2021, respectively. We recognized sublease income of \$300 and \$154 for the year ended December 31, 2022 and December 31, 2021, respectively.

10. Commitments and Contingencies

Litigation

On March 30, 2021, Phunware filed an action against its former counsel Wilson Sonsini Goodrich & Rosati, PC (“WSGR”). The matter is Phunware, Inc., v. Wilson Sonsini Goodrich & Rosati, Professional Corporation, Does 1-25, Case No. 21CV381517, filed in the Superior Court of the State of California for the County of Santa Clara. On July 30, 2021, we filed a second action against WSGR in the Superior Court of the State of California for the County of Santa Clara. This matter is captioned Phunware, Inc., v. Wilson Sonsini Goodrich & Rosati, Professional Corporation, Does 1-25, Case No. 21CV386411. The two actions are pending in arbitration. The outcome is not certain. The relief sought, as stated in the complaints, are damages according to proof, interest and costs of suit. WSGR filed a crossclaim in arbitration related to services provided to Phunware. WSGR seeks to recover fees related to the services at issue in Phunware’s actions against WSGR, of which \$4,321 is recorded in accounts payable in our consolidated balance sheets as of December 31, 2022 and 2021.

On February 18, 2022, certain stockholders filed a lawsuit against Phunware and its individual officers and directors. The case, captioned Wild Basin Investments, LLC, et al. v. Phunware, Inc., et al., was filed in the Court of Chancery of the State of Delaware (Cause No. 2022-0168-LWW). Plaintiffs alleged that they invested in various early rounds of financing while the Company was private and that Phunware should not have subjected their shares to a 180-day “lock up” period. Plaintiffs also allege that Phunware’s stock price dropped significantly during the lock up period and seek damages, costs and professional fees. We filed a motion to dismiss the complaint on May 27, 2022 and on July 15, 2022, Plaintiffs filed their answering brief in opposition to the motion to dismiss and a partial motion for summary judgement. All briefing on the motion to dismiss and motion for partial summary judgement is complete. The Court of Chancery has scheduled a hearing on the motions for April 4, 2023. We intend to vigorously defend against this lawsuit and any appeals. We have not recorded an expense related to this matter because any potential loss is not currently probable or reasonably estimable. Additionally, we cannot presently estimate the range of loss, if any, that may result from the matter. It is possible that the ultimate resolution of the foregoing matter, or other similar matters, if resolved in a manner unfavorable to us, may be materially adverse to our business, financial condition, results of operations or liquidity.

From time to time, we are and may become involved in various legal proceedings in the ordinary course of business. The outcomes of our legal proceedings are inherently unpredictable, subject to significant uncertainties, and could be material to our operating results and cash flows for a particular reporting period. In addition, for the matters disclosed above that do not include an estimate of the amount of loss or range of losses, such an estimate is not possible, and we may be unable to estimate the possible loss or range of losses that could potentially result from the application of non-monetary remedies.

11. PhunCoin

In June 2018, we launched an offering pursuant to Rule 506(c) of Regulation D as promulgated under the Securities Act of rights to acquire PhunCoin (the "Rights"). In 2019, we commenced an offering of additional Rights to acquire PhunCoin pursuant to Regulation CF promulgated under the Securities Act, which closed May 1, 2019. For both offerings of Rights, we accepted payment in the form of cash and digital assets. The amount of PhunCoin to be issued to the purchaser is equal to the dollar amount paid by the purchaser divided by the price of the PhunCoin at the time of issuance of the PhunCoin during the launch of the Token Ecosystem (as defined below) before taking into consideration any applicable discount rate, which is based on the time of the purchase.

Through December 31, 2022, we received aggregate net cash proceeds from our Rights offerings of \$1,202. Proceeds from the Rights are recorded as PhunCoin deposits in the consolidated balance sheet as of December 31, 2022 and 2021. We currently do not plan to raise additional material proceeds through the sales of PhunCoin Rights.

Issuance of PhunCoin

PhunCoin is expected to be issued to Rights holders the earlier of (i) the launch of our blockchain technology enabled rewards marketplace and data exchange ("Token Ecosystem" or "Token Generation Event"), (ii) one (1) year after the issuance of the Rights to the purchaser or (iii) the date we determine that we have the ability to enforce resale restrictions with respect to PhunCoin pursuant to applicable federal securities laws. Proceeds from the Rights offerings are generally not refundable if the Token Generation Event is not consummated.

In 2021, we notified holders of the PhunCoin Rights to request they complete additional information needed for issuance and we currently anticipate that PhunCoin will be transferred to the holders of the Rights in 2023. Holders of the Rights may be transferred PhunCoin even if the Token Ecosystem is not yet fully developed. PhunCoin may not be able to be fully utilized until the Token Ecosystem is fully developed.

There can be no assurance as to when (or if) we will be able to successfully issue PhunCoin or complete the development of the Token Ecosystem. The Company is currently developing multiple aspects of the Token Ecosystem, as well as coordinating with trading platforms to support compliant transfer and trading of PhunCoin. The continued adjustment of dates to complete the development of the Token Ecosystem have been and may be adjusted based on user feedback, additional aspects of the Token Ecosystem currently under development and the ability to meet evolving applicable requirements; therefore, a specific development completion date for the Token Ecosystem is difficult to determine at this time, as it is based on many external factors outside of our control.

Termination of the Token Rights Agreement

Termination of the Token Rights Agreement occurs on the earlier of (i) PhunCoin being issued to the Rights holder pursuant to the provisions noted above, (ii) the payment, or setting aside of payment with respect to a dissolution event (as described below) or (iii) twelve months from the date of the Token Rights Agreement with the Rights holder, which we may extend at our sole discretion for six months if a Token Generation Event has not occurred. Upon termination of the Token Rights Agreement, we have no further obligation to the Rights holder. While the Token Rights Agreement has terminated in accordance with its terms (with respect to all Rights holders), as of the date of this Annual Report, we have determined to continue our obligations under the Token Rights Agreement and transfer of PhunCoin to the holders of rights.

Dissolution Event

A dissolution event occurs if there has been (i) a voluntary termination of our operations, (ii) a general assignment for the benefit of creditors, (iii) a change of U.S. laws that make the use or issuance of PhunCoin or the Token Generation Event impractical or unfeasible or (iv) any other liquidation, dissolution or winding up of the Company.

In the event a dissolution event occurs prior to the termination of the Token Rights Agreement, if there are any remaining proceeds from the Rights offering that have not been utilized by us in our operations or for the development of the Token Ecosystem, such remaining proceeds would be distributed pro rata to purchasers in the Rights offering following any distributions to holders of our capital stock or debt, if any.

No Voting Rights or Profit Share

Rights holders (and eventual PhunCoin holders) have no voting rights and are not entitled to share in the profits or residual interest of Phunware or any subsidiaries of the Company. However, PhunCoin holders will be provided fractional economic interests in the Token Ecosystem, including monthly PhunCoin or other distributions to PhunCoin holders, based on

their respective ownership percentage of and other elections with respect to PhunCoin, totaling 2.5% or more of certain Token Ecosystem revenues.

PhunCoin Warrants

In 2018, we issued warrants to receive PhunCoin to sixty-eight (68) stockholders. At the time of issuance, we determined there should be no value assigned to the rights to receive PhunCoin under these warrants issued to the stockholders, for the following reasons: (i) the PhunCoin-related rights in these warrants (x) lacked characteristics of financial instruments and derivatives, and (y) did not obligate us to achieve the Token Generation Event or launch and distribute PhunCoin to the warrant holders and (ii) there was not a market for PhunCoin and they did not exist.

Should we complete a Token Generation Event, the warrant holders would receive their requisite amount of PhunCoin.

12. Stockholders' Equity

Common Stock

Total common stock authorized to be issued as of December 31, 2022 was 1,000,000,000 shares with a par value of \$0.0001 per share. At December 31, 2022 and 2021, there were 103,153,337 and 96,751,610 shares outstanding, respectively.

On January 31, 2022, we entered into an At Market Issuance Sales Agreement with H.C. Wainwright & Co., LLC ("Wainwright"), pursuant to which we may offer and sell, from time to time, shares of our common stock, par value \$0.0001 per share, for aggregate gross proceeds of up to \$100,000, through or to Wainwright, as agent or principal. We are not obligated to sell shares of our common stock under the sales agreement with Wainwright. The Company and Wainwright may each terminate the sales agreement at any time with five days prior written notice. As of December 31, 2022, 2,623,460 shares of our common stock have been sold for aggregate cash proceeds of \$4,562, net of transaction costs of \$101. We also incurred additional transaction costs paid outside of closing of \$163. Sales of shares of our common stock sold under the sales agreement will be made pursuant to an effective shelf registration statement on Form S-3 in the amount of \$200,000 filed with the SEC on February 1, 2022.

On August 14, 2020, we entered into an At-The-Market Issuance Sales Agreement (the "Sales Agreement") with Ascendant Capital Markets, LLC ("Ascendant"), as sales agent, pursuant to which the Company would offer and sell, from time to time, through Ascendant shares of our common stock for an aggregate offering price of up to \$15,000. During 2021, 2,670,121 shares of our common stock were sold for aggregate net cash proceeds of \$,058. Transaction costs were \$156. We terminated the Sales Agreement with Ascendant effective as of March 28, 2021.

In February 2021, we entered into an underwriting agreement with Northland Securities, Inc. and Roth Capital Partners, LLC, relating to an underwritten public offering to which we issued 11,761,111 shares of our common stock at an offering price of \$2.25 per share. Aggregate cash proceeds at closing, net of transaction costs of \$1,740, totaled \$24,722. We incurred additional transaction costs paid outside of closing of \$75.

On April 7, 2021, we entered into an At Market Issuance Sales Agreement with B. Riley Securities, Inc. ("B. Riley"), pursuant to which we offered and sold, from time to time, shares of our common stock through or to B. Riley. We paid B. Riley a commission of 3% of the gross proceeds of the sales price per share for sales of our common stock sold through or to B. Riley. During 2021, 20,951,043 shares of our common stock had been sold and we had received aggregate net cash proceeds of \$5,210. Transaction costs were \$2,017. We also incurred additional transaction costs paid outside of closing of \$178. We terminated the sales agreement with B. Riley on February 4, 2022, with an effective date of February 9, 2022.

Dividends

Dividends are paid on a when-and-if-declared basis. We did not declare any dividends during 2022 or 2021.

Warrants

We have various warrants outstanding. A summary of our outstanding warrants is set forth below:

Warrant Type	December 31, 2022		December 31, 2021	
	Cash Exercise Price per share	Number of warrants	Cash Exercise Price per share	Number of warrants
2020 Convertible Notes warrant	\$ 1.42	2,811,315	\$ 2.25	1,780,000
Common stock warrant (Series D-1)	\$ —	—	\$ 2.25	35,555
Common stock warrants (Series F)	\$ 9.22	377,402	\$ 9.22	377,402
Public Warrants (PHUNW)	\$ 11.50	1,761,291	\$ 11.50	1,761,291
Private Placement Warrants	\$ 11.50	1,658,381	\$ 11.50	1,658,381
Unit Purchase Option Warrants	\$ 11.50	24,172	\$ 11.50	24,172
Total		6,632,561		5,636,801

Refer to Note 8, *Debt*, for details of our warrant issued in connection with our 2020 Convertible Notes. During 2021, the holder of our 2020 Convertible Notes partially exercised its warrant for 2,060,000 shares of common stock with an exercise price of \$2.25 per share for net proceeds of \$4,635.

In 2012, we issued a Series D-1 warrant to initially purchase an aggregate of 14,866 shares of the Company's common stock with an initial exercise price of \$5.54 per share to a banking institution with which we previously had a revolving line of credit. As a result of our underwritten public offering in February 2021, the exercise price of each share decreased to \$2.25 per share, and the number of shares for which the warrant is exercisable increased to 35,555 shares. The warrant expired December 21, 2022.

In 2018, but prior to our reverse merger with Stellar, we issued warrants (Series F above) to purchase an aggregate of 1,085,059 shares of common stock with an exercise price of \$9.22 per share. The term of the warrants is the earlier of (i) June 5, 2023, (ii) an acquisition, merger, or consolidation of the Company or a sale, lease or other disposition of all or substantially all of the assets of Phunware and its subsidiaries, except (a) any sale of stock for capital raising purposes, (b) purpose of changing the Company's state of incorporation, and (c) where the stockholders of Phunware immediately before such transaction retain at least a majority of the voting power immediately following such transaction; or (iii) immediately prior to an initial public offering. The reverse merger with Stellar did not trigger an expiration of the warrant pursuant to term (ii) or (iii) above. These warrants are fully vested.

We have common stock warrants trading under the Nasdaq ticker symbol PHUNW (the "Public Warrants"). Each Public Warrant entitles the holder to purchase one share of common stock at an exercise price of \$11.50 per share and are fully exercisable by the holder. No fractional shares will be issued upon exercise of the Public Warrants. We may redeem the outstanding Public Warrants in whole and not in part at a price of \$0.01 per Public Warrant upon a minimum of 30 days' prior written notice of redemption, only in the event that the last sale price of shares of our common stock equals or exceeds \$21.00 per share for any 20 trading days within the 30-trading day period ending on the third trading day before the Company sends the notice of redemption to the Public Warrant holders. The Public Warrants will expire December 26, 2023 or earlier upon redemption or liquidation.

The Private Placement Warrants entitle the holder to purchase one share of common stock at an exercise price of \$11.50 per share and are fully exercisable by the holder. The Private Placement Warrants are exercisable for cash or on a cashless basis, at the holder's option and will not be redeemable in each case so long as they are still held by the initial purchasers or their affiliates. The Private Placement Warrants will expire December 26, 2023.

The Unit Purchase Option Warrants noted in the table above have the same terms as the Private Placement Warrants as described above.

13. Stock-Based Compensation

2018 Equity Incentive Plan

In 2018, our board of directors adopted, and our stockholders approved, the 2018 Equity Incentive Plan, as amended (the “2018 Plan”). The purposes of the 2018 Plan are to attract and retain the best available personnel for positions of substantial responsibility, to provide additional incentives to employees, directors and consultants who perform services for the Company, and to promote the success of our business. These incentives are provided through the grant of stock options, stock appreciation rights, restricted stock, restricted stock units, performance units and performance shares. Shares will be delivered electronically to the holder shortly after exercise or vest date pursuant to an effective registration statement.

The number of shares of common stock available for issuance under the 2018 Plan will also include an annual increase on the first day of each fiscal year, equal to the lesser of 5% of the outstanding shares of common stock on the last day of the immediately preceding fiscal year or such other amount as our board of directors may determine.

In addition, the shares of common stock reserved for issuance under the 2018 Plan also will include any shares of common stock subject to stock options, restricted stock units or similar awards granted under the 2009 Equity Incentive Plan (the “2009 Plan”), that, on or after the adoption of the 2018 Plan, expire or otherwise terminate without having been exercised in full and shares of common stock issued pursuant to awards granted under the 2009 Plan that are forfeited to or repurchased by us. As of December 31, 2022, the maximum number of shares of common stock that may be added to the 2018 Plan pursuant to the foregoing is 874,279. Not including the maximum number of shares from the 2009 Plan that may be added to the 2018 Plan, the 2018 Plan had 4,382,662 and 762,038 shares of common stock reserved for future issuances as of December 31, 2022 and December 31, 2021, respectively.

Restricted Stock Units

A summary of our restricted stock unit activity is set forth below:

	Shares	Weighted Average Grant Date Fair Value
Outstanding as of December 31, 2021	3,576,270	\$ 1.94
Granted	1,728,598	1.67
Released	(1,803,212)	1.82
Forfeited	(543,661)	2.12
Outstanding as of December 31, 2022	<u>2,957,995</u>	<u>\$ 1.75</u>

During the first quarter of 2021, we granted 3,488,262 restricted stock unit awards to team members with an average grant date fair value of \$0.03 per share. The awards granted to team members vest over a range of 10 to 51 months with various installment and vesting dates, and are subject to service conditions. We also granted 652,170 restricted stock units to non-employee directors, each with a grant date fair value of \$1.22. The awards vest in four equal installments on March 4, 2021, June 4, 2021, September 4, 2021, and December 4, 2021, and are subject to service conditions. We also granted 97,744 restricted stock units to non-employee directors, with a grant date fair value of \$1.22 per share in lieu of cash compensation board fees for services provided. These awards vested immediately.

During the second quarter of 2021, we granted 54,000 restricted stock unit awards to team members with an average grant date fair value of \$1.23 per share. The awards granted to team members vest over a range of 47 months with various installment and vesting dates, and are subject to service conditions.

During the third quarter of 2021, we granted 54,000 restricted stock unit awards to team members with an average grant date fair value of \$1.09 per share. The awards granted to team members vest over a range of 47 months with various installment and vesting dates, and are subject to service conditions.

During the fourth quarter of 2021, we granted 170,000 restricted stock unit awards to team members with an average grant date fair value of \$0.97 per share. The awards granted to team members vest over a range of 47 months with various

installment and vesting dates, and are subject to service conditions. We also granted 368,672 restricted stock units to non-employee directors, each with a grant date fair value of \$1.35. The awards vest in four equal installments throughout 2022 and are subject to service conditions.

During the third quarter of 2022, we granted 1,267,000 restricted stock unit awards to team members with an average grant date fair value of \$1.57 per share. The awards granted to team members vest over a range of 39 to 49 months with various installment and vesting dates, and are subject to service conditions. We also granted 25,000 restricted stock units to a non-employee consultant with a grant date fair value of \$1.70. The award vests on March 31, 2023 and is subject to service conditions.

During the fourth quarter of 2022, we granted 39,000 restricted stock unit awards to team members with an average grant date fair value of \$1.52 per share. The awards granted to team members vest over a range of 48 months with various installment and vesting dates, and are subject to service conditions. We also granted 397,598 restricted stock units to non-employee directors, each with a grant date fair value of \$1.48. The awards granted to non-employee directors generally vest quarterly over 12 months, and are subject to service conditions.

The restricted stock unit grants were valued based on the fair value of our common stock on the date of grant.

Pursuant to an agreement entered into by us with our former Chief Executive Officer, we modified the remaining vesting schedule related to the unvested portion of the individual's outstanding equity awards as of December 2022. The original equity awards were made at multiple occurrences, each of which contained various vesting share amounts on various dates, with the last vesting period originally scheduled to occur in May 2025. As additional compensation under the agreement, we modified the vesting schedule with respect to the unvested portion of restricted stock units under the individual's awards, such that 39,438 restricted stock units will vest on each of the last day of each month from January 2023 through November 2023 and 39,445 restricted stock units will vest on December 31, 2023. Incremental costs associated with this modification was not significant for the year ended December 31, 2022.

Stock Options

A summary of our stock option activity under the 2018 Plan and related information is as follows:

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (years)	Aggregate Intrinsic Value
Outstanding as of December 31, 2021	50,000	\$ 1.08	1.37	\$ 78
Granted	50,000	1.70		
Exercised	—	—		
Forfeited	(12,500)	1.08		
Outstanding as of December 31, 2022	<u>87,500</u>	\$ 1.43	5.6	\$ —
Exercisable as of December 31, 2022	<u>87,500</u>	\$ 1.43	5.6	\$ —

During third quarter of 2022, we granted options to purchase 50,000 shares of our common stock to two non-employee consultants with an exercise price of \$1.70 per share. The options vested in various increments with the final vesting date occurring on December 30, 2022. The weighted average grant date fair value of options granted during 2022 and 2021 was \$0.54 and \$0.51, respectively. The total fair value for options vested during the years ended December 31, 2022 and 2021 was \$42 and \$11, respectively. Stock based compensation related to this grant was not significant.

2018 Employee Stock Purchase Plan

Also, in 2018, our board of directors adopted, and our stockholders approved, the 2018 Employee Stock Purchase Plan (the "2018 ESPP"). The purpose of the 2018 ESPP is to provide eligible employees with an opportunity to purchase shares of our common stock at a discount through accumulated contributions generally in the form of payroll deductions of up to 15% of eligible compensation, subject to caps of \$25 in any calendar year and 4,000 shares on any purchase date. The 2018 ESPP provides for 24-month offering periods, generally beginning in June and December of each year, and each offering period

consists of four six-month purchase periods. The first purchase under the 2018 ESPP was in December 2021. Participation ends automatically upon termination of employment with the Company.

On each purchase date, participating employees will purchase shares of our common stock at price per share equal to 85% of the lesser of the fair market value of our common stock on (i) the first trading day of the applicable offering period and (ii) the last trading day of each purchase period in the applicable offering period. If the price per share of our common stock on any purchase date in the offering period is lower than the stock price on the enrollment date of that offering period, the offering period will immediately reset after the purchase of shares on such purchase date and automatically roll into a new offering period. Shares will be delivered electronically to the participant shortly after the purchase date pursuant to an effective registration statement.

We use a Black-Scholes option pricing model to determine the fair value of shares to be purchased under the 2018 ESPP. Stock-based compensation expense related to our 2018 ESPP for the years ended December 31, 2022 and 2021 was not significant.

The number of shares of common stock that may be made available for sale under the 2018 ESPP also includes an annual increase on the first day of each fiscal year beginning for the fiscal year following the fiscal year in which the first enrollment date (if any) occurs equal to the lesser of (i) 818,825 shares of common stock; (ii) 1.5% of the outstanding shares of common stock on the last day of the immediately preceding fiscal year; or such other amount as the administrator may determine.

The 2018 ESPP had 802,893 and 189,215 shares of common stock available for sale and reserved for issuance as of December 31, 2022 and 2021, respectively.

2009 Equity Incentive Plan

In 2009, we adopted the 2009 Plan, which allowed for the granting of incentive and non-statutory stock options, as defined by the Internal Revenue Code, to employees, directors and consultants. The exercise price of the options granted was generally equal to the value of our common stock on the date of grant, as determined by our board of directors. The awards are exercisable and vest, generally over four years, in accordance with each option agreement. The term of each option is no more than ten years from the date of the grant. The 2009 Plan allowed for options to be immediately exercisable, subject to the Company's right of repurchase for unvested shares at the original exercise price. There were no unvested shares subject to repurchase provisions outstanding as of December 31, 2022 and 2021. Upon exercise, shares will be delivered electronically to the holder pursuant to an effective registration statement. Effective with the adoption of the 2018 Plan, no additional grants will be made under the 2009 Plan.

A summary of our stock option activity under the 2009 Plan and related information is set forth below:

	Number of Shares	Weighted Average Exercise Price	Weighted Average Remaining Contractual Term (years)	Aggregate Intrinsic Value
Outstanding as of December 31, 2021	925,467	\$ 0.80	5.59	\$ 1,692
Granted	—	—		
Exercised	(45,707)	0.62		
Cancelled/Expired	(5,481)	2.00		
Outstanding as of December 31, 2022	<u>874,279</u>	\$ 0.80	4.22	\$ 130
Exercisable as of December 31, 2022	<u>873,627</u>	\$ 0.80	4.22	\$ 130

The Company did not grant any options under the 2009 Plan during the year ended December 31, 2022 or 2021. We have historically used the Black-Scholes option pricing model to estimate the fair value of our stock option awards.

The aggregate intrinsic value is based on our stock price trading price on the Nasdaq Capital Market. The aggregate intrinsic value of options exercised was \$0 and \$1,168 for the years ended December 31, 2022 and 2021, respectively, and is calculated based on the difference between the estimated fair value of our common stock at the date of exercise and the exercise price.

The total fair value for options vested during the years ended December 31, 2022 and 2021 was \$7 and \$66, respectively.

Stock-Based Compensation

Compensation cost that has been included in our consolidated statements of operations and comprehensive loss for all stock-based compensation arrangements is set forth below:

	Year Ended December 31,	
	2022	2021
Stock-based compensation		
Cost of revenues	\$ 210	\$ 1,050
Sales and marketing	104	437
General and administrative	2,542	2,770
Research and development	153	684
Total stock-based compensation	<u>\$ 3,009</u>	<u>\$ 4,941</u>

As of December 31, 2022, there was approximately \$4,680, \$349 and \$1 of total unrecognized compensation cost related to the 2018 Plan, the 2018 ESPP and the 2009 Plan, respectively. These unrecognized compensation costs are expected to be recognized over an estimated weighted-average period of approximately 2.2 years, 1.9 years and 0.7 years for the 2018 Plan, the 2018 ESPP and the 2009 Plan, respectively.

14. Income Taxes

Deferred income taxes are recognized for the tax consequences in future years for differences between the tax bases of assets and liabilities and their financial reporting amounts at each year-end based on enacted tax laws and statutory tax rates applicable to the periods in which the differences are expected to affect taxable income. Valuation allowances are established when necessary to reduce deferred tax assets to the amount expected to be realized. Income tax expense is the combination of the tax payable for the year and the change during the year in deferred tax assets and liabilities.

For the years ended December 31, 2022 and 2021, we had net losses before income taxes of \$0,890 and \$53,948, respectively. Net losses relating to U.S. operations for were \$52,415 and \$54,907, respectively.

The difference between income taxes expected at the U.S. federal statutory income tax rate of 21% and the reported income tax expense (benefit) are summarized as follows:

	Year Ended December 31,	
	2022	2021
Income tax (benefit) at statutory rate	\$ (10,685)	\$ (11,330)
Valuation allowance	12,894	11,500
State income tax (benefit), net of federal benefit	(2,114)	(1,978)
Business tax credit net of reserves	(575)	(190)
Non-deductible expenses	794	2,210
Business combination	—	(437)
Foreign income taxes at different rate	(310)	(201)
Income tax expense (benefit)	\$ 4	\$ (426)
<i>Effective tax rate</i>	<i>(0.01) %</i>	<i>0.79 %</i>

The provision expense (benefit) for income taxes consist of the following:

	Year Ended December 31,	
	2022	2021
Current:		
Federal	\$ —	\$ —
State	4	11
Foreign	—	—
Total current	4	11
Deferred:		
Federal	—	(416)
State	—	(21)
Foreign	—	—
Total deferred	—	(437)
Total income tax (benefit) expense	\$ 4	\$ (426)

The components of net deferred income taxes consist of the following:

	December 31,	
	2022	2021
Deferred tax assets:		
Net operating loss	\$ 47,662	\$ 40,922
Unrealized loss on digital assets	6,754	2,015
Tax credits	1,940	1,416
Reserves and accruals	332	732
Leases - lease liability	1,019	376
Amortization of acquired intangibles	2,624	232
Other deferred tax assets	686	1,748
Gross deferred tax assets	61,017	47,441
Less valuation allowance	(59,057)	(46,163)
Total deferred tax assets	1,960	1,278
Deferred tax liabilities:		
Amortization of acquired intangibles	—	—
Leases - right of use asset	(931)	(306)
Other deferred tax liabilities	(1,029)	(972)
Total deferred tax liabilities	(1,960)	(1,278)
Net deferred tax liabilities	\$ —	\$ —

As of December 31, 2022, we had net operating loss ("NOL") carryforwards of \$195,027 and \$95,867 for federal and state income tax purposes, respectively. The federal net operating losses of \$85,674 which were generated in tax years beginning before January 1, 2018, will begin to expire in 2030 if not utilized. The balance of the net operating losses, \$109,353 do not expire. The state net operating losses expire at various times depending on the state with a majority beginning to expire in 2030 if not utilized.

As of December 31, 2022, we had research and development ("R&D") credit carryforwards of approximately \$2,286 and \$1,622 for federal and state income tax purposes, respectively. The federal and Texas R&D credits will begin to expire in 2034, unless previously utilized. California R&D credits carry forward indefinitely.

Utilization of the NOL and tax credit carryforwards may be subject to a substantial annual limitation due to ownership change limitations that may have occurred or that could occur in the future, as required by Section 382 of the Internal Revenue Code (IRC) of 1986, as amended (the "Code"), as well as similar state and foreign provisions. These ownership changes may limit the amount of NOL and tax credit carryforwards that can be utilized annually to offset future taxable income. In general, an "ownership change" as defined by Section 382 of the Code results from a transaction or series of transactions over a three-year period resulting in an ownership change of more than fifty (50) percentage points of the outstanding stock of a company by certain stockholders.

As of December 31, 2022, we had not yet completed an analysis of the deferred tax assets for its NOL and tax credits. The future utilization of our net operating loss to offset future taxable income may be subject to an annual limitation under IRC Section 382 as a result of ownership changes that may have occurred previously or that could occur in the future. We have not yet determined whether such an ownership change has occurred. In order to make this determination, we will need to complete an analysis regarding the limitation of the net operating loss.

We have established a full valuation allowance for our deferred tax assets due to uncertainties that preclude us from determining that it is more likely than not that we will be able to generate sufficient taxable income to realize such assets. We monitor positive and negative factors that may arise in the future as we assess the need for a valuation allowance against our deferred tax assets. As of December 31, 2022 and 2021, we have a valuation allowance of \$59,057 and \$46,163, respectively, against our deferred tax assets.

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The technical merits of a tax position derive from both statutory and judicial authority (legislation and statutes, legislative intent, regulations, rulings and case law) and their applicability to the facts and circumstances of the tax position. If a tax position does not meet the more-likely-than-not recognition threshold, the benefit of that position is not recognized in the financial statements. The second step is measurement. A tax position that meets the more-likely-than-not recognition threshold is measured to determine the amount of benefit to recognize in the financial statements. The tax position is measured as the largest amount of benefit that has a greater than 50% likelihood of being realized upon ultimate resolution with a taxing authority.

Uncertain tax positions are evaluated based upon the facts and circumstances that exist at each reporting period. Subsequent changes in judgment based upon new information may lead to changes in recognition, de-recognition, and measurement. Adjustments may result, for example, upon resolution of an issue with the taxing authorities, or expiration of a statute of limitations barring an assessment for an issue.

The following is a tabular reconciliation of the total amounts of unrecognized tax benefits:

	December 31,	
	2022	2021
Unrecognized tax benefits, beginning of period	\$ 1,545	\$ 1,314
Tax positions taken in prior periods:		
Gross increases	—	—
Gross decreases	—	—
Tax positions taken in current period:		
Gross increases	212	231
Settlements	—	—
Lapse of statute of limitations	—	—
Unrecognized tax benefits, end of period	\$ 1,757	\$ 1,545

Our practice is to recognize interest and/or penalties related to income tax matters in income tax expense. We have no accrual for interest and penalties on the consolidated balance sheets and has not recognized interest and/or penalties in the consolidated statements of operations and comprehensive loss for the years ended December 31, 2022 and 2021.

We are subject to taxation in the United States and various state jurisdictions. Our tax years from inception are subject to examination by the United States and state taxing authorities due to the carryforward of unutilized NOLs.

We have ownership interest in controlled foreign corporations. During 2022, we analyzed the potential impact of the Global Intangible Low-Taxed Income and the Base Erosion and Anti-Abuse Tax provisions of the Tax Cuts and Jobs Act signed into law in 2017. Based on the foreign subsidiaries' tax position, we will not incur any impact relating to these two provisions.

The CARES Act was enacted in the United States on March 27, 2020. The CARES Act includes several U.S. income tax provisions related to, among other things, net operating loss carrybacks, alternative minimum tax credits, modifications to the net interest deduction limitations and technical amendments regarding the income tax depreciation of qualified improvement property placed in service after December 31, 2017. The CARES Act did not have a material impact on our financial results for the years ended December 31, 2022 and 2021.

The Consolidated Appropriations Act, 2021 (the "Act") was enacted in the United States on December 27, 2020. The Act enhances and expands certain provisions of the CARES Act. The Act did not have a material impact on our financial results for the year ended December 31, 2022 and 2021.

15. Segment and Geographic Information

Our chief operating decision maker is our Chief Executive Officer ("CEO"). Our CEO reviews operating segment information for purposes of allocating resources and evaluating financial performance. We have determined that the Company operates in a two reporting segments: Phunware and Lyte. In 2021, but prior to the acquisition of Lyte, our CEO reviewed the financial information presented on a consolidated basis for purposes of allocating resources and evaluating financial performance.

Selected information for the Company's operating segments and a reconciliation to the consolidated financial statement amounts are as follows:

	As of or for the year ended December 31, 2022		
	Phunware	Lyte	Consolidated
Goodwill	\$ 25,765	\$ 5,348	\$ 31,113
Total assets	\$ 42,349	\$ 12,486	\$ 54,835
Net revenues	\$ 6,521	\$ 15,273	\$ 21,794
Loss before taxes	\$ (47,482)	\$ (5,469)	\$ (50,890)

	As of or for the year ended December 31, 2021		
	Phunware	Lyte	Consolidated
Goodwill	\$ 25,887	\$ 7,373	\$ 33,260
Total assets	\$ 85,970	\$ 12,046	\$ 98,016
Net revenues	\$ 7,548	\$ 3,095	\$ 10,643
Loss before taxes	\$ (53,339)	\$ (609)	\$ (53,948)

Identifiable long-lived assets attributed to the United States and international geographies are based upon the country in which the asset is located or owned. As of December 31, 2022 and 2021, all of our identifiable long-lived assets were in the United States.

16. Related-Party Transactions

In connection with the reverse merger with Stellar, in 2018, we assumed \$255 in payables for Nautilus Energy Management Corporation, an affiliate of two former members our board of directors, one of whom served on our board of directors until December 2, 2021. On December 29, 2021, we paid \$171 in full satisfaction of the outstanding payable.

As more fully discussed in Note 8, *Debt*, the Company entered into a Note (defined above) with a certain related party. In 2021, we repaid the Note in full.

17. Subsequent Events

The Company has evaluated subsequent events through the date the financial statements were issued.

2022 Inducement Plan

Our board of directors adopted the Phunware, Inc. 2022 Inducement Plan (the "Plan") in January 2023. As permitted by Nasdaq Stock Market rules, our stockholders were not required to approve the Plan. The plan provides of up to 1,470,588 shares of our common stock under awards granted to newly-hired employees. An "award" is any right to receive common stock of the Company consisting of nonstatutory stock options, stock appreciation rights, restricted stock awards or restricted stock units. In January 2023, we made an inducement grant to a newly-hired employee of 1,470,588 restricted stock units under the Plan with a grant date fair value of \$0.87 per share.

One-third, or 490,196, of the restricted stock units will vest on December 28, 2023 and the remainder will vest in equal installments over eight quarterly periods beginning on March 31, 2024 with the final vesting date occurring on December 28, 2025, subject to the employee's continued service on such vesting date. Shares will be delivered electronically to the holder shortly after vest date.

Stock Repurchase Plan

On January 5, 2023, our board of directors authorized and approved a stock repurchase program for the repurchase of outstanding shares of our common stock with an aggregate value of up to \$5,000. The authorization permits us to repurchase shares of our common stock from time-to-time through open market repurchases at prevailing market prices, in accordance with federal securities laws. The stock repurchase plan is expected to be completed over the next twelve (12) months and may be amended or terminated at any time, in the sole discretion of the board. The exact means, number and timing of stock repurchases will depend on market conditions, applicable legal requirements and other factors, and will be funded through the liquidation of our bitcoin holdings. As of the date of this report we have repurchased 461,500 shares of our common stock at an aggregate repurchase price of \$475.

2022 Promissory Note Waiver Agreement

On March 15, 2023, we entered into a waiver agreement with the holder of our 2022 Promissory Note, waiving the Payment Deferral Conditions, as defined in the 2022 Promissory Note. For agreeing to waive the Payment Deferral Conditions, we agreed to compensate the noteholder an amount equal to 5% of the outstanding balance immediately before entering into the waiver agreement. In connection therewith, we elected to defer the monthly payments under the 2022 Promissory Note for the months of April, May, June and July 2023. As a result of our election to defer the monthly payments, the outstanding balance of the 2022 Promissory Note will be increased by 1.85% on the first day of each month beginning on April 1, 2023 and concluding on July 1, 2023. The waiver fee and the additional principal will be paid in connection with our monthly installment payments once the deferral period concludes. Beginning on August 1, 2023 and on the same day of each month thereafter, we will be required to pay to the noteholder the new monthly amortization payment in the amount of \$1,769 until the new maturity date of November 1, 2023.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure.

None.

Item 9A. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

Disclosure controls and procedures are controls and other procedures designed to ensure that information required to be disclosed in our reports filed or submitted under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed in our reports filed or submitted under the Exchange Act is accumulated and communicated to management, including our Certifying Officers (as defined below), or persons performing similar functions, as appropriate, to allow timely decisions regarding required disclosure.

Under the supervision and with the participation of our management, including our Chief Executive Officer and Chief Financial Officer (together, the “Certifying Officers”), we carried out an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures as of December 31, 2022. Based on the foregoing, our Certifying Officers concluded that our disclosure controls and procedures were effective as of December 31, 2022.

Management’s Report on Internal Controls Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rule 13a-15(f) of the Exchange Act. 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 GAAP.

Under the supervision and with the participation of our management, including our Certifying Officers, we conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2022, based on the criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission for newly public companies (COSO). Based on this evaluation, our management concluded that our internal control over financial reporting was effective as of December 31, 2022.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting identified in conjunction with the evaluation required by Rules 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the quarter ended December 31, 2022 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Limitation on the Effectiveness of Controls

Our management, including our Certifying Officers, do not expect that our disclosure controls or our internal control over financial reporting will prevent all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, have been detected. These inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of a simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by management override of the controls. The design of any system of controls is also based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions; over time, controls may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

Item 9B. Other Information.

None.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections.

Not Applicable.

PART III**Item 10. Directors, Executive Officers and Corporate Governance.**

The following table sets forth the current ages and the names and positions of our directors and executive officers as of December 31, 2022:

Name	Age	Position
Executive Officers		
Russell Buyse	58	Chief Executive Officer and Class III Director
Matt Aune	47	Chief Financial Officer
Randall Crowder	42	Chief Operating Officer
Matt Lull	53	Chief Cryptocurrency Officer
Chris Olive	53	Chief Legal Officer
Non-Employee Directors		
Stephen Chen ⁽¹⁾⁽²⁾	40	Class I Director
Ryan Costello ⁽²⁾	46	Class II Director, Chairperson
Eric Manlunas ⁽¹⁾⁽³⁾	54	Class I Director
Kathy Tan Mayor ⁽²⁾⁽³⁾	46	Class II Director
Rahul Mewawalla ⁽¹⁾⁽³⁾	44	Class I Director

⁽¹⁾ Member of the Audit Committee

⁽²⁾ Member of the Compensation Committee

⁽³⁾ Member of the Nominating and Corporate Governance Committee

Executive Officers and Significant Employees

Each of our executive officers serves at the discretion of our board of directors (the "Board") and will hold office until his successor is duly appointed and qualified or until his earlier resignation or removal. The following biographical descriptions set forth certain information with respect to our executive officers based on information furnished to us by each such officer.

Russell Buyse joined Phunware as its Chief Executive Officer in December 2022 and serves as a Class III director. Mr. Buyse was previously employed as the Chief Operating Officer of GlobalID, a company focused on building a future where people control every aspect of their digital identity. From December 2019 to December 2020, he served as Client Services and Chief Operating Officer of Praxent where he led the client services, project management, design and engineering teams. From 2012 to 2019, Mr. Buyse was vice president of engineering and chief operating officer of Mutual Mobile, in which he led the engineering, design and project management teams in Austin and India. Prior to that, Mr. Buyse, has served in multiple leadership roles in product and engineering across multiple verticals. Mr. Buyse holds a Bachelor's degree in Computer Science from the University of Texas at Austin and a Certificate from the Institute for Managerial Leadership of the University of Texas at Austin.

We believe Mr. Buyse is qualified to serve as a member of our Board because digital expertise and his comprehensive background in information technology. Mr. Buyse has been a member of our Board since November 2022.

Matt Aune has served as Phunware's Chief Financial Officer since August 2013. Mr. Aune previously served as the Company's Director of Finance and Accounting from August 2011 to August 2013. Prior to joining Phunware, Mr. Aune was employed by Sony Computer Entertainment America as Senior Business Finance and Operations Analyst from July 2010 to August 2011. From 2003 to 2009, Mr. Aune served in a variety of roles at Midway Games, a video game developer and publisher, with his final role as the Senior Manager of Financial Planning and Analysis for Worldwide Product Development. Mr. Aune holds a B.A. in Economics from the University of California, San Diego and an M.B.A. from San Diego State University.

Randall Crowder has served as Phunware's Chief Operating Officer since February 2018, and on our Board between December 2018 and September 2022. In September 2017, he founded and continues to serve as the Managing Partner of Nove Ventures, a venture capital firm, which focuses on investing in established companies like Phunware that are seeking to leverage blockchain technology to complement their core business model. Since August 2009, Mr. Crowder has also been a co-founder and Managing Partner at TEXO Ventures, which focuses primarily on tech-enabled health services. Mr. Crowder holds a B.S. in General Management from the United States Military Academy at West Point and an M.B.A. from the McCombs School of Business at the University of Texas at Austin.

Matt Lull who serves as Phunware's Chief Cryptocurrency Officer has spent 30 years in technology and finance leadership roles, across a wide variety of Fortune 500 companies. Prior to joining Phunware in April 2022, he spent over 17 years, from September 2004 to April 2022, at Citrix Systems (Nasdaq: CTXS), a leader in digital workspace technology. During his tenure at Citrix Systems, Mr. Lull held a number of roles, including the managing director of technology strategy for cloud innovation partners and director of SAP Alliance. From 1992 to 2004, Mr. Lull was employed by Andersen Consulting, now Accenture (NYSE: ACN). Mr. Lull resides in South Florida and holds a BBA in Finance from the University of Miami.

Chris Olive joined Phunware in April 2022 as Chief Legal Officer. Prior to his tenure at Phunware, Mr. Olive was a partner at Bracewell LLP in Dallas, Texas, from 2006 to 2001. Mr. Olive brings to Phunware diverse transactional and regulatory experience, in which he has previously represented clients in various capacities in, among other things, complex, bespoke and customized credit facilities, structured financings, swaps and derivatives, insurance finance, corporate acquisitions, financial instrument and commodity purchase and sale and repurchase transactions and related banking, financial and other regulatory matters. He has also served as an associate at Jones Day and served in the United States Army Judge Advocate General's Corps. Mr. Olive has a BBA in Finance with honors from the University of Miami, a JD from the Southern Methodist University School of Law and an LLM in Banking & Finance Law with distinction from the University of London.

Non-Employee Directors

The following biographical descriptions set forth certain information with respect our non-employee directors based on information furnished to us by each such director.

Stephen Chen, who was elected to serve as a non-employee Class I director in November 2022, is a board-tested operational leader and chief financial officer. Since July 2016, Mr. Chen has served as chief financial officer of Kent Moore Capital, an investment and advisory firm focused on specialty finance, where he also currently sits on the board of directors. Also, since 2016, he has served as chief financial officer of BioIntegrate, a regenerative medicine company. Mr. Chen has been involved in blockchain related projects since 2018, and, in 2021, he co-founded IHBit Global, a diversified blockchain holding company with assets including a crypto exchange, token project, electronic sports team and basketball team. From 2012 to 2016, Mr. Chen was a director for Hudson International, a global private investment firm. From 2008 to 2012, he led the emerging markets investment banking team at Oppenheimer Investments North America. Prior to joining Oppenheimer, Mr. Chen was a Vice President at J.P. Morgan. Mr. Chen has a B.S. degree from Brown University.

We believe Mr. Chen is qualified to serve as a member of our Board because of his expertise in financial services and technology, including blockchain.

Ryan Costello was appointed to serve as a non-employee Class II director of Phunware in September 2021 and currently serves as Chairperson of our Board. Mr. Costello founded Ryan Costello Strategies, LLC, which provides strategic counsel and advocacy efforts on behalf of companies, trade associations and other organizations seeking to advance their objectives in the legislative and regulatory policy process within the federal government. From January 2015 to January 2019, Mr. Costello served as a member of the U.S. House of Representatives for Pennsylvania's 6th congressional district, where he served on numerous committees and subcommittees, including the Subcommittee on Communications and Technology and the Subcommittee on Digital Commerce and Consumer Protection. Prior to serving in Congress, Mr. Costello was an attorney in private practice representing clients in various facets of law, including regulatory compliance and financing. From September 2021 to June 2022, Mr. Costello served on the board of Red White & Bloom Brands, Inc. (CSE: RWB and OTCQX: RWBYF), a multi-state cannabis operator. Mr. Costello is a graduate of Ursinus College, B.A., with honors, and received a JD from Villanova University Charles Widger School of Law.

We believe Mr. Costello is qualified to serve as a member of our Board because of his expertise in law, governmental affairs and technology.

Eric Manlunas serves as a non-employee Class I director of Phunware. Mr. Manlunas is the founder and managing partner of Wavemaker Partners, an early-stage cross border venture capital firm he founded in 2003 that's dual headquartered in

Los Angeles and Singapore. He is a two-time start-up entrepreneur turned venture capitalist as an early investor in over 300 early-stage businesses. Prior to becoming a venture capitalist Mr. Manlunas founded two technology start-ups, one in e-Commerce (Interfoods.com) in 1996 and the other in Internet services (Sitestar) in 1999, both of which were successfully built and eventually sold to strategic buyers. Mr. Manlunas previously served on Phunware's board from December 2015 until December 2018. Since July 2008, Mr. Manlunas has also served on the board of PhilDev, a civic and social organization enabling success through education, innovation and entrepreneurship. Mr. Manlunas began his career as a consulting associate with Arthur Andersen's retail management consulting division from 1991-1995. He holds an M.B.A. from Pepperdine University and an undergraduate degree in Communications from Florida International University.

We believe Mr. Manlunas is qualified to serve as a member of our Board due to his vast experience in digital and information technology companies and prior board experience with the Company. Mr. Manlunas rejoined our Board in December 2019.

Kathy Tan Mayor serves as a non-employee Class II director of Phunware. Ms. Mayor has held numerous leadership positions in business development, retail marketing, loyalty marketing, and digital marketing technology. She is currently the Chief Marketing Officer of Transformco, a leading integrated retailer focused on seamlessly connecting the digital and physical shopping experiences for customers. From 2018 to 2020, Ms. Mayor was the Chief Marketing Officer of BoxyCharm, a beauty subscription service company located in South Florida. From 2016 to 2018, Ms. Mayor was the Chief Digital Officer across the 10 portfolio brands of Carnival Corporation and the Chief Marketing Officer of Carnival Cruise Line. From 2008 to 2016, Ms. Mayor held a number of positions at Las Vegas Sands Corporation including a number of vice president and senior vice president roles in strategy and marketing. From 2005 to 2008, she held multiple director positions with Caesar Entertainment Corporation. Prior to that Ms. Mayor worked for McKinsey & Company and Procter & Gamble in Southeast Asia. Ms. Mayor has a B.S. in Management Engineering from Ateneo de Manila University and an MBA from Harvard Business School.

We believe Ms. Mayor is qualified to serve as a member of our Board due to her marketing and digital and information technology experience. Ms. Mayor has been a member of our Board since December 2018.

Rahul Mewawalla was appointed to serve as a non-employee Class I director of Phunware in September 2021. Mr. Mewawalla is a product, technology, digital and business leader with extensive strategic and operational leadership expertise across technology, internet, software, telecommunications, financial services, media, consumer, enterprise, digital and blockchain companies. From May 2020 to January 2021, he served as President and Chief Executive Officer of Xpanse Inc., a fintech software company. From March 2020 to January 2021, Mr. Mewawalla served as Chief Digital Officer and executive vice president of platforms and technology businesses at Freedom Mortgage Corporation, a national financial services company. He has held several other executive leadership roles such as serving as President and Chief Executive Officer at Zenplace Inc. from 2014 to 2020, as Vice President at Nokia Corporation from 2010 to 2012, as Vice President at General Electric Company's NBC Universal from 2008 to 2010, and as Senior Director at Yahoo! Inc. from 2005 to 2008. Mr. Mewawalla has served as a board member, investor and advisor to various public, private and philanthropic companies. In January 2023, he was appointed to the board of Mawson Infrastructure Group, Inc. (Nasdaq: MIGI), a digital infrastructure provider. In December 2022, Mr. Mewawalla was appointed to the board of Lion Group Holding (Nasdaq: LGHL), a financial services technology company. In September 2022, he was appointed to the board of Aquarius II Acquisition Corporation (Nasdaq: AQUB) and in June 2022, he was appointed to the board of Four Leaf Acquisition Corporation (Nasdaq: FORL), both special purpose acquisition companies. From June 2021 to October 2021, Mr. Mewawalla served as an independent director of Rocky Mountain Chocolate Factory Inc. (Nasdaq: RMCF), an e-commerce, consumer and retail company. From November 2019 to May 2020, Mr. Mewawalla served as an independent director at SOS Children's Villages USA, a philanthropic organization. He has also served as Senior Advisor to the San Francisco Mayor's Office on Innovation, as Advisor to Stanford University's Persuasive Technology Lab and as Committee Chair of the VC TaskForce SIG on Systems and Services. Mr. Mewawalla earned an MBA from the Kellogg School of Management at Northwestern University and a BBS from the University of Delhi.

We believe Mr. Mewawalla's extensive digital, technology, products, platforms, mobile, strategic and operational expertise, as well as his executive leadership experience, qualify him to serve as a director of the Company.

Additional Information

On February 18, 2022, certain stockholders filed a lawsuit against Phunware and its individual officers and directors. The case, captioned Wild Basin Investments, LLC, et al. v. Phunware, Inc., et al., was filed in the Court of Chancery of the state of Delaware (Cause No. 2022-0168-LWW). The plaintiffs invested in various early rounds of financing while the Company was private and claim the Company should not have subjected their shares to a 180-day "lock up" period. Among others, Alan Knitowski, Randall Crowder, Matt Aune, Kathy Tan Mayor and Eric Manlunas, each of whom served as executive officers and/or directors as of December 17, 2019 have been named as defendants in the lawsuit.

The 200th Judicial District Court of Travis County, Texas appointed a receiver over the non-exempt assets of Randall Crowder to collect a civil judgment entered against Mr. Crowder. Mr. Crowder's counsel has since filed with the Court a motion to vacate such receivership, and is awaiting a ruling on the same.

Delinquent Section 16(a) Reports

Section 16(a) of the Exchange Act requires the Company's directors, executive officers and persons who beneficially own more than 10% of the Company's common stock (collectively, "Reporting Persons") to file with the SEC reports regarding their ownership and changes in our ownership of our securities. We believe that, during 2022, our directors, executive officers and 10% stockholders complied with all Section 16(a) filing requirements, except for late Form 3 filings by each of Chris Olive and Matt Lull on April 22, 2022 and May 6, 2022, respectively, and a late Form 4 filing by Eric Manlunas on December 16, 2022 to report a sale of our common stock, which occurred on December 8, 2021.

CORPORATE GOVERNANCE

Board Composition

Our business affairs are managed under the direction of the Board. The Board currently consists of six members, five of whom qualify as independent within the meaning of the independent director guidelines of the Nasdaq Stock Market ("Nasdaq"). Mr. Buyse, who also serves as our Chief Executive Officer, is not considered independent.

The Board is divided into three staggered classes of directors. At each annual meeting of stockholders, a class of directors will be elected for a three-year term to succeed the same class whose term is then expiring, as follows:

- the Class I directors are currently Stephen Chen, Eric Manlunas and Rahul Mewawalla, and their terms will expire at the 2025 Annual Meeting of Stockholders; and
- the Class II directors are currently Ryan Costello and Kathy Tan Mayor, and their terms will expire at the 2023 Annual Meeting of Stockholders; and
- the Class III director is currently Russell Buyse, and his term will expire at the 2024 Annual Meeting of Stockholders.

Our Certificate of Incorporation and Amended and Restated Bylaws provide that the number of directors shall consist of one or more members and may be increased or decreased from time to time by a resolution of the Board. Each director's term continues until the election and qualification of his or her successor, or his or her earlier death, resignation or removal. Any increase or decrease in the number of directors will be distributed among the three classes so that, as nearly as possible, each class will consist of one-third of the total number of directors. This classification of the Board may have the effect of delaying or preventing changes in control of our Company.

On October 6, 2021, the Board resolved to reduce the size of the Board from eight to seven directors, comprised of three Class I directors, two Class II directors, and two Class III directors, effective as of our 2021 annual meeting of stockholders held on December 2, 2021. Such reduction of the authorized number of directors does not have the effect of removing any director before that director's term of office expires.

On September 26, 2022, Randall Crowder notified us of his resignation from our Board, effective as of September 27, 2022. On November 17, 2022, the Board appointed Russell Buyse to serve as a director of our Board effective as of November 21, 2022, to fill the vacancy created by the resignation of Mr. Crowder.

On December 13, 2022, we entered into a Confidential Transition, Consulting and General Release Agreement (the "Agreement") with Alan Knitowski. The Agreement provided that Mr. Knitowski's employment terminated with the Company effective December 27, 2022. In addition, Mr. Knitowski voluntarily resigned his position as a director of the Board. The Board has yet to appointment a replacement created by the resignation of Mr. Knitowski.

Corporate Governance Guidelines and Code of Business Conduct and Ethics

Our Board has adopted Corporate Governance Guidelines that address items such as the qualifications and responsibilities of our directors and director candidates and corporate governance policies and standards applicable to us in general. In addition, our Board has adopted a Code of Business Conduct and Ethics that applies to all of our employees, officers and directors, including our Chief Executive Officer, Chief Financial Officer and other executive and senior financial officers. The full text of our Corporate Governance Guidelines and Code of Business Conduct and Ethics is posted on the Governance portion of the investor relations page of our website at <https://investors.phunware.com>. We will post amendments to our Code

of Business Conduct and Ethics or waivers of our Code of Business Conduct and Ethics for directors and executive officers that are required to be disclosed by the rules of the SEC or Nasdaq on the same website.

Audit Committee

We have established a designated standing audit committee. Messrs. Stephen Chen, Eric Manlunas and Rahul Mewawalla, each of whom is a non-employee member of the Board, comprise our Audit Committee. Mr. Mewawalla is the Chairperson of our Audit Committee. We have determined that each of the members of our Audit Committee satisfies the requirements for independence and financial literacy under the rules of Nasdaq and the SEC. During the fiscal year ended December 31, 2022, the committee met four times. The Audit Committee is responsible for, among other things:

- selecting a qualified firm to serve as the independent registered public accounting firm to audit our financial statements;
- helping to ensure the independence and performance of the independent registered public accounting firm;
- discussing the scope and results of the audit with the independent registered public accounting firm and reviewing, with management and the independent registered public accounting firm, our interim and year-end financial statements;
- developing procedures for employees to submit concerns anonymously about questionable accounting or audit matters;
- reviewing the Company's policies on and overseeing risk assessment and risk management, including enterprise risk management;
- reviewing the adequacy and effectiveness of our internal control policies and procedures and the Company's disclosure controls and procedures;
- reviewing related person transactions; and
- approving or, as required, pre-approving, all audit and all permissible non-audit services, other than de minimis non-audit services, to be performed by the independent registered public accounting firm.

The Board has adopted a written charter for the Audit Committee that satisfies the applicable rules and regulations of the SEC and the listing standards of Nasdaq. Our Audit Committee charter can be found on the "*Governance Documents*" section of our Investor Relations website at <https://investors.phunware.com/governance-docs>.

Audit Committee Financial Expert

For the period of May 1, 2021 until Stephen Chen's appointment to our Audit Committee in November 2022, we did not have an "audit committee financial expert" as defined under Item 407(d)(5)(ii) of Regulation S-K. The Board believes that the members of the Audit Committee are and were able to read and understand the consolidated financial statements of the Company, are and were familiar with the Company and its business and are capable of fulfilling the duties and responsibilities of an Audit Committee without the necessity of having an "audit committee financial expert" during this time period. The Board determined Mr. Chen and Rahul Mewawalla are both independent directors pursuant to Nasdaq's governance listing standards and each meet the qualifications of an "audit committee financial expert," as defined under the applicable rules and regulations of the SEC. In making this determination, our Board has considered prior experience, business acumen and independence.

Item 11. Executive Compensation.

Phunware's named executive officers (each a "NEO"), which consist of any person who served as principal executive officer ("PEO") during 2022 and the next two most highly compensated executive officers who served as such in for 2022, are:

Russell Buyse, Chief Executive Officer

Alan Knitowski, Former Chief Executive Officer

Matt Lull, Chief Cryptocurrency Officer

Chris Olive, Chief Legal Officer

Summary Compensation Table

The following table sets forth information regarding the total compensation paid to our named executive officers for the last two fiscal years ended December 31, 2022 and 2021:

Name and Principal Position	Fiscal Year	Salary (\$) ⁽¹⁾	Bonus (\$)	Stock Awards (\$) ⁽²⁾	All other Compensation (\$) ⁽³⁾	Total (\$)
Russell Buyse, Chief Executive Officer ⁽⁴⁾	2022	3,693	40,000	—	—	43,693
Alan Knitowski, Former Chief Executive Officer ⁽⁵⁾	2022	550,000	—	—	25,693	575,693
	2021	375,000	450,000	1,613,570	20,384	2,458,954
Matt Lull, Chief Cryptocurrency Officer ⁽⁶⁾	2022	212,500	—	615,000	10,088	837,588
Chris Olive, Chief Legal Officer ⁽⁶⁾	2022	225,000	34,907	925,000	19,270	1,204,177

(1) Reflects actual earnings, which may differ from approved based salaries due to the effective date of salary increases.

(2) Amounts represent the aggregate grant date fair value of stock options or restricted stock unit awards, computed in accordance with FASB ASC 718-10-25. The actual value realized by the named executive officer with respect to stock awards will depend on whether the award vests and, if it vests, the market value of our stock on the date such stock is sold.

(3) Amounts shown in this column include contributions Phunware made on behalf of the named executive officer for inclusion in our medical benefits programs.

(4) Mr. Buyse was hired as our CEO effective as of December 28, 2022. Mr. Buyse received additional compensation of \$6,000 for service on our Board for the period from November 21, 2022 to December 27, 2022, which is excluded above. Subsequent to the date of his appointment as CEO, Mr. Buyse will not receive additional compensation as a member of our Board. See *Director Compensation* below. Mr. Buyse was further paid a sign-on bonus of \$40,000, pursuant to the terms of his employment agreement.

(5) Mr. Knitowski's employment terminated on December 27, 2022.

(6) Mr. Olive joined the Company as its Chief Legal Officer on April 1, 2022.

(7) Mr. Lull joined the Company as its Chief Cryptocurrency Officer on April 18, 2022.

Executive Employment Agreements

We have entered into employment agreements with each of our named executive officers noted above. The employment agreements generally provide for at-will employment and set forth each named executive officer's base salary, bonus target, severance eligibility and eligibility for other standard employee benefit plan participation.

Pursuant to the employment agreements, certain current and future significant employees, including the named executive officers identified above, are eligible for severance benefits under certain circumstances. The actual amounts that would be paid or distributed as a result of a termination of employment occurring in the future may be different than those presented below as many factors will affect the amount of any payments and benefits upon a termination of employment. For example, some of the factors that could affect the amounts payable include base salary and annual bonus target percentage. Although the Company has entered into a written agreement to provide severance payments and benefits in connection with a termination of employment under particular circumstances, the Company, or an acquirer, may mutually agree with an executive officer or significant employee to provide payments and benefits on terms that vary from those currently contemplated. In addition to the amounts presented below, each eligible executive officer or significant employee would also be able to exercise any previously-vested stock options that he or she held, in accordance with the terms of those grants and the respective plans pursuant to which they were granted. Finally, the eligible executive officer or significant employee may also receive any benefits accrued under our broad-based benefit plans, in accordance with those plans and policies.

Mr. Buyse's Employment Agreement

On November 11, 2022, we entered into an employment agreement with Russell Buyse to serve as Chief Executive Officer of the Company effective as of December 28, 2022. Mr. Buyse's employment agreement has an indefinite term, subject to termination by either party. We may terminate the employment agreement at any time with or without cause, while Mr. Buyse may terminate the Employment Agreement by providing at least thirty (30) days' written notice to the Company.

The employment agreement provides for an initial base salary of \$325,000, a target annual cash bonus to be between 50% and 200% of the base salary, with the actual award value to be determined by the compensation committee or the Board in its sole discretion based on factors including the strength of Mr. Buyse's performance and the performance of the Company. Mr. Buyse is also eligible to participate in our employee benefit programs.

Mr. Buyse was paid a sign-on bonus of \$40,000 pursuant to the terms of his employment agreement. Furthermore, within thirty (30) calendar days of the date of the Employment Agreement, the Company agreed to provide Mr. Buyse a one-time grant of restricted stock units with a grant date fair value of \$1,500,000. The restricted stock units granted to Mr. Buyse will be subject to a separate award agreement, which will outline the specifics of such grant, including but not limited to, the vesting schedule, forfeiture for cause provisions, the Company's buyback rights and other restrictions and terms.

The Employment Agreement further provides that, if Mr. Buyse's employment is terminated by the Company without "cause" or by Mr. Buyse for "good reason," subject to his execution of a release of claims in favor of the Company, he will receive a severance payment of nine (9) months' of his then-current base salary and certain other accrued benefits.

Messrs. Lull and Olive's Employment Agreements

We entered into employment agreements, as amended and restated in September 2022, with Messrs. Matt Lull, who serves as our Chief Cryptocurrency Officer and Chris Olive, who serves as our Chief Legal Officer. The agreements have an initial term of four years from their April 2022 hire dates and automatically renew for additional one year term, unless either party provides ninety (90) day notice. If a change in control, as defined in the agreements, occurs when there are fewer than twelve (12) months remaining during the initial term or an additional term, the term of the employment agreement will extend automatically through the date that is twelve (12) months following the effective date of the change in control.

The employment agreements provide for an initial base salary of \$300,000 for each, eligibility in the Company's bonus programs established by the Board or any committee of the Board, an initial equity grant as more fully described elsewhere in this Annual Report and eligibility to participate in our employee benefit programs.

Termination without Cause or Resignation for Good Reason Outside the Change in Control Period

Messrs. Lull and Olive are eligible to receive the following payments and benefits in connection with a termination not in connection with a Change in Control:

- continuing payments of severance pay at a rate equal to their base salary rate, as then in effect, for six (6) months from the date of termination;
- coverage under our group health insurance plans or payment of the full amount of health insurance premiums as provided under the Consolidated Omnibus Budget Reconciliation Act (“COBRA”) for up to six (6) months after termination; and
- the immediate vesting of all equity awards granted on or after the effective date of the employment agreement.

Termination Without Cause or Resignation for Good Reason During the Change in Control Period

In the case of a Change in Control, if either Mr. Lull or Mr. Olive is terminated without cause, either during the three months before or in the year after a Change in Control, then he will be entitled to receive the following payments and benefits:

- a lump sum severance payment equal to: (i) the amount of base salary in effect on the date of termination that he would have otherwise received had he remained employed by the Company through the twelve (12) month anniversary of the Change in Control, and (ii) an amount equal to the average annualized bonus earned by him for the two (2) calendar years prior to the calendar year during which the Change in Control occurs, but in no event will the amount be less than his annual target bonus for the year during which the termination occurs, or if greater, his annual target bonus for the year during which the closing of the Change in Control occurs;
- the immediate vesting of all equity awards granted on or after the effective date of the employment agreement; and
- coverage under our group health insurance plans or payment of the full amount of health insurance premiums as provided under COBRA for up to twelve (12) months after termination.

Messrs. Aune and Crowder's Employment Agreements

On December 26, 2018, we entered into employment agreements with Messrs. Matt Aune, who serves as our Chief Financial Officer and Randall Crowder, who serves as our Chief Operating Officer, as amended on September 27, 2022. The term of the employment agreements with Messrs. Aune and Crowder is through September 27, 2023. Notwithstanding, if a Change in Control (as defined in the employment agreement) occurs during the term of the employment agreement, the term will be extended automatically through the date that is twelve (12) months following the effective date of the Change in Control. The employment agreements provide for a base salary, participating in any bonus or incentive arrangement established by the Board (or any committee of the Board) for executives of the Company, generally, and our employee benefit offerings. The current annual target bonus is 50% of the base salary for Messrs. Aune and Crowder. Subject to approval by our Compensation Committee or Board, actual annual bonuses paid may differ from target amounts.

Termination without Cause or Resignation for Good Reason Outside the Change in Control Period

Messrs. Aune and Crowder are eligible to receive the following payments and benefits in connection with a termination not in connection with a Change in Control:

- continuing payments of severance pay at a rate equal to their base salary rate, as then in effect, for the greater of (i) six (6) months from the date of termination or (ii) the remainder of the term of the employment agreement, in accordance with the Company’s normal payroll policies; and
- coverage under our group health insurance plans or payment of the full amount of health insurance premiums as provided under the Consolidated Omnibus Budget Reconciliation Act (“COBRA”) for up to six (6) months after termination.

Termination Without Cause or Resignation for Good Reason During the Change in Control Period

In the case of a Change in Control, if either Mr. Aune or Mr. Crowder is terminated without cause, either during the three months before or in the year after a Change in Control, then he will be entitled to receive the following payments and benefits:

- a lump sum severance payment equal to: (i) the amount of base salary in effect on the date of termination that he would have otherwise received had he remained employed by the Company through the twelve (12) month anniversary of the Change in Control, and (ii) an amount equal to the average annualized bonus earned by him for the two (2) calendar years prior to the calendar year during which the Change in Control occurs, but in no event will the amount be less than his annual target bonus for the year during which the termination occurs, or if greater, his annual target bonus for the year during which the closing of the Change in Control occurs;
- the immediate vesting of all equity awards granted on or after the effective date of the employment agreement; and

- coverage under our group health insurance plans or payment of the full amount of health insurance premiums as provided under COBRA for up to twelve (12) months after termination.

Outstanding Equity Awards at Fiscal Year-End

The following table sets forth information regarding outstanding stock options and other equity awards held by each of our named executive officers holding as of December 31, 2022:

Name	Grant Date	Options Awards				Restricted Stock Unit Awards	
		Number of Securities Underlying Unexercised Options		Option Exercise Price	Option Expiration Date	Number of shares or units of stock that have not vested (#)	Market value of shares or units of stock that have not vested (\$)
		Exercisable	Unexercisable				
Alan Knitowski	1/8/2018	233,886	—	0.61	1/8/2028	—	—
	7/30/2019	—	—	—	—	37,500 ⁽¹⁾	28,988
	2/4/2021	—	—	—	—	435,763 ⁽¹⁾	336,845
Matt Lull	9/28/2022	—	—	—	—	500,000 ⁽²⁾	386,500
Chris Olive	9/16/2022	—	—	—	—	500,000 ⁽³⁾	386,500

⁽¹⁾ Mr. Knitowski was granted 450,000 restricted stock units on July 30, 2019. The restricted stock units will vest at various rates with of 1/4th vesting on May 18, 2020, and thereafter at a rate of 1/12th on the following vesting dates; August 18 2020, November 18, 2020, May 18, 2021, August 18, 2021, November 18, 2021, May 18, 2022, August 18, 2022, November 18, 2022 and May 18, 2023, subject to his continued employment with the Company on each such vesting date. Mr. Knitowski was also granted 747,023 restricted stock units on February 4, 2021. The restricted stock units vest at various rates with 1/4th vesting on May 9, 2022, and thereafter at a rate of 1/12th on the following vesting dates; August 8, 2022, November 8, 2022, May 8, 2022, August 8, 2022, November 8, 2022, May 8, 2023, August 8, 2023, November 8, 2023 and May 8, 2024, August 8, 2024, November 8, 2024, May 8, 2025, subject to his continued employment with the Company on each such vesting date. As of December 27, 2022, Mr. Knitowski had approximately 473,263 unvested restricted stock units under the aforementioned grants. As additional compensation under the term of a Confidential Transition, Consulting and General Release Agreement, the Company modified the vesting schedule with respect to the unvested portion of restricted stock units, such that 39,438 restricted stock units will vest on each of the last day of each month from January 2023 through November 2023 and 39,445 restricted stock units will vest on December 31, 2023.

⁽²⁾ Mr. Lull was granted 500,000 restricted stock units on September 28, 2022. The restricted stock units vest at various rates with 135,417 restricted stock units vesting on May 8, 2023, 40,510 restricted stock units vesting on each of August 8, 2023 and November 8, 2023 and 40,509 restricted stock units vesting on each of May 8, 2024, August 8, 2024, November 8, 2024, May 8, 2025, August 8, 2025, November 8, 2025 and April 17, 2026, subject to his continued employment with the Company on each such vesting date.

⁽³⁾ Mr. Olive was granted 500,000 restricted stock units on September 16, 2022. The restricted stock units vest at various rates with 135,417 restricted stock units vesting on May 8, 2023, 40,510 restricted stock units vesting on each of August 8, 2023 and November 8, 2023 and 40,509 restricted stock units vesting on each of May 8, 2024, August 8, 2024, November 8, 2024, May 8, 2025, August 8, 2025, November 8, 2025 and March 31, 2026, subject to his continued employment with the Company on each such vesting date.

Director Compensation

We compensate our Board in the form of fees paid in cash. Each outside director is paid an annual cash retainer of \$75,000. The chairperson of our Board is paid an additional \$45,000 annually. Chairpersons on committees of our Board range from \$15,000 to \$25,000 of additional annual cash compensation depending on the committee, while a member of our committees is paid \$7,500 to \$12,500 of additional cash compensation, depending on the committee of service. There are no per-meeting attendance fees for attending our Board or committee meeting.

We also compensate members of our Board in the form of annual grants of restricted stock units of our common stock.

The following table sets forth certain information with respect to the compensation paid to our directors, excluding reasonable travel expenses, for the year ended December 31, 2022.

Name ⁽¹⁾	Fees Earned or Paid in Cash (\$)	Stock Awards (\$) ⁽²⁾	Total (\$)
Russell Buyse	6,000	—	6,000
Stephen Chen ⁽³⁾	13,542	155,018	168,560
Ryan Costello	105,000	113,368	218,368
Keith Cowan ⁽⁴⁾	120,556	—	120,556
Eric Manlunas	108,750	103,345	212,095
Kathy Tan Mayor	85,833	103,345	189,179
Rahul Mewawalla	107,500	113,368	220,868

⁽¹⁾ Mr. Buyse was appointed to our Board on November 21, 2022. For the period of November 21, 2022 through December 27, 2022, Mr. Buyse was paid \$6,000 cash compensation for services he provided as a director. Commencing on December 28, 2022, the date at which Mr. Buyse was appointed our CEO, and thereafter, he will not receive any additional compensation for the services he provides as a director. For information on Mr. Buyse's compensation, please refer to "Executive Compensation" in this Annual Report.

⁽²⁾ This column reflects the aggregate grant date fair value of restricted stock units granted during 2022 computed in accordance with the provisions of ASC 718, *Compensation-Stock Compensation*. The assumptions that we used to calculate these amounts are discussed in the notes to Phunware's audited consolidated financial statements for the year ended December 31, 2022. These amounts do not reflect the actual economic value that will be realized by the director upon the vesting of the restricted stock units or the sale of the common stock underlying such restricted stock units.

⁽³⁾ Mr. Chen was elected to our Board at our 2022 annual meeting of stockholders held on November 11, 2022.

⁽⁴⁾ Mr. Cowan's term expired at our 2022 annual meeting of stockholders held on November 11, 2022.

Outstanding Equity Awards as Fiscal Year-End

The following table sets forth the aggregate number of shares subject to outstanding equity awards held by our non-employee directors as of December 31, 2022.

	Restricted Stock Unit Awards		
	Grant date	Number of shares or units of stock that have not vested (#)	Market value of shares or units of stock that have not vested (\$)
Stephen Chen ⁽¹⁾	11/14/2022	104,742	80,966
Ryan Costello ⁽²⁾	11/14/2022	76,600	59,212
Eric Manlunas ⁽¹⁾	11/14/2022	69,828	53,977
Kathy Tan Mayor ⁽¹⁾	11/14/2022	69,828	53,977
Rahul Mewawalla ⁽²⁾	11/14/2022	76,600	59,212

⁽¹⁾ The Restricted Stock Units ("RSUs") vest in four equal installments commencing on February 11, 2023, and quarterly thereafter until the final vesting date of November 11, 2023. Vesting is subject to the continued service on such vesting date.

⁽²⁾ The RSUs vest in four equal installments commencing on January 1, 2023, and quarterly thereafter until the final vesting date of October 1, 2023. Vesting is subject to the continued service on such vesting date.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

Securities Authorized for Issuance Under Equity Compensation Plans

All of the Company's equity compensation plans outstanding as of December 31, 2022 were previously approved by its stockholders, and on such date the Company maintained no equity compensation plans not approved by stockholders. The following table sets forth our equity compensation plan information as of December 31, 2022.

	Number of securities to be issued upon exercise of outstanding options and rights (a)	Weighted-average exercise price of outstanding options and rights (b)	Number of securities remaining available for issuance under equity compensation plans (c)
2018 Equity Incentive Plan (the "2018 Plan") ⁽¹⁾	87,500	\$1.43	4,382,662
2018 Employee Stock Purchase Plan (the "2018 ESPP")	—	—	802,893
2009 Equity Incentive Plan (the "2009 Plan") ⁽²⁾	874,279	\$0.80	—

⁽¹⁾ Excludes unvested restricted stock unit awards granted under the 2018 Plan. As of December 31, 2022, 2,957,995 restricted stock unit awards were outstanding. Because there is no exercise price associated with the restricted share awards, such shares are not included in the weighted-average price calculation. The number of shares of Common Stock reserved and available for issuance under the 2018 Plan is subject to an automatic annual increase on each January 1st, by an amount equal to five percent (5%) of the number of shares of Common Stock issued and outstanding on the immediately preceding December 31st or such lesser number of shares of Common Stock as approved by the Administrator (as defined in the 2018 Plan).

⁽²⁾ The 2009 Plan terminated on December 26, 2018. The shares reserved for issuance under the 2009 Plan that expire or otherwise terminate without having been exercised in full and shares of common stock issued pursuant to awards granted under the 2009 Plan that are forfeited to or repurchased by us may be added to the 2018 Plan. The 2009 Plan will continue to govern outstanding awards granted thereunder. As of December 31, 2022, the maximum number of shares of common stock that may be added to the 2018 Plan pursuant to the foregoing is equal to 874, which is not included in the column (c) above. The number of shares of Common Stock reserved and available for issuance under the 2018 ESPP is subject to an automatic annual increase on each January 1st, by the lesser of (i) 818,824 shares of Common Stock, (ii) one and one-half percent (1.5%) of the number of shares of Common Stock issued and outstanding on the immediately preceding December 31st, or (iii) such lesser number of shares of Common Stock as determined by the Administrator (as defined in the 2018 ESPP).

For additional information on the Company's equity compensation plans, refer to Note 13 "Stock-Based Compensation" of the notes to the consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K.

Beneficial Ownership of Principal Shareholders and Management

The following table sets forth information with respect to the beneficial ownership of our common stock as of February 28, 2023, for:

- each stockholder known to us to be beneficial owner of more than 5% of our outstanding shares of common stock;
- each of our directors and director nominees;
- each of our named executive officers; and
- all of our current directors, director nominees and executive officers as a group.

We have determined beneficial ownership in accordance with the rules of the SEC and the information is not necessarily indicative of beneficial ownership for any other purpose. Unless otherwise indicated below, to our knowledge, the persons and entities named in the table have sole voting and sole investment power with respect to all shares that they beneficially own, subject to community property laws where applicable.

Applicable percentage ownership is based on 102,874,703 shares of our common stock outstanding as of February 28, 2023. In computing the number of shares of our common stock beneficially owned by a person and the percentage ownership of that person, we included outstanding shares of our common stock subject to options or restricted stock units held by that person that are currently exercisable or releasable or that will become exercisable or releasable within 60 days of February 28, 2023. We did not include these shares as outstanding, however, for the purpose of computing the percentage ownership of any other person. Unless otherwise indicated, the address of each beneficial owner listed on the table below is c/o Phunware, Inc., 1002 West Avenue, Austin, Texas 78701.

Name of Beneficial Owner ⁽¹⁾	Shares	Percentage
Named Executive Officers, Executive Officers and Directors:		
Alan S. Knitowski ⁽²⁾	1,345,177	1.3%
Russell Buyse	—	—%
Matt Aune ⁽³⁾	441,094	0.4%
Stephen Chen ⁽⁴⁾	26,186	—%
Ryan Costello ⁽⁵⁾	150,476	0.1%
Randall Crowder ⁽⁶⁾	670,585	0.7%
Matt Lull	—	—%
Eric Manlunas ⁽⁷⁾	1,255,543	1.2%
Kathy Tan Mayor ⁽⁸⁾	286,236	0.3%
Rahul Mewawalla ⁽⁹⁾	190,476	0.2%
Chris Olive ⁽¹⁰⁾	4,000	—%
All executive officers and directors as a group (11 persons) ⁽¹¹⁾	4,369,773	4.2%

- (1) Unless otherwise indicated, we believe that all persons named in the table have sole voting and investment power with respect to all ordinary shares beneficially owned by them.
- (2) Consists of (i) 446,826 shares held of record by Mr. Knitowski; (ii) 539,867 shares held of record by Cane Capital, LLC, for which Mr. Knitowski serves as president; (iii) 12,000 shares held of record by Curo Capital Appreciation Fund I, LLC (Fund 1), for which Mr. Knitowski serves as co-president; (iv) 20,000 shares held of record by Curo Capital Appreciation Fund I, LLC (Fund 2), for which Mr. Knitowski serves as co-president; (v) 11,750 shares held of record by Curo Capital Appreciation Fund I, LLC (Fund 3), for which Mr. Knitowski serves as co-president; (vi) 1,972 shares held of record by Knitowski Childrens Trust, for which Mr. Knitowski serves as president; (vii) 78,876 shares subject to vesting for restricted stock units within 60 days of February 28, 2023 and (viii) 233,886 shares subject to options exercisable and vested.
- (3) Consists of (i) 280,444 shares held of record by Mr. Aune; and (ii) 160,650 shares subject to options exercisable and vested.
- (4) Consists of (i) 26,186 shares held of record by Mr. Chen.
- (5) Consists of (i) 131,326 shares held of record by Mr. Costello; (ii) 19,150 shares subject to vesting for restricted stock units within 60 days of February 28, 2023
- (6) Consists of (i) 441,085 shares held of record by Mr. Crowder; (ii) 229,500 shares subject to options exercisable and vested.
- (7) Consists of (i) 22,817 shares held directly by Mr. Manlunas; (ii) 555,007 shares held of record by Wavemaker Partners II LP (f/k/a Siemer Ventures II LP), for which Mr. Manlunas serves as managing partner; (iii) 329,037 shares held of record by Kmeleon International Limited, for which Mr. Manlunas serves as managing partner; (iv) 184,296 shares held of record by Wavemaker Phunware Partners LP, for which Mr. Manlunas serves as managing partner; and (v) 164,386 shares held of record by Wavemaker Partners III LP, for which Mr. Manlunas serves as managing partner. The address for these entities is 1438 Ninth Street, Suite 600, Santa Monica, CA 90401.
- (8) Consists of 286,236 shares held directly by Ms. Mayor.
- (9) Consists of 171,326 shares held directly by Mr. Mewawalla; (ii) 19,150 shares subject to vesting for restricted stock units within 60 days of February 28, 2023
- (10) Consists of 4,000 shares held directly by Mr. Olive; and
- (11) Consists of (i) 3,628,561 shares held of record by our current directors and executive officers, (ii) 624,036 shares subject to options exercisable and vested, and (iii) 117,176 shares subject to vesting for restricted stock units within 60 days of February 28, 2023.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

Policy for Related Person Transactions

We have adopted a formal written policy providing that our executive officers, directors, nominees for election as directors, beneficial owners of more than 5% of any class of our capital stock, any member of the immediate family of any of the foregoing persons and any firm, corporation or other entity in which any of the foregoing persons is employed or is a general partner or principal or in a similar position or in which such person has a 5% or greater beneficial ownership interest, are not permitted to enter into a related party transaction with us without the approval of our nominating and corporate governance committee, subject to the exceptions described below.

A related person transaction is a transaction, arrangement or relationship, or any series of similar transactions, arrangements or relationships, in which we and any related person are, were or will be participants in which the amount involved exceeds \$120,000. Transactions involving compensation for services provided to the Company as an employee or director are not covered by this policy.

The Board has determined that certain transactions will not require the approval of the nominating and corporate governance committee, including certain employment arrangements of executive officers, director compensation, transactions with another company at which a related party's only relationship is as a director, non-executive employee or beneficial owner of less than 10% of that company's outstanding capital stock, transactions where a related party's interest arises solely from the ownership of our common stock and all holders of our common stock received the same benefit on a pro rata basis and transactions available to all employees generally.

Related Person Transactions

Confidential Transition, Consulting and General Release Agreement with Alan Knitowski. On December 13, 2022, the Company entered into a Confidential Transition, Consulting and General Release Agreement (the "Transition Agreement") with Alan Knitowski. The Transition Agreement provides that Mr. Knitowski's employment terminated effective on the December 27, 2022 (the "Separation Date"). Furthermore, effective the Separation Date, Mr. Knitowski freely and voluntarily resigned his position as a director of the Company's board of directors. The Company and Mr. Knitowski have agreed that from the period of the Separation Date and continuing through December 31, 2023 (the "Services Period"), Mr. Knitowski serves as a special advisor to the Company. The Company and Mr. Knitowski both agreed to a mutual general release, which excludes certain specified types of claims. Mr. Knitowski also agreed to certain restrictive covenants, including confidentiality, non-compete and non-solicitation provisions.

As compensation for his service as a special advisor during the Services Period, Mr. Knitowski will receive aggregate gross compensation of \$225,000, less applicable withholdings, payable in twelve (12) monthly installments of \$18,750 (the "Monthly Installment Payment"), beginning January 31, 2023. The Monthly Installment Payment may be made in the form of cash, Bitcoin or the issuance of common stock of the Company, in the Company's sole discretion. The Company will also reimburse Mr. Knitowski for continuation coverage under the Company's group health plan in accordance with COBRA through December 31, 2023.

During the course of his employment with the Company, Mr. Knitowski was awarded a certain number of grants of restricted stock units pursuant to the Company's 2018 Equity Incentive Plan (the "Knitowski Grants"). As of the Separation Date, Mr. Knitowski had approximately 473,263 unvested restricted stock units under the Knitowski Grants. The Knitowski Grants were made at multiple occurrences, each of which contained various vesting share amounts on various dates, with the last vesting period scheduled to occur in May 2025. As additional compensation under the Transition Agreement, the Company modified the vesting schedule with respect to the unvested portion of restricted stock units under the Knitowski Grants, such that 39,438 restricted stock units will vest on each of the last day of each month from January 2023 through November 2023 and 39,445 restricted stock units will vest on December 31, 2023.

Assumed Payables. The Company assumed \$255,000 in payables from Stellar for Nautilus Energy Management Corporation, an affiliate of Mr. Syllantavos, who served as a member of our board until December 2, 2021. On December 29, 2021, we paid \$170,917 in full satisfaction of the outstanding payable.

Promissory Notes. On November 15, 2019, the Company issued a promissory note in the principal amount of \$195,000, in exchange for cash consideration, to Cane Capital, LLC, an entity owned in part by Alan S. Knitowski, who at the time of issuance served as the Company's Chief Executive Officer and a member of its board of directors. On October 27, 2021, we paid the note in full with no early payment penalty.

Director Independence

Our common stock and warrants to purchase our common stock are listed on Nasdaq. Under the rules of Nasdaq, independent directors must comprise a majority of a listed company's board of directors. In addition, the rules of Nasdaq require that, subject to specified exceptions, each member of a listed company's audit, compensation, and nominating and corporate governance committees be independent. Under the rules of Nasdaq, a director will only qualify as an "independent director" if, in the opinion of that company's board of directors, that person does not have a relationship that would interfere with the exercise of independent judgment in carrying out the responsibilities of a director. Audit committee members must also satisfy the independence criteria set forth in Rule 10A-3 under the Exchange Act. Compensation committee members must also satisfy the independence criteria set forth in Rule 10C-1 under the Exchange Act.

In order to be considered independent for purposes of Rule 10A-3 and Rule 10C-1, a member of an audit committee or compensation committee of a listed company may not, other than in his or her capacity as a member of the committee, the board of directors, or any other board committee: (1) accept, directly or indirectly, any consulting, advisory, or other compensatory fee from the listed company or any of its subsidiaries; or (2) be an affiliated person of the listed company or any of its subsidiaries.

We have undertaken a review of the independence of each director and considered whether each director has a material relationship with us that could compromise his or her ability to exercise independent judgment in carrying out his or her responsibilities. As a result of this review, we determined that Messrs. Stephen Chen, Ryan Costello, Eric Manlunas and Rahul Mewawalla and Ms. Kathy Tan Mayor, representing five of our six directors, are considered "independent directors" as defined under the applicable rules and regulations of the SEC and the listing requirements and rules of Nasdaq.

Board Leadership Structure / Lead Independent Director

We believe that the structure of our Board and Board committees provides strong overall management. The Chair of our Board and our Chief Executive Officer roles are separate. Mr. Buyse serves as our Chief Executive Officer and Mr. Costello serves as Chair of our Board. This structure enables each person to focus on different aspects of company leadership. Our Chief Executive Officer is responsible for setting the strategic direction of our company, the general management and operation of the business and the guidance and oversight of senior management. The Chair of our Board monitors the content, quality and timeliness of information sent to our Board and is available for consultation with our Board regarding the oversight of its business affairs. Our independent directors bring experience, oversight and expertise from outside of Phunware, while Mr. Buyse brings company-specific experience and expertise.

Limitation on Liability and Indemnification Matters

As permitted under Delaware law, our certificate of incorporation and amended and restated bylaws provide that we will indemnify our directors and officers and may indemnify our employees and other agents, to the fullest extent permitted by Delaware law. Delaware law prohibits our certificate of incorporation from limiting the liability of our directors for any of the following:

- any breach of a director's duty of loyalty to us or to our stockholders;
- acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- unlawful payment of dividends or unlawful stock repurchases or redemptions; and
- any transaction from which a director derived an improper personal benefit.

If Delaware law is amended to authorize corporate action further eliminating or limiting the personal liability of a director, then the liability of our directors will be eliminated or limited to the fullest extent permitted by Delaware law, as so amended. Our certificate of incorporation will not eliminate a director's duty of care and, in appropriate circumstances, equitable remedies, such as injunctive or other forms of non-monetary relief, remain available under Delaware law. This provision also will not affect a director's responsibilities under any other laws, such as the federal securities laws or other state or federal laws. Under our amended and restated bylaws, we will also be empowered to purchase insurance on behalf of any person whom we are required or permitted to indemnify.

In addition to the indemnification required in our certificate of incorporation and amended and restated bylaws, we have entered into an indemnification agreement with each member of our board of directors. These agreements provide for the indemnification of our directors, officers and some employees for certain expenses and liabilities incurred in connection with any action, suit, proceeding or alternative dispute resolution mechanism, or hearing, inquiry or investigation that may lead to the foregoing, to which they are a party, or are threatened to be made a party, by reason of the fact that they are or were a

director, officer, employee, agent or fiduciary of our company, or any of our subsidiaries, by reason of any action or inaction by them while serving as a director, officer, employee, agent or fiduciary, or by reason of the fact that they were serving at our request as a director, officer, employee, agent or fiduciary of another entity. In the case of an action or proceeding by or in the right of our company or any of our subsidiaries, no indemnification will be provided for any claim where a court determines that the indemnified party is prohibited from receiving indemnification. We believe that these charter and bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers.

The limitation of liability and indemnification provisions in our certificate of incorporation and amended and restated bylaws may discourage stockholders from bringing a lawsuit against directors for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against directors and officers, even though an action, if successful, might benefit us and our stockholders. Moreover, a stockholder's investment may be harmed to the extent we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. There is no pending litigation or proceeding naming any of our directors or officers as to which indemnification is being sought, nor are we aware of any pending or threatened litigation that may result in claims for indemnification by any director or officer.

Item 14. Principal Accounting Fees and Services.**Principal Accountant Fees and Services**

The following table sets forth aggregate fees billed to the Company for professional services by our independent registered public accounting firm, Marcum LLP for the fiscal years ended December 31, 2022 and 2021:

	2022	2021
Audit Fees ⁽¹⁾	\$ 338,815	\$ 246,219
Audit-related Fees ⁽²⁾	102,485	98,365
Tax Fees ⁽³⁾	—	—
All Other Fees ⁽⁴⁾	—	—
Total Fees	<u>\$ 441,300</u>	<u>\$ 344,584</u>

- (1) "Audit Fees" consist of fees for professional services rendered in connection with the audit of our annual consolidated financial statements, including audited financial statements presented in our annual report on Form 10-K, review of our quarterly financial statements presented in our quarterly report on Form 10-Q and services that are normally provided by our independent registered public accounting firm in connection with statutory and regulatory filings or engagements for those fiscal years, including audit services in connection with filing registration statements, and amendments thereto.
- (2) "Audit-related Fees" consist of fees related to audit and assurance procedures not otherwise included in Audit Fees, including fees related to the application of GAAP to proposed transactions and new accounting pronouncements.
- (3) "Tax Fees" consist of tax return preparation, international and domestic tax studies, consulting and planning.
- (4) "All Other Fees" consist of the cost of a subscription to an accounting research tool.

Audit Committee Pre-Approval

Our Audit Committee pre-approves all auditing services and permitted non-audit services to be performed for us by our independent auditor, including the fees and terms thereof. All of the services described above were approved by our Audit Committee.

PART IV**Item 15. Exhibits, Financial Statement Schedules.**

The following documents are filed as part of this Annual Report:

Consolidated Financial Statements

Our Consolidated Financial Statements are listed in the "Index to the Consolidated Financial Statements" under Part II, Item 8 of this Annual Report on Form 10-K.

Financial Statements Schedule

All financial statement schedules are omitted because they are not applicable or the amounts are immaterial and not required, or the required information is presented in the Consolidated Financial Statements or notes thereto included in Part II, Item 8 "Financial Statements and Supplementary Data" of this Annual Report on Form 10-K.

Exhibits

We hereby file as part of this Report the exhibits listed in the attached Exhibit Index. Exhibits which are incorporated herein by reference can be inspected and copied at the public reference facilities maintained by the SEC, 100 F Street, N.E., Room 1580, Washington D.C. 20549. Copies of such material can also be obtained from the Public Reference Section of the SEC, 100 F Street, N.E., Washington, D.C. 20549, at prescribed rates or on the SEC website at www.sec.gov.

EXHIBIT INDEX

Exhibit No.	Description
3.1	Certificate of Incorporation of the Registrant (Incorporated by reference to Exhibit 3.1 of the Registrant's Form 8-K (File No. 001-37862), filed with the SEC on January 2, 2019). Restated Certificate of Incorporation of the Registrant (Incorporated by reference to Exhibit 3.1 of the Registrant's Form 8-K (File No. 001-37862), filed with the SEC on January 2, 2019).
3.2	Amended and Restated Bylaws of the Registrant (Incorporated by reference to Exhibit 3.1 of the Registrant's Form 8-K (File No. 001-37862), filed with the SEC on November 4, 2022).
3.3	Certificate of Designation (Incorporated by reference to Exhibit 3.3 of the Registrant's Form 8-K (File No. 001-37862) filed with the SEC on January 2, 2019).
4.1	Specimen common stock certificate of the Registrant (Incorporated by reference to Exhibit 4.3 of Stellar's Form S-4/A (File No. 333-224227), filed with the SEC on November 6, 2018).
4.2	Form of Unit Purchase Option between Maxim Group LLC and the Registrant (Incorporated by reference to Exhibit 4.5 of the Registrant's Form S-1/A (File No. 333-212377) filed with the SEC on August 15, 2016).
4.3	Warrant Agreement, dated August 18, 2016, between Continental Stock Transfer & Trust Company and the Registrant (Incorporated by reference to Exhibit 4.1 of the Registrant's Form 8-K (File No. 001-37862), filed with the SEC on August 24, 2016).
4.4	Second Amended and Restated Sponsor Warrant Purchase Agreement, dated August 12, 2016 among the Registrant and certain security holders (Incorporated by reference to Exhibit 10.9 of the Registrant's Form S-1/A (File No. 333-212377), filed with the SEC on August 15, 2016).
4.5	Registration Rights Agreement, dated August 18, 2016, between the Registrant and certain security holders (Incorporated by reference to Exhibit 10.2 of the Registrant's Form 8-K (File No. 001-37862), filed with the SEC on August 24, 2016).
4.6	Form of Securities Subscription Agreement, dated January 29, 2016, among the Registrant and certain security holders (Incorporated by reference to Exhibit 10.7 of the Registrant's Form S-1 (File No. 333-212377), filed with the SEC on June 30, 2016).
4.7	Amended and Restated Investors' Rights Agreement, as amended, between Phunware, Inc. and certain holders of Phunware, Inc.'s capital stock named therein (Incorporated by Reference to Exhibit 4.7 of the Registrant's Form S-1 (File No. 333-229524) filed with the SEC on February 5, 2019).
4.8	Form of Warrant to Purchase Shares of Series F Preferred Stock and Phuncoins of Phunware, Inc. (Incorporated by reference to Exhibit 10.22 of the Registrant's Form S-4/A (File No. 333-224227), filed with the SEC on October 2, 2018).
4.9	Securities Purchase Agreement, dated December 26, 2018, between the Stellar and the Purchaser, dated January 29, 2016, among Stellar and certain security holders (Incorporated by reference to Exhibit 10.9 of the Registrant's Form 8-K (File No. 001-37862), filed with the SEC on January 2, 2019).

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4.10	Registration Rights Agreement, dated December 26, 2018, between the Stellar and the Purchaser, dated January 29, 2016, among Stellar and certain security holders (Incorporated by reference to Exhibit 10.10 of the Registrant's Form 8-K (File No. 001-37862), filed with the SEC on January 2, 2019).
4.11	Form of Convertible Promissory Note (Incorporated by reference to Exhibit 4.1 of the Registrant's Form 8-K (File No. 001-37862), filed with the SEC on June 5, 2019.)
4.12	Form of Promissory Note (Incorporated by reference to Exhibit 4.1 of the Registrant's Form 8-K (File No. 001-37862), filed with the SEC on November 21, 2019).
4.13	Form of Note, dated April 9, 2020, between the Company and JPMorgan Chase (Incorporated by reference to Exhibit 4.1 of the Registrant's Form 8-K filed with the SEC on April 16, 2020).
4.14	Form of Senior Convertible Note, dated March 20, 2020, between the Company and Alto Opportunity Master Fund, SPC – Segregated Master Portfolio B (Incorporated by reference to Exhibit 4.1 of the Registrant's Form 8-K filed with the SEC on March 23, 2020).
4.15	Description of Securities (Incorporated by reference to Exhibit 4.15 of the Registrant's Form 10-K (File No. 001-37862), filed with the SEC on March 31, 2021).
10.1+	Phunware, Inc. 2018 Equity Incentive Plan, Amended and Restated as of November 11, 2022 (Incorporated by reference to Annex A of the Registrant's Schedule 14A (File No. 001-37862), filed with the SEC on August 31, 2022).
10.2+	Phunware, Inc. 2018 Employee Stock Purchase Plan (Incorporated by reference to Annex E of the Registrant's Form S-4/A (File No. 333-224227), filed with the SEC on November 13, 2018).
10.3+	Phunware, Inc. 2009 Equity Incentive Plan (Incorporated by reference to Exhibit 10.15 of the Registrant's Form S-4 (File No. 333-224227), filed with the SEC on April 11, 2018).
10.4	Property Lease commencing on November 1, 2011 with HUB Properties Trust for premises located at 7800 Shoal Creek Blvd., Suite-230S, Austin, TX 78757, as amended by First Amendment to Property Lease dated September 6, 2012, and Second Amendment to Property Lease dated July 3, 2013 (Incorporated by reference to Exhibit 10.16 of the Registrant's Form S-4 (File No. 333-224227), filed with the SEC on April 11, 2018).
10.5	Factoring Agreement with CSNK Working Capital Finance Corp d/b/a Bay View Funding dated June 14, 2016, as amended by Amendment No. 1 to Factoring Agreement dated June 22, 2016 (Incorporated by reference to Exhibit 10.17 of the Registrant's Form S-4 (File No. 333-224227), filed with the SEC on April 11, 2018).
10.6	Form of Token Rights Agreement (Incorporated by reference to Exhibit 10.23 of the Registrant's Form S-4/A (File No. 333-224227), filed with the SEC on October 2, 2018).
10.7	Form of Purchase Agreement (Incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K (File No. 001-37862) filed with the SEC on June 5, 2019).
10.8	Form of Cryptocurrency Payment Agreement (Incorporated by reference to Exhibit 10.2 of the Registrant's Form 8-K (File No. 001-37862) filed with the SEC on June 5, 2019).
10.9	Form of Note Purchase Agreement (Incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K (File No. 001-37862) filed with the SEC on November 21, 2019).
10.10	Form of Cryptocurrency Payment Agreement (Incorporated by reference to Exhibit 10.2 of the Registrant's Form 8-K (File No. 001-37862) filed with the SEC on November 21, 2019).
10.11	Standard office lease dated July 16, 2019, between the Company and BRE CA Office Owner, LLC (Incorporated by reference to Exhibit 10.3 of the Registrant's Form 10-Q (File No. 001-37862), filed with the SEC on August 13, 2019).
10.12	Office Sublease between the Company and Bangarang Enterprises LLC d/b/a Gander Group dated effective as of March 16, 2021 (Incorporated by Reference to Exhibit 10.1 of the Registrant's Form 8-K filed with the SEC on March 19, 2021).
10.13	Lease agreement and first amendment thereto dated March 2013 and May 18, 2018, respectively, between the Company and 3050 Biscayne Properties, LLC (Incorporated by reference to Exhibit 10.5 of the Registrant's Form 10-Q (File No. 001-37862), filed with the SEC on August 13, 2019).
10.14	Lease agreement dated October 1, 2014, between the Company and Promontory Associates, GP (Incorporated by reference to Exhibit 10.4 of the Registrant's Form 10-Q (File No. 001-37862), filed with the SEC on August 13, 2019).
10.15	First amendment to Lease dated November 12, 2019, between the Company and Promontory Associates (Incorporated by reference to Exhibit 10.3 of the Registrant's Form 10-Q (File No. 001-37862), filed with the SEC on November 14, 2019).
10.16	Third amendment to Lease dated August 20, 2019, between the Company and Seamless Shoal Creek, LLC (Incorporated by reference to Exhibit 10.2 of the Registrant's Form 10-Q (File No. 001-37862), filed with the SEC on November 14, 2019).
10.17+	Employment Agreement between the Registrant and Alan Knitowski (Incorporated by reference to Exhibit 10.2 of the Registrant's Form 8-K (File No. 001-37862), filed with the SEC on January 2, 2019).

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10.18+	Employment Agreement between the Registrant and Matt Aune (Incorporated by reference to Exhibit 10.3 of the Registrant's Form 8-K (File No. 001-37862), filed with the SEC on January 2, 2019).
10.19+	Employment Agreement between the Registrant and Randall Crowder (Incorporated by reference to Exhibit 10.4 of the Registrant's Form 8-K (File No. 001-37862), filed with the SEC on January 2, 2019).
10.20+	Employment Agreement between the Registrant and Luan Dang (Incorporated by reference to Exhibit 10.6 of the Registrant's Form 8-K (File No. 001-37862), filed with the SEC on January 2, 2019).
10.21	Form of Securities Purchase Agreement, dated March 19, 2020 (Incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed with the SEC on March 23, 2020).
10.22	Form of Registration Rights Agreement, dated March 20, 2020 (Incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed with the SEC on March 23, 2020).
10.23	Form of Security Purchase Agreement, dated July 14, 2020, between the Company and Alto Opportunity Master Fund, SPC – Segregated Master Portfolio B (Incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed with the SEC on July 16, 2020).
10.24	Form of Series A Senior Convertible Note, dated July 15, 2020, between the Company and Alto Opportunity Master Fund, SPC – Segregated Master Portfolio B (Incorporated by reference to Exhibit 10.2 of the Registrant's Form 8-K filed with the SEC on July 16, 2020).
10.25	Form of Series B Senior Convertible Note, dated July 15, 2020, between the Company and Alto Opportunity Master Fund, SPC – Segregated Master Portfolio B (Incorporated by reference to Exhibit 10.3 of the Registrant's Form 8-K filed with the SEC on July 16, 2020).
10.26	Form of Note Purchase Agreement, dated July 14, 2020, between the Company and Alto Opportunity Master Fund, SPC – Segregated Master Portfolio B (Incorporated by reference to Exhibit 10.4 of the Registrant's Form 8-K filed with the SEC on July 16, 2020).
10.27	Form of Secured Promissory Note, dated July 14, 2020, between the Company and Alto Opportunity Master Fund, SPC – Segregated Master Portfolio B (Incorporated by reference to Exhibit 10.5 of the Registrant's Form 8-K filed with the SEC on July 16, 2020).
10.28	Form of Master Netting Agreement, dated July 15, 2020, between the Company and Alto Opportunity Master Fund, SPC – Segregated Master Portfolio B (Incorporated by reference to Exhibit 10.6 of the Registrant's Form 8-K filed with the SEC on July 16, 2020).
10.29	Form of Warrant to Purchase Common Stock, dated July 15, 2020, between the Company and Alto Opportunity Master Fund, SPC – Segregated Master Portfolio B (Incorporated by reference to Exhibit 10.7 of the Registrant's Form 8-K filed with the SEC on July 16, 2020).
10.30	Form of Registration Rights Agreement, dated July 15, 2020, between the Company and Alto Opportunity Master Fund, SPC – Segregated Master Portfolio B (Incorporated by reference to Exhibit 10.8 of the Registrant's Form 8-K filed with the SEC on July 16, 2020).
10.31	At-The-Market Issuance Sales Agreement, by and between Phunware, Inc. and H.C. Ascendant Capital Markets, LLC, dated August 14, 2020 (Incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed with the SEC on August 14, 2020).
10.32	Settlement Agreement and Mutual General Release, dated October 9, 2020, between the Company, Uber Technologies, Inc., and certain Individual Defendants (Incorporated by reference to Exhibit 10.12 of the Registrant's Form 10-Q (File No. 001-37862), filed with the SEC on November 12, 2020).
10.33	Underwriting Agreement, dated February 12, 2021 by and among Northland Securities, Inc., Roth Capital Partners, LLC and Phunware, Inc. (Incorporated by Reference to Exhibit 1.1 of the Registrant's Form 8-K filed with the SEC on February 16, 2021).
10.34	At Market Issuance Sales Agreement, by and between Phunware, Inc. and B. Riley Securities, Inc., dated April 7, 2021 (Incorporated by Reference to Exhibit 10.1 of the Registrant's Form 8-K (File No. 001-37862), filed with the SEC on April 7, 2021).
10.35	At Market Issuance Sales Agreement by and between Phunware, Inc. and HC Wainwright & Co., LLC dated January 31, 2022 (Incorporated by reference to Exhibit 1.2 of the Registrant's Form S-3 (File No. 333-262461) filed with the SEC on February 1, 2022).
10.36	Note Purchase Agreement dated October 15, 2021, between Phunware, Inc. and Streeterville Capital, LLC (incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K filed with the SEC on October 19, 2021).
10.37	Stock Purchase Agreement dated September 10, 2021, between Phunware, Inc. and Caleb Borgstrom (incorporated by reference to Exhibit 2.1 of the Registrant's Form 8-K filed with the SEC on September 13, 2021).
10.38	Lease Agreement, dated March 15, 2022, between Phunware, Inc. and Jonsson ATX Warehouse, LLC (Incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K (File No. 001-37862) filed with the SEC on March 18, 2022).

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10.39	Lease Agreement, dated June 3, 2022, between Phunware, Inc. and ATX Acquisitions, LLC (Incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K (File No. 001-37862) filed with the SEC on June 10, 2020).
10.40	Note Purchase Agreement, dated July 6, 2022, between Phunware, Inc. and Streeterville Capital, LLC (Incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K (File No. 001-37862) filed with the SEC on June 8, 2022).
10.41	Promissory Note, dated July 6, 2022, between Phunware, Inc. and Streeterville Capital, LLC (Incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K (File No. 001-37862) filed with the SEC on June 8, 2022).
10.42+	Amendment No. 1 to Employment Agreement by and between Phunware, Inc. and Matt Aune (Incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K (File No.001-37862) filed with the SEC on September 30, 2022).
10.43+	Amendment No. 1 to Employment Agreement by and between Phunware, Inc. and Randall Crowder (Incorporated by reference to Exhibit 10.2 of the Registrant's Form 8-K (File No.001-37862) filed with the SEC on September 30, 2022).
10.44+*	Amended and Restated Employment Agreement by and between Phunware, Inc. and Matt Lull.
10.45+*	Amended and Restated Employment Agreement by and between Phunware, Inc. and Chris Olive.
10.46+	Confidential Executive Employment Agreement by and between Phunware, Inc. and Russell Buyse dated November 11, 2022 (Incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K (File No. 001-37862) filed with the SEC on November 14, 2022).
10.47+	Confidential Transition, Consulting and General Release Agreement by and between Phunware, Inc. and Alan S. Knitowski executed on December 13, 2022 (Incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K (File No. 001-37862) filed with the SEC on December 16, 2022).
14.1	Code of Business Conduct and Ethics as of December 26, 2018 (Incorporated by reference to Exhibit 14.1 of the Registrant's Form 10-K (File No. 001-37862), filed with the SEC on March 20, 2019).
21.1*	List of Subsidiaries of the Registrant.
23.1*	Consent of Independent Registered Public Accounting Firm.
24.1*	Power of Attorney (contained in signature page to this Annual Report on Form 10-K).
31.1*	Certification of the Principal Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2*	Certification of the Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1**	Certification of the Principal Executive Officer and Principal Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Instance Document*
101.SCH	XBRL Taxonomy Extension Schema*
101.CAL	XBRL Taxonomy Calculation Linkbase*
101.LAB	XBRL Taxonomy Label Linkbase*
101.PRE	XBRL Definition Linkbase Document*
101.DEF	XBRL Definition Linkbase Document*
104	Cover Page Interactive Data File*

* Filed herewith

** Furnished herewith

+ Indicates a management contract or compensatory plan or arrangement

Item 16. Form 10-K Summary.

None.

SIGNATURES

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

PHUNWARE, INC.

Date: March 31, 2023

By: /s/ Russell Buyse
Title: Chief Executive Officer
(Principal Executive Officer)

Date: March 31, 2023

By: /s/ Matt Aune
Title: Chief Financial Officer
(Principal Accounting and Financial Officer)

POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Russell Buyse and Matt Aune, and each of them, as his or her true and lawful attorney-in-fact and agent with full power of substitution, for him or her in any and all capacities, to act on, sign any and all amendments to this Annual Report on Form 10-K, and to file the same, with all exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact, proxy, and agent full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith, as fully for all intents and purposes as he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact, proxy and agent, or his substitute, may lawfully do or cause to be done by virtue hereof.

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

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ Russell Buyse</u> Russell Buyse	Chief Executive Officer and Director (Principal Executive Officer)	March 31, 2023
<u>/s/ Matt Aune</u> Matt Aune	Chief Financial Officer (Principal Accounting and Financial Officer)	March 31, 2023
<u>/s/ Stephen Chen</u> Stephen Chen	Director	March 31, 2023
<u>/s/ Ryan Costello</u> Ryan Costello	Director	March 31, 2023
<u>/s/ Eric Manlunas</u> Eric Manlunas	Director	March 31, 2023
<u>/s/ Kathy Tan Mayor</u> Kathy Tan Mayor	Director	March 31, 2023
<u>/s/ Rahul Mewawalla</u> Rahul Mewawalla	Director	March 31, 2023

PHUNWARE, INC.

AMENDED AND RESTATED EMPLOYMENT AGREEMENT

This Amended and Restated Employment Agreement (the “**Agreement**”) is entered into effective as of April 18, 2022 (the “**Effective Date**”), by and between Phunware, Inc. (the “**Company**”), and Matt Lull (“**Executive**”).

WHEREAS, the Company and Executive entered into that certain Employment Agreement (the “**Original Agreement**”), effective as of the Effective Date; and

WHEREAS, the Company and Executive desire to amend and restate the Original Agreement in its entirety as set forth herein.

NOW, THEREFORE, in consideration of the mutual covenants and agreements hereinafter set forth and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Company and Executive agree as follows:

1. Duties and Scope of Employment.

(a) Positions and Duties. As of the Effective Date, Executive will serve as Executive Vice President and Chief Cryptocurrency Officer of the Company. Executive will render such business and professional services in the performance of his duties, consistent with Executive’s position within the Company, as will reasonably be assigned to him by the Company’s Chief Executive Officer (“**CEO**”) or the Company’s Board of Directors (the “**Board**”). The period of Executive’s employment under this Agreement is referred to herein as the “**Employment Term.**”

(b) Obligations. During the Employment Term, Executive will perform his duties faithfully and to the best of his ability and will devote substantially all of his business efforts and time to the Company. For the duration of the Employment Term, Executive agrees not to actively engage in any other employment, occupation or consulting activity for any direct or indirect remuneration that would impact in any material respect his ability to perform his duties and obligations hereunder.

2. At-Will Employment. The parties agree that Executive’s employment with the Company will be “at-will” employment and may be terminated at any time with or without Cause or notice. Executive understands and agrees that neither his job performance nor promotions, commendations, bonuses or the like from the Company give rise to or in any way serve as the basis for modification, amendment, or extension, by implication or otherwise, of his employment with the Company. However, Executive may be entitled to severance benefits set forth in Section 8 of this Agreement, subject to Executive satisfying the conditions to receipt of severance set forth in Section 9.

3. Term of Agreement. This Agreement will have an initial term running from the Effective Date through the fourth anniversary of the Effective Date (the “**Initial Term**”). On the fourth anniversary of the Effective Date, this Agreement will renew automatically for additional one (1) year terms (each an “**Additional Term**”), unless either party provides the other party with written notice of non-renewal at least ninety (90) days prior to the date of automatic renewal. Notwithstanding the foregoing provisions of this paragraph, (a) if a Change in Control occurs when there are fewer than twelve (12) months remaining during the Initial Term or an Additional Term, the term of this Agreement will extend automatically through the date that is twelve (12) months following the effective date of the Change in Control, or (b) if an initial occurrence of an act or omission by the Company constituting the grounds for “Good Reason” in

accordance with Section 10(f) hereof has occurred (the “**Initial Grounds**”), and the expiration date of the Company cure period (as such term is used in Section 10(f)) with respect to such Initial Grounds could occur following the expiration of the Initial Term or an Additional Term, the term of this Agreement will extend automatically through the date that is thirty (30) days following the expiration of such cure period, but such extension of the term will only apply with respect to the Initial Grounds. If Executive becomes entitled to benefits under Section 8 during the term of this Agreement, the Agreement will not terminate until all of the obligations of the parties hereto with respect to this Agreement have been satisfied.

4. Compensation

(a) Base Salary. During the Employment Term, the Company will pay Executive an annual salary of \$300,000 as compensation for his services (the “**Base Salary**”). The Base Salary will be paid periodically in accordance with the Company’s normal payroll practices and be subject to the usual, required withholding. Executive’s Base Salary will be subject to review and adjustments will be made based upon the Company’s normal performance review practices.

(b) Bonus. Executive will be eligible: (i) for an annual performance and/or incentive bonus for each fiscal year during the Employment Term, payable to the extent the applicable performance and/or incentive goals or other objectives established and approved by the Board (or any committee of the Board) have been satisfied for the applicable fiscal year; and (ii) to participate in any other bonus or incentive arrangement established by the Board (or any committee of the Board) for executives of the Company generally. Any bonus earned by Executive will be paid in accordance with the Company’s standard practices, during Q1 of the calendar year following the calendar year in which the bonus is earned.

(c) Equity. Following the Effective Date, Executive shall be granted an award of 500,000 restricted stock units (the “**RSUs**”). Subject to the accelerated vesting provisions set forth herein, the RSUs will vest over four (4) years of Executive’s continuous service with the Company, with 135,417 RSUs vesting on May 8, 2023, 40,510 RSUs vesting on each of August 8, 2023 and November 8, 2023, and 40,509 RSUs vesting on each of May 8, 2024, August 8, 2024, November 8, 2024, May 8, 2025, August 8, 2025, November 8, 2025 and April 17, 2026. The RSUs will be subject to the terms, definitions and provisions of the Company’s 2018 Equity Incentive Plan, as amended, and the restricted stock unit award agreement by and between Executive and the Company. Executive will also be eligible to receive future awards of stock options, restricted stock units or other equity awards pursuant to the Company’s 2018 Equity Incentive Plan, as amended, or any other plans or arrangements the Company may have in effect from time to time. The Board (or its compensation committee) will determine in its discretion whether Executive will be granted any such equity awards and the terms of any such award in accordance with the terms of any applicable plan or arrangement that may be in effect from time to time, provided that in no case will the terms of any such award deviate from the accelerated vesting provisions set forth elsewhere herein.

5. Employee Benefits. During the Employment Term, Executive will be entitled to participate in the employee benefit plans currently and hereafter maintained by the Company of general applicability to other senior executives of the Company, including, without limitation, the Company’s group medical, dental, vision, disability, life insurance, and flexible-spending account plans. The Company reserves the right to cancel or change the benefit plans and programs it offers to its employees at any time.

6. Vacation. The Company does not provide vacation benefits, and no vacation time or other paid time off is accrued. Rather, the Company expects each employee, including Executive, to determine for himself, consistent with his responsibilities and working with his supervisor how much time can reasonably be spent away from the office for purposes such as personal vacation, relaxation, or personal or family needs.

7. Expenses. The Company will reimburse Executive for reasonable travel, entertainment or other expenses incurred by Executive in the furtherance of or in connection with the performance of Executive's duties hereunder, in accordance with the Company's expense reimbursement policy as in effect from time to time.

8. Severance.

(a) Termination without Cause or Resignation for Good Reason Outside the Change in Control Period. If the Company terminates Executive's employment with the Company for reasons other than Cause, Executive's death, or Executive's Disability, or if Executive Resigns from such employment for Good Reason, and in each case, such termination occurs outside the Change in Control Period, then subject to Section 9, Executive will receive, in addition to Executive's salary payable through the date of termination of employment and any other employee benefits earned and owed through the date of termination, the following benefits from the Company:

(i) continuing payments of severance pay at a rate equal to Executive's Base Salary rate, as then in effect, for six (6) months from the date of such termination in accordance with the Company's normal payroll policies;

(ii) if Executive timely elects continuation coverage pursuant to the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended ("**COBRA**") for Executive, Executive's spouse and eligible dependents, as applicable, the Company will reimburse Executive for the monthly premiums under COBRA for such coverage until the earliest of (A) six (6) months following the effective date of such termination, or (B) the date upon which Executive begins other employment that provides for health coverage benefits. However, if the Company determines in its sole discretion that it cannot provide the COBRA benefits without potentially violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), the Company will in lieu thereof provide to Executive a taxable monthly payment in an amount equal to the monthly COBRA premium that Executive would be required to pay to continue his group health coverage in effect on the date of his termination of employment (which amount will be based on the premium for the first month of COBRA coverage), which payments will be made regardless of whether Executive elects COBRA continuation coverage; and

(iii) the immediate vesting as to 100% of each of Executive's then outstanding Equity Awards, and with respect to Equity Awards granted on or after the Effective Date, the same vesting acceleration provisions provided herein will apply to such Equity Awards except to the extent provided in the applicable equity award agreement by express reference to this Agreement.

(b) Termination without Cause or Resignation for Good Reason During the Change in Control Period. If the Company terminates Executive's employment with the Company for reasons other than Cause, Executive's death, or Executive's Disability, or if Executive resigns from such employment for Good Reason, and in each case, such termination occurs during the Change in Control Period, then subject to Section 9,

Executive will receive, in addition to Executive's salary payable through the date of termination of employment and any other employee benefits earned and owed through the date of termination, the following benefits from the Company:

(i) a lump sum severance payment equal to the amount of Base Salary, as in effect on the date of termination (but in no event less than Executive's Base Salary in effect immediately prior to the Closing), Executive would have otherwise received had he remained employed by the Company through the twelve (12) month anniversary of the Change in Control;

(ii) a lump sum severance amount equal to the average annualized bonus earned by Executive for the two (2) calendar years prior to the calendar year during which the Change in Control occurs, but in no event will the amount be less than Executive's annual target bonus, if any, for the year during which the termination occurs;

(iii) the immediate vesting as to 100% of each of Executive's then outstanding Equity Awards, and with respect to Equity Awards granted on or after the Effective Date, the same vesting acceleration provisions provided in this sentence will apply to such Equity Awards, except to the extent provided in the applicable equity award agreement by express reference to this Agreement; and

(iv) if Executive timely elects continuation coverage pursuant to COBRA for Executive, Executive's spouse and eligible dependents, as applicable, the Company will reimburse Executive for the monthly premiums under COBRA for such coverage until the earliest of (A) twelve (12) months following the effective date of such termination, or (B) the date upon which Executive begins other employment that provides for health coverage benefits. However, if the Company determines in its sole discretion that it cannot provide the COBRA benefits without potentially violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), the Company will in lieu thereof provide to Executive a taxable monthly payment in an amount equal to the monthly COBRA premium that Executive would be required to pay to continue his group health coverage in effect on the date of his termination of employment (which amount will be based on the premium for the first month of COBRA coverage), which payments will be made regardless of whether Executive elects COBRA continuation coverage.

9. Conditions to Receipt of Severance; No Duty to Mitigate.

(a) Separation Agreement and Release of Claims. The payment of any severance set forth in Section 8 above is contingent upon Executive signing and not revoking the Company's standard separation and release of claims agreement upon Executive's termination of employment and such agreement becoming effective no later than sixty (60) days following Executive's employment termination date (such deadline, the "**Release Deadline**"). In no event will severance payments be paid or provided until the release actually becomes effective. Any severance payments or benefits under this Agreement will be paid, or, in the case of installments, will commence, on the first regularly scheduled payroll date following the date the separation and release of claims agreement becomes effective and irrevocable, or if later, such time as required by Section 9(c). Except as required by Section 9(c), any installment payments that would have been made to Executive following his separation from service but for the preceding sentence will be paid to Executive on the first regularly scheduled payroll date following the date

the separation and release of claims agreement becomes effective and irrevocable and the remaining payments will be made as provided in the Agreement.

(b) Confidentiality Agreement. Executive's receipt of any payments or benefits under Section 8 will be subject to Executive continuing to comply with the material terms of his Mutual Nondisclosure and Confidentiality Agreement and this Agreement. In the event Executive materially breaches the provisions of this Section 9(b), all continuing payments and benefits to which Executive may otherwise be entitled to pursuant to Section 8 will immediately cease.

(c) Section 409A.

(i) Notwithstanding anything to the contrary in this Agreement, no severance pay or benefits payable upon separation that is payable to Executive, if any, pursuant to this Agreement, when considered together with any other severance payments or separation benefits that are considered deferred compensation (together, the "**Deferred Payments**") under Section 409A of the Internal Revenue Code, as amended (the "**Code**") and the final regulations and official guidance thereunder ("**Section 409A**") will be payable until Executive has a "separation from service" within the meaning of Section 409A.

(ii) It is intended that none of the severance payments under this Agreement will constitute Deferred Payments but rather will be exempt from Section 409A as a payment that would fall within the "short-term deferral period" or resulting from an involuntary separation from service each as described in Section 9(c)(iv) below. However, any severance payments or benefits under this Agreement that would be considered Deferred Payments will be paid on, or, in the case of installments, will not commence until, the sixtieth (60th) day following Executive's separation from service, or, if later, such time as required by Section 9(c)(iii). Except as required by Section 9(c)(iii), any installment payments that would have been made to Executive during the sixty (60) day period immediately following Executive's separation from service but for the preceding sentence will be paid to Executive on the sixtieth (60th) day following Executive's separation from service and the remaining payments will be made as provided in this Agreement.

(iii) Notwithstanding anything to the contrary in this Agreement, if Executive is a "specified employee" within the meaning of Section 409A at the time of his termination (other than due to death), then the Deferred Payments, if any, that are payable within the first six (6) months following his separation from service, will become payable on the first payroll date that occurs on or after the date six (6) months and one (1) day following the date of Executive's separation from service. All subsequent Deferred Payments, if any, will be payable in accordance with the payment schedule applicable to each payment or benefit. Notwithstanding anything herein to the contrary, if Executive dies following his separation from service, but prior to the six (6) month anniversary of the separation from service, then any payments delayed in accordance with this Section 9(c) will be payable in a lump sum as soon as administratively practicable after the date of Executive's death and all other Deferred Payments will be payable in accordance with the payment schedule applicable to each payment or benefit. Each payment, installment and benefit payable under this Agreement is intended to constitute a separate payment for purposes of Section 1.409A-2(b)(2) of the Treasury Regulations.

(iv) Any severance payment that satisfies the requirements of the “short-term deferral” rule set forth in Section 1.409A-1(b)(4) of the Treasury Regulations will not constitute Deferred Payments for purposes herein. Any amount paid under this Agreement that qualifies as a payment made as a result of an involuntary separation from service pursuant to Section 1.409A-1(b)(9)(iii) of the Treasury Regulations that does not exceed the Section 409A Limit (as defined below) will not constitute Deferred Payments for purposes herein.

(v) For purposes of this Agreement, “**Section 409A Limit**” means the lesser of two (2) times: (x) Executive’s annualized compensation based upon the annual rate of pay paid to Executive during Executive’s taxable year preceding Executive’s taxable year of Executive’s termination of employment as determined under Treasury Regulation 1.409A-1(b)(9)(iii)(A)(1) and any Internal Revenue Service guidance issued with respect thereto, or (y) the maximum amount that may be taken into account under a qualified plan pursuant to Section 401(a)(17) of the Code for the year in which Executive’s employment is terminated.

(vi) The foregoing provisions are intended to comply with or be exempt from the requirements of Section 409A so that none of the severance payments and benefits to be provided hereunder will be subject to the additional tax imposed under Section 409A, and any ambiguities herein will be interpreted to so comply. Executive and the Company agree to work together in good faith to consider amendments to this Agreement and to take such reasonable actions which are necessary, appropriate or desirable to avoid imposition of any additional tax or income recognition prior to actual payment to Executive under Section 409A.

(d) No Duty to Mitigate. Executive will not be required to mitigate the amount of any payment contemplated by this Agreement, nor will any earnings that Executive may receive from any other source reduce any such payment.

10. Definitions.

(a) Cause. For purposes of this Agreement, “**Cause**” means: (i) Executive’s failure to perform Executive’s material assigned duties and responsibilities as an employee (other than a failure resulting from Executive’s death or Disability) after written notice thereof from the Company describing Executive’s failure to perform such duties or responsibilities and failure to cure such failure to the reasonable satisfaction of the Company within thirty (30) days of the date the notice is provided to Executive; (ii) Executive engaging in any act of dishonesty, fraud or intentional misrepresentation with respect to the Company; (iii) Executive’s violation of any federal or state law or regulation applicable to the Executive and the business of the Company or its affiliates which violation results directly from Executive’s actions or omissions; (iv) Executive’s breach of any confidentiality agreement or invention assignment agreement (including, but not limited to, the Mutual Nondisclosure and Confidentiality Agreement) between Executive and the Company (or any affiliate of the Company); or (v) Executive being convicted of, or entering a plea of nolo contendere to, any felony or crime involving moral turpitude.

(b) Change in Control. For purposes of this Agreement, “**Change in Control**” has the same meaning assigned to such term in the Company’s 2018 Equity Incentive Plan, as amended.

(c) Change in Control Period. For purposes of this Agreement, “**Change in Control Period**” means the period beginning three (3) months prior to a Change in Control and ending on the twelve (12) month anniversary of a Change in Control.

(d) Disability. For purposes of this Agreement, “**Disability**” means Executive (i) is unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or can be expected to last for a continuous period of not less than twelve (12) months, or (ii) is, by reason of any medically determinable physical or mental impairment which can be expected to last for a continuous period of not less than twelve (12) months, receiving income replacement benefits for a period of not less than three (3) months under an accident and health plan covering Company employees.

(e) Equity Awards. For purposes of this Agreement, “**Equity Awards**” means Executive’s outstanding stock options, stock appreciation rights, restricted stock units, performance shares, performance stock units and any other equity compensation awards granted by the Company or any successor of the Company.

(f) Good Reason. For purposes of this Agreement, “**Good Reason**” means Executive’s resignation within three (3) months following the expiration of any Company cure period (discussed below) following the occurrence of one or more of the following events, without Executive’s prior written consent: (i) a material reduction of Executive’s authority, duties or responsibilities on the date of this Agreement or any change in Executive’s position and/or position title referenced in Section 1(a) of this Agreement; provided, however, that a reduction in authority, duties, or responsibilities primarily by virtue of the Company being acquired and made part of a larger entity whether as a subsidiary, business unit or otherwise (as, for example, when the Chief Executive Officer of the Company remains as such following an acquisition where the Company becomes a wholly owned subsidiary of the acquirer, but is not made the Chief Executive Officer of the acquiring corporation) will not constitute “Good Reason”; (ii) a material reduction in Executive’s Base Salary; (iii) a material change in the geographic location of Executive’s primary work facility or location; provided, that a relocation of less than twenty-five (25) miles from Executive’s then present location will not be considered a material change in geographic location, or (iv) a material breach by the Company of a material provision of this Agreement. Executive will not resign for Good Reason without first providing the Company with written notice of the acts or omissions constituting the grounds for “Good Reason” within ninety (90) days of Executive obtaining actual knowledge or receiving written notice of such acts and/or omissions constituting the grounds for “Good Reason” and a reasonable cure period of not less than thirty (30) days following the date the Company receives such written notice from Executive during which such event must not have been cured or remedied by the Company.

11. Limitation on Payments. In the event that the severance benefits provided for in this Agreement or otherwise payable to Executive (i) constitute “parachute payments” within the meaning of Section 280G of the Code and (ii) but for this Section 11, would be subject to the excise tax imposed by Section 4999 of the Code, then Executive’s severance benefits under Section 8 will be either:

(a) delivered in full, or

(b) delivered as to such lesser extent which would result in no portion of such severance benefits being subject to excise tax under Section 4999 of the Code,

whichever of the foregoing amounts, taking into account the applicable federal, state and local income taxes and the excise tax imposed by Section 4999, results in the receipt by Executive on an after-tax basis, of the greatest amount of severance benefits, notwithstanding that all or some portion of such severance benefits may be taxable under Section 4999 of the Code. If a reduction in severance and other benefits constituting "parachute payments" is necessary so that benefits are delivered to a lesser extent, reduction will occur in the following order: (i) reduction of cash payments, which will occur in reverse chronological order such that the cash payment owed on the latest date following the occurrence of the event triggering such excise tax will be the first cash payment to be reduced; (ii) reduction of acceleration of vesting of equity awards, which will occur in the reverse order of the date of grant for such stock awards (i.e., the vesting of the most recently granted stock awards will be reduced first); and (iii) reduction of other benefits paid or provided to the Executive, which will occur in reverse chronological order such that the benefit owed on the latest date following the occurrence of the event triggering such excise tax will be the first benefit to be reduced. If more than one equity award was made to the Executive on the same date of grant, all such awards will have their acceleration of vesting reduced pro rata. In no event will the Executive have any discretion with respect to the ordering of payment reductions.

Unless the Company and Executive otherwise agree in writing, any determination required under this Section 11 will be made in writing by a nationally recognized firm of independent public accountants selected by the Company (the "**Accountants**"), whose determination will be conclusive and binding upon Executive and the Company for all purposes. For purposes of making the calculations required by this Section 11, the Accountants may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of Sections 280G and 4999 of the Code. The Company and Executive will furnish to the Accountants such information and documents as the Accountants may reasonably request in order to make a determination under this Section. The Company will bear all costs the Accountants may reasonably incur in connection with any calculations contemplated by this Section 11.

12. No Conflicting Obligations. Executive confirms that Executive is not under any existing obligations that may impact Executive's eligibility to be employed by the Company or limit the manner in which Executive may be employed. Executive agrees not to bring any third-party confidential information to the Company, including that of Executive's former employer, and that Executive will not in any way utilize any such information in performing Executive's duties for the Company.

13. Assignment. This Agreement will be binding upon and inure to the benefit of (a) the heirs, executors and legal representatives of Executive upon Executive's death and (b) any successor of the Company. Any such successor of the Company will be deemed substituted for the Company under the terms of this Agreement for all purposes. For this purpose, "**successor**" means any person, firm, corporation or other business entity which at any time, whether by purchase, merger or otherwise, directly or indirectly acquires all or substantially all of the assets or business of the Company. None of the rights of Executive to receive any form of compensation payable pursuant to this Agreement may be assigned or transferred except by will or the laws of descent and distribution. Any other attempted assignment, transfer, conveyance or other disposition of Executive's right to compensation or other benefits will be null and void.

14. Notices. All notices, requests, demands and other communications called for hereunder will be in writing and will be deemed given (i) on the date of delivery if delivered personally; (ii) one (1) day after being sent by a well established commercial overnight service; or (iii) four (4) days after being mailed by registered or certified mail, return receipt requested,

prepaid and addressed to the parties or their successors at the following addresses, or at such other addresses as the parties may later designate in writing:

If to the Company:

Phunware, Inc.
Attn: Chief Executive Officer
1002 West Avenue
Austin, TX 78701

If to Executive:

at the last residential address known by the Company.

15. Severability. In the event that any provision hereof becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Agreement will continue in full force and effect without said provision.

16. Integration. This Agreement, together with the Company's 2018 Equity Incentive Plan, as amended, and award agreements entered into by and between Executive and the Company thereunder, including the restricted stock unit award agreement referred to in Section 4(c), and the Mutual Nondisclosure and Confidentiality Agreement, represents the entire agreement and understanding between the parties as to the subject matter herein and supersedes all prior or contemporaneous agreements whether written or oral. This Agreement may be modified only by agreement of the parties by a written instrument executed by the parties that is designated as an amendment to this Agreement.

17. Waiver of Breach. The waiver of a breach of any term or provision of this Agreement, which must be in writing, will not operate as or be construed to be a waiver of any other previous or subsequent breach of this Agreement.

18. Headings. All captions and section headings used in this Agreement are for convenient reference only and do not form a part of this Agreement.

19. Tax Withholding. All payments made pursuant to this Agreement will be subject to withholding of applicable taxes.

20. Governing Law. This Agreement will be governed by the laws of the State of Texas (with the exception of its conflict of laws provisions).

21. Acknowledgment. Executive acknowledges that he has had the opportunity to discuss this matter with and obtain advice from his private attorney, has had sufficient time to, and has carefully read and fully understands all the provisions of this Agreement, and is knowingly and voluntarily entering into this Agreement.

22. Counterparts. This Agreement may be executed in counterparts, and each counterpart will have the same force and effect as an original and will constitute an effective, binding agreement on the part of each of the undersigned.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, each of the parties has executed this Agreement, in the case of the Company by its duly authorized officer, effective as of the Effective Date.

COMPANY:

PHUNWARE, INC.

By: /s/ Matt Aune

Name: Matt Aune

Title: Chief Financial Officer

EXECUTIVE:

/s/ Matt Lull
MATT LULL

**[SIGNATURE PAGE TO
AMENDED AND RESTATED LULL EMPLOYMENT AGREEMENT]**

PHUNWARE, INC.

AMENDED AND RESTATED EMPLOYMENT AGREEMENT

This Amended and Restated Employment Agreement (the “**Agreement**”) is entered into effective as of April 1, 2022 (the “**Effective Date**”), by and between Phunware, Inc. (the “**Company**”), and Chris Olive (“**Executive**”).

WHEREAS, the Company and Executive entered into that certain Employment Agreement (the “**Original Agreement**”), effective as of the Effective Date; and

WHEREAS, the Company and Executive desire to amend and restate the Original Agreement in its entirety as set forth herein.

NOW, THEREFORE, in consideration of the mutual covenants and agreements hereinafter set forth and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Company and Executive agree as follows:

1. Duties and Scope of Employment.

(a) Positions and Duties. As of the Effective Date, Executive will serve as EVP, General Counsel & Chief Legal Officer of the Company. Executive will render such business and professional services in the performance of his duties, consistent with Executive’s position within the Company, as will reasonably be assigned to him by the Company’s Chief Executive Officer (“**CEO**”) or the Company’s Board of Directors (the “**Board**”). The period of Executive’s employment under this Agreement is referred to herein as the “**Employment Term.**”

(b) Obligations. During the Employment Term, Executive will perform his duties faithfully and to the best of his ability and will devote substantially all of his business efforts and time to the Company. For the duration of the Employment Term, Executive agrees not to actively engage in any other employment, occupation or consulting activity for any direct or indirect remuneration that would impact in any material respect his ability to perform his duties and obligations hereunder.

2. At-Will Employment. The parties agree that Executive’s employment with the Company will be “at-will” employment and may be terminated at any time with or without Cause or notice. Executive understands and agrees that neither his job performance nor promotions, commendations, bonuses or the like from the Company give rise to or in any way serve as the basis for modification, amendment, or extension, by implication or otherwise, of his employment with the Company. However, Executive may be entitled to severance benefits set forth in Section 8 of this Agreement, subject to Executive satisfying the conditions to receipt of severance set forth in Section 9.

3. Term of Agreement. This Agreement will have an initial term running from the Effective Date through the fourth anniversary of the Effective Date (the “**Initial Term**”). On the fourth anniversary of the Effective Date, this Agreement will renew automatically for additional one (1) year terms (each an “**Additional Term**”), unless either party provides the other party with written notice of non-renewal at least ninety (90) days prior to the date of automatic renewal. Notwithstanding the foregoing provisions of this paragraph, (a) if a Change in Control occurs when there are fewer than twelve (12) months remaining during the Initial Term or an Additional Term, the term of this Agreement will extend automatically through the date that is twelve (12) months following the effective date of the Change in Control, or (b) if an initial occurrence of an act or omission by the Company constituting the grounds for “Good Reason” in

accordance with Section 10(f) hereof has occurred (the “**Initial Grounds**”), and the expiration date of the Company cure period (as such term is used in Section 10(f)) with respect to such Initial Grounds could occur following the expiration of the Initial Term or an Additional Term, the term of this Agreement will extend automatically through the date that is thirty (30) days following the expiration of such cure period, but such extension of the term will only apply with respect to the Initial Grounds. If Executive becomes entitled to benefits under Section 8 during the term of this Agreement, the Agreement will not terminate until all of the obligations of the parties hereto with respect to this Agreement have been satisfied.

4. Compensation

(a) Base Salary. During the Employment Term, the Company will pay Executive an annual salary of \$300,000 as compensation for his services (the “**Base Salary**”). The Base Salary will be paid periodically in accordance with the Company’s normal payroll practices and be subject to the usual, required withholding. Executive’s Base Salary will be subject to review and adjustments will be made based upon the Company’s normal performance review practices.

(b) Bonus. Executive will be eligible: (i) for an annual performance and/or incentive bonus for each fiscal year during the Employment Term, payable to the extent the applicable performance and/or incentive goals or other objectives established and approved by the Board (or any committee of the Board) have been satisfied for the applicable fiscal year; and (ii) to participate in any other bonus or incentive arrangement established by the Board (or any committee of the Board) for executives of the Company generally. Any bonus earned by Executive will be paid in accordance with the Company’s standard practices, during Q1 of the calendar year following the calendar year in which the bonus is earned.

(c) Equity. Following the Effective Date, Executive shall be granted an award of 500,000 restricted stock units (the “**RSUs**”). Subject to the accelerated vesting provisions set forth herein, the RSUs will vest over four (4) years of Executive’s continuous service with the Company, with 135,417 RSUs vesting on May 8, 2023, 40,510 RSUs vesting on each of August 8, 2023 and November 8, 2023, and 40,509 RSUs vesting on each of May 8, 2024, August 8, 2024, November 8, 2024, May 8, 2025, August 8, 2025, November 8, 2025 and March 31, 2026. The RSUs will be subject to the terms, definitions and provisions of the Company’s 2018 Equity Incentive Plan, as amended, and the restricted stock unit award agreement by and between Executive and the Company. Executive will also be eligible to receive future awards of stock options, restricted stock units or other equity awards pursuant to the Company’s 2018 Equity Incentive Plan, as amended, or any other plans or arrangements the Company may have in effect from time to time. The Board (or its compensation committee) will determine in its discretion whether Executive will be granted any such equity awards and the terms of any such award in accordance with the terms of any applicable plan or arrangement that may be in effect from time to time, provided that in no case will the terms of any such award deviate from the accelerated vesting provisions set forth elsewhere herein.

5. Employee Benefits. During the Employment Term, Executive will be entitled to participate in the employee benefit plans currently and hereafter maintained by the Company of general applicability to other senior executives of the Company, including, without limitation, the Company’s group medical, dental, vision, disability, life insurance, and flexible-spending account plans. The Company reserves the right to cancel or change the benefit plans and programs it offers to its employees at any time.

6. Vacation. The Company does not provide vacation benefits, and no vacation time or other paid time off is accrued. Rather, the Company expects each employee, including Executive, to determine for himself, consistent with his responsibilities and working with his supervisor how much time can reasonably be spent away from the office for purposes such as personal vacation, relaxation, or personal or family needs.

7. Expenses. The Company will reimburse Executive for reasonable travel, entertainment or other expenses incurred by Executive in the furtherance of or in connection with the performance of Executive's duties hereunder, in accordance with the Company's expense reimbursement policy as in effect from time to time.

8. Severance.

(a) Termination without Cause or Resignation for Good Reason Outside the Change in Control Period. If the Company terminates Executive's employment with the Company for reasons other than Cause, Executive's death, or Executive's Disability or if Executive Resigns from such employment for Good Reason, and in each case, such termination occurs outside the Change in Control Period, then subject to Section 9, Executive will receive, in addition to Executive's salary payable through the date of termination of employment and any other employee benefits earned and owed through the date of termination, the following benefits from the Company:

(i) continuing payments of severance pay at a rate equal to Executive's Base Salary rate, as then in effect, for six (6) months from the date of such termination in accordance with the Company's normal payroll policies;

(ii) if Executive timely elects continuation coverage pursuant to the Consolidated Omnibus Budget Reconciliation Act of 1985, as amended ("COBRA") for Executive, Executive's spouse and eligible dependents, as applicable, the Company will reimburse Executive for the monthly premiums under COBRA for such coverage until the earliest of (A) six (6) months following the effective date of such termination, or (B) the date upon which Executive begins other employment that provides for health coverage benefits. However, if the Company determines in its sole discretion that it cannot provide the COBRA benefits without potentially violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), the Company will in lieu thereof provide to Executive a taxable monthly payment in an amount equal to the monthly COBRA premium that Executive would be required to pay to continue his group health coverage in effect on the date of his termination of employment (which amount will be based on the premium for the first month of COBRA coverage), which payments will be made regardless of whether Executive elects COBRA continuation coverage; and

(iii) the immediate vesting as to 100% of each of Executive's then outstanding Equity Awards, and with respect to Equity Awards granted on or after the Effective Date, the same vesting acceleration provisions provided herein will apply to such Equity Awards except to the extent provided in the applicable equity award agreement by express reference to this Agreement.

(b) Termination without Cause or Resignation for Good Reason During the Change in Control Period. If the Company terminates Executive's employment with the Company for reasons other than Cause, Executive's death, or Executive's Disability, or if Executive resigns from such employment for Good Reason, and in each case, such termination occurs during the Change in Control Period, then subject to Section 9,

Executive will receive, in addition to Executive's salary payable through the date of termination of employment and any other employee benefits earned and owed through the date of termination, the following benefits from the Company:

(i) a lump sum severance payment equal to the amount of Base Salary, as in effect on the date of termination (but in no event less than Executive's Base Salary in effect immediately prior to the Closing), Executive would have otherwise received had he remained employed by the Company through the twelve (12) month anniversary of the Change in Control;

(ii) a lump sum severance amount equal to the average annualized bonus earned by Executive for the two (2) calendar years prior to the calendar year during which the Change in Control occurs, but in no event will the amount be less than Executive's annual target bonus, if any, for the year during which the termination occurs;

(iii) the immediate vesting as to 100% of each of Executive's then outstanding Equity Awards, and with respect to Equity Awards granted on or after the Effective Date, the same vesting acceleration provisions provided in this sentence will apply to such Equity Awards, except to the extent provided in the applicable equity award agreement by express reference to this Agreement; and

(iv) if Executive timely elects continuation coverage pursuant to COBRA for Executive, Executive's spouse and eligible dependants, as applicable, the Company will reimburse Executive for the monthly premiums under COBRA for such coverage until the earliest of (A) twelve (12) months following the effective date of such termination, or (B) the date upon which Executive begins other employment that provides for health coverage benefits. However, if the Company determines in its sole discretion that it cannot provide the COBRA benefits without potentially violating applicable law (including, without limitation, Section 2716 of the Public Health Service Act), the Company will in lieu thereof provide to Executive a taxable monthly payment in an amount equal to the monthly COBRA premium that Executive would be required to pay to continue his group health coverage in effect on the date of his termination of employment (which amount will be based on the premium for the first month of COBRA coverage), which payments will be made regardless of whether Executive elects COBRA continuation coverage.

9. Conditions to Receipt of Severance; No Duty to Mitigate.

(a) Separation Agreement and Release of Claims. The payment of any severance set forth in Section 8 above is contingent upon Executive signing and not revoking the Company's standard separation and release of claims agreement upon Executive's termination of employment and such agreement becoming effective no later than sixty (60) days following Executive's employment termination date (such deadline, the "**Release Deadline**"). In no event will severance payments be paid or provided until the release actually becomes effective. Any severance payments or benefits under this Agreement will be paid, or, in the case of installments, will commence, on the first regularly scheduled payroll date following the date the separation and release of claims agreement becomes effective and irrevocable, or if later, such time as required by Section 9(c). Except as required by Section 9(c), any installment payments that would have been made to Executive following his separation from service but for the preceding sentence will be paid to Executive on the first regularly scheduled payroll date following the date

the separation and release of claims agreement becomes effective and irrevocable and the remaining payments will be made as provided in the Agreement.

(b) Confidentiality Agreement. Executive's receipt of any payments or benefits under Section 8 will be subject to Executive continuing to comply with the material terms of his Mutual Nondisclosure and Confidentiality Agreement and this Agreement. In the event Executive materially breaches the provisions of this Section 9(b), all continuing payments and benefits to which Executive may otherwise be entitled to pursuant to Section 8 will immediately cease.

(c) Section 409A.

(i) Notwithstanding anything to the contrary in this Agreement, no severance pay or benefits payable upon separation that is payable to Executive, if any, pursuant to this Agreement, when considered together with any other severance payments or separation benefits that are considered deferred compensation (together, the "**Deferred Payments**") under Section 409A of the Internal Revenue Code, as amended (the "**Code**") and the final regulations and official guidance thereunder ("**Section 409A**") will be payable until Executive has a "separation from service" within the meaning of Section 409A.

(ii) It is intended that none of the severance payments under this Agreement will constitute Deferred Payments but rather will be exempt from Section 409A as a payment that would fall within the "short-term deferral period" or resulting from an involuntary separation from service each as described in Section 9(c)(iv) below. However, any severance payments or benefits under this Agreement that would be considered Deferred Payments will be paid on, or, in the case of installments, will not commence until, the sixtieth (60th) day following Executive's separation from service, or, if later, such time as required by Section 9(c)(iii). Except as required by Section 9(c)(iii), any installment payments that would have been made to Executive during the sixty (60) day period immediately following Executive's separation from service but for the preceding sentence will be paid to Executive on the sixtieth (60th) day following Executive's separation from service and the remaining payments will be made as provided in this Agreement.

(iii) Notwithstanding anything to the contrary in this Agreement, if Executive is a "specified employee" within the meaning of Section 409A at the time of his termination (other than due to death), then the Deferred Payments, if any, that are payable within the first six (6) months following his separation from service, will become payable on the first payroll date that occurs on or after the date six (6) months and one (1) day following the date of Executive's separation from service. All subsequent Deferred Payments, if any, will be payable in accordance with the payment schedule applicable to each payment or benefit. Notwithstanding anything herein to the contrary, if Executive dies following his separation from service, but prior to the six (6) month anniversary of the separation from service, then any payments delayed in accordance with this Section 9(c) will be payable in a lump sum as soon as administratively practicable after the date of Executive's death and all other Deferred Payments will be payable in accordance with the payment schedule applicable to each payment or benefit. Each payment, installment and benefit payable under this Agreement is intended to constitute a separate payment for purposes of Section 1.409A-2(b)(2) of the Treasury Regulations.

(iv) Any severance payment that satisfies the requirements of the “short-term deferral” rule set forth in Section 1.409A-1(b)(4) of the Treasury Regulations will not constitute Deferred Payments for purposes herein. Any amount paid under this Agreement that qualifies as a payment made as a result of an involuntary separation from service pursuant to Section 1.409A-1(b)(9)(iii) of the Treasury Regulations that does not exceed the Section 409A Limit (as defined below) will not constitute Deferred Payments for purposes herein.

(v) For purposes of this Agreement, “**Section 409A Limit**” means the lesser of two (2) times: (x) Executive’s annualized compensation based upon the annual rate of pay paid to Executive during Executive’s taxable year preceding Executive’s taxable year of Executive’s termination of employment as determined under Treasury Regulation 1.409A-1(b)(9)(iii)(A)(1) and any Internal Revenue Service guidance issued with respect thereto, or (y) the maximum amount that may be taken into account under a qualified plan pursuant to Section 401(a)(17) of the Code for the year in which Executive’s employment is terminated.

(vi) The foregoing provisions are intended to comply with or be exempt from the requirements of Section 409A so that none of the severance payments and benefits to be provided hereunder will be subject to the additional tax imposed under Section 409A, and any ambiguities herein will be interpreted to so comply. Executive and the Company agree to work together in good faith to consider amendments to this Agreement and to take such reasonable actions which are necessary, appropriate or desirable to avoid imposition of any additional tax or income recognition prior to actual payment to Executive under Section 409A.

(d) No Duty to Mitigate. Executive will not be required to mitigate the amount of any payment contemplated by this Agreement, nor will any earnings that Executive may receive from any other source reduce any such payment.

10. Definitions.

(a) Cause. For purposes of this Agreement, “**Cause**” means: (i) Executive’s failure to perform Executive’s material assigned duties and responsibilities as an employee which are consistent with Executive’s position and/or position title referenced in Section 1(a) of this Agreement (other than a failure resulting from Executive’s death or Disability) after written notice thereof from the Company describing Executive’s failure to perform such duties or responsibilities and failure to cure such failure to the reasonable satisfaction of the Company within thirty (30) days of the date the notice is provided to Executive; (ii) Executive engaging in any act of dishonesty, fraud or intentional misrepresentation with respect to the Company; (iii) Executive’s violation of any federal or state law or regulation applicable to the Executive and the business of the Company or its affiliates which violation results directly from Executive’s actions or omissions; (iv) Executive’s breach of any confidentiality agreement or invention assignment agreement (including, but not limited to, the Mutual Nondisclosure and Confidentiality Agreement) between Executive and the Company (or any affiliate of the Company); or (v) Executive being convicted of, or entering a plea of nolo contendere to, any felony or crime involving moral turpitude.

(b) Change in Control. For purposes of this Agreement, “**Change in Control**” has the same meaning assigned to such term in the Company’s 2018 Equity Incentive Plan, as amended.

(c) Change in Control Period. For purposes of this Agreement, “**Change in Control Period**” means the period beginning three (3) months prior to a Change in Control and ending on the twelve (12) month anniversary of a Change in Control.

(d) Disability. For purposes of this Agreement, “**Disability**” means Executive (i) is unable to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or can be expected to last for a continuous period of not less than twelve (12) months, or (ii) is, by reason of any medically determinable physical or mental impairment which can be expected to last for a continuous period of not less than twelve (12) months, receiving income replacement benefits for a period of not less than three (3) months under an accident and health plan covering Company employees.

(e) Equity Awards. For purposes of this Agreement, “**Equity Awards**” means Executive’s outstanding stock options, stock appreciation rights, restricted stock units, performance shares, performance stock units and any other equity compensation awards granted by the Company or any successor of the Company.

(f) Good Reason. For purposes of this Agreement, “**Good Reason**” means Executive’s resignation within three (3) months following the expiration of any Company cure period (discussed below) following the occurrence of one or more of the following events, without Executive’s prior written consent: (i) a material reduction of Executive’s authority, duties or responsibilities on the date of this Agreement or any change in Executive’s position and/or position title referenced in Section 1(a) of this Agreement; provided, however, that a reduction in authority, duties, or responsibilities primarily by virtue of the Company being acquired and made part of a larger entity whether as a subsidiary, business unit or otherwise (as, for example, when the Chief Executive Officer of the Company remains as such following an acquisition where the Company becomes a wholly owned subsidiary of the acquirer, but is not made the Chief Executive Officer of the acquiring corporation) will not constitute “Good Reason”; (ii) a material reduction in Executive’s Base Salary; (iii) a material change in the geographic location of Executive’s primary work facility or location; provided, that a relocation of less than twenty-five (25) miles from Executive’s then present location will not be considered a material change in geographic location, or (iv) a material breach by the Company of a material provision of this Agreement. Executive will not resign for Good Reason without first providing the Company with written notice of the acts or omissions constituting the grounds for “Good Reason” within ninety (90) days of Executive obtaining actual knowledge or receiving written notice of such acts and/or omissions constituting the grounds for “Good Reason” and a reasonable cure period of not less than thirty (30) days following the date the Company receives such written notice from Executive during which such event must not have been cured or remedied by the Company.

11. Limitation on Payments. In the event that the severance benefits provided for in this Agreement or otherwise payable to Executive (i) constitute “parachute payments” within the meaning of Section 280G of the Code and (ii) but for this Section 11, would be subject to the excise tax imposed by Section 4999 of the Code, then Executive’s severance benefits under Section 8 will be either:

(a) delivered in full, or

(b) delivered as to such lesser extent which would result in no portion of such severance benefits being subject to excise tax under Section 4999 of the Code,

whichever of the foregoing amounts, taking into account the applicable federal, state and local income taxes and the excise tax imposed by Section 4999, results in the receipt by Executive on an after-tax basis, of the greatest amount of severance benefits, notwithstanding that all or some portion of such severance benefits may be taxable under Section 4999 of the Code. If a reduction in severance and other benefits constituting "parachute payments" is necessary so that benefits are delivered to a lesser extent, reduction will occur in the following order: (i) reduction of cash payments, which will occur in reverse chronological order such that the cash payment owed on the latest date following the occurrence of the event triggering such excise tax will be the first cash payment to be reduced; (ii) reduction of acceleration of vesting of equity awards, which will occur in the reverse order of the date of grant for such stock awards (i.e., the vesting of the most recently granted stock awards will be reduced first); and (iii) reduction of other benefits paid or provided to the Executive, which will occur in reverse chronological order such that the benefit owed on the latest date following the occurrence of the event triggering such excise tax will be the first benefit to be reduced. If more than one equity award was made to the Executive on the same date of grant, all such awards will have their acceleration of vesting reduced pro rata. In no event will the Executive have any discretion with respect to the ordering of payment reductions.

Unless the Company and Executive otherwise agree in writing, any determination required under this Section 11 will be made in writing by a nationally recognized firm of independent public accountants selected by the Company (the "**Accountants**"), whose determination will be conclusive and binding upon Executive and the Company for all purposes. For purposes of making the calculations required by this Section 11, the Accountants may make reasonable assumptions and approximations concerning applicable taxes and may rely on reasonable, good faith interpretations concerning the application of Sections 280G and 4999 of the Code. The Company and Executive will furnish to the Accountants such information and documents as the Accountants may reasonably request in order to make a determination under this Section. The Company will bear all costs the Accountants may reasonably incur in connection with any calculations contemplated by this Section 11.

12. No Conflicting Obligations. Executive confirms that Executive is not under any existing obligations that may impact Executive's eligibility to be employed by the Company or limit the manner in which Executive may be employed. Executive agrees not to bring any third-party confidential information to the Company, including that of Executive's former employer, and that Executive will not in any way utilize any such information in performing Executive's duties for the Company.

13. Assignment. This Agreement will be binding upon and inure to the benefit of (a) the heirs, executors and legal representatives of Executive upon Executive's death and (b) any successor of the Company. Any such successor of the Company will be deemed substituted for the Company under the terms of this Agreement for all purposes. For this purpose, "**successor**" means any person, firm, corporation or other business entity which at any time, whether by purchase, merger or otherwise, directly or indirectly acquires all or substantially all of the assets or business of the Company. None of the rights of Executive to receive any form of compensation payable pursuant to this Agreement may be assigned or transferred except by will or the laws of descent and distribution. Any other attempted assignment, transfer, conveyance or other disposition of Executive's right to compensation or other benefits will be null and void.

14. Notices. All notices, requests, demands and other communications called for hereunder will be in writing and will be deemed given (i) on the date of delivery if delivered personally; (ii) one (1) day after being sent by a well established commercial overnight service; or (iii) four (4) days after being mailed by registered or certified mail, return receipt requested,

prepaid and addressed to the parties or their successors at the following addresses, or at such other addresses as the parties may later designate in writing:

If to the Company:

Phunware, Inc.
Attn: Chief Executive Officer
1002 West Avenue
Austin, TX 78701

If to Executive:

at the last residential address known by the Company.

15. Severability. In the event that any provision hereof becomes or is declared by a court of competent jurisdiction to be illegal, unenforceable or void, this Agreement will continue in full force and effect without said provision.

16. Integration. This Agreement, together with the Company's 2018 Equity Incentive Plan, as amended, and award agreements entered into by and between Executive and the Company thereunder, including the restricted stock unit award agreement referred to in Section 4(c), and the Mutual Nondisclosure and Confidentiality Agreement, represents the entire agreement and understanding between the parties as to the subject matter herein and supersedes all prior or contemporaneous agreements whether written or oral. This Agreement may be modified only by agreement of the parties by a written instrument executed by the parties that is designated as an amendment to this Agreement.

17. Waiver of Breach. The waiver of a breach of any term or provision of this Agreement, which must be in writing, will not operate as or be construed to be a waiver of any other previous or subsequent breach of this Agreement.

18. Headings. All captions and section headings used in this Agreement are for convenient reference only and do not form a part of this Agreement.

19. Tax Withholding. All payments made pursuant to this Agreement will be subject to withholding of applicable taxes.

20. Governing Law. This Agreement will be governed by the laws of the State of Texas (with the exception of its conflict of laws provisions).

21. Acknowledgment. Executive acknowledges that he has had the opportunity to discuss this matter with and obtain advice from his private attorney, has had sufficient time to, and has carefully read and fully understands all the provisions of this Agreement, and is knowingly and voluntarily entering into this Agreement.

22. Counterparts. This Agreement may be executed in counterparts, and each counterpart will have the same force and effect as an original and will constitute an effective, binding agreement on the part of each of the undersigned.

[Remainder of Page Intentionally Left Blank]

IN WITNESS WHEREOF, each of the parties has executed this Agreement, in the case of the Company by its duly authorized officer, effective as of the Effective Date.

COMPANY:

PHUNWARE, INC.

By: /s/ Alan Knitowski

Title: President & CEO

EXECUTIVE:

/s/ Chris Olive
CHRIS OLIVE

**[SIGNATURE PAGE TO
OLIVE AMENDED AND RESTATED EMPLOYMENT AGREEMENT]**

List of Subsidiaries of the Registrant

Subsidiaries:

Phunware OpCo, Inc. (EIN: 26-4413774)

Lyte Technology, Inc.

GoTV Networks, Inc. (Delaware corporation)

Taurus Merger Company, LLC (Delaware corporation)

GoTV Studios, LLC (California LLC)

Rain Acquisition, LLC

Rain – US LLC

Phunware NL Cooperatief U.A.

SendDroid, LLC (Delaware LLC)

Simplikate Systems LLC (Delaware LLC)

30 Second Software, Inc. (Delaware corporation)

Chengdu Digby Technology Co., Ltd. (Chinese company)

Phunware UK Ltd (United Kingdom)

Odyssey Mobile Asia Pte. Ltd. (Singapore)

Rain Acquisition Sub, Inc.

Dutch Holdings CV (Netherlands)

Phunware Europe BV

PhunToken International (Cayman Islands)

Independent Registered Public Accounting Firm's Consent

We consent to the incorporation by reference in the Registration Statements of Phunware, Inc. on Form S-3 (File No. 333-235896), Form S-3 (File No. 333-237648), Form S-3 (File No. 333-248618), Form S-3 (File No. 333-252694), Form S-3 (File No. 333-262461), Form S-3 (File No. 333-262625), Form S-8 (File No. 333-231104), Form S-8 (File No. 333-236145), Form S-8 (File No. 333-251903), Form S-8 (File No. 333-262168) and Form S-8 (File No. 333-269155) of our report dated March 31, 2023, which includes an explanatory paragraph as to the Company's ability to continue as a going concern, with respect to our audits of the consolidated financial statements of Phunware, Inc. as of December 31, 2022 and 2021 and for each of the two years in the period ended December 31, 2022, which report is included in this Annual Report on Form 10-K of Phunware, Inc. for the year ended December 31, 2022.

/s/ Marcum LLP

Marcum LLP
Houston, Texas
March 31, 2023

CERTIFICATION

I, Matt Aune, certify that:

1. I have reviewed this Annual Report on Form 10-K of Phunware Inc.;
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 officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant 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 most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) 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: March 31, 2023

By:

/s/ Matt Aune

Matt Aune

Chief Financial Officer

(Principal Accounting and Financial Officer)

