

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, 2021

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)

7800 Shoal Creek Blvd, Suite 230-S Austin, TX

78757

(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.

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 \$2,885,032 as of June 30, 2021, 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 31, 2022, 97,250,520 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.
- We face ongoing risks related to the COVID-19 pandemic and those risks could continue to significantly disrupt or materially adversely affect our business and operating results.
- Goodwill comprises a significant portion of our total assets.
- 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.
- 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.
- 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.
- Worldwide political conditions may adversely affect demand for our products.
- The actual market for our product 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 general 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 subscriptions 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 services and functionality 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 offerings 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 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 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.

- We have identified a material weakness in our internal control over financial reporting that, if not properly remediated or if we experience additional material weaknesses, could result in us being unable to provide required financial information in a timely and reliable manner, which may cause investors to lose confidence in our reported financial information and may lead to a decline in our stock price.
- 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.
- Regulatory change reclassifying our digital assets as 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 bitcoin and the market price of our common stock.

Risks Related to our Token Offerings

- We have raised capital to fund a token generation event of rights to receive future PhunCoin and, beginning in 2021, we have sold PhunTokens. 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 PhunToken could result in claims against us. Additionally, the token generation event and the offerings of PhunCoin and 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 a digital asset 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 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 existing trading market for our tokens.
- The regulatory regime governing blockchain technologies, cryptocurrencies, digital assets, 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.
- The prices of blockchain assets are extremely volatile. Fluctuations in the price of digital assets and/or waning interest of investors in the cryptocurrency industry could materially and adversely affect our business.

PART I

Item 1. Business.

General

Phunware, Inc. and its subsidiaries (the "Company", "we", "us", or "our") offer 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. 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 services, products, 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 brands 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. The data collected from our Phunware IDs contributes to our application transaction revenue product line by helping companies and brands boost campaign performance, target high-value users, maximize conversions and optimize spend.

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, buy or lease 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 channel partners. We continue to invest in these channel sales relationships.

Acquisition of Lyte Technology, Inc.

In October 2021, we acquired Lyte Technology, Inc. ("Lyte"), a provider of high-performance computer systems to individual consumers. Lyte derives its revenue by manufacturing custom and pre-packaged personal computer systems. Total consideration for the acquisition consisted of cash and common stock of the Company valued at up to approximately \$10.98

million, of which \$2.5 million is contingent upon Lyte meeting certain revenue targets. At the acquisition date, Lyte's operations were located in Gurnee, Illinois. We plan to relocate Lyte to Austin, Texas during the second quarter of 2022. Our acquisition of Lyte enables us to enter the personal computer hardware market. We will continue to pursue a direct to consumer selling strategy. We intend to grow Lyte revenue and its consumer base by expanding into international markets. We believe our acquisition of Lyte will 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.

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.

Data reach and scale: Since Phunware’s founding in 2009, our goal has been to use our software platform within application portfolios and brands to create a massive database of proprietary Phunware IDs for every device touching networks globally to then reach everyone, everywhere, indoors and outdoors, in real time, on a 1-to-1 basis.

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 hire 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 intellectual property, including methods of accessing wireless account information, rendering content on a wireless device, indoor 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, Smart City and Smart Workplace solutions.

Deepening of existing customer relationships. We believe that we are well positioned to identify new opportunities or enhance existing services and solutions within 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 expanding our team of sales professionals and developing our indirect channel 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. 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.

Continued growth of our customer base through targeted marketing and outreach. We intend to continue to opportunistically expand. Top expansion targets include entertainment, retail and real estate — all verticals that benefit from our integrated solutions, comprehensive lifecycle approach and ability to engage users in both digital and physical worlds.

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

Expansion of our partnership network with third-party providers of tools 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, 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 contractual nature of our software and managed services provides revenue visibility. Our subscription and service agreements with our customers consist of terms relating to length of agreement (for subscriptions and application support), payment, liability, performance, cancellation and termination, confidentiality and indemnification obligations, among other provisions. All of these agreements contain terms of service that are generally consistent across our customers. Our subscription and service 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, 2021, 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 channel sales function works with our channel partners to identify sales opportunities, as well as identify new channel 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. We are also hoping to expand our media offerings by obtaining new business from local and national advertising agencies. Our contract length for our application transaction can be as small as a few days to three months for larger advertising campaigns. Our sales cycle is typically small 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. Post-sale, we 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 solutions. Our research and development efforts are focused on improving and enhancing our existing 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, functional depth and breadth and usability of our solutions drive our technology decisions and product development. Research and development expenses were \$4.2 million and \$2.6 million for the fiscal years ended December 31, 2021 and 2020, respectively.

PhunCoin and PhunToken

Our product research and development team is continuing our vision of a future in which consumers own, control and are rewarded for the use of their personal data and information. In 2019, we launched a dual token structure in conjunction with the commencement of the offering of PhunToken. In 2018, we began offering rights to future issuances of PhunCoin. The dual-token economy both empowers consumers and re-imagines how brands engage with audiences by creating a blockchain-enabled data exchange (the "Token Ecosystem") that recognizes the value of data and engagement. PhunCoin is intended to be the "Value of Data" that empowers consumers to take control of and be compensated for their data. PhunToken is intended to act as the "Value of Engagement" that empowers consumers to monetize their digital activity and the data they share with

brands. In 2021, we commenced the sale of PhunToken. Upon sale of PhunToken to customers, we transfer the PhunToken purchased to the customers applicable ethereum-based wallet address. We continue to market and 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, 2021 and 2020, as we have yet to issue any PhunCoins pursuant to our rights offerings. We currently do anticipate generating additional significant funding from sales of PhunCoin rights.

A multidisciplinary team (design, engineering, quality assurance and product) 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 2022; however, there can be no assurance as to when (or if) we will be able to successfully launch 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;
- 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 people's 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 is effective January 1, 2023 for personal data collected after January 1, 2022. 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 liability for copyright infringement. 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 17 patents issued and 4 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, which 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 you 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 channel 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, 2021, we had 120 employees: including 42 software developers, engineers, QA engineers and product managers; a sales and marketing force of approximately 18 professionals and 46 employees at Lyte. 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 7800 Shoal Creek Boulevard, Suite 230-South, Austin, Texas 78757, 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, 2021 and December 31, 2020. These losses were due to both a reduction in revenue in 2020 and 2021, as compared to previous years, 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, operations 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. 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.

We face ongoing risks related to the COVID-19 pandemic and those risks could continue to significantly disrupt or materially adversely affect our business and operating results.

The COVID-19 pandemic has had a significant adverse impact on global commercial activity and has created significant volatility in financial markets. Many governmental authorities have instituted quarantines, work-from-home directives, social distancing mandates, travel restrictions, border closures, limitations on public gatherings, and closures of or operational limitations on non-essential businesses, which are adversely impacting a number of industries such as travel, leisure, hospitality, and retail, in which we serve. In addition, hospitals, a major sector of business in which we operate, have implemented their own restrictions regarding onsite non-essential personnel during the pandemic. There is significant uncertainty around the breadth and duration of business disruptions related to COVID-19, as well as its impact on the global economy and consumer confidence. The COVID-19 pandemic could have a sustained adverse impact on economic and market conditions and trigger a period of prolonged global economic slowdown, which could decrease technology spending, adversely affect demand for our offerings, and harm our business and operating results.

We believe our revenues may be negatively impacted in future periods until the effects of the pandemic have fully subsided and the current macroeconomic environment has substantially recovered. The uncertainty related to COVID-19 may also result in increased volatility in the financial projections we use as the basis for estimates and assumptions used in our financial statements.

In light of the uncertain and rapidly evolving situation relating to COVID-19, we have taken precautionary measures intended to reduce the risk of the virus to our employees, customers and communities in which we operate. We have established remote working arrangements for our employees, limited non-essential business travel and cancelled or shifted our customer,

employee and industry events to a virtual-only format when necessary and available. As a result of these precautionary measures, there could be a negative impact on our sales, marketing and customer success efforts, continued delays in our sales cycles, delays in the release or delivery of new or enhanced product and service offerings or unexpected changes to such offerings, or operational or other challenges, any of which could significantly disrupt our business and operating results. For example, our shift to creating virtual customer and industry events may not be successful, and we may not be able to showcase our products as effectively or generate the same customer interest, opportunities and leads through virtual events as we have historically done through in-person events.

Considerable uncertainty still surrounds COVID-19, the evolution of its variants, its potential long-term economic effects, as well as the effectiveness of any responses taken by government authorities and businesses and of various efforts to inoculate the global population. Although we continue to actively monitor the situation and may take further actions as may be required by government authorities or as more information and public health guidance become available, we may not be able to immediately respond to, meet or enforce all required health and safety measures in all of our locations, and the full extent to which COVID-19 impacts our business and operating results will depend on future developments, including the duration, spread, severity and potential recurrence of the COVID-19 pandemic, impact on our customers and our sales cycles, our ability to generate new business leads, impact on our customer, employee, and industry events and effect on our vendors, all of which are highly uncertain and cannot be predicted.

In addition, the effects of the COVID-19 pandemic may heighten many of the other risks described in this “*Risk Factors*” section.

Goodwill comprises a significant portion of our total assets. We assess goodwill for impairment at least annually, 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 \$33.3 million, or approximately 33% of our total assets, as of December 31, 2021. 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 completed our annual goodwill impairment analysis as of September 30, 2021, and we concluded an impairment of goodwill was not necessary. We further updated this analysis at December 31, 2021 and concluded an impairment was not necessary as of this date, as well.

Goodwill impairment analysis and measurement is a process that requires significant judgment. Several factors could result in impairment of a material amount of our goodwill balance in future periods, including, but not limited to:

- (i) A decline in our stock price and resulting market capitalization, if we determine that the decline is sustained and is indicative of a reduction in the fair value of any of our reporting units below its carrying value.
- (ii) Weakening of the world-wide economy, weakness in the business in which we operate or failure to reach our internal forecasts could impact our ability to achieve our forecasted levels of cash flows and reduce the estimated discounted cash flow value of our reporting units.

It is not possible at this time to determine if any such future impairment charge would result from these factors, or, if it does, whether such charge would be material. We will continue to review our goodwill for possible 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 an impairment 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 our executive officers and former and current board members, are parties to legal proceedings 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 offerings 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.

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 and service offerings 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 new customers. This may be particularly challenging where an organization has already invested substantial personnel and financial resources to integrate competing technology offerings 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.

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. Accordingly, 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 from us, which could have a material adverse effect on our business.

Worldwide political conditions may adversely affect demand for our products.

Worldwide 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 worldwide financial markets.

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

While we expect strong 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 market in which we operate is 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 offerings do not become more accepted relative to our competitors', or if our competitors are successful in bringing their products or services to market earlier than ours, or if their products or services 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 a lower price. 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 offerings 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 also plan to expand Lyte internationally. 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. 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 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 offerings 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, 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 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. For example, recent new standards issued by the FASB that could materially impact our financial statements include standards regarding recognition of revenue from contracts with customers, costs of obtaining a contract and accounting for leases. We may adopt one or more of these standards retrospectively to prior periods and the adoption may result in an adverse change to previously reported results.

For example, in February 2016, the FASB issued ASU No. 2016-02, Leases (Topic 842). Under this guidance, companies are required to recognize all leases on their balance sheets by recording a lessee’s rights and obligations. We implemented this guidance in January 2021 on a modified retrospective basis and are required to account for the leases as assets and liabilities on our balance sheet, where previously we accounted for such leases on an “off balance sheet” basis. As a result, a significant amount of lease related assets and liabilities were recorded on our balance sheet. Though these changes did not have any direct impact on our overall financial condition, these changes could cause investors or others to believe that we are highly leveraged and could change the calculations of financial metrics, as well as third-party financial models regarding our financial condition.

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 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 Lyte;
- pricing our technology offerings 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;
- 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 offerings 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 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 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 the 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 the 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 product offerings 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 right 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 offerings 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 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 technology offerings 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 complete its contractual commitments 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. An increase in labor costs, for example, as a result of increased competition for skilled labor, or employee benefit costs, such as health care costs or otherwise, could adversely 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 general 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.

General worldwide 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 individual household 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 general economy or markets in which we operate worsen, our business could be harmed. In addition, even if the overall 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 subscriptions 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 services and functionality 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 functionality and services 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 offerings 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 offerings and services varies. As a result of the variability and length 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 to 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 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 fraudulent or 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 fraud and other malicious activity. While we routinely review the campaign performance, such reviews may not detect or prevent fraudulent or malicious activity. If we fail to detect or prevent fraudulent 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 fraudulent 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. Further, if we are unable to detect fraudulent or other malicious activities and advertisers demand fraud-free inventory, our supply could fall drastically, making it impossible to sustain our current business model. If we fail to detect fraudulent 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.

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 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 application transaction 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 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 proceedings or actions against us by governmental entities, competitors, private parties or others. Any 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 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 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 the subject of legislation or regulation. 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 regulatory requirements 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, 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 government 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 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 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 technologies, products and intellectual property 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. During 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, 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, 2021, we had federal net operating loss carryforwards of approximately \$166.8 million, of which \$81.2 million will never expire and \$85.7 million will expire at various dates beginning in 2030. At

December 31, 2021, we had state and local net operating loss carryforwards of approximately \$79.5 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, 2021. 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, reduced disclosure obligations regarding executive compensation in our periodic reports and proxy statements and exemptions from the requirements of holding a nonbinding advisory vote on executive compensation and stockholder approval of any golden parachute payments not previously approved.

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 located in California. We also have corporate offices in Texas and Florida, both of which are susceptible to floods, hurricanes and extreme temperatures. Our Lyte operations are located in Illinois, 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.

During 2021, we issued a significant amount common stock in various sales of our common stock via at-the-market offerings, as well as, issuances upon a partial exercise of an outstanding warrant. 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. Further, in February 2022, we filed a 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" as defined by the Securities Act. 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, 2021, 1,780,000 shares may be issued under the warrant at an exercise price of \$2.25 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 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;
- 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 January 28, 2022 our Common Stock traded at an intraday low of \$1.93, whereas on February 10, 2022 our Common Stock traded at an intraday high of \$3.87. 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.

We have identified a material weakness in our internal control over financial reporting that, if not properly remediated or if we experience additional material weaknesses, could result in us being unable to provide required financial information in a timely and reliable manner, which may cause investors to lose confidence in our reported financial information and may lead to a decline in our stock price.

During the preparation of our quarterly report on Form 10-Q for the period ended September 30, 2021, our management identified a material weakness in our internal control over financial reporting related to the accounting for a certain adjustment provision that triggered in February 2021 pursuant to a warrant we issued in conjunction with our 2020 Convertible Notes. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis. For further discussion of our internal control over financial reporting, a

description of the identified material weakness and a summary of the remediation efforts we are implementing, see Part II, Item 9A "Controls and Procedures" of this Report.

If we are not able to remediate the material weakness in a timely manner, or if additional material weaknesses in our internal control over financial reporting are discovered or occur in the future, we may be unable to provide required financial information in a timely and reliable manner, which may cause investors to lose confidence in our reported financial information and may lead to a decline in our stock price.

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.

We may be unable to attract and retain qualified officers, directors and members of our board committees required for publicly-held companies, including, but not limited to, certifications from executive officers and requirements for financial experts on boards of directors. Further, applicable rules and regulations of the SEC and Nasdaq Capital Market heighten the requirements for board or committee membership, particularly with respect to an individual's independence from the corporation and level of experience in finance and accounting matters. We may have difficulty attracting and retaining directors with the requisite qualifications. We currently do not have an "audit committee financial expert" as defined by the SEC serving on our Audit Committee. If we are unable to attract and retain qualified officers and directors, our business and our ability to maintain the listing of our shares of common stock on Nasdaq Capital Market could be adversely affected.

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 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 via a unanimous written consent 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, 2021, we held approximately 632 bitcoins that were acquired at an aggregate purchase price of approximately \$37.0 million and an average purchase price of approximately \$58,477 per bitcoin, inclusive of fees and expenses. As part of our overall corporate strategy, we may purchase additional bitcoin in future periods, though we may also sell bitcoin in future periods as needed to generate cash assets 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 \$30,000 per bitcoin and above \$65,000 per bitcoin in the twelve months preceding the date of this Annual Report on Form 10-K. 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 lending bitcoin to counterparties. 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 exhibit better speed, security, scalability, or other characteristics, or that are backed by governments, including the U.S. government;
- the correlation 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 developed bitcoin, or the transfer of Satoshi's bitcoin;
- interruptions in service or failures of the principal markets for bitcoin or ethereum;
- 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 price. The application of securities laws and other regulations to such assets is unclear in certain respects, and it is possible that regulators in the United States or foreign countries may create new regulations or interpret laws in a manner that adversely affects the price of our digital assets holdings. 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, it has been reported that the Ministry of Corporate Affairs has circulated draft legislation that would prohibit mining, holding, selling, trading or using cryptocurrencies in the country. Similarly, the Central Bank of the Russian Federation issued a report in January 2022 advocating for a wide-ranging ban on crypto-related activities including the issuance, exchange and mining of cryptocurrencies in Russian territory, citing threats to financial stability, citizens' well-being and its monetary policy sovereignty. 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, consumer demand for bitcoin as a means of payment, 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, management 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, 2021 included in this Annual Report on Form 10-K, 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 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, at which point they would be presented net of any impairment losses. 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, 2021, we held \$32.6 million of digital assets on our balance sheet and recognized \$9.4 million digital asset impairment losses during the year ended December 31, 2021, which represented 18% of our net losses.

We may purchase additional digital assets or 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.

Digital asset trading venues are relatively new and, in some cases, unregulated. Furthermore, there are many trading venues which 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 exchanges that handle a significant volume of trading, in the event one or more trading venues experience fraud, security failures or operational problems.

Any actual or perceived false trading in the digital asset market, and any other fraudulent or manipulative acts and practices, could adversely affect the value of our digital asset holdings. Negative perception, a lack of stability in the broader digital asset markets and the closure or temporary shutdown of trading venues due to fraud, business failure, hackers or malware, or government-mandated regulation may reduce confidence in digital assets and result in greater volatility of prices. To the extent investors view our common stock as linked to the value of our digital asset holdings, these potential consequences of a trading venue's failure could have a material adverse effect on the market price of our common stock.

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

As of December 31, 2021, the carrying value of our digital asset holdings represented approximately 33% 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 may be required to access our digital asset holdings as a source of liquidity 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. 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 blockchain-based cryptocurrencies 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 or indemnity provisions of the custody agreement with a custodian who holds our bitcoin;
- 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 data security breach or cybersecurity attack directed at other companies with digital assets or companies that operate digital asset networks, whether or not we are directly impacted, could lead to a general loss of confidence in the broader blockchain 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 recent conflict in Ukraine. Any future 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 business.

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 other cryptocurrencies and blockchain technologies, have been, and may in the future be, subject to security breaches, cyberattacks or other malicious activities.

Regulatory change reclassifying our digital assets as 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.

While senior SEC officials have stated their view that bitcoin is not a “security” for purposes of the federal securities laws, the SEC has so far refused to permit the listing of any bitcoin-based ETFs, citing, among other things, concerns regarding bitcoin market integrity and custodial protections. 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 is a security. Such a determination could lead to our classification as an “investment company” under the Investment Company Act of 1940, which would subject us to significant additional regulatory controls that 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 is determined to constitute a security for purposes of the federal securities laws, the additional regulatory restrictions imposed by such a determination could adversely affect the market price of bitcoin and in turn adversely affect the market price of our common stock.

Risks Related to our Token Offerings

We have raised capital to fund a Token Generation Event of rights to receive future PhunCoin and, beginning in 2021 have sold PhunTokens. 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 the right 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, 2021, 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 its wholly owned subsidiary, Phun Token International, which enables consumers to participate in our planned blockchain-enabled data exchange and mobile loyalty ecosystem. As of December 31, 2021, we sold \$1.1 million of PhunToken. Upon sale of PhunToken to customers, we deliver PhunToken to the respective customer's Ethereum-based wallet.

We will use our 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 the Company and its stockholders.

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 cryptocurrency and cryptosecurities 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 blockchain assets may materially adversely affect our business plans to launch and maintain PhunCoin and PhunToken. For example, given the regulatory complexity with respect to cryptocurrency and related digital assets, complying with such 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 and PhunToken could lead to incorrect reporting, classification or liabilities. If the Token Generation Event occurs and PhunCoin and PhunToken are 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 on the Token Ecosystem, or an unwillingness of users to access, adopt and utilize PhunCoin or PhunToken, 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 a digital asset 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 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 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 would 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 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 utilization of the Token Ecosystem, PhunCoin and PhunToken.

It is our intention that the Token Ecosystem will operate partially based on an open-source code maintained by us and other public contributors. The open-source nature of the Token Ecosystem protocol will mean 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 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 acceptance and adoption of the Token Ecosystem, PhunCoin and PhunToken.

A substantial portion of the Token Ecosystem incorporates so-called "open source" software, and we may incorporate additional open source software in the future. 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 system 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 system 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 cybersecurity policies and procedures and an incident response plan designed to protect such 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, 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 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 should become 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 system launch does not occur or 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 cryptographic tokens and cryptocurrencies, 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 that are materially similar to the Token Ecosystem's services. 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 existing trading market for our tokens.

Our PhunCoin and PhunToken are new crypto assets for which there is no established public market and peer-to-peer transfers will not be permitted unless and until token 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 our PhunCoin and PhunToken with liquidity of investment or that it will continue for the life of the tokens. The liquidity of any market for our tokens will depend on a number of factors, including, but not limited to: (i) the number of holders of our PhunCoin or PhunToken; (ii) the performance of our tokens; (iii) the market for similar crypto assets; (iv) the interest of traders in making a market PhunCoin and PhunToken; (v) regulatory developments in the digital token or cryptocurrency industries and (vi) legal restrictions on transfer. In the event that our tokens remain untradeable for a significant period of time or indefinitely, their value could be materially adversely affected.

The regulatory regime governing blockchain technologies, cryptocurrencies, digital assets, 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.

Regulation of digital assets, like PhunCoin and PhunToken, cryptocurrencies, blockchain technologies and cryptocurrency exchanges, is currently undeveloped and likely to rapidly evolve as government agencies take greater interest in them. 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. 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 the ability of us 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 prices of blockchain assets are extremely volatile. Fluctuations in the price of digital assets and/or waning interest of investors in the cryptocurrency industry 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 cryptocurrency and blockchain asset investments such as PhunCoin and PhunToken, including, but not limited to:

- global blockchain asset supply;
- businesses' acceptance of blockchain assets like cryptocurrencies as payment for goods and services, the security of online blockchain asset exchanges and digital wallets that hold blockchain assets, the perception that the use and holding of blockchain 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 various 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 blockchain asset exchanges on which users may trade cryptocurrency and blockchain assets and liquidity on such exchanges;
- interruptions in service from or failures of major blockchain asset exchanges in which users may trade cryptocurrency and blockchain assets;
- investment and trading activities of large investors, including private and registered funds, that may directly or indirectly invest in PhunCoin or other blockchain assets;
- monetary policies of governments, trade restrictions, currency devaluations and revaluations;
- regulatory measures that may affect the use of blockchain assets such as PhunCoin and PhunToken;
- the maintenance and development of the open-source software protocol of certain blockchain assets;
- global or regional political, economic or financial events and situations; or
- expectations among the Token Ecosystem or other blockchain asset participants that the value and/or utility of other blockchain assets will soon change.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

We currently lease approximately 9,700 square feet of office and warehouse space for our Lyte operations in Gurnee, Illinois. This lease is currently month-to-month. 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. We plan to relocate our Lyte operations to Texas during the second quarter of 2022. Our corporate headquarters is located in Austin, Texas, where we currently lease approximately 3,600 square feet under a lease agreement set to expire in March 2022, which we are planning to extend via a month-to-month lease arrangement. We also currently lease facilities in Irvine, California; San Diego, California; and Miami, Florida. We are currently subleasing our Irvine, California and Miami, Florida office facilities.

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 and that the productive capacity of such facilities is substantially being utilized or we have plans to utilize such capacity.

Item 3. Legal Proceedings.

The information set forth under the subheading "*Litigation*" in Note 11, "*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 31, 2022, there were approximately 177 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.

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

On September 10, 2021, we entered into a Stock Purchase Agreement with Caleb Borgstrom for the purchase of all issued and outstanding shares of common stock of Lyte Technology, Inc. with an initial purchase price of up to approximately \$10.3 million, of which \$2.5 million is subject to an earnout provision based upon Lyte operations meeting certain annual revenue milestones. On October 18, 2021, we closed the acquisition with an adjusted purchase price of approximately \$11.0 million (subject to the earn-out adjustment), representing an increase in working capital as of the closing date. Refer to Note 3 "*Business Combination*" in the notes to the consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K for more information on the acquisition of Lyte.

Refer to "*Liquidity and Capital Resources*" below for further discussion on key events and recent developments.

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 cryptocurrency 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 its 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, 2021 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,	
	2021	2020
<i>(in thousands)</i>		
Backlog	\$ 3,316	\$ 3,991
Deferred revenue	5,272	5,075
Total backlog and deferred revenue	<u>\$ 8,588</u>	<u>\$ 9,066</u>

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,	
	2021	2020
<i>(in thousands, except percentages)</i>		
Adjusted gross profit ⁽¹⁾	\$ 4,670	\$ 6,939
Adjusted gross margin ⁽¹⁾	43.9 %	69.4 %
Adjusted EBITDA ⁽²⁾	\$ (11,662)	\$ (8,353)

(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, (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,	
	2021	2020
<i>(in thousands, except percentages)</i>		
Gross profit	\$ 3,613	\$ 6,644
Add back: Amortization of intangibles	7	21
Add back: Stock-based compensation	1,050	274
Adjusted gross profit	<u>\$ 4,670</u>	<u>\$ 6,939</u>
Adjusted gross margin	43.9 %	69.4 %

	Year Ended December 31,	
	2021	2020
<i>(in thousands)</i>		
Net loss	\$ (53,522)	\$ (22,199)
Add back: Depreciation and amortization	240	153
Add back: Interest expense	4,481	3,413
(Less) Add back: Income tax (benefit) expense	(426)	2
EBITDA	<u>(49,227)</u>	<u>(18,631)</u>
Add back: Stock-based compensation	4,941	4,492
Add back: Legal settlement	—	4,500
Add back: Loss on extinguishment of debt	7,952	2,158
Add back: Impairment of digital assets	9,383	—
Add back (Less): Fair value adjustment for warrant liabilities	18,139	(872)
Less: Gain on forgiveness of PPP loan	(2,850)	—
Adjusted EBITDA	<u>\$ (11,662)</u>	<u>\$ (8,353)</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 Subscriptions and Services Revenue. 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; application development service revenue from the development of customer applications, or apps, which are built and delivered to customers; and support fees.

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 also provide professional services by outsourcing employees' time and materials to customers.

Platform subscriptions and services 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 platform 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. As a result, platform subscriptions and services gross profit may fluctuate from period to period.

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 and cost per click. During 2021, we announced the commencement of the selling of PhunToken, 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.

Application transaction gross profit is equal to application transaction revenue less cost of revenue associated with application transactions. Application transaction gross profit 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, our application transaction gross profit may fluctuate from period to period due to variable costs of advertising traffic and cryptocurrency blockchain fees.

Computer Hardware Revenue. 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.

Computer hardware gross profit is equal to computer hardware revenue less the costs associated with the assembly of computers. Computer 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 subscriptions and services and application transactions, and computer hardware.

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. We expect our sales and marketing expense will 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, we expect that our general and administrative expenses will 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, we expect our research and development expenses will increase in absolute dollars as our business grows but may fluctuate as a percentage of revenue from period to period.

Interest Expense

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

Refer to Note 8 "*Factoring Agreement*" and Note 9 "*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 our factoring arrangement and debt offerings, respectively.

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 15 "*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, 2021 and 2020

Net Revenue

(in thousands, except percentages)

	Year Ended December 31,		Change	
	2021	2020	Amount	%
Net Revenue				
Platform subscriptions and services	\$ 5,308	\$ 9,108	\$ (3,800)	(41.7) %
Computer hardware	3,095	—	3,095	100.0 %
Application transaction	2,240	893	1,347	150.8 %
Total revenue	\$ 10,643	\$ 10,001	\$ 642	6.4 %
Platform subscriptions and services as a percentage of total revenue	49.9 %	91.1 %		
Computer hardware as a percentage of total revenue	29.1 %	— %		
Application transactions as a percentage of total revenue	21.0 %	8.9 %		

Total revenue increased \$0.6 million, or 6.4%, in the year ended December 31, 2021 compared to the corresponding period in 2020.

Platform subscriptions and services revenue decreased \$3.8 million, or (41.7)%. Greater revenues derived in 2020 were primarily driven by development, licensing and support services provided to a particular customer during 2020. Revenue from this customer was 32% of our total net revenues for the year ended December 31, 2020. This customer is identified as “Customer D” in Note 4 “Revenue” of the notes to consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K.

Computer hardware revenue represented \$3.1 million due to the Lyte Technology, Inc. acquisition.

Application transaction revenue increased \$1.3 million, or 150.8% due to \$1.1 million in PhunToken sales, as we commenced the sale of PhunToken in 2021 and an increase in revenue related to advertising campaigns.

Cost of Revenue, Gross Profit and Gross Margin

(in thousands, except percentages)	Year Ended December 31,		Change	
	2021	2020	Amount	%
Cost of Revenue				
Platform subscriptions and services	\$ 3,702	\$ 3,180	\$ 522	16.4 %
Computer hardware	3,017	—	3,017	100.0 %
Application transaction	311	177	134	75.7 %
Total cost of revenue	\$ 7,030	\$ 3,357	\$ 3,673	109.4 %
Gross Profit				
Platform subscriptions and services	\$ 1,606	\$ 5,928	\$ (4,322)	(72.9) %
Computer hardware	78	—	78	100.0 %
Application transaction	1,929	716	1,213	169.4 %
Total gross profit	\$ 3,613	\$ 6,644	\$ (3,031)	(45.6) %
Gross Margin				
Platform subscriptions and services	30.3 %	65.1 %		
Computer hardware	2.5 %	— %		
Application transaction	86.1 %	80.2 %		
Total gross margin	33.9 %	66.4 %		

Total gross profit decreased \$3.0 million, or (45.6)%, in the year ended December 31, 2021 compared to the corresponding period of 2020. Stock-based compensation increased \$0.8 million during the year ended December 31, 2021. Furthermore, margin decrease can be attributed to a higher margin realized in 2020 as compared to the same period in 2021 related to the customer identified as “Customer D” in Note 4, “Revenue”, in the notes to the consolidated financial statements included in Part II, Item 8 of this Annual Report on Form 10-K.

Operating Expenses

(in thousands, except percentages)	Year Ended December 31,		Change	
	2021	2020	Amount	%
Operating expenses				
Sales and marketing	\$ 3,022	\$ 1,653	\$ 1,369	82.8 %
General and administrative	13,256	15,361	(2,105)	(13.7) %
Research and development	4,179	2,628	1,551	59.0 %
Legal settlement	—	4,500	(4,500)	(100.0) %
Total operating expenses	\$ 20,457	\$ 24,142	\$ (3,685)	(15.3) %

Sales and Marketing

Sales and marketing expense increased \$1.4 million, or 82.8% for the year ended December 31, 2021 compared to the corresponding period of 2020, primarily due to \$0.5 million of increase employee compensation costs due to higher headcount, \$0.4 million related to stock-based compensation expense and \$0.3 million of online marketing expenditures.

General and Administrative

General and administrative expense decreased \$2.1 million, or (13.7)%, for the year ended December 31, 2021, compared to the corresponding period of 2020, primarily due to a decrease of \$1.8 million in legal fees mainly related to our previous litigation with Uber, \$1.3 million in stock-based compensation expense and \$0.5 million in bad debt recoveries. This decrease was partially offset by additional expenses of \$1.2 million related to investor relations costs.

Research and Development

Research and development expense increased \$1.6 million, or 59.0% for the year ended December 31, 2021, compared to the corresponding period of 2020, primarily due to increases of \$1.0 million for increased headcount dedicated to research and development projects and \$0.6 million in stock-based compensation expense.

Legal Settlement

The legal settlement expense of \$4.5 million for the year ended December 31, 2020 relates to the settlement of our litigation with Uber as described in detail in Note 11 "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.

Other income (expense)

<i>(in thousands, except percentages)</i>	Year Ended December 31,		Change	
	2021	2020	Amount	%
Other income (expense)				
Interest expense	\$ (4,481)	\$ (3,413)	\$ (1,068)	31.3 %
Loss on extinguishment of debt	(7,952)	(2,158)	(5,794)	268.5 %
Impairment of digital assets	(9,383)	—	(9,383)	100.0 %
Fair value adjustment for warrant liabilities	(18,139)	872	(19,011)	(2,180.2) %
Gain on forgiveness of Paycheck Protection Program ("PPP") loan	2,850	—	2,850	100.0 %
Other income, net	1	—	1	100.0 %
Total other expense	\$ (37,104)	\$ (4,699)	\$ (32,405)	689.6 %

Other expense increased \$(32.4) million for the year ended December 31, 2021 when compared to 2020, primarily due to a fair value adjustment as a result of a partial exercise of an outstanding warrant issued to the holder of our 2020 Convertible Notes, impairment of our digital asset holdings, primarily consisting of bitcoin and losses on extinguishment of debt related to payments and the payoff of our 2020 Convertible Notes. These losses were partially offset by the gain on forgiveness of our Paycheck Protection Program loan.

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. Further, reference is made to Note 9 "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.

Liquidity and Capital Resources

As of December 31, 2021, we held total cash of \$23.1 million, all of which was held in the United States.

In connection with our 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 \$5.2 million in a private placement that closed on October 18, 2021. After deducting all transaction cost, net cash proceeds to us were \$4.7 million. No interest will accrue on the promissory note unless and until the occurrence of an event of default (as defined in the promissory note). We may prepay outstanding balance of the promissory note earlier than it is due with a prepayment premium of 110%. 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 thousand which are considered prepayments subject to the prepayment premium.

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 shares of our common stock, from time to time. We filed two prospectus supplements on April 7, 2021 and October 26, 2021 that form part of our shelf registration statement for the offer and sale of up to an aggregate of \$25 million and \$48.5 million in common stock, respectively. As of December 31, 2021, 20,951,043 shares of our common stock had been sold and we had received aggregate net cash proceeds of \$65.2 million. We terminated our At Market Issuance Sales Agreement with B. Riley on February 4, 2022, with an effective termination date of February 9, 2022. In addition, on October 22, 2021, the holder of our 2020 Convertible Notes partially exercised its warrant for the purchase of 2,060,000 shares of our common stock at an exercise price of \$2.25 per share for net proceeds of \$4.6 million to the Company.

On February 1, 2022, we filed a 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" as defined by the Securities Act pursuant to an At Market Issuance Sales Agreement we entered into with H.C. Wainwright & Co., LLC on January 31, 2022. To date, we have not sold any shares of our common stock under the sales agreement with H.C. Wainwright or issued any securities under our Form S-3 filed on February 1, 2022.

As a result of the financing events described above, while our liquidity risk continues as a result of continued losses and the ongoing and evolving effects of the COVID-19 pandemic, management believes it has sufficient cash on hand for at least one year following the filing date of this Annual Report on Form 10-K.

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 related to the 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 following table summarizes our cash flows for the periods presented:

<i>(in thousands, except percentages)</i>	Year Ended December 31,		Change	
	2021	2020	Amount	%
Consolidated statement of cash flows				
Net cash used in operating activities	\$ (22,514)	\$ (10,973)	\$ (11,541)	105.2 %
Net cash used in investing activities	(46,385)	—	(46,385)	100.0 %
Net cash provided by financing activities	88,019	14,596	73,423	503.0 %

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 \$(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.

We utilized \$(11.0) million of cash from operating activities during 2020 primarily resulting from a net loss of \$(22.2) million, as adjusted for non-cash charges related to stock-based compensation of \$4.5 million, \$2.2 million for amortization of debt discount and deferred financing costs, \$0.2 million for bad debt expense, \$(0.5) million for accounts payable settlements, \$(0.9) million for gain on the change in fair value of warrants and \$2.2 million for loss on extinguishment of debt. In addition, during 2020 certain changes in our operating assets and liabilities resulted in cash increases (decreases) as follows: \$1.5 million from an increase in accounts payable and accrued expenses, \$3.0 million accrued legal settlement balance as of December 31, 2020 related to our settlement with Uber, \$0.8 million from an decrease in account receivable and \$(2.0) million from an decrease in deferred revenue.

Investing Activities

Investing activities during 2021 consisted of the purchase of digital assets and the acquisition of Lyte Technology, Inc.

Financing Activities

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.

Our financing activities during 2020 consisted of proceeds from various debt borrowings offset by repayments on our various debt offerings and financing factoring agreement. We acquired \$14.6 million of cash from financing activities during 2020, as a result of \$15.4 million from new issuances of debt (inclusive of \$0.6 million from related parties), \$9.2 million from our at-the-market offering of common stock and \$0.1 million in proceeds from stock option exercises. These sources of financing were partially offset of \$(9.0) million of payments on debt (inclusive of \$0.6 million to related parties) and \$(1.1) million in net repayments on our factoring financing agreement.

Contractual Obligations

We lease various office facilities, including our corporate headquarters in Texas and offices in California and Florida, under non-cancellable operating lease agreements that expire through 2025. 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 \$0.8 million and \$0.8 million for the years ended December 31, 2021 and 2020, respectfully.

The following table sets forth our contractual obligations as of December 31, 2021 (in thousands):

Contractual obligations	Total	Payments due by period			
		Less than 1 year	1-3 years	3-5 years	More than 5 years
Operating lease obligations	\$ 2,107	\$ 667	\$ 1,230	\$ 210	\$ —

Off-Balance Sheet Arrangements

During the years ended December 31, 2021 and 2020, 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 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 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, at which point they are presented net of any impairment losses for the same digital assets held. 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 opera

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, 2021, no impairment of goodwill has been identified.

2020 Convertible Notes and Warrant

In July 2020, we issued the 2020 Convertible Notes. We also issued a warrant exercisable for three (3) years for the purchase, initially, of an aggregate of up to 2,160,000 shares of our common stock at an initial exercise price of \$4.00 per share. 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 3,840,000. We evaluated all of the financial instruments, including the warrant to purchase shares of our common stock issued in conjunction with 2020 Convertible Notes, to determine if such instruments are derivatives or contain features that qualify as embedded derivatives in accordance with ASC Topic 815-40, *Derivatives and Hedging - Contracts in an Entity's Own Stock*. In accordance with ASC 480, *Distinguishing Liabilities from Equity*, we accounted for the warrant initially as a liability at its fair value and is then re-valued the warrant at each reporting date, with changes in the fair value reported in the consolidated statement of operations. We used a Black-Scholes option-pricing model to value the warrants 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 requires significant judgment. For the assumptions used to value at warrant as of December 31, 2021, refer to Note 9 "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, 2021 and 2020, 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, 2021, 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, 2021 and 2020, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2021, in conformity with accounting principles generally accepted in the United States of America.

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 consolidated 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 consolidated financial statements, the Company's digital assets held as of December 31, 2021, 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, 2021 were approximately \$32.6 million. For the year ended December 31, 2021, the Company generated revenue of \$1.1 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.

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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 in the financial statement footnotes;
- 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, and tested the fair value of the assets received;
- Confirmed the existence of the Company’s digital asset balances through a third-party custodian platform; and
- Evaluated the third-party custodian platform’s pricing sources with various independent pricing sources.

/s/ Marcum LLP

Marcum LLP

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

Houston, Texas

April 7, 2022

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

	<u>December 31, 2021</u>	<u>December 31, 2020</u>
Assets		
Current assets:		
Cash	\$ 23,137	\$ 3,940
Accounts receivable, net of allowance for doubtful accounts of \$10 and \$356 at December 31, 2021 and 2020, respectively	967	664
Inventory	2,636	—
Digital assets	32,581	—
Prepaid expenses and other current assets	686	304
Total current assets	<u>60,007</u>	<u>4,908</u>
Property and equipment, net	—	13
Goodwill	33,260	25,900
Intangible assets, net	3,213	111
Deferred tax asset	1,278	537
Restricted cash	—	91
Right-of-use asset	1,260	—
Other assets	276	276
Total assets	<u>99,294</u>	<u>31,836</u>
Liabilities and stockholders' equity (deficit)		
Current liabilities:		
Accounts payable	\$ 6,589	\$ 8,462
Accrued expenses	9,621	5,353
Accrued legal settlement	—	3,000
Lease liability	399	—
Deferred revenue	3,973	2,397
PhunCoin deposits	1,202	1,202
Current maturities of long-term debt, net	4,904	4,435
Warrant liability	3,605	1,614
Total current liabilities	<u>30,293</u>	<u>26,463</u>
Long-term debt	—	3,762
Long-term debt - related party	—	195
Deferred tax liability	1,278	537
Deferred revenue	1,299	2,678
Lease liability	1,147	—
Deferred rent	—	180
Total liabilities	<u>34,017</u>	<u>33,815</u>
Commitments and contingencies (Note 11)		
Stockholders' equity (deficit)		
Common stock, \$0.0001 par value; 1,000,000,000 shares authorized at December 31, 2021 and 2020; 96,751,610 and 56,371,207 shares issued and outstanding as of December 31, 2021 and 2020, respectively	10	6
Additional paid-in capital	264,944	144,156
Accumulated other comprehensive loss	(352)	(338)
Accumulated deficit	(199,325)	(145,803)
Total stockholders' equity (deficit)	<u>65,277</u>	<u>(1,979)</u>
Total liabilities and stockholders' equity (deficit)	<u>99,294</u>	<u>31,836</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,	
	2021	2020
Net revenues	\$ 10,643	\$ 10,001
Cost of revenues	7,030	3,357
Gross profit	3,613	6,644
Operating expenses:		
Sales and marketing	3,022	1,653
General and administrative	13,256	15,361
Research and development	4,179	2,628
Legal Settlement	—	4,500
Total operating expenses	20,457	24,142
Operating loss	(16,844)	(17,498)
Other income (expense):		
Interest expense	(4,481)	(3,413)
Loss on extinguishment of debt	(7,952)	(2,158)
Impairment of digital assets	(9,383)	—
Fair value adjustment for warrant liabilities	(18,139)	872
Gain on forgiveness of Paycheck Protection Program ("PPP") loan	2,850	—
Other income, net	1	—
Total other expense	(37,104)	(4,699)
Loss before taxes	(53,948)	(22,197)
Income tax benefit (expense)	426	(2)
Net loss	(53,522)	(22,199)
Cumulative translation adjustment	(14)	44
Comprehensive loss	\$ (53,536)	\$ (22,155)
Loss per share, basic and diluted	\$ (0.71)	\$ (0.50)
Weighted-average common shares used to compute loss per share, basic and diluted	75,447	44,269

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, 2019	39,811	\$ 4	\$ 128,008	\$ (123,604)	\$ (382)	\$ 4,026
Exercise of stock options, net of vesting of restricted shares	188	—	99	—	—	99
Release of restricted stock	1,631	—	—	—	—	—
Issuance of common stock for payment of legal, earned bonus and board of director fees	1,348	—	1,283	—	—	1,283
Sales of common stock, net of issuance costs	11,629	1	9,177	—	—	9,178
Stock-based compensation expense	—	—	4,492	—	—	4,492
Issuance of common stock upon partial conversions of Senior Convertible Note	1,764	1	2,266	—	—	2,267
Reacquisition of equity component of Senior Convertible Notes	—	—	(1,388)	—	—	(1,388)
Equity classified cash conversion feature of Senior Convertible Note	—	—	219	—	—	219
Cumulative translation adjustment	—	—	—	—	44	44
Net Loss	—	—	—	(22,199)	—	(22,199)
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

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,	
	2021	2020
Operating activities		
Net loss	\$ (53,522)	\$ (22,199)
Adjustments to reconcile net loss to net cash provided by operating activities:		
Accretion of debt discount and amortization of deferred financing costs	2,942	2,185
Loss (gain) on change in fair value of warrant liability	18,139	(872)
Loss on extinguishment of debt	7,952	2,158
Impairment of digital assets	9,383	—
Gain on forgiveness of PPP loan	(2,850)	—
Stock-based compensation	4,941	4,492
Deferred income taxes	—	—
Other adjustments	(478)	(40)
Changes in operating assets and liabilities:		
Accounts receivable	(16)	796
Inventory	(949)	—
Prepaid expenses and other assets	(383)	65
Accounts payable	(1,568)	427
Accrued expenses	(1,131)	1,064
Accrued legal settlement	(3,000)	3,000
Lease liability payments	(802)	—
Deferred revenue	(1,172)	(2,049)
Net cash used by operating activities	(22,514)	(10,973)
Investing activities		
Purchases of digital assets	(41,284)	—
Acquisitions, net of cash acquired	(5,101)	—
Net cash used in investing activities	(46,385)	—
Financing activities		
Proceeds from borrowings, net of issuance costs	14,711	14,815
Proceeds from related party bridge loans	—	560
Payments on borrowings	(26,243)	(8,418)
Payments on related party notes	—	(560)
Net repayments on factoring agreement	—	(1,077)
Proceeds from sales of common stock, net of issuance costs	94,737	9,177
Proceeds from warrant exercises	4,635	—
Proceeds from exercise of stock options	179	99
Net cash provided by financing activities	88,019	14,596
Effect of exchange rate on cash and restricted cash	(14)	46
Net increase (decrease) in cash and restricted cash	19,106	3,669
Cash and restricted cash at the beginning of the period	4,031	362
Cash and restricted cash at the end of the period	\$ 23,137	\$ 4,031
Supplemental disclosure of cash flow information		
Interest paid	\$ 1,364	\$ 1,251
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,	
	2021	2020
Supplemental disclosure of non-cash information		
Issuance of common stock under the 2018 employee stock purchase plan	\$ 100	\$ —
Issuance of common stock for payment of legal, earned bonus and board of director fees	\$ 66	\$ 1,283
Non-cash issuance of common stock upon partial exercise of a warrant	\$ 16,147	\$ —
Issuance of common stock upon partial conversions of the Senior Convertible Note	\$ —	\$ 2,266
Reacquisition of equity component of the Senior Convertible Note	\$ —	\$ (1,388)
Equity classified cash conversion feature of the Senior Convertible Note	\$ —	\$ 219

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 cryptocurrency 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.

Reclassifications of Prior Year Presentation

Certain reclassifications have been made to our consolidated statement of cash flows for year ended December 31, 2020. We combined individual line items that we considered to be immaterial and recorded these in our consolidated statement of cash flows as other adjustments to conform to current year presentation. These reclassifications had no impact on previously reported operating, investing or financing cash flows.

Going Concern

Accounting Standards Codification ("ASC") Topic 205-40, *Presentation of Financial Statements - Going Concern* ("ASC 205-40") requires management to assess the Company's ability to continue as a going concern for one year after the date the financial statements are issued. Under ASC 205-40, management has the responsibility 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.

Our assessment included the preparation of a detailed cash forecast that included all projected cash inflows and outflows. During 2021, we secured additional cash financings through the sales and issuances of our common stock through an underwritten public offering, an at-the-market offering and a partial exercise of a warrant. However, we continue to focus on growing our revenues. Accordingly, operating expenditures may exceed the revenue we expect to receive for the foreseeable future. We, also, have a history of operating losses and negative operating cash flows and expect these trends to continue into the foreseeable future.

As of the date of this Annual Report on Form 10-K, while we believe we have adequate capital resources to complete our near-term operations, there is no guarantee that such capital resources will be sufficient until such time we reach profitability. We may access capital markets to fund strategic acquisitions or ongoing operations on terms we believe are favorable. The timing and amount of capital that may be raised is dependent on market conditions and the terms and conditions upon which investors would require to provide such capital. We may utilize debt or sell newly issued equity securities through public or private transactions, or through the use of our at-the-market offering facility. We currently have an effective "shelf"

registration statement on Form S-3, which we may utilize for future financings for the issuance of our common stock, preferred stock, warrants or units. We also hold digital assets, which management believes can be readily sold and converted into cash.

As a result of the cash financings described above, we believe we have sufficient cash on-hand to fund potential net cash outflows for one year following the filing date of this Annual Report on Form 10-K. Accordingly, we believe there does not exist any indication of substantial doubt about our ability to continue as a going concern for one year following the filing date of this Annual Report on Form 10-K.

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; however, we have been successful in accessing capital markets in the past, and we are confident in our ability to access capital markets again, if needed.

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, digital assets, 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, fair value of debt component of convertible notes at issuance and derecognition, 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, 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. Regulation of digital assets, like PhunCoin and PhunToken, cryptocurrencies, blockchain technologies and cryptocurrency exchanges, is likely 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 violations could adversely affect the ability of us 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 also result in a material adverse effect on our operations and financial condition.

Recently Adopted Accounting Pronouncements

In December 2019, the Financial Accounting Standards Board (the "FASB") issued Accounting Standards Update ("ASU") No. 2019-12 *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes* ("ASU 2019-12"). ASU 2019-12 includes the removal of certain exceptions to the general principles of ASC 740 and simplifies the accounting for income taxes by clarifying and amending existing guidance. We adopted the update January 1, 2021 and it did not have a material impact on our consolidated financial statements and disclosures.

In February 2016, the FASB issued ASU No. 2016-02, *Leases (Topic 842)* ("ASU 2016-02"). We adopted ASU 2016-02 effective January 1, 2021. The core principle of ASU 2016-02 is that a lessee should recognize the assets and liabilities that arise from leases. For operating leases, a lessee is required to recognize a right-of-use asset and a lease liability, initially

measured at the present value of the lease payments, in the statement of financial position. We have elected certain practical expedients permitted under the transition guidance that allow us to use the beginning of the period of adoption (January 1, 2021) as the date of initial recognition. As a result, prior period comparative financial information was not recast under the new standard and continues to be presented under the prior lease accounting standards. Other practical expedients include our election to not separate non-lease components from lease components and to not reassess lease classification, treatment of initial direct costs or whether an existing or expired contract contains a lease. We have also 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.

The adoption of the new lease standard on January 1, 2021, resulted in the recognition of right-of-use assets and operating lease liabilities of \$2,101 on our consolidated balance sheet. In connection with the adoption of this standard, short-term deferred rent of \$8, which was previously recorded in accrued expenses and long term deferred rent of \$180 previously recorded in deferred rent on our consolidated balance sheet was offset against the right-of-use asset. The details of our right-of-use asset and lease liability recognized upon adoption of ASC 842 are set forth below:

	January 1, 2021
Right-of-use asset	\$ 2,101
Straight-line rent accrual	(188)
	<u>\$ 1,913</u>
Lease liability, current	\$ 500
Lease liability, non-current	1,601
	<u>\$ 2,101</u>

The adoption of ASU 2016-02 did not have a material impact on our consolidated statements of operations and comprehensive loss.

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 Subscriptions and Services Revenue

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.

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.

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. Support and maintenance is typically billed annually in advance.

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 charged 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 addition, during 2020, we generated application transaction revenue thru in-app purchases from an application on our platform.

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.

During 2021, we announced the commencement of the selling of PhunToken to consumers, developers and brands. PhunToken is an innovative cryptocurrency 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.

Computer 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 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, 2021 and 2020 are as follows:

	2021		2020	
Balance, beginning of the period	\$	210	\$	309
Deferral of commissions earned		73		94
Recognition of commission expense		(135)		(193)
Balance, end of the period	\$	148	\$	210

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 \$41,964 at December 31, 2021.

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,			
	2021		2020	
Customer A	20	%	55	%
Customer B	18	%	16	%
Customer C	0	%	13	%

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 at December 31, 2021 or 2020. As a result of certain debt financings, we were required to maintain restricted balances. We had \$91 in restricted cash as of December 31, 2020.

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,	
	2021	2020
Accounts receivable	\$ 977	\$ 1,020
Less allowances for doubtful accounts	(10)	(356)
Accounts receivable, net	<u>\$ 967</u>	<u>\$ 664</u>

Changes in the allowance for doubtful accounts are as follows:

	December 31,	
	2021	2020
Balance, beginning of period	\$ 356	\$ 3,179
(Recovery) allowances for bad debt	(286)	205
Issuance of credit memos and write offs	(60)	(3,028)
Balance, end of period	<u>\$ 10</u>	<u>\$ 356</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

During the year ended December 31, 2021, we purchased an aggregate of \$41,284 in digital assets, and we were paid \$680 in digital assets by various customers. 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 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 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, at which point they are presented net of any impairment losses for the same digital assets held. 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 \$9,383 for the year ended December 31, 2021 and we did not sell any digital assets during the year ended December 31, 2021.

The following tables set forth changes in our bitcoin and ethereum holdings:

	Digital Asset Original Cost Basis	Digital Asset Impairment Losses	Digital Asset Carrying Value
Bitcoin			
Balance as of December 31, 2020	\$ —	\$ —	\$ —
Purchases	36,806		36,806
Received from customers	157		157
Impairment loss		(8,554)	(8,554)
Balance as of December 31, 2021	<u>\$ 36,963</u>	<u>\$ (8,554)</u>	<u>\$ 28,409</u>

	Digital Asset Original Cost Basis	Digital Asset Impairment Losses	Digital Asset Carrying Value
Ethereum			
Balance as of December 31, 2020	\$ —	\$ —	\$ —
Purchases	4,191		4,191
Received from customers	523		523
Impairment loss		(670)	(670)
Balance as of December 31, 2021	<u>\$ 4,714</u>	<u>\$ (670)</u>	<u>\$ 4,044</u>

Other digital assets purchased during the year ended December 31, 2021 was \$287 and we recorded an impairment losses of \$159 related to those purchases.

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.

We adopted ASU 2017-04, *Intangibles—Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment* on January 1, 2020, which states an entity should recognize a goodwill impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value.

We derived the fair value from the market capitalization approach, whereby we utilize the historical market price of our common stock traded on the Nasdaq to estimate the fair value of our reporting unit. The determination of whether goodwill has become impaired involves a significant level of judgment in the assumptions underlying the approach used to determine the value of the reporting unit. Changes in our strategy and/or market conditions could significantly impact these judgments and require adjustments to recorded amounts of goodwill.

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.

We did not recognize any goodwill or intangible impairment losses in the years ended December 31, 2021 or 2020.

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, 2021 or 2020.

Convertible Debt

In March 2020, we issued a 7% convertible note with a principal amount of \$3,000 for gross proceeds at closing of \$2,371. In accounting for the issuance, we separated the note into liability and equity components. The carrying amount of the liability component was calculated by measuring the fair value of similar liabilities that do not have an associated convertible feature. The carrying amount of the equity component representing the conversion option was determined by deducting the carrying amount of the liability component from the par value of the note. The difference represents the debt discount, recorded as a reduction of the senior convertible note on our consolidated balance sheet, and is amortized to interest expense over the term of the note using the effective interest rate method. The equity component is not remeasured as long as it continues to meet the conditions for equity classification. In accounting for the issuance costs related to the note, we allocated the total amount of issuance costs incurred to liability and equity components based on their relative values. Issuance costs attributable to the liability component were amortized using the effective interest rate method to interest expense over the term of the note. The issuance costs attributable to the equity component are recorded as a reduction of the equity component within additional paid-in capital.

In July 2020, we issued a convertible note with an initial principal amount of \$320. After the payoff of convertible note issued in March 2020 and deducting transaction costs, aggregate net cash proceeds to the Company was \$1,751. In accordance with ASC Topic 815-40, *Derivatives and Hedging - Contracts in an Entity's Own Stock*, we evaluated all of the convertible note's financial instruments, including warrants to purchase common stock issued in conjunction with convertible debt, to determine if such instruments are derivatives or contain features that qualify as embedded derivatives. For derivative financial instruments that are accounted for as liabilities, the derivative instrument is initially recorded at its fair value and is then re-valued at each reporting date, with changes in the fair value reported in the consolidated statement of operations and comprehensive loss. We use a Black-Scholes option-pricing model to value the warrants at inception and subsequent valuation dates. Refer to *Fair Value of Financial Instruments* below.

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.

Leases

We adopted the new lease accounting standard, ASU 2016-02 using the modified retrospective basis for all agreements existing as of January 1, 2021 as described further above *Recently Adopted Accounting Pronouncements*.

The Company recognizes 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. Short-term leases, or leases that have a lease term of 12 months or less at commencement date, are excluded from this treatment and are recognized on a straight-line basis over the term of the lease. We did not enter into any financing leases for the year ended December 31, 2021.

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.

Retirement Plan

At December 31, 2021, 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, 2021 or 2020.

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, 2021 and 2020 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,	
	2021	2020
Convertible notes	—	5,733,712
Warrants	5,636,801	5,996,112
Options	925,467	1,208,740
Restricted stock units	3,576,270	1,677,060
Restricted shares	—	574
Total	<u>10,138,538</u>	<u>14,616,198</u>

Fair Value of Financial Instruments

We follow the guidance in ASC 820, *Fair Value Measurement*, to account for financial assets and liabilities measured on a recurring 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 market activity).

Determining which category an asset or liability falls within the hierarchy requires significant judgment. Our financial instruments measured at fair value as of December 31, 2021 are set forth below:

	Level 1	Level 2	Level 3	Total
Assets:				
Digital assets	\$ 32,581	\$ —	\$ —	\$ 32,581
Total	<u>\$ 32,581</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 32,581</u>
Liabilities:				
Warrant liability	\$ —	\$ 3,605	\$ —	\$ 3,605
Total	<u>\$ —</u>	<u>\$ 3,605</u>	<u>\$ —</u>	<u>\$ 3,605</u>

Our financial instruments measured at fair value as of December 31, 2020 are set forth below:

	Level 1	Level 2	Level 3	Total
Liabilities:				
Warrant liability	\$ —	\$ 1,614	\$ —	\$ 1,614
Total	\$ —	\$ 1,614	\$ —	\$ 1,614

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.

Subsequent Events

In accordance with U.S. GAAP, we have evaluated events that have occurred after the date of the financial statements through the date the financial statements are issued to determine if events or transactions occurring after the date of the financial statements require potential adjustment to or disclosure in the financial statements. See Note 18 for additional discussion on our subsequent events.

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 are currently evaluating the impact of this guidance on our consolidated financial statements and disclosures.

3. Business Combination

On October 18, 2021, we closed the acquisition of Lyte with an adjusted purchase price of approximately \$1.0 million (subject to an earn-out provision). 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 the consideration paid for Lyte and the estimated fair values of the aggregate assets and liabilities acquired, at the acquisition date:

	Fair Value
Assets acquired	
Cash	\$ 4
Inventory	1,687
Intangible assets	3,340
Total assets acquired	<u>5,031</u>
Liabilities assumed	
Deferred revenue	1,369
Total liabilities assumed	<u>1,369</u>
Net assets acquired	<u>3,662</u>
Consideration:	
Cash	3,980
Acquisition and earn-out payable (subject to fair value adjustments)	6,619
Total consideration	<u>10,599</u>
Goodwill	<u>\$ 6,937</u>

The 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 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. 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.

Pursuant to terms of the stock purchase agreement, the future acquisition and earn-out payments consist of the following: (i) \$1,125, as adjusted for working capital items, on June 30, 2022, (ii) the issuance of shares of our common stock with an aggregate value of \$2,250, in two equal installments valued at up to \$1,125, determined on the last business day of each of the quarter ending March 31, 2022 and September 30, 2022 and (iii) up to \$1,250 in cash and issuance of shares of our common stock valued at up to \$1,250 on the first anniversary of closing, as an earn-out payment based upon Lyte achieving certain annual revenue milestones as provided in the purchase agreement in the year following closing.

We believe Lyte will achieve the annual revenue milestone and we will owe the full amount of the contingent consideration on the first annual anniversary of closing. For the year ended December 31, 2021, we generated computer hardware revenue of \$3,095 and an operating loss of \$609, since the acquisition closing date.

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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, 2020:

	Year Ended December 31,	
	2021	2020
<i>(in thousands)</i>		
Net revenues	\$ 18,175	\$ 15,581
Net loss	(53,935)	(22,922)

4. Revenue

Disaggregation of Revenue

The following table sets forth our net revenues by category:

	Year Ended December 31,	
	2021	2020
Net revenues		
Platform subscriptions and services	\$ 5,308	\$ 9,108
Computer hardware	3,095	—
Application transaction	2,240	893
Net revenues	<u>\$ 10,643</u>	<u>\$ 10,001</u>

For the year ended December 31, 2021, we sold \$1,063 of PhunToken for which we received both cash and digital assets from customers. Revenue from sales of PhunToken is recorded within application transaction 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 93% and 97% of our net revenues from within the United States for the years ended December 31, 2021 and 2020, respectively. Revenue by geographic location is as follows:

	Year Ended December 31,	
	2021	2020
Net revenues		
United States	\$ 9,939	\$ 9,686
International	704	315
Net revenues	<u>\$ 10,643</u>	<u>\$ 10,001</u>

The following table sets forth our concentration of revenue sources as a percentage of total net revenues.

	Year Ended December 31,			
	2021		2020	
Customer D	—	%	32	%
Customer E	7	%	12	%

Deferred Revenue

Our deferred revenue balance consisted of the following:

	December 31,	
	2021	2020
Current deferred revenue		
Computer hardware	\$ 2,149	\$ —
Platform subscriptions and services revenue	1,744	2,317
Application transaction revenue	80	80
Total current deferred revenue	<u>\$ 3,973</u>	<u>\$ 2,397</u>
Non-current deferred revenue		
Platform subscriptions and services revenue	\$ 1,299	\$ 2,678
Total non-current deferred revenue	<u>\$ 1,299</u>	<u>\$ 2,678</u>
Total deferred revenue	<u>\$ 5,272</u>	<u>\$ 5,075</u>

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, 2021, we recognized revenue of \$3,379 that was included in our deferred revenue balance as of December 31, 2020.

Remaining Performance Obligations

Remaining performance obligations were \$8,588 as of December 31, 2021, of which we expect to recognize 54% as revenue over the next 12 months and the remainder thereafter.

5. Cash, Cash Equivalents, and Restricted Cash

We had no cash equivalents as of December 31, 2021 and 2020. The following table sets forth our cash and restricted cash:

	December 31,	
	2021	2020
Cash	\$ 23,137	\$ 3,940
Restricted cash	—	91
Total cash and restricted cash	<u>\$ 23,137</u>	<u>\$ 4,031</u>

6. Goodwill and Other Intangible Assets

Goodwill

Changes in the Company's goodwill balance for the years ended December 31, 2021 and 2020, are summarized in the table below:

	2021	2020
Balance, beginning of period	\$ 25,900	\$ 25,857
Acquisition of Lyte	7,374	—
Foreign currency translation	(14)	43
Balance, end of period	<u>\$ 33,260</u>	<u>\$ 25,900</u>

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, 2021			December 31, 2020		
		Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Trade name	5.0	\$ 3,990	\$ (799)	\$ 3,191	\$ 651	\$ (651)	\$ —
Acquired technology	5.1	4,828	(4,828)	—	4,828	(4,821)	7
In-process research and development	5.0	94	(94)	—	94	(94)	—
Customer relationships	5.7	4,626	(4,604)	22	4,636	(4,532)	104
Order backlog	1.5	329	(329)	—	329	(329)	—
		<u>\$ 13,867</u>	<u>\$ (10,654)</u>	<u>\$ 3,213</u>	<u>\$ 10,538</u>	<u>\$ (10,427)</u>	<u>\$ 111</u>

Amortization expense for the years ended December 31, 2021 and 2020, was approximately \$38 and \$142 respectively.

Expected future annual amortization expense for finite-lived intangible assets as of December 31, 2021, is as follows:

Future amortization expense for the years ending December 31,	Amortization
2022	\$ 689
2023	668
2024	668
2025	668
2026	520
Thereafter	—
Total	<u>\$ 3,213</u>

7. Accrued Expenses

Accrued expenses consisted of the following:

	December 31,	
	2021	2020
Acquisition and earn out payable	\$ 5,531	\$ —
Payroll related expenses	2,801	4,112
Accounts payable settlement (see Note 11)	446	627
Other	584	449
Taxes	259	165
Total accrued expenses	\$ 9,621	\$ 5,353

8. Factoring Agreement

On June 15, 2016, we entered into a factoring agreement with CSNK Working Capital Finance Corp. (d/b/a Bay View Funding) (“Bay View”) whereby we sold select accounts receivable with recourse.

Under the terms of the agreement, Bay View would advance us amounts representing up to 80% of the net amount of eligible accounts receivable. The factor facility was collateralized by a general security agreement over all the Company’s personal property and interests. Fees paid to Bay View for factored receivables were 1.80% for the first 30 days and 0.65% for every ten days thereafter, to a maximum of 90 days total outstanding. We bore the risk of credit loss on the receivables. These receivables were accounted for as a secured borrowing arrangement and not as a sale of financial assets. We terminated our factoring agreement with Bay View effective March 22, 2021. Interest expense related to our Bay View factoring agreement was \$75 and \$175 for the years ended December 31, 2021 and 2020, respectively.

9. Debt

The following table sets forth our various debt obligations:

	December 31,	
	2021	2020
2021 Promissory Note	\$ 5,220	\$ —
Series A Note (principal amount)	—	2,481
Series B Note (principal amount)	—	3,585
Paycheck Protection Program Loan	—	2,850
Convertible Notes	—	250
Promissory Notes	—	905
Total debt	\$ 5,220	\$ 10,071
Debt discount - warrants (2021 Promissory Note)	(316)	—
Debt discount - warrants (2020 Convertible Notes)	—	(1,029)
Debt discount - issuance costs (2020 Convertible Notes)	—	(650)
Less: current maturities of long-term debt	(4,904)	(4,435)
Less: long-term related-party debt	—	(195)
Long-term debt	\$ —	\$ 3,762

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 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 promissory note unless and until the occurrence of an event of default (as defined in the promissory note). 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. We may prepay any or all outstanding balance of the 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%.

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 \$4,320 (reflecting an original issue discount of \$320) in a private placement. We repaid in full the outstanding principal balance, accrued and unpaid interest and make-whole amount on a separate senior convertible note issued on March 20, 2020 to the same investor. After the payoff of the senior convertible note and deducting transaction costs, net cash proceeds to the Company were \$1,751.

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.

During 2020, we exercised our right under the Investor Note to require a mandatory prepayment of the Investor Note of \$1,000 and the noteholder voluntarily prepaid an aggregate of \$4,750 pursuant to the terms of the Investor Note, for aggregate cash proceeds to us \$5,750. As a result, \$5,750 in principal and \$460 of original issue discount became "unrestricted". As of December 31, 2020, the restricted balance of the Series B Note was \$11,070 (including original issue discount).

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.

For the year ended December 31, 2020, we recorded a loss on extinguishment of debt in the amount of \$343 as a result of monthly installment payments and optional redemption payments elected by the noteholder related to our various capital raises, as more fully described below.

As a result of multiple offerings of sales of shares of our common stock during the first quarter of 2021, as more fully described Note 13 below, 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.

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. After the aggregate payments pursuant to the Investor Note by the investor to us, there was no balance outstanding under the Investor Note and no restricted balance under the Series B Note.

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.

During the year ended December 31, 2021, we also recorded a loss on extinguishment of debt of \$1 related to monthly installment payments made to the investor.

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, and the number of shares for which the warrant is exercisable increased to 3,840,000 shares. 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 250% of additional warrant shares as result of the adjustment noted above. 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 13, 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, 2021	December 31, 2020
Strike price per share	\$ 2.25	\$ 4.00
Closing price per share	\$ 2.63	\$ 1.26
Term (years)	1.53	2.53
Volatility	186 %	146 %
Risk-free rate	0.56 %	0.17 %
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:

	2021	2020
Balance, beginning of period	\$ 1,614	\$ —
Warrant issued	—	2,486
Warrant Exercised	(16,148)	—
Change in fair value of warrant liability	18,139	(872)
Balance, end of period	\$ 3,605	\$ 1,614

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 80% of the securities being sold in such offerings. This same investor has an additional 30% participation right that expired on March 20, 2022 pursuant to a separate Securities Purchase Agreement relating to the Senior Convertible Note, which is more fully discussed below.

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.

Senior Convertible Note

In March 2020, we issued a Senior Convertible Note to an institutional investor with an initial principal amount of \$3,000 (the "Senior Convertible Note") for cash proceeds of \$2,760 (reflecting an original issue discount of \$240) in a private placement. After deducting the placement agent fee and other estimated expenses, net cash proceeds at the closing were approximately \$2,371. The Senior Convertible Note bore an 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.

Monthly Payments and Conversion

Starting on April 30, 2020 and on the last trading day of the month and on the maturity date, we were required to make monthly payments on the Senior Convertible Note. On each payment date, we were required to settle a principal repayment of approximately \$143 plus interest thereon (the "Payment Amount") which were to be satisfied in shares of our common stock at 100% of the Payment Amount, or at our election, in whole or in part, in cash, at 05% of the Payment Amount. Installment payments made in common stock were subject to customary equity conditions (including minimum floor price and volume thresholds), and were calculated on a conversion price equal to the lower of (x) the conversion price then in effect and (y) the greater of the Floor Price (as defined in the Senior Convertible Note) and 85% of the lowest volume weighted average price in the 10 days prior to the payment date.

In addition to the monthly payments described above, during the second quarter of 2020, the noteholder elected an acceleration of payments of monthly principal, interest and make-whole payments pursuant to certain provisions of the Senior Convertible Note. These accelerated payments were made in the form of shares of our common stock at the rate then in effect in accordance with the Senior Convertible Note. As a result, we issued an aggregate of 1,763,675 shares for principal, interest and make-whole payments to the noteholder. In accounting for the accelerated conversions, the Company followed the guidance as prescribed in ASC 470 in accounting for derecognition (or conversion) of convertible debt with a cash conversion feature. We determined the fair value of the debt immediately prior to derecognition, with the difference between the consideration transferred to the noteholder and the fair value of the debt representing the reacquisition of the embedded conversion option. A loss on extinguishment of \$81 was recorded based on the difference between the calculated fair value of the debt immediately prior to derecognition and the carrying amount of the debt component, including any unamortized debt discount or issuance costs.

Redemption

Upon the issuance of the 2020 Convertible Notes, we redeemed the Senior Convertible Note in July 2020 at a price equal to 10% of the outstanding principal accrued and unpaid interest and make-whole interest. The payoff to the noteholder to satisfy the Senior Convertible Note was in the amount \$2,084. The redemption of the Senior Convertible Note resulted in a loss on extinguishment of \$734 in 2020.

Related-Party Bridge Loans

During the first quarter of 2020, various related parties loaned us \$560. The Related-Party Bridge Loans ("RPBLs") bore interest at 10% per annum and had a stated maturity date of November 14, 2024. The RPBLs and amounts thereof were made by the following related parties: (i) \$204 by Cane Capital, LLC, an entity owned in part by our Chief Executive Officer; (ii) \$151 by Curo Capital Appreciation Fund, LLC, an entity in which our Chief Executive Officer and Chief Technology Officer serve as co-presidents; (iii) \$155 by various individuals associated by familiar relationship with our Chief Executive Officer; and (iv) \$0 by Luan Dang, our Chief Technology Officer. Transaction costs related to the RPBLs were not significant.

As of December 31, 2020, the RPBLs have been paid in full with no early payment penalty.

Convertible Notes

In April 2019, our board of directors authorized the issuance of \$20,000 of convertible promissory notes (the "Convertible Notes"), which may be paid by investors in the form of cash or, in our discretion, cryptocurrency, such as bitcoin or ethereum. The Convertible Notes were sold in reliance on an exemption from registration. We may not issue Convertible 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 Convertible Notes. Transaction costs related to the issuance of the Convertible Note were immaterial. The Convertible Notes are convertible into shares of the Company's common stock at a price of \$11.50 per share.

The Convertible Notes bore ordinary interest at a rate of 7% per annum. Interest under the Convertible Notes is payable quarterly beginning on September 30, 2019, and interest and principal under the Convertible Notes is payable monthly beginning on June 30, 2021. However, at the holder's election, interest payments could have been deferred until the earlier of (i) repayment in full of all remaining unpaid principal and (ii) conversion. The Convertible Notes were originally scheduled to mature on June 3, 2024.

On October 27, 2021, we paid \$222 in cash in full satisfaction of all obligations under the Convertible Notes.

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, our Chief Executive Officer and a member of its board of directors.

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,	
	2021	2020
2020 Convertible Notes	\$ 1,111	\$ 722
Accretion of debt discount - issuance costs	1,913	686
Accretion of debt discount - warrants	1,029	1,457
2021 Promissory Note	203	—
Senior Convertible Note	—	197
Factoring financing agreement	75	175
All other debt and financing obligations	150	176
Total	<u>\$ 4,481</u>	<u>\$ 3,413</u>

10. Leases

As described in Note 2, we adopted ASU 2016-02, *Leases (Topic 842)*, as of January 1, 2021. 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 maintain four corporate offices located in Austin, Texas; Irvine, California; San Diego, California; and Miami, Florida. Our Lyte operations are currently located in Gurnee, Illinois. We lease office and warehouse space for Lyte under a month-to-month lease. Excluding our month-to-month lease, as of December 31, 2021, the earliest lease agreement currently ends in March 2022 with the latest terminating in June 2025.

Some of our leases include both lease and non-lease components, which we have elected not to account for separately. Lease components generally include rent, taxes and insurance, while non-lease components generally include common area or other maintenance.

The weighted-average remaining lease term for our operating leases as of December 31, 2021 was 3.14 years. 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. We used incremental borrowing rates that match the duration of the remaining lease terms of our operating leases on a fully collateralized basis upon adoption as of January 1, 2021 to initially measure our lease liability. The weighted average incremental borrowing rate used to measure our lease liability was 19.13%.

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 \$809 and \$843 for the years ended December 31, 2021 and 2020, 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
2022	\$ 667
2023	622
2024	609
2025	209
2026	—
Thereafter	—
	<u>\$ 2,107</u>
Less: Portion representing interest	\$ (561)
	<u>\$ 1,546</u>

On March 16, 2021, we entered into a sublease agreement pursuant to which we will sublease our existing office space in Irvine, California. The term of the sublease commenced on April 1, 2021 and terminates on March 31, 2025. The subtenant will pay us initial base rent of approximately \$17 per month, which is subject to certain discounts throughout the sublease, as well as rent escalations. We recognized an impairment of our right-to-use asset related to the sublease of \$77, which is recorded as a component of other income, net in our consolidated statement of operations and comprehensive loss for the year ended December 31, 2021. We recognized \$154 of sublease income related to our Irvine, California lease for the year ended December 31, 2021.

On December 21, 2021, we entered into a sublease agreement pursuant to which we will sublease our existing office space in Miami, Florida. The term of the sublease commenced on January 18, 2022 and terminates on June 30, 2023. The subtenant will pay us initial base rent of approximately \$8 per month, which is subject to rent escalations throughout the term. We recognized an impairment of our right-to-use asset related to the sublease of \$51, which is recorded as a component of other income, net in our consolidated statement of operations and comprehensive loss for the year ended December 31, 2021.

11. 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. Both cases are in the early stages of litigation; 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, 2021 and 2020.

On December 17, 2019, 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 126th Judicial District Court of Travis County, Texas (Cause No. D-1-GN-19-008846). 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. On June 23, 2021, defendants filed a motion to dismiss the petition based on the mandatory forum-selection clause in Phunware’s Articles of Incorporation, which require plaintiffs’ claims to be filed in Delaware Chancery Court. On November 17, 2021, the court granted our motion to dismiss with prejudice to refiling in the State of Texas. On December 17, 2021, plaintiffs filed a notice of appeal to the Court of Appeals, Third District of Texas, Case No. 03-21-*00665-CV. On February 18, 2022, the plaintiffs filed a complaint in the Court of Chancery of the state of Delaware containing the same allegations. 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.

In 2017, we filed a breach of contract complaint against Uber Technologies, Inc. (“Uber”) seeking payment for unpaid invoices for advertising campaign services provided for Uber in the first quarter of 2017. The case, captioned Phunware, Inc. v. Uber Technologies, Inc., Case No. CGC-17-561546 was filed in the Superior Court of the State of California, County of San Francisco. Uber generally denied the allegations in our complaint and also filed a cross-complaint against Phunware and Fetch Media, Ltd., the advertising agency Uber retained to run its mobile advertising campaign for the period 2014 through the first quarter of 2017, asserting numerous fraud and contract-based claims. In 2019, Uber filed its First Amended Cross-Complaint, naming new individual cross-defendants, Alan S. Knitowski, the Company’s Chief Executive Officer and member of our board of directors and former Phunware employees D. Stasiuk, M. Borotsik, and A. Cook, (collectively, the “Individual Defendants”) alleging civil RICO violations and civil conspiracy to violate RICO, in addition to fraud, negligence, and unfair competition-based claims, and adding a fraud-based claim against Phunware. Uber’s First Amended Cross-Complaint alleges that cross-defendants fraudulently obtained approximately \$17,000 from Uber, and claimed treble damages, general and punitive damages, and attorneys’ fees and costs. On October 9, 2020, we entered into a settlement agreement with Uber and certain other parties related to our complaint against Uber, Uber’s cross-complaint against us and Uber’s amended cross-complaint against us and the Individual Defendants. As provided in the settlement agreement, both parties have agreed to fully and finally settle, compromise, and resolve all disputes, differences and disagreements that have existed, now exist, or may exist between them that fall within the subject matter lawsuit. Furthermore, each party denies engaging in any wrongdoing whatsoever and specifically denies each and every allegation of wrongdoing alleged in the lawsuit. The settlement agreement provided that Phunware and its insurance carriers pay a total sum of \$6,000 to Uber, of which our insurance carrier paid \$1,500 to settle Uber’s claims against the Individual Defendants while we paid a total of \$4,500 to Uber in a series of installments that ended in September 2021. We recorded a charge of \$4,500 for our portion of the settlement in legal settlement in our consolidated statements of operations and comprehensive loss for the year ended December 31, 2020. The settlement agreement further provided that we and the Individual Defendants fully release claims against Uber. On November 5, 2020, Uber filed a request for dismissal with prejudice of claims against the Individual Defendants. As a result of us remitting the final installment payment to Uber, on October 13, 2021, Uber’s complaint against the Company was dismissed with prejudice.

On March 9, 2020, Ellenoff Grossman & Schole LLP (“EGS”) filed a lawsuit against us. The complaint, captioned Ellenoff Grossman & Schole LLP versus Stellar Acquisition III, Corp a/k/a Stellar Acquisition III, Inc. (“Stellar”) n/k/a Phunware, Inc., was filed in the Supreme Court of the State of New York, New York County (Case No. 152585/2020). Pursuant

to the complaint, EGS sought monetary damages in the amount of \$690 for alleged unpaid invoices related to legal services rendered for Stellar in conjunction with the reverse merger with Phunware, plus legal and court costs. On September 29, 2020, we entered into a settlement agreement with EGS. The settlement agreement provides that we pay a total sum of \$600 to EGS in a series of installments beginning no later than October 15, 2020, and ending no later than October 15, 2023. There is no penalty for prepayments. Pursuant to the terms of the settlement, on September 30, 2020, EGS filed a Stipulation of Voluntary Discontinuance with Prejudice with the court. In conjunction with the execution of the settlement agreement, we also signed an Affidavit of Confession of Judgment ("Confession of Judgment"), which provides that should we default in any payment obligations under the settlement agreement, EGS shall be entitled to enter the Confession of Judgment with the court against us for \$690 less any payments already made under the settlement. We reclassified \$690 from accounts payable to accrued expenses in the consolidated balance sheet as of December 31, 2020 related to the settlement. In accordance with authoritative guidance, we will defer any settlement gain, if any, until we have fulfilled our payment obligations under the settlement.

On April 24, 2020, Sha-Poppin Gourmet Popcorn, LLC, individually and on behalf of a class of similarly situated parties (the "Popcorn Company"), filed a lawsuit against certain defendants, including Phunware. The case captioned, Sha-Poppin Gourmet Popcorn, LLC v. JPMorgan Chase Bank, N.A., RCSH Operations, LLC, RCSH Operations, Inc. (together d/b/a Ruth's Chris Steakhouse) and Phunware, Inc., was filed in the Northern District of Illinois, Eastern Division. The Popcorn Company alleges that we were unjustly enriched by JPMorgan Chase for our loan made pursuant to the PPP under the CARES Act. (See Note 9 for discussion related to our PPP loan). We filed a motion to dismiss the single claim against us and dispute the court's jurisdiction and the basis of the claim. On March 5, 2021, the trial court dismissed all of the Popcorn Company's claims for lack of subject matter jurisdiction.

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.

12. PhunCoin

In June 2018, we launched an offering pursuant to Rule 506(c) of Regulation D as promulgated under the Securities Act of rights (the “Rights”) to acquire the PhunCoin token. In 2019, we commenced an offering of Rights pursuant of Regulation CF, which closed May 1, 2019. For both offerings, we accepted payment in the form of cash and digital assets for purchases of the Rights. 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, 2021, 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, 2021 and 2020. We currently do not plan to raise additional material proceeds under the PhunCoin Rights offerings.

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 issued to the holders of the Rights in 2022. Holders of the Rights may be issued PhunCoin even if the Token Ecosystem is not yet operational. PhunCoin may not have usefulness until the Token Ecosystem is operational.

There can be no assurance as to when (or if) we will be able to successfully launch the Token Ecosystem. The Company is currently developing multiple aspects of the Token Ecosystem, as well as coordinating with trading platforms to support the compliant trading of PhunCoin. The final software readiness date of the Token Ecosystem may be adjusted based on user feedback, additional aspects of the Token Ecosystem currently under development and the ability to meet compliance requirements; therefore, a specific launch date 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.

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 interests in the Token Ecosystem, including ongoing monthly PhunCoin dividends to PhunCoin holders, based on their respective pro rata ownership percentage of PhunCoin, totaling 2.5% of the monthly credits purchased by Phunware customers.

PhunCoin Warrant

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 warrants of PhunCoin issued to the stockholders, for the following reasons: (i) the 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 stockholders would receive their requisite amount of PhunCoin.

13. Stockholders' Equity

Common Stock

Total common stock authorized to be issued as of December 31, 2021 was 1,000,000,000 shares with a par value of \$0.0001 per share. At December 31, 2021 and 2020, there were 96,751,610 and 56,371,207 shares outstanding, respectively.

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 the year ended December 31, 2020, we sold 11,629,160 shares of common stock for gross proceeds of \$9,578. Offering costs totaled \$401. In January 2021, 2,670,121 shares of our common stock were sold for aggregate net cash proceeds of \$5,058. 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. As of December 31, 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 2021 or 2020.

Warrants

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

Warrant Type	December 31, 2021		December 31, 2020	
	Cash Exercise Price per share	Number of warrants	Cash Exercise Price per share	Number of warrants
2020 Convertible Notes warrant	\$ 2.25	1,780,000	\$ 4.00	2,160,000
Common stock warrant (Series D-1)	\$ 2.25	35,555	\$ 5.54	14,866
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		5,636,801		5,996,112

Refer to Note 9, *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 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 term of the warrant is the earlier of (i) the tenth anniversary of the date of issuance, (ii) the closing of the initial registered public offering of the Company's common stock, or (iii) the closing of an acquisition (as defined in the warrant) where the consideration consisting of cash or publicly traded securities payable in connection with the acquisition for each share is at least three (3) times the exercise price. The reverse merger with Stellar did not trigger an expiration of the warrant pursuant to term (ii) or (iii) above. The warrant is fully vested.

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) the fifth anniversary of the date of issuance, (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.

14. Stock-Based Compensation

2018 Equity Incentive Plan

In 2018, our board of directors adopted, and our stockholders approved, the 2018 Equity Incentive Plan (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. Upon vesting of restricted stock units, shares will be delivered electronically to the holder shortly after vest date. Upon exercise of stock options, shares will be delivered electronically to the holder 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: (i) 2,729,416 shares of common stock; (ii) 5% of the outstanding shares of common stock on the last day of the immediately preceding fiscal year; or (iii) 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, 2021, the maximum number of shares of common stock that may be added to the 2018 Plan pursuant to the foregoing is 925,467. Not including the maximum number of shares from the 2009 Plan that may be added to the 2018 Plan, the 2018 Plan had 762,038 and 2,551,720 shares of common stock reserved for future issuances as of December 31, 2021 and December 31, 2020, 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, 2020	1,677,060	\$ 1.41
Granted	4,884,848	1.90
Released	(2,593,237)	1.57
Forfeited	(392,401)	1.66
Outstanding as of December 31, 2021	<u>3,576,270</u>	<u>\$ 1.94</u>

During the first quarter of 2020, we granted 123,084 restricted stock units to non-employee directors, each with a grant date fair value of \$1.25 per share in lieu of cash compensation board fees for services provided. The awards vested immediately. We also granted 125,523 restricted stock units to non-employee directors, with a grant date fair value of \$1.25 per share. The awards vest in four equal installments on March 26, 2020, June 26, 2020, September 18, 2020, and December 25, 2020, respectively, and are subject to service conditions. We also granted 746,000 restricted stock unit awards to team members with an average grant date fair value of \$1.25 per share. The awards granted to team members vest over an average of 42 months with various installment and vesting dates, and are subject to service conditions. We also granted 630,000 restricted stock units to a non-employee service provider that were for the satisfaction of legal fees owed and other consulting fees. The awards granted to the legal service provider vested immediately and had an average grant date fair value \$0.88.

During the second quarter of 2020, we granted 85,996 restricted stock units to non-employee directors, each with a grant date fair value of \$0.71 per share in lieu of cash compensation board fees for services provided. The awards vested immediately. We also granted 375,000 restricted stock unit awards to team members with an average grant date fair value of \$0.67 per share. The awards granted to team members vest over 4 years with 25% vesting May 18, 2021, then equal quarterly installments thereafter until the final vesting period of May 18, 2024 and are subject to service conditions. We also granted

250,000 restricted stock units to a non-employee service provider that were for the satisfaction of legal fees owed. The awards granted to the legal service provider vested immediately and had an average grant date fair value \$0.67.

During the third quarter of 2020, we granted 39,426 restricted stock units to non-employee directors, each with a grant date fair value of \$1.28 per share in lieu of cash compensation board fees for services provided. The awards vested immediately. We also granted 12,000 restricted stock unit awards to team members with an average grant date fair value of \$1.68 per share. The awards granted to team members vest over 4 years with 25% vesting May 18, 2021, then equal quarterly installments thereafter until the final vesting period of May 18, 2024 and are subject to service conditions. We also granted 155,000 restricted stock units to non-employee service providers that were for the satisfaction of legal and professional fees. The awards granted to the service providers have various vesting dates and had an average grant date fair value \$1.52.

During the fourth quarter of 2020, we granted 30,000 restricted stock units to team members and 50,000 restricted stock units to non-employees directors with an average grant date fair value of \$0.85 per share. The awards granted to team members vest over 4 years with 25% vesting November 18, 2021, then equal quarterly installments thereafter until the final vesting period of November 18, 2024 and are subject to service conditions. The restricted stock units granted to the non-employee service provider were for satisfaction of legal fees owed. The awards granted to the legal service provider vested immediately.

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, respectively, 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 \$0.23 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 \$0.09 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.

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

Stock Options

During third quarter of 2021, we granted 50,000 stock options to a non-employee consultant at an exercise price of \$1.08 per share. The stock options vest over one year in twelve equal monthly installments. As of December 31, 2021, this is the only stock option grant outstanding under the 2018 Plan.

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 total shares of common stock initially reserved under the 2018 ESPP was limited to 272,942 shares. 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 initial offering period began on June 1, 2021 and will end in May 2023. 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. Purchased 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 year ended December 31, 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 189,215 and 272,942 shares of common stock available for sale and reserved for issuance as of December 31, 2021 and 2020, 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 allows for options to be immediately exercisable, subject to the Company's right of repurchase for unvested shares at the original exercise price. The total amount received in exchange for these shares has been included in accrued expenses on the accompanying consolidated balance sheets and is reclassified to equity as the shares vest. As of December 31, 2020, there were 574 unvested shares outstanding amounting to \$1 in accrued expenses. There were no unvested shares outstanding as of December 31, 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, 2019	1,465,450	\$ 0.80	6.86	\$ 771
Granted	—	—		
Exercised	(185,234)	1.06		
Cancelled/Expired	(71,476)	1.77		
Outstanding as of December 31, 2020	1,208,740	\$ 0.80	6.19	\$ 700
Granted	—	—		
Exercised	(260,451)	0.69		
Cancelled/Expired	(22,822)	2.01		
Outstanding as of December 31, 2021	<u>925,467</u>	\$ 0.80	5.59	\$ 1,692
Exercisable as of December 31, 2021	<u>904,259</u>	\$ 0.79	5.58	\$ 1,668

The Company did not grant any options under the 2009 Plan during the year ended December 31, 2021 or 2020. 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 \$1,168 and \$88 for the years ended December 31, 2021 and 2020, 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, 2021 and 2020, was \$6 and \$130, 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:

Stock-based compensation	Year Ended December 31,	
	2021	2020
Cost of revenues	\$ 1,050	\$ 274
Sales and marketing	437	64
General and administrative	2,770	4,083
Research and development	684	71
Total stock-based compensation	\$ 4,941	\$ 4,492

As of December 31, 2021, there was approximately \$5,943, \$328 and \$14 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 2.7 years, 1.5 years and 0.3 years for the 2018 Plan, the 2018 ESPP and the 2009 Plan, respectively.

15. 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, 2021 and 2020, we had net losses before income taxes of \$3,948 and \$22,197, respectively. Net losses relating to U.S. operations for were \$54,907 and \$22,194, 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,	
	2021	2020
Income tax (benefit) at statutory rate	\$ (11,330)	\$ (4,661)
Valuation allowance	11,500	4,408
State income tax (benefit), net of federal benefit	(1,978)	(330)
Business tax credit net of reserves	(190)	—
Non-deductible expenses	2,210	585
Business combination	(437)	—
Foreign income taxes at different rate	(201)	—
Income tax (benefit) expense	\$ (426)	\$ 2
<i>Effective tax rate</i>	<i>0.79 %</i>	<i>(0.01) %</i>

The provision expense for income taxes consists of the following:

	Year Ended December 31,	
	2021	2020
Current:		
Federal	\$ —	\$ —
State	11	2
Foreign	—	—
Total current	11	2
Deferred:		
Federal	(416)	—
State	(21)	—
Foreign	—	—
Total deferred	(437)	—
Total income tax (benefit) expense	\$ (426)	\$ 2

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

	December 31,	
	2021	2020
Deferred tax assets:		
Net operating loss	\$ 40,922	\$ 30,705
Unrealized loss on digital assets	2,015	—
Tax credits	1,416	1,193
Reserves and accruals	732	3,739
Leases - lease liability	376	—
Amortization of acquired intangibles	232	—
Other deferred tax assets	1,748	—
Gross deferred tax assets	47,441	35,637
Less valuation allowance	(46,163)	(35,100)
Total deferred tax assets	1,278	537
Deferred tax liabilities:		
Amortization of acquired intangibles	—	(537)
Leases - right of use asset	(306)	—
Other deferred tax liabilities	(972)	—
Total deferred tax liabilities	(1,278)	(537)
Net deferred tax liabilities	\$ —	\$ —

As of December 31, 2021, we had net operating loss ("NOL") carryforwards of \$166,826 and \$79,463 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, \$81,152 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, 2021, we had research and development ("R&D") credit carryforwards of approximately \$1,863 and \$1,226 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, 2021, 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, 2021 and 2020, we have a valuation allowance of \$46,163 and \$35,100, 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,	
	2021	2020
Unrecognized tax benefits, beginning of period	\$ 1,314	\$ 1,531
Tax positions taken in prior periods:		
Gross increases	—	69
Gross decreases	—	(297)
Tax positions taken in current period:		
Gross increases	231	11
Settlements	—	—
Lapse of statute of limitations	—	—
Unrecognized tax benefits, end of period	\$ 1,545	\$ 1,314

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, 2021 and 2020.

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 2021, 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, 2021 and 2020.

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, 2021 and 2020.

16. 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, 2021		
	Phunware	Lyte	Consolidated
Goodwill	25,887	7,373	\$ 33,260
Total assets	94,621	4,673	\$ 99,294
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, 2021 and 2020, all of our identifiable long-lived assets were in the United States.

17. 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 9, *Debt*, the Company entered into a Note and RPBLs (both defined above) with certain related parties. We repaid the Note and RPBLs in full during 2021 and 2020, respectively.

18. Subsequent Events

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

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. As of the date noted above, we have not sold any shares of common stock pursuant to the sales agreement with Wainwright. 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 March 15, 2022, we entered into a lease agreement, in which we will lease approximately 21,830 square feet for a term of five years, which we intend to use as manufacturing and warehouse space for our Lyte computer division. The term of the lease commences on the earliest of (a) the date we occupy any portion of the Premise and begin conducting business therein, (b) the date on which construction is substantially completed in the building (as defined in the construction addendum) or (c) the date the Landlord would have achieved substantial completion of construction of the building but for a delay caused by us (as defined in the construction addendum). The lease provides for initial base rent payments of approximately \$27 per month, subject to escalations. In addition, we will be 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 expense according to provisions of the lease.

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, 2021. Based on the foregoing, our Certifying Officers concluded that our disclosure controls and procedures were effective as of December 31, 2021.

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, 2021, 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 and the material weakness identified below, our management concluded that our internal control over financial reporting was not effective as of December 31, 2021.

A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis. During the preparation of our Quarterly Report on Form 10-Q for the period ended September 30, 2021, we identified a material weakness in internal control over financial reporting related to the accounting for an adjustment in certain terms of an outstanding warrant issued in connection with our 2020 Convertible Notes. As a result of our underwritten public offering in February 2021, the number of shares issuable and the exercise price each adjusted pursuant to the terms of the warrant. While we accurately accounted for the decrease in the exercise price, due to an oversight we did not account for the increase in the number of shares available for exercise under the warrant. This error resulted in a revision of our unaudited condensed financial statements for each of the quarters ended March 31, 2021 and June 30, 2021. Accordingly, our management determined that this control deficiency constitutes a material weakness.

During the fourth quarter of 2021, we implemented a remediation plan to ensure that controls contributing to the material weakness described above are designed appropriately and will operate effectively. The remediation actions we implemented included a control to create and review on a quarterly basis a summary schedule of material terms of all outstanding debt and equity instruments and a control to review all existing financing agreements in conjunction with any new financing arrangements. Although management believes the Company took immediate actions to remediate the identified material weakness, the Company did not have an adequate sample size to validate the new controls operating effectiveness.

Management believes that the remediation measures described above will strengthen our internal control over financial reporting and remediate the material weakness we have identified. However, the material weakness in our internal control over financial reporting will not be considered remediated until the new controls are fully implemented, in operation for a sufficient period of time, tested and concluded by management to be designed and operating effectively.

Management is committed to continuous improvement of our internal control over financial reporting and will continue to diligently review our financial reporting controls and procedures. However, we cannot provide any assurance that these remediation efforts will be successful or that our internal control over financial reporting will be effective as a result of

these efforts. Management will continue to test, evaluate and audit the implementation of these new processes and internal controls to ascertain whether they are designed and operating effectively to provide reasonable assurance that they will prevent or detect a material error in the Company's financial statements.

Changes in Internal Control over Financial Reporting

Other than the remediation plan in our internal control over financial reporting set forth above, 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, 2021 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, 2021:

Name	Age	Position
Executive Officers		
Alan S. Knitowski	52	Chief Executive Officer and Director
Matt Aune	46	Chief Financial Officer
Randall Crowder	41	Chief Operating Officer and Director
Luan Dang	50	Chief Technology Officer
Non-Employee Directors		
Ryan Costello ⁽²⁾⁽³⁾	45	Director
Keith Cowan ⁽¹⁾⁽³⁾	65	Director (Interim Chairperson)
Eric Manlunas ⁽¹⁾⁽²⁾	53	Director
Kathy Tan Mayor ⁽³⁾	45	Director
Rahul Mewawalla ⁽¹⁾⁽²⁾	43	Director

⁽¹⁾ Member of the Audit Committee

⁽²⁾ Member of the Compensation Committee

⁽³⁾ Member of the Nominating and Corporate Governance Committee

Executive Officers

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.

Alan S. Knitowski co-founded Phunware and has served as its Chief Executive Officer and a member of the Board since February 2009. Prior to co-founding Phunware, Mr. Knitowski served as President of Strategic Investments and Managing Director for Trymetris Capital Management, LLC, a hedge fund sponsor, from April 2004 to February 2009. Mr. Knitowski also co-founded Vovida Networks in February 1999, where he served as President, Chief Executive Officer and Director until its acquisition by Cisco Systems in November 2000, when he joined as Director of Marketing of Cisco Systems until March 2003. In August 2000, Mr. Knitowski co-founded and served as a Director of Telve Communications, a next-generation advanced services application service provider focused on wholesale communications services for carriers and service providers, until its acquisition in July 2003 by Level 3 Communications. In March 2001, Mr. Knitowski served as a director of vCIS until October 2002. He has also served on the board of directors for the International Softswitch Consortium from its inception in 1999 to March 2003. Mr. Knitowski has previously served as an advisor to Edgewater Networks from 2002 to 2008 and has been an angel investor in numerous companies, including RingCentral (NYSE: RNG), Vonage (NYSE: VG), Bazaarvoice and SunBasket. Mr. Knitowski holds a B.S. in Industrial Engineering from The University of Miami, an M.S. in Industrial Engineering from the Georgia Institute of Technology and an M.B.A from the Haas School of Business at the University of California, Berkeley.

We believe Mr. Knitowski is qualified to serve as a member of our Board because as co-founder he has extensive knowledge of the Company and because of his comprehensive background in information technology.

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 since December 2018. 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.

We believe Mr. Crowder is qualified to serve as a member of our Board because of his extensive knowledge and background in cryptosecurities and cryptocurrencies, as well as his experience in information technology.

Luan Dang co-founded Phunware and has served as its Chief Technology Officer since February 2009. Prior to co-founding Phunware, he served as President of Alternative Investments for Trymetris from April 2004 to February 2009. Mr. Dang holds a B.S. in Computer Engineering from the University of California at San Diego and an M.S. in Computer Science from Stanford University.

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.

Ryan 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. In September 2021, Mr. Costello was appointed to join 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. Mr. Costello has been a member of our board since October 2021.

Keith Cowan is an experienced executive officer, board member, advisor and investor. Since August 2020, he has been the Chief Development Officer of Rivada Networks LLC. Since 2013, he also has been CEO of Cowan Consulting Corporation, which provides strategic advisory services to various companies in multiple industries, and since September 2019, he has been CEO of NVR3, LLC (doing business as Venadar), a subsidiary of Cowan Consulting Corporation that provides outsourced corporate development services to large corporate enterprises seeking to innovate and grow through partnerships with, investments in and acquisitions of, emerging and innovative growth companies. From 2007 to 2013, Mr. Cowan was President of Strategic Planning and Corporate Initiatives for Sprint Corporation. From 1996 to 2006, he served in multiple roles at BellSouth Corporation, including Chief Development Officer, President of Marketing & Product Management and Chief Network Field Officer. From 1982 to 1996, Mr. Cowan was partner at Alston & Bird LLP. He has served as a board member for Globalstar (NYSE: GSAT) since December 2018, Vice Chairman of Fox Theatre in Atlanta since 2006, a board member of the Morehead-Cain Scholarship Fund since 2008, a Trustee of the Loomis Chaffee School since 2014 and a board member of the Georgia Intellectual Property Alliance since 2018. Mr. Cowan holds a BA in Economics and Political Science from the University of North Carolina at Chapel Hill, where he was a Morehead Scholar and a JD from the University of Virginia School of Law.

We believe Mr. Cowan is qualified to serve as a member of our Board due to his strategic planning, corporate development, mergers and acquisition and legal experience, as well as his board service and advisory roles with both public and private companies. Mr. Cowan has been a member of our Board since December 2018.

Eric 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 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 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. He has held several executive leadership roles such as serving as Chief Executive Officer/President of Xpanse Inc. and concurrently as Executive Vice President, Platforms and Technology Businesses and Chief Digital Officer at Freedom Mortgage Corporation from 2020 to 2021, as Chief Executive Officer and President 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, with experience as Chairman of the Board, Board Committee Chair, Independent Board Director, Chair of the Compensation Committee, Audit Committee Member, and Nominating and Governance Committee Member at publicly traded companies, including as former Chairman of the Board at Rocky Mountain Chocolate Factory Inc. (Nasdaq: RMCF), an e-commerce, consumer and retail company and as former Board Director and Nominating and Governance Committee Member at SOS Children's Villages USA. 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. Mr. Mewawalla has been a member of our Board since October 2021.

Additional Information

On September 26, 2017, the Company filed a breach of contract complaint against Uber Technologies, Inc. seeking approximately \$3 million (plus interest) for unpaid invoices for advertising campaign services provided for Uber in the first quarter of 2017. The case, captioned *Phunware, Inc. v. Uber Technologies, Inc.*, Case No. CGC-17-561546 was filed in the Superior Court of the State of California County of San Francisco. Mr. Knitowski was named as a cross-defendant in the Company's litigation with Uber Technologies, Inc. The Company and the individual defendants, including Mr. Knitowski settled the lawsuit in October 2020. On November 5, 2020, Uber filed a request for dismissal with prejudice of claims against the individual defendants, including Mr. Knitowski.

On December 17, 2019, certain stockholders filed a lawsuit against the Company. The case, captioned *Wild Basin Investments, LLC, et al. v. Phunware, Inc., et al.*; Cause No. D-1-GN-19-008846 was filed in the 126th Judicial District Court of Travis County, Texas. 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. The "Executive Officers" identified above, and "Non-Employee Directors" who were on our Board as of December 17, 2019 have been named as defendants in the lawsuit. On November 17, 2021, the court granted our motion to dismiss with prejudice to refile in the State of Texas. On December 17, 2021, plaintiffs filed a notice of appeal to the Court of Appeals, Third District of Texas, Case No. 03-21-00665-CV. On February 18, 2022, the plaintiffs filed a complaint in the Court of Chancery of the State of Delaware containing the same allegations.

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 2021, our directors, executive officers and 10% stockholders complied with all Section 16(a) filing requirements, except each of Keith Cowan, Eric Manlunas and Kathy Tan Mayor made late Form 4 filings on February 24, 2022 to report a grant of restricted stock equity awards to each such grantee on December 2, 2021.

CORPORATE GOVERNANCE

Board Composition

Our business affairs are managed under the direction of the Board of Directors (the "Board"). The Board currently consists of seven members, five of whom qualify as independent within the meaning of the independent director guidelines of the Nasdaq Stock Market ("Nasdaq"). Messrs. Crowder and Knitowski, both of whom serve as executive officers, are 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 Keith Cowan, Eric Manlunas and Rahul Mewawalla, and their terms will expire at the 2022 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 directors are currently Randall Crowder and Alan S. Knitowski, and their terms 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 March 24, 2021, Ms. Blythe Masters notified the Company of her resignation from our Board and Audit Committee effective May 1, 2021. In addition, on September 2, 2021, Ms. Lori Tauber Marcus notified the Company of her resignation from our Board and from the Compensation Committee and Nominating and Corporate Governance Committee of the Board, to be effective September 30, 2021.

On September 3, 2021, the Board appointed Mr. Rahul Mewawalla to serve as a Class I director with a term expiring at the 2022 Annual Meeting of Stockholders and until his successor has been duly elected and qualified. On the same date, the Board appointed Mr. Ryan Costello to serve as a Class II director with a term expiring at the 2023 Annual Meeting of Stockholders. The appointments of Mr. Costello and Mr. Mewawalla were made as a result of the resignation from our Board of Ms. Marcus and Ms. Masters, respectively. The Board appointments of Mr. Costello and Mr. Mewawalla were effective October 1, 2021.

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. Mr. George Syllantavos, who served on our Board since 2018, did not stand for reelection at our 2021 annual meeting of stockholders.

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. Cowan, Manlunas and Mewawalla, each of whom is a non-employee member of the Board, comprise our Audit Committee. Mr. Manlunas 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, 2021, 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

As a result of the resignation of Ms. Masters from our Board and Audit Committee effective May 1, 2021, we have not had an "audit committee financial expert" as defined under Item 407(d)(5)(ii) of Regulation S-K as of the aforementioned date. The Board of Directors believes that our members of the Audit Committee are able to read and understand the consolidated financial statements of the Company, are 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.

Item 11. Executive Compensation.

Phunware's named executive officers for 2021, which consist of the person who served as our principal executive officer during 2021 and the next two most highly compensated executive officers who served as such in 2021, are as follows:

Alan Knitowski, our Chief Executive Officer;

Matt Aune, our Chief Financial Officer; and

Randall Crowder, our Chief Operating 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, 2021 and 2020:

Name and Principal Position	Fiscal Year	Salary (\$)⁽¹⁾	Bonus (\$)	Stock Awards (\$)⁽²⁾	All other Compensation (\$)⁽³⁾	Total (\$)
Alan Knitowski, Chief Executive Officer	2021	375,000	450,000	1,613,570	20,384	2,458,954
	2020	375,000	225,000	—	17,541	617,541
Matt Aune, Chief Financial Officer	2021	275,000	275,000	571,670	23,860	1,145,530
	2020	275,000	137,500	—	21,653	434,153
Randall Crowder, Chief Operating Officer	2021	300,000	300,000	817,852	6,760	1,424,612
	2020	300,000	150,000	252,638	6,025	708,663

⁽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.

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 as of December 31, 2021:

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	—	—	—	—	150,000 ⁽¹⁾	394,500
	2/4/2021	—	—	—	—	747,023 ⁽¹⁾	1,964,670
Matt Aune	1/8/2018	114,750	—	0.61	1/8/2028	—	—
	10/6/2015	22,950	—	0.5229	10/6/2025	—	—
	9/10/2013	22,950	—	1.3035	9/10/2023	—	—
	3/8/2013	4,590	—	0.5532	3/8/2023	—	—
	7/30/2019	—	—	—	—	75,000 ⁽²⁾	197,250
	2/4/2021	—	—	—	—	264,662 ⁽²⁾	696,061
Randall Crowder	2/14/2018	229,500	—	0.61	2/14/2028	—	—
	5/1/2020	—	—	—	—	218,750 ⁽³⁾	275,625
	2/4/2021	—	—	—	—	378,635 ⁽³⁾	477,080

⁽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 the individuals continue 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 will vest at various rates with of 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 the individuals continue employment with the Company on each such vesting date.

⁽²⁾ Mr. Aune was granted 225,000 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 the individual's continue employment with the Company on each such vesting date. Mr. Aune was also granted 264,662 restricted stock units on February 4, 2021. The restricted stock units will vest at various rates with of 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 the individuals continue employment with the Company on each such vesting date.

⁽³⁾ Mr. Crowder was granted 375,000 restricted stock units on May 1, 2020. The restricted stock units will vest at various rates with 1/4th vesting on May 18, 2021, and thereafter at a rate of 1/12th on the following vesting dates: August 18, 2021, November 18, 2021, May 18, 2022, August 18, 2022, November 18, 2022, May 18, 2023, August 18, 2023, November 18, 2023 and May 18, 2024, subject to the individual's continued employment with the Company on each such vesting date. Mr. Crowder was also granted 378,635 restricted stock units on February 4, 2021. The restricted stock units will vest at various rates with of 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 the individuals continue employment with the Company on each such vesting date.

Executive Employment Agreements

Summary

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 initial base salary, bonus target, severance eligibility and eligibility for other standard employee benefit plan participation. Each of these employment agreements also provided for certain potential payments and acceleration of equity upon a termination without cause or termination in connection with a change of control of the Company.

Severance

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.

Under the employment agreements, if a participating individual is terminated by the Company without cause or resignation for good reason (as defined in the employment agreement) during the three months before or in the year after a Change in Control (as defined in the employment agreement), it would constitute a termination within the Change in Control Period.

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:

- annual base salary for six (6) months from the date of termination 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.

Mr. Knitowski is eligible to receive the following payments and benefits in connection with a termination not in connection with a Change in Control:

- annual base salary for twelve (12) months from the date of termination in accordance with the Company's normal payroll policies;
- 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.

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

In the case of a Change in Control (as defined in the employment agreement), 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.

In the case of a Change in Control (as defined in the employment agreement), if Mr. Knitowski 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 twenty-four (24) month anniversary of the Change in Control, but in no event will he be paid less than twelve (12) months base salary 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 50% of his base salary in effect on the date of termination;
- 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 eighteen (18) months after termination.

Change in Control Vesting Acceleration

The employment agreement for Mr. Knitowski provides a Change of Control accelerated vesting provision such that in the event of a Change in Control that occurs while an employee with the Company, 100% of any equity awards held as of the closing of the Change of Control will vest and become fully exercisable (to the extent possible) as of the closing of the Change of Control. With respect to equity awards granted on or after the effective date of the employment agreement but granted prior to the closing of a Change of Control, the same vesting acceleration provision provided in the prior sentence will apply to such equity awards, except to the extent provided in the applicable equity award agreement by explicit reference to the employment agreement.

Executive Bonus Plan

Each of our named executive officers participated in our Senior Staff Bonus Plan. The Senior Staff Bonus Plan provided for bonus payments to eligible employees. The target bonuses for each named executive officer under the Senior Staff Bonus Plan for the year ended December 31, 2021 are as follows: Mr. Knitowski: \$225,000; Mr. Aune: \$137,500; and Mr. Crowder: \$150,000. Subject to approval by our Compensation Committee or Board, actual annual bonuses paid may differ from target amounts.

Director Compensation

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, 2021.

Name ⁽¹⁾	Fees Earned or Paid in Cash (\$)	Stock Awards (\$) ⁽²⁾	Total (\$)
Ryan Costello	—	135,467	135,467
Keith Cowan	48,750	228,051	276,801
Eric Manlunas	50,000	226,918	276,918
Lori Tauber Marcus ⁽³⁾	32,250	152,105	184,355
Blythe Masters ⁽³⁾	28,500	158,452	186,952
Kathy Tan Mayor	40,500	226,011	266,511
Rahul Mewawalla	—	135,467	135,467
George Syllantavos ⁽³⁾	35,000	148,478	183,478

⁽¹⁾ Mr. Crowder and Mr. Knitowski serve as members of the Board, however, they do not receive any additional compensation for the services they provide as directors. For information on Mr. Crowder and Mr. Knitowski'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 2021 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, 2021. 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⁾ Mses. Masters and Marcus resigned from our Board effective May 1, 2021 and September 30, 2021, respectively. Mr. Syllantavos did not stand for reelection to our Board at our annual meeting of stockholders held on December 2, 2021.

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, 2021.

	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 (\$)
Ryan Costello ⁽¹⁾	10/6/2021	152,176	400,223
Keith Cowan ⁽²⁾	12/2/2021	21,440	56,387
Eric Manlunas ⁽²⁾	12/2/2021	21,440	56,387
Kathy Tan Mayor ⁽²⁾	12/2/2021	21,440	56,387
Rahul Mewawalla ⁽¹⁾	10/6/2021	152,176	400,223

⁽¹⁾ The Restricted Stock Units ("RSUs") vest in four equal installments commencing on January 1, 2022, and quarterly thereafter until the final vesting date of September 30, 2022. Vesting is subject to the continued service on such vesting date.

⁽²⁾ The RSUs vest in four equal installments commencing on March 2, 2022, and quarterly thereafter until the final vesting date of December 2, 2022. Vesting is subject to the continued service on such vesting date.

Employee, Officer and Director Hedging

Our Insider Trading Policy and Guidelines with Respect to Certain Transactions in Securities, which is applicable to all directors, officers, employees and agents of the Company, prohibits such parties from engaging in transactions in publicly-

traded options, such as puts and calls, and other derivative securities with respect to our securities. This prohibition extends to any hedging or similar transaction designed to decrease the risks associated with holding our securities. Stock options, stock appreciation rights and other securities issued pursuant to the Company's benefit plans or other compensatory arrangements with us are also subject to this prohibition; provided, however, such parties are not prohibited from exercising any stock options issued under any of the Company's benefit plans or other compensatory arrangements in accordance with the terms of such plans or arrangements.

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 were previously approved by its stockholders and the Company maintains no equity compensation plans not approved by stockholders. The following table sets forth our equity compensation plan information as of December 31, 2021.

	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⁾	50,000	\$1.08	762,038
2018 Employee Stock Purchase Plan (the "2018 ESPP")	—	—	189,215
2009 Equity Incentive Plan (the "2009 Plan") ⁽²⁾	925,467	\$0.80	—

⁽¹⁾ Excludes unvested restricted stock unit awards granted under the 2018 Plan. As of December 31, 2021, 3,576,270 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.

⁽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, 2021, the maximum number of shares of common stock that may be added to the 2018 Plan pursuant to the foregoing is equal to 925,467, which is not included in the column (c) above.

For additional information on the Company's equity compensation plans, refer to Note 14 "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 December 31, 2021, 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 96,751,610 shares of our common stock outstanding as of December 31, 2021. 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 December 31, 2021. 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., 7800 Shoal Creek Boulevard, Suite 230-South, Austin, Texas 78757.

Name of Beneficial Owner	Shares ⁽¹⁾	Percentage
Named Executive Officers and Directors:		
Alan S. Knitowski ⁽²⁾	1,348,443	1.4%
Matt Aune ⁽³⁾	378,239	0.4%
Ryan Costello ⁽⁴⁾	38,044	—%
Randall Crowder ⁽⁵⁾	506,177	0.5%
Keith Cowan ⁽⁶⁾	254,844	0.3%
Eric Manlunas ⁽⁷⁾	1,259,899	1.3%
Kathy Tan Mayor ⁽⁸⁾	247,339	0.3%
Rahul Mewawalla ⁽⁹⁾	38,044	—%
All executive officers and directors as a group (8 persons) ⁽¹⁰⁾	4,071,029	4.2%

- ⁽¹⁾ The percentage of beneficial ownership is calculated based on 96,751,610 shares of our common stock as of December 31, 2021, adjusted for each owner's options or restricted stock units held by that person that are currently exercisable or exercisable within 60 days of December 31, 2021, if any. 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) 528,968 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; and (vii) 233,886 shares subject to options exercisable and vested.
- ⁽³⁾ Consists of (i) 212,999 shares held of record by Mr. Aune; and (ii) 165,240 shares subject to options exercisable and vested.
- ⁽⁴⁾ Consists of 38,044 shares subject to vesting for restricted stock units within 60 days of December 31, 2021
- ⁽⁵⁾ Consists of (i) 276,677 shares held of record by Mr. Crowder; (ii) 229,500 shares subject to option exercisable within 60 days of December 31, 2021, of which 219,936 had vested as of such date.
- ⁽⁶⁾ Consists of 254,844 shares held directly by Mr. Cowan.
- ⁽⁷⁾ Consists of (i) 27,173 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 247,339 shares held directly by Ms. Mayor.
- ⁽⁹⁾ Consists of 38,044 shares subject to vesting for restricted stock units within 60 days of December 31, 2021
- ⁽¹⁰⁾ Consists of (i) 3,366,315 shares held of record by our current directors and executive officers, (ii) 628,626 shares subject to option exercisable within 60 days of December 31, 2021, of which 619,062 had vested as of such date, and (iii) 76,088 shares subject to vesting for restricted stock units within 60 days of December 31, 2021.

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

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, 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.

Related Party Bridge Loans. In the first quarter of 2020, various related parties loaned the Company \$560,000. The Related Party Bridge Loans have an interest of 10% per annum and were due to mature on November 14, 2024. The RPBLs were made in the following amounts by the following related parties: (i) \$204,000 by Cane Capital, LLC, an entity owned in part by Alan S. Knitowski, our Chief Executive Officer; (ii) \$151,000 by Curo Capital Appreciation Fund, LLC, an entity in which Alan S. Knitowski, the Company's Chief Executive Officer and Luan Dang, our Chief Technology Officer serve as co-presidents; (iii) \$155,000 by various individuals associated by familiar relationship with Alan S. Knitowski, our Chief Executive Officer; and (iv) \$50,000 by Luan Dang, the Company's Chief Technology Officer. As of December 31, 2020, the RPBLs have been paid 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. Costello, Cowan, Manlunas and Mewawalla and Ms. Mayor, representing five of our seven 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. Knitowski serves as our Chief Executive Officer and Mr. Cowan serves as Interim 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. Knitowski brings company-specific experience and expertise. As one of the founders of Phunware, Mr. Knitowski is best positioned to identify strategic priorities, lead critical discussion and execute our business plans.

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, 2021 and 2020:

	2021	2020
Audit Fees ⁽¹⁾	\$ 246,219	\$ 248,295
Audit-related Fees ⁽²⁾	98,365	89,442
Tax Fees ⁽³⁾	—	—
All Other Fees ⁽⁴⁾	—	—
Total Fees	<u>\$ 344,584</u>	<u>\$ 337,737</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 3.2 of the Registrant's Form 8-K (File No. 001-37862), filed with the SEC on January 2, 2019).
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 Registrants 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 Registrants 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 December 4, 2020 (Incorporated by reference to Annex A of the Registrant's Schedule 14A (File No. 001-37862), filed with the SEC on October 16, 2020).
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 Registrants 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 Registrants 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 Registrants 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 Registrants 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 Registrants 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).
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.

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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

+ 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: April 7, 2022

By: /s/ Alan S. Knitowski
Title: Chief Executive Officer
(Principal Executive Officer)

Date: April 7, 2022

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 Alan S. Knitowski 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/ Alan S. Knitowski</u> Alan S. Knitowski	Chief Executive Officer and Director (Principal Executive Officer)	April 7, 2022
<u>/s/ Matt Aune</u> Matt Aune	Chief Financial Officer (Principal Accounting and Financial Officer)	April 7, 2022
<u>/s/ Keith Cowan</u> Keith Cowan	Director	April 7, 2022
<u>/s/ Randall Crowder</u> Randall Crowder	Chief Operating Officer and Director	April 7, 2022
<u>/s/ Ryan Costello</u> Ryan Costello	Director	April 7, 2022
<u>/s/ Eric Manlunas</u> Eric Manlunas	Director	April 7, 2022
<u>/s/ Kathy Tan Mayor</u> Kathy Tan Mayor	Director	April 7, 2022
<u>/s/ Rahul Mewawalla</u> Rahul Mewawalla	Director	April 7, 2022

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 this Registration Statement 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) and Form S-8 (File No. 333-262168) of our report dated April 7, 2022, with respect to our audits of the consolidated financial statements of Phunware, Inc. as of December 31, 2021 and 2020 and for each of the two years in the period ended December 31, 2021, which report is included in this Annual Report on Form 10-K of Phunware, Inc. for the year ended December 31, 2021.

/s/ Marcum LLP

Houston, TX
April 7, 2022

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: April 7, 2022

By:

/s/ Matt Aune

Matt Aune
Chief Financial Officer
(Principal Accounting and Financial Officer)

