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

M ANNUAL REPORT FURSUANT I	O SECTION 13 OK 15(D) OF	THE SECURITIES EACHANGE ACT OF 1954		
F	or the fiscal year ended Decemb	per 31, 2019		
☐ TRANSITION REPORT PURSUANT	Γ TO SECTION 13 OR 15(D) C	OF THE SECURITIES EXCHANGE ACT OF 193	34	
For the	transition period from	to		
	Commission file number: 00	1-37862		
	PHUNWARE, INC.			
	et name of registrant as specifie	d in its charter)		
		26-4413774		
State or other jurisdiction of incorporation or organization		(I.R.S. Employer Identification Number)		
7800 Shoal Creek Rivd Suite 230-S Austin T	·Y	78757		
(Address of principal executive offices)	· · · · · · · · · · · · · · · · · · ·			
,	s telephone number, including are	• •		
Securities registered pursuant to Section 12(b) of the Act:	s telephone number, meruding are	4 code 312-075-4177		
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	2(g) of the Act: None		
Indicate by check mark if the registrant is a well-known seasoned i	issuer, as defined in Rule 405 of t	he Securities Act.		
			Yes □ No ⊠	
Indicate by check mark if the registrant is not required to file repor	ts pursuant to Section 13 or Secti	on 15(d) of the Act.		
			Yes □ No ⊠	
Indicate by check mark whether the registrant (1) has filed all repo months (or for such shorter period that the registrant was required				
			Yes ⊠ No □	
Indicate by check mark whether the registrant has submit (§ 232.405 of this chapter) during the preceding 12 months (or for			e 405 of Regulation S-T	
		•	Yes ⊠ No □	
Indicate by check mark whether the registrant is a large growth company. See definition of "large accelerated filer," "accelerated filerated filer				
Large accelerated filer □	Accel	erated filer		
Non-accelerated filer ⊠		er reporting company ⊠ ging growth company ⊠		
If an emerging growth company, indicate by check mark financial accounting standards provided pursuant to Section 13(a) of the company of the		to use the extended transition period for complying	with any new or revised	
Indicate by check mark whether the registrant is a shell co	ompany (as defined in Rule 12b-2	e of the Exchange Act). Yes□ No ⊠		
The aggregate market value of voting stock held by non-affiliates of completed second fiscal quarter (based on the closing sales price for				

The aggregate market value of voting stock held by non-affiliates of the registrant was \$9,119,694 as of June 28, 2019, the last business day of of the registrants most recently completed second fiscal quarter (based on the closing sales price for the common stock on the Nasdaq Capital Market on such date). Shares of common stock held by each executive officer, director and holder of 5% or more of the outstanding common stock have been excluded in that such persons may be deemed affiliates. The determination of affiliate status is not necessarily a conclusive determination for other purposes.

As of March 23, 2020,40,368,825 shares of common stock, par value \$0.0001 per share, were issued and outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the information called for by Part III of this Annual Report on Form 10-K is hereby incorporated by reference from the definitive proxy statement for the registrant's annual meeting of stockholders to be filed with the Securities and Exchange Commission within 120 days after the registrant's fiscal year ended December 31, 2019.

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"Phunware," the Phunware design logo and the trademark 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 TM designations, as applicable, for the trademarks used in this Annual Report on Form 10-K.

SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This Report includes forward-looking statements. All statements other than statements of historical facts contained in this 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 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 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 Report, those results or developments may not be indicative of results or developments in subsequent periods.

PART I

Item 1. Business.

Business Combination

Phunware, Inc. ("Phunware") was originally incorporated in the state of Delaware in February 2009. Phunware is a mobile application development and software licensing platform.

On February 27, 2018, Phunware entered into an Agreement and Plan of Merger, as amended (collectively, the "Merger Agreement") with Stellar Acquisition III, Inc. ("Stellar"). On December 26, 2018, Stellar, a Republic of the Marshall Islands corporation incorporated in December 2015, deregistered as a corporation in the Republic of the Marshall Islands and domesticated as a corporation incorporated under the laws of the State of Delaware upon the filing with and acceptance by the Secretary of State of Delaware of the certificate of domestication in accordance with Section 388 of the Delaware General Corporation Law (the "Domestication"). Upon the effectiveness of the Domestication, Stellar became a Delaware corporation and, upon the consummation of the Business Combination (as defined below), Stellar changed its corporate name to "Phunware, Inc." (the "Successor" or the "Company") and all outstanding securities of Stellar were deemed to constitute outstanding securities of the Successor. Also on December 26, 2018, STLR Merger Subsidiary Inc., a wholly-owned subsidiary of Stellar ("Merger Sub"), merged with and into Phunware, Inc. ("Phunware"), a corporation incorporated in Delaware in February 2009, with Phunware surviving the merger (the "Merger") and becoming a wholly-owned subsidiary of the Successor (the "Business Combination"). Upon the consummation of the Business Combination, Phunware changed its corporate name to "Phunware OpCo, Inc." As of the open of trading on December 28, 2018, the common stock and warrants of the registrant began trading on the Nasdaq Capital Market as "PHUN" and "PHUNW," respectively.

In connection with the consummation of the Business Combination, holders of 1,813,487 shares of Stellar common stock sold in its initial public offering ("Public Shares") exercised their right to redeem their Public Shares for cash at a price of \$10.64 per share, for an aggregate amount of approximately \$19.3 million. As a result of these redemptions, the Stellar trust account had approximately \$0.4 million immediately prior to Closing.

In addition, 6,000 shares for aggregate cash proceeds of \$6.0 million from the Series A 8% convertible preferred stock financing ("Series A Financing") were issued in conjunction with the Business Combination. In connection with the Series A Financing, Astra Maritime Inc. and Dominium Investments Inc., affiliated with the Company's Chairman of the board of directors and Magellan Investments Corp. and Firmus Investments Inc., affiliated with a member of our board of directors (collectively, the "Sponsors") transferred an aggregate of 250,000 shares of Stellar common stock and 250,000 warrants to purchase shares of Stellar common stock to the Series A Financing investor, and 181,391 shares to certain service providers.

Immediately after giving effect to the Business Combination (including the redemptions and the issuance of shares in the Series A Financing, both described above), there were approximately 27.3 million shares of common stock and warrants to purchase approximately 18.2 million shares of common stock of Phunware issued and outstanding.

In addition, with the consummation of the Business Combination, the Sponsors transferred to the former stockholders of Phunware 3,985,244 warrants to purchase shares of Successor common stock. As consideration for the warrants transferred to Phunware stockholders, a promissory note was issued to the Sponsors (the "Transfer Sponsor Warrant Note"). The amount of the note was approximately \$1,993,000, which represented \$0.50 per warrant transferred to former stockholders of Phunware. The warrants transferred have an exercise price of \$11.50 per share. The Transfer Sponsor Warrant Note was to mature on December 26, 2019. The Transfer Sponsor Warrant Note was subsequently waived and forgiven by the noteholders.

Furthermore, Stellar issued an aggregate of 2,211,572 Private Placement Warrants to the Sponsors, which are Astra Maritime Inc. and Dominium Investments Inc., affiliates of Mr. Prokopios (Akis) Tsirigakis, and Magellan Investments Corp. and Firmus Investments Inc., affiliates of Mr. George Syllantavos. The issuance of the Private Placement Warrants to the Sponsors were repayment in full for unsecured promissory notes - related parties of Stellar. The repayment of the related party notes was calculated at \$0.50 per warrant. Mr. Syllantavos is currently a Director of the Company, and Mr. Tsirigakis was a Director of the Company until December 5, 2019, when his term expired at the Company's Annual Meeting of Stockholders.

Upon consummation of the Business Combination, the former stockholders of Phunware owned approximately 94.4% of the issued and outstanding shares of common stock of the Successor. This percentage excludes the impact of outstanding stock options and warrants.

The Merger Agreement contains representations and warranties of the parties thereto, certain of which are limited by materiality and material adverse effect. The parties have also each agreed to certain covenants contained in the Merger Agreement. The representations, warranties and covenants of the parties contained in the Merger Agreement terminated at the Closing, notwithstanding that any covenant that, by its terms, provides for performance following the consummation of the Business Combination shall survive until such covenant is performed.

There is no accounting effect or change in the carrying amount of the consolidated assets and liabilities of the Successor as a result of the domestication. The Business Combination is accounted for as a reverse merger and recapitalization in accordance with generally accepted accounting principles ("GAAP") in the United States. Accordingly, Stellar is the legal acquirer and Phunware is the accounting acquirer and predecessor whereby the Successor's historical financial statements reflect the financial position, results of operations and cash flows of Phunware, and the net cash proceeds obtained from Stellar in the Business Combination is reflected as a capital infusion. Furthermore, the historical capitalization of Phunware immediately before the Business Combination was adjusted based on the exchange ratio of 0.459 Successor shares for every one share of Phunware capital stock.

Business Overview

Phunware Inc. is a provider of the Multiscreen-as-a-Service ("MaaS") platform, a fully integrated enterprise cloud platform for mobile that provides companies the products, solutions, data and services necessary to engage, manage and monetize their mobile application portfolios and audiences at scale. According to Comscore's 2019 Mobile App Report, consumers in the U.S. spend 77% of their time online on a mobile device, and 89% of that time is spent in mobile apps (vs. mobile web). Given this reality, 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, media and data in one login 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. We have successfully expanded our addressable market reach into various important and fast-growing markets: mobile cloud software, media and data. 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 every month 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 and data subscription services revenue product lines by helping companies and brands boost campaign performance, target high-value users, maximize conversions and optimize spend.

Our business model includes a combination of subscription, transaction and service 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.

We offer our platforms as Software-as-a-Service ("SaaS"), application transactions media and data licensing. Our business model includes recurring subscriptions, often as one-year to five-year software or data licenses, or transaction-based media insertion orders and application development services.

Our Product, Subscription and Support Offerings

Our MaaS platform, application transaction and data licensing products and solutions include the following:

- · Software, including recurring one to three year software licensing for
 - MaaS software ingredients that are included inside mobile application portfolios such as Software Development Kits ("SDKs"), Application Programming Interfaces ("APIs"), scripts, portals, integrations, interfaces and other software tools, solutions and services that address:
 - · Analytics (SDK that provides data related to application use and engagement),
 - · Content Management (SDK that allows application admins 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);
 - · Loyalty & Rewards,
 - Commerce,
 - · Location-Based Services (module that include Mapping, Navigation, Way finding, Workflow, Asset Management and Policy Enforcement), and
 - Support & Maintenance of the application;
 - MaaS software application frameworks that pre-integrate all of our MaaS software ingredients for use within mobile application portfolios, solutions and services; and
 - · MaaS 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, often via insertion orders, for
 - · application discovery, user acquisition and audience building,
 - · audience engagement, and
 - audience monetization:
- Data, including re-occurring and one-time application transaction media campaigns and recurring data licensing for one-to-one, indoor and outdoor, consumer targeting across
 - Global Position Systems (GPS),
 - high- and low-density WiFi,
 - · physical and virtual beacons.

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 stock options 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:

Expand mobile products and services. Mobile applications, media and data 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.

Deepen existing customer relationships. We believe that we are well positioned to identify new opportunities or enhance existing services and solutions within our existing customers. We create cross and upsell opportunity between subscription, media and data customers as each customer seeks to deepen its approach to mobile application lifecycle management.

Develop 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 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.

Continue to grow our strong domestic footprint and expand internationally. We have a strong and growing presence in the United States and we believe there are significant opportunities for further domestic expansion. We believe there are multiple attractive market opportunities, both domestically and internationally, into which we will continue to opportunistically expand. Top expansion targets include entertainment, healthcare, 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.

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

Expand 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 are companies that are looking to enact digital transformation in their business — whether it is retail, healthcare, entertainment, real estate or any other industry. We provide technology and solutions to support these companies 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 agreements with our customers consist of standard services agreements that generally do not contain any minimum commitment terms that would guarantee business for us and do not impose obligations upon us such as exclusivity or other terms. These agreements provide standard terms relating to payment, liability, performance, cancellation and termination, confidentiality, and indemnification obligations, among other provisions. All of these agreements contain terms of service that generally are consistent across Phunware's customers. These standard services agreements 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, which provides 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.

Concentration of Major Customers

During the year ended December 31, 2019, our sales were concentrated with Fox Networks Group ("Fox"), which accounted for 50% of our net sales. During the year ended December 31, 2018, Fox accounted for 42% of our net sales. As with our other subscriptions and services customers, our contractual arrangements with Fox are governed by standard terms of service and statements of work. Furthermore, our contractual arrangements with our application transaction customers are governed by insertion orders, which in addition to being governed by our standard terms and conditions are also governed by IAB terms, including but not limited to payment liability and obligations. The revenue concentration of these customers is simply a function of the Company selling additional services and expanding the scope of work. Terms are consistent with our standard terms and contain no materially different terms or conditions.

Our agreements are pursuant to standard services agreements. All of these agreements contain standard terms of service that generally are consistent across Phunware's customers.

The Company completed its contractual obligations under its statement of work with Fox Networks Group ("Fox") as of September 30, 2019. While the underlying master services agreement with Fox (setting forth general terms and conditions) remains in place, the Company does not have any active statements of work with Fox.

Our application transaction agreements, also known as insertion orders, are typically governed by the IAB Standard Terms and Conditions for Internet Adverting for Media Buys One Year or Less (V3.0) (the "IAB Terms"), which can be found on the IAB's website. The IAB Terms in Section III.c 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. Phunware views 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, Phunware is not substantially dependent on the agreements.

Sales and Marketing

We have an outside salesforce focused on large organizations and an inside salesforce focused on small and mid-sized organizations. Our channel sales function works with our channel partners to identify sales opportunities, as well as identify new channel partner relationships. Our marketing team focuses on building brand reputation, expanding market awareness, driving customer demand and enabling our sales team.

During our sales cycle, our sales organization is supported by our customer solutions team, who has deep technical expertise. Customers are supported post-sale by our customer success team. Our sales cycle can range many months for large organizations.

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.

PhunCoin and Phun

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 Phun token to interested parties outside the United States and Canada. 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. Phun is intended to act as the "Value of Engagement" that empowers consumers to monetize their digital activity and the data they share with brands. To date, we have not sold any Phun. We have sold rights to the future issuances of PhunCoin, although we currently do anticipate additional funds 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. In addition, PhunCoin wallet development, enhanced token management capabilities and additional securities features are being implemented. We currently plan to launch the Token Ecosystem in 2020; 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 Adobe, Oracle, Urban Airship, Chaotic Moon, Adroll and many more.

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 numerous U.S. and foreign laws and regulations that are applicable to companies engaged in the business of advertising on mobile devices. In addition, many areas of law that apply to our business are still evolving and could potentially affect our business to the extent they restrict our business practices or impose a greater risk of liability.

Given the nascent stage of mobile advertising, industry practices are rapidly evolving. We participate in the Digital Advertising Alliance and other industry groups that are developing best practices for the mobile advertising industry.

Privacy and Data Protection

Privacy and data protection laws play a significant role in our business. In the United States, at both the state and federal level, there are laws that govern activities such as the collection and use of data by companies like us and privacy and data protection issues generally have gained wide media and public attention recently. Online advertising activities in the United States have primarily been subject to regulation by the Federal Trade Commission (the "FTC"), which has regularly relied upon Section 5 of the Federal Trade Commission Act to enforce against unfair and deceptive trade practices. Section 5

has been the primary regulatory tool used to enforce against alleged violations of online privacy policies and would apply to privacy practices in the mobile advertising industry. In December 2012, the FTC adopted amendments to rules under the Childrens' Online Privacy Protection Act ("COPPA"), which went into effect in July 2013. These amendments broadened the potential applicability of COPPA compliance obligations to our activities and those of our clients. Further, Europe's new General Data Protection Regulation (which came into force in May 2018) extends the jurisdictional scope of European data protection law. As a result, we are subject to the European Union's General Data Protection Regulation ("GDPR") when we provide our media and data services in Europe. The GDPR imposes stricter data protection requirements that may necessitate changes to our services and business practices.

The issue of privacy in the mobile advertising industry is still evolving. Federal legislation and rulemaking has been proposed from time to time that would govern certain advertising practices as they relate to mobile devices, including the use of precise geolocation data. Although such legislation has not been enacted, it remains a possibility that such federal and state laws may be passed in the future.

There have been numerous civil lawsuits, including class action lawsuits, filed against companies that conduct business in the mobile device industry, including makers of mobile devices, mobile application providers, mobile operating system providers and mobile third-party networks. Plaintiffs in these lawsuits have alleged a range of violations of federal, state and common laws, including computer trespass and violation of privacy laws.

In addition, mobile services are generally not restricted by geographic boundaries and our services reach mobile devices throughout the world. We transact business with our customers in Europe and Southeast Asia and, as a result, some of our activities may also be subject to the laws of foreign jurisdictions. In particular, European data protection laws can be more restrictive regarding the collection and use of data than those in U.S. jurisdictions. As we continue to expand into other foreign countries and jurisdictions, we may be subject to additional laws and regulations that may affect how we conduct 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 16 patents issued and 6 non-provisional patent applications. The issued patents expire between the years 2027 and 2036. In addition, we have registered "Phunware" as a trademark in the United States and Canada. We cannot assure you 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, we intend to expand our international operations, and effective patent, copyright, trademark, and trade secret protection 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. We cannot assure you 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, 2019, we had 93 employees, including 55 software developers, engineers, QA engineers and product managers. We employed a sales and marketing force of approximately 15 professionals.

We believe it is as the result of its employee base that we have long-standing customer engagements and strong financial performance. 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. Our website is https://www.phunware.com. 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 Securities Exchange Act of 1934, as amended, are available free of charge on our investor relations website as soon as reasonably practicable after we electronically file such material with, or furnish it to, the Securities and Exchange Commission ("SEC").

Item 1A. 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 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

Our revenue has declined, 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, 2019 and December 31, 2018. These losses were due to both a reduction in revenue in 2018 and 2019, as compared to previous years, and the substantial investments we made to build our products and services, grow and maintain our business and acquire customers. 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 build our brand. 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 that we did not incur as a private company. 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 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 tim

The notes to our financial statements for the fiscal year ended December 31, 2019 and 2018 include an explanatory paragraph expressing substantial doubt as to our ability to continue as a going concern.

The notes accompanying our December 31, 2019 and 2018 audited financial statements contain an explanatory paragraph expressing substantial doubt about our ability to continue as a going concern due to our recurring losses from operations and substantial decline in our working capital. Our financial statements have been prepared "assuming that the Company will continue as a going concern." A "going concern" qualification could impair our ability to finance our operations through the sale of equity, to incur debt, or to pursue other financing alternatives. Our ability to continue as a going concern will depend upon the availability and terms of future funding, growth in revenue, improved operating margins and our ability to profitably meet our after-sale service commitments with existing customers. If we are unable to achieve these goals, our business could be jeopardized and may not be able to continue. If we ceased operations, it is likely that all of our investors would lose their investment.

We have a concentration of sales with a key customer and any substantial reduction in sales to such customer would have a material adverse effect on our results of operations and financial condition.

During the year ended December 31, 2019, our sales were concentrated with Fox Networks Group ("Fox"), which accounted for 50% of our net sales. During the year ended December 31, 2018, Fox accounted for 42% of our net sales.

As noted on our Current Report on Form 8-K filed with the SEC on October 4, 2019, we completed our contractual obligations under our statement of work with Fox as of September 30, 2019. While our underlying master services agreement with Fox (setting forth general terms and conditions) remains in place, we do not have any active statements of work with Fox. Accordingly, there could be no additional sales in the foreseeable future from Fox. This could have a material adverse effect on our business, financial condition and results of operations.

The Wuhan coronavirus ("COVID-19") outbreak could impact our operations.

The ongoing COVID-19 outbreak has resulted in travel restrictions, the cancellation or rescheduling of trade shows and other events, and the extended shutdown of certain businesses. The spread of COVID-19 throughout the world may also create global economic uncertainty, which may cause our partners, suppliers, current customers and potential customers to closely monitor their costs and reduce their spending budget. We require additional funding and such funding may not be available to us as a result of contracting capital markets resulting from the COVID-19 pandemic. In addition, if the pandemic continues to spread, we may need to limit operations or implement limitations that may impact our business. The extent to which COVID-19 impacts our results may depend on future developments, which are highly uncertain and cannot be predicted, including new information which may emerge concerning the severity of COVID-19, the ultimate geographic spread of COVID-19, the duration of the outbreak, travel restrictions imposed, business closures or business disruption, and the actions taken throughout the world, including in our markets, to contain COVID-19 or treat its impact. As a result, our results of operations, financial position, and cash flows could be materially adversely affected.

Our recent reductions in workforce may prevent us from executing initiatives to improve the performance of our business effectively or at all.

We have been and are currently implementing certain initiatives to improve the performance of our business, and our recent reduction in workforce could prevent us from engaging in certain initiatives we had previously considered, and could prevent us from executing such initiatives effectively. During 2019, we conducted two reductions in our workforce by a combined 44 persons. In response to the COVID-19 outbreak, we furloughed 37 persons, or approximately 42%, of our workforce in March 2020.

These reductions in our workforce could prevent us from engaging in certain initiatives to improve the performance of our business, due to an insufficiency of workforce size or an insufficiency of certain required skills, and could prevent us from executing initiatives effectively, which could have a material adverse effect on our financial results, business and prospects.

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 \$25.9 million, or approximately 90% of our total assets, as of December 31, 2019. 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.

Based on a combination of factors, including the anticipated revenue loss related to Fox, our operating results and a sustained decline in our market capitalization, we concluded that there were sufficient indicators to require us to perform an interim goodwill impairment analysis as of September 30, 2019. We completed our goodwill impairment analysis, and we concluded an impairment of goodwill was not necessary as of September 30, 2019. We further updated this analysis at December 31, 2019 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:

- (1) 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.
- (2) 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 Chief Executive Officer, are parties to the legal proceedings with Uber described in Note 9 of the Notes to the Consolidated Financial Statements on this Annual Report on Form 10-K. 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 outcomes of these legal proceedings. The outcome of some of these 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. Moreover, an adverse ruling in respect of the Uber 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 offerings and services 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 offerings and services 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 to continue to grow 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, inside and outside sales directors, customer success 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 our technology offerings and services with existing customers. Our customers may not 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 service. 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 assure you that its efforts will increase sales to existing customers or additional revenue. If our efforts to upsell to our customers are not successful, 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 offerings and services 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 offerings and services, 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.

The actual market for our 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 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 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 with their legacy software vendors. 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. We may also face competition from a variety of vendors of cloud-based and on-premise software 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 platform does 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 implementing productivity measures and 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 data analytics and blockchain. 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! and GoTV. 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") is 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 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 May 2014, the FASB issued Accounting Standards Update No. ("ASU") No. 2014-09 (Topic 606), Revenue from Contracts with Customers, which supersedes nearly all existing revenue recognition guidance under GAAP. On January 1, 2019, we adopted ASU 2014-09 using the modified retrospective method. As a result, we applied the new revenue recognition guidance only to contracts that were not completed as of January 1, 2019; therefore, current period results are presented under the new revenue recognition guidance and prior period results are presented in accordance with previous revenue recognition guidance. The adoption of this standard resulted in an additional \$401 thousand in net sales and \$461 thousand in operating income in 2019, which otherwise would not have been recorded in 2019 under previous guidance. The most significant impact relates to our accounting for subscriptions to our MaaS licenses and application development services, which may potentially make revenue more volatile and difficult to predict. In addition, accounting for commissions is impacted significantly as we have to capitalize and amortize most commissions under the new standard instead of expensing commissions as incurred. Due to the complexity of certain of our contracts, the revenue recognition treatment required under the new standard is dependent on contract-specific terms and subject to significant judgement.

Additionally, in February 2016, the FASB issued ASU No. 2016-02, Leases (Topic 842). Under this guidance, companies will be required to recognize all leases on their balance sheets by recording a lessee's rights and obligations. When the rules are effective, we will be 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. We plan to implement this guidance the first quarter of our fiscal year 2021 on a modified retrospective basis. As a result, a significant amount of lease related assets and liabilities will be recorded on our balance sheet and we may be required to make other changes to the recording and classification of our lease related expenses. Though these changes will 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 the 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;
- · 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;
- · 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.

We are 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 financial services industry and the healthcare industry. 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

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, these 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 verifying the integrity of employees that work with our customers by conducting background checks. 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 product offerings and services do not infringe on the intellectual property rights of third parties, which 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 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 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 business, our revenue from customers outside of the United States may expand in the future as we expand our international presence. 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 anticorruption 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 marketing and sales budgets, which could decrease corporate 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 those obligations 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 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; and
- the length and timing of customers' approval processes.

We are highly dependent on advertising agencies as intermediaries and this may adversely affect our ability to attract and retain business.

There may be times when a large portion of our application transaction revenue comes from executing brand advertising campaigns for advertising agencies that purchase our solutions on behalf of their advertiser customers. Advertising agencies are instrumental in assisting brand owners to plan and purchase advertising and each advertising agency will allocate

advertising spend from brands across numerous channels. We do not have exclusive relationships with advertising agencies and we depend on agencies to work with us as they embark on marketing campaigns for brands. While in some cases we are invited by advertising agencies to present directly to their advertiser customers or otherwise have developed a relationship directly with an advertiser, we nevertheless depend on advertising agencies to present to their advertiser customers the merits of our application transaction advertising solutions. Inaccurate descriptions of our advertising solutions by advertising agencies, over which we have no control, negative recommendations to use our service offerings or failure to mention our solutions at all could hurt our business. In addition, if an advertising agency is dissatisfied with our solutions on a marketing campaign or in general, we risk losing the business of the advertiser for whom the campaign was run and of other advertisers represented by that agency. With advertising agencies acting as intermediaries for multiple brands, our customer base is more concentrated than might be reflected by the number of brand advertisers for which we conduct marketing campaigns. Since many advertising agencies are affiliated with other agencies in a larger corporate structure, if we fail to maintain good relations with one agency in such an organization, we may lose business from the affiliated agencies as well.

Our sales could be adversely impacted by industry changes relating to the use of advertising agencies. For example, if advertisers seek to bring their marketing campaigns in-house rather than using an advertising agency, we would need to develop direct relationships with the advertisers, which we might not be able to do and which could increase our sales and marketing expense. Moreover, because of dealing primarily with advertising agencies, we have a less direct relationship with advertisers than would be the case if advertisers dealt with us directly. This may drive advertisers to attribute the value we provide to the advertising agency rather than to us, further limiting our ability to develop long-term relationships directly with advertisers. Advertisers may move from one advertising agency to another, and, accordingly, even if we have a positive relationship with an advertising agency, we may lose the underlying business when an advertiser switches to a new agency. The presence of advertising agencies as intermediaries between us and the advertisers thus creates a challenge to building our own brand awareness and affinity with the advertisers that are the ultimate source of our revenue.

In addition, our advertising agency customers may offer components of our solutions, including selling advertising inventory through their own sources. As a result, these advertising agencies are, or may become, our competitors. If they further develop their capabilities they may be more likely to offer their own solutions to advertisers, which could compromise our ability to compete effectively and adversely affect our business, financial condition and operating results.

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. Industry self-regulatory bodies, the FTC and certain influential members of Congress 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, 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

The mobile advertising market may develop more slowly than expected, which could harm our business.

If the market for mobile marketing and advertising develops more slowly than we expect, our business could suffer. Our future success is highly dependent on the commitment of advertisers and marketers to mobile communications as an advertising and marketing medium, the willingness of our potential advertisers to outsource their mobile advertising and marketing needs and our ability to sell our mobile advertising services to reseller partners and agencies. The mobile advertising

and marketing market is rapidly evolving. Businesses, including current and potential advertisers, may find mobile advertising or marketing to be less effective than traditional advertising media or marketing methods or other technologies for promoting their products and services. As a result, the future demand and market acceptance for mobile marketing and advertising is uncertain. Many of our current or potential advertisers may have little or no experience using mobile communications for advertising or marketing purposes and have allocated only a limited portion of their advertising or marketing budgets to mobile communications advertising and there is no certainty that they will allocate more funds in the future, if any. Funds to these types of campaigns may fluctuate greatly as different agencies and advertisers test and refine their overall marketing strategies to include mobile advertising and analytics tools. The adoption rate and budget commitments may vary from period to period as agencies and advertisers determine the appropriate mix of media and lead sources in short term and longer-term campaigns.

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 these 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 digital video 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.

Privacy concerns and consumers' acceptance of Internet behavior tracking may limit the applicability, use and adoption of our platform software and application transaction solutions.

Privacy concerns may cause consumers to resist providing the personal data necessary to allow our customers to use our service effectively. We have implemented various features intended to enable our customers to better protect consumer privacy, but these measures may not alleviate all potential privacy concerns and threats. For example, a Court of Justice of the European Union ruling had the effect of invalidating the Safe Harbor framework. As a result, the framework no longer provides a valid legal basis for companies to transfer personal data from the European Union to the United States. Companies, including our customers, must comply with relevant aspects of European Union data protection laws using alternate mechanisms and our customers may not implement the alternate mechanisms that we offer. Additionally, our alternative measures may be challenged or deemed insufficient. Even the perception of privacy concerns, whether or not valid, may inhibit market adoption of our product and service offerings in certain industries. In addition to government activity privacy advocacy groups and the marketing and other industries are considering various new, additional or different self-regulatory standards that may place additional burdens on us. The costs of compliance with and other burdens imposed by, the foregoing laws, regulations, policies and actions may limit the use and adoption of our software solutions and reduce overall demand for it, or lead to significant fines, penalties or liabilities for any noncompliance or loss of any such action.

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 customer

The regulatory framework for privacy issues is evolving worldwide and various government and consumer agencies and public advocacy groups have called for new regulation and changes in industry practices, including some directed at the digital advertising industry in particular. 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. The U.S. government, including the FTC and the Department of Commerce, has announced that it is reviewing the need for greater regulation of the collection of consumer information, including regulation animed at restricting some targeted advertising practices. As stated previously, the Court of Justice of the European Union invalidated the "U.S.-EU Safe Harbor framework," which created a safe harbor under the European Data Protection Directive for certain European data transfers to the U.S. We had not self-certified under this regime and therefore were not directly affected by this decision. In July 2016, the European Commission approved the Privacy Shield, which is a set of principles and related rules that are intended to replace the U.S.-EU Safe harbor framework. Stricter regulation of European data transfers to U.S. in future may impact our ability to serve European customers effectively, or require us to open and operate data centers in the European Union which could result in a higher cost of doing business in these jurisdictions.

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 noncompliance with the GDPR include administrative fines of up to 4% of annual worldwide revenue. 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.

The FTC has also adopted revisions to the COPPA that expand liability for the collection of information by operators of websites and other electronic solutions that are directed to children. The FTC continues to provide guidance and clarification as to its 2013 revisions of COPPA, and until December 2019 the FTC was soliciting public comments related to COPPA. FTC guidance or enforcement precedent may make it difficult or impractical for us to provide advertising on certain websites, services or applications. In addition, the FTC recently fined an ad network for certain methods of collecting and using data from mobile applications, including certain applications directed at children and failing to disclose the data collection to mobile application developers in their network.

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, geo-location 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, such as the California Attorney General's Office, have advocated for including IP addresses, GPS-level geolocation data and unique device identifiers as personal data under California law. 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 European Union, the United States and elsewhere, especially relating to the classification of IP addresses, machine or device identifiers, geo-location 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 into the European Union or other jurisdictions outside of the United States. 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 may experience foreign currency gains and losses and expect to continue to experience those gains and losses; fluctuations in currency exchange rates can adversely affect our profitability.

We may incur foreign currency transaction gains and losses, primarily related to foreign currency exposures that arise from British Pound Sterling and Euro denominated transactions that we expect to cash settle in the near term, which are charged against earnings in the period incurred. We have a program which utilizes foreign currency forward contracts designed to offset the risks associated with certain foreign currency transaction exposures. We may suspend the program from time to time. As a part of this program, we enter into foreign currency forward contracts so that increases or decreases in our foreign currency exposures are offset at least in part by gains or losses on the foreign currency forward contracts in an effort to mitigate the risks and volatility associated with our foreign currency transaction gains or losses. We expect that we will continue to realize gains or losses with respect to our foreign currency exposures, net of gains or losses from our foreign currency forward contracts. For example, we will experience foreign currency gains and losses in certain instances if it is not possible or cost effective to mitigate our foreign currency exposures, if our mitigation efforts are ineffective, or if we suspend our foreign currency forward contract program. Our ultimate realized loss or gain with respect to currency fluctuations will generally depend on the size and type of cross-currency exposures that we enter into, the currency exchange rates associated with these exposures and changes in those rates, whether we have entered into foreign currency forward contracts to offset these exposures and other factors. All of these factors could materially impact our results of operations, financial position and cash flows.

We could be subject to additional income tax liabilities.

We are subject to income taxes in the United States and certain foreign jurisdictions. 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 earnings being lower than anticipated in countries where we have lower statutory rates and higher than anticipated in countries where we have higher statutory rates, by changes in currency exchange rates, 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.

Our international operations subject us to potential adverse tax consequences.

We generally conduct our international operations through wholly owned subsidiaries and report our taxable income in various jurisdictions worldwide based upon our business operations in those jurisdictions. Our intercompany relationships could subject us to complex transfer pricing regulations administered by taxing authorities in various jurisdictions. The relevant taxing authorities may disagree with our determinations as to the income and expenses attributable to specific jurisdictions. If such a disagreement were to occur, and our position was not sustained, we could be required to pay additional taxes, interest and penalties, which could result in one-time tax charges, higher effective tax rates, reduced cash flows and lower overall profitability of our operations.

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 the Business Combination. At December 31, 2019, we had federal net operating loss carryforwards of approximately \$106.6 million, of which \$21.0 million will never expire and \$85.7 million will expire at various dates beginning in 2030. At December 31, 2019, we had state and local net operating loss carryforwards of approximately \$53.2 million, which will begin to expire in 2030.

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, 2019. 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 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.

If we lose any of our key personnel, or are unable to attract and retain the talent required for our business, our business could be disrupted and our financial performance could suffer.

Our success is heavily dependent upon our ability to attract, develop, engage and retain key personnel to manage and grow our business, including our key executive, management, sales, services and technical personnel.

Our future success will depend to a significant extent on the efforts of our executive officers, as well as the continued service and support of other key employees. Our future success also will depend on our ability to attract and retain highly skilled technology specialists, engineers and consultants, for whom the market is extremely competitive.

Our inability to attract, develop and retain key personnel could have an adverse effect on our relationships with our technology partners and customers and adversely affect our ability to expand our technology offerings and services. Moreover, our inability to train our sales, services and technical personnel effectively to meet the rapidly changing technology needs of our customers could cause a decrease in the overall quality and efficiency of such personnel. Such consequences could adversely affect our business, results of operations, or financial condition.

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 Nasdaq.

We may be unable to attract and retain qualified officers, directors and members of 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. The perceived increased personal risk may deter qualified individuals from accepting these roles. Further, applicable rules and regulations of the SEC and Nasdaq 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. 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 could be adversely affected.

Our ability to attract and retain business and personnel may depend on our reputation in the marketplace.

We believe our brand name and our reputation in the marketplace are important corporate assets that help distinguish our technology offerings and services from those of competitors and contribute to our ability to recruit and retain talented personnel, in particular our engineers and consulting professionals. However, our corporate reputation is potentially susceptible to material damage by events such as disputes with customers, cybersecurity breaches, service outages, internal control deficiencies, delivery failures, or compliance violations. Similarly, our reputation could be damaged by actions or statements of current or former customers, directors, employees, competitors, vendors, partners, joint ventures or joint venture partners, adversaries in legal proceedings, legislators, or government regulators, as well as members of the investment community or the media. There is a risk that negative information about us, even if based on rumor or misunderstanding, could adversely affect our business. Damage to our reputation could be difficult, expensive and time-consuming to repair, could make potential or existing customers reluctant to select us for new engagements, resulting in a loss of business and could adversely affect our recruitment and retention efforts. Damage to our reputation could also reduce the value and effectiveness of our brand name and could reduce investor confidence in us, adversely affecting our share price.

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 Securities Exchange Act of 1934, as amended (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. 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 continuing the costly process of implementing and testing our systems to report our results as a public company, to continue to manage our growth and to implement internal controls. We will be required to implement and 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 this implementation and maintenance, 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 these third parties, 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, we expect these laws, rules and regulations to 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 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 an "emerging growth company," and the reduced reporting requirements applicable to emerging growth companies may make our common stock less attractive to investor

We are an "emerging growth company," as defined in the Jumpstart Our Business Startups Act, or the JOBS Act. For as long as we continue to be an emerging growth company, we may take advantage of exemptions from various reporting requirements that are applicable to other public companies that are not emerging growth companies, including not being required to comply with the 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 could be an emerging growth company for up to five years after our Initial Public Offering in 2016, although circumstances could cause us to lose that status earlier, including if the market value of our common stock held by non-affiliates exceeds \$700 million as of any June 30 before that time, in which case we would no longer be an emerging growth company as of the following December 31. 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.

Under the JOBS Act, emerging growth companies can also delay adopting new or revised accounting standards until such time as those standards apply to private companies. As permitted under the JOBS Act, we have irrevocably elected to delay adopting new or revised accounting standards until such time as those standards apply to private companies, unless an early adoption provision is available to private companies.

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, mudslides, fire or flood, 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 and hurricanes. 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 Wuhan coronavirus was reported to have surfaced in China and subsequently spread to the United States. At this point, the extent to which COVID-19 may impact 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 our Token Offerings and Digital Currencies

We have raised capital to fund a Token Generation Event, pursuant to a Rule 506(c) of Regulation D offering by our wholly-owned subsidiary, PhunCoin, Inc., of rights to receive future PhunCoin. Through our wholly-owned subsidiary, Phun Token International, we may sell Phun. There can be no assurance that PhunCoin or Phun will ever be issued and, any significant difficulties we, PhunCoin, Inc., or Phun Token International may experience with the offerings of PhunCoin or Phun could result in claims against us. Additionally, the Token Generation Event and the offerings of PhunCoin and Phun could subject us to various other business and regulatory uncertainties.

In June 2018, PhunCoin, Inc. launched an offering to raise 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, 2019, 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, Phun, by its wholly owned subsidiary, Phun Token International, which enables consumers to participate in our blockchain-enabled data exchange and mobile loyalty ecosystem. As of December 31, 2019, no Phun has been sold.

We will use our commercially reasonable efforts to cause PhunCoin, Inc. and Phun Token International to develop and issue PhunCoin and Phun, respectively, but there is no assurance that such efforts will be successful. The Token Generation Event, defined as the launch of the Token Ecosystem, may not be consummated or the sales of Phun may not result in substantial proceeds. If the Token Generation Event is not consummated or Phun is not adopted commercially, we may have to reduce our planned expenditures. Also, any significant difficulties we may experience with the Token Generation Event or the development of PhunCoin or Phun could result in claims against us which could have a material adverse effect on the Company and its stockholders.

There has been limited precedence set for financial accounting of digital assets, it is unclear how the Company will be required to account for digital assets transactions in the future.

There has been limited precedent set for the financial accounting of digital assets, including accounting for the issuance of our digital assets. PhunCoin and Phun. It is unclear how the Company will be required to account for issuances of its own digital assets and the digital assets it holds on its balance sheet. Furthermore, a change in regulatory or financial accounting standards could result in the necessity to restate the Company's financial statements. Such a restatement could negatively impact the Company's business, prospects, financial condition and results of operations. Such circumstances could have a material adverse effect on the ability of the Company to continue as a going concern or to pursue this segment at all, which could have a material adverse effect on the business, prospects or operations of the Company and potentially the value of any cryptocurrencies the Company holds or expects to acquire for its own account, including PhunCoin and Phun, to the detriment of the Company's investors.

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 PhunCoin, Inc.'s and Phun Token International's business plans, which may have a material adverse effect on the Company and its stockholders.

The growth of the blockchain industry in general, as well as the networks on which PhunCoin 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 Phun. 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, Phun and the Token Ecosystem. In addition, the tax and accounting consequences to us of the Token

Generation Event, PhunCoin and Phun are uncertain, which could lead to incorrect reporting, classification or liabilities. If the Token Generation Event occurs and PhunCoin and Phun are developed, the structural foundation of PhunCoin and Phun, and the software applications and other interfaces or applications upon which PhunCoin, Phun and the Token Ecosystem rely or on which PhunCoin, Phun and the Token Ecosystem may rely in the future, are and will be unproven. There can be no assurances that PhunCoin or Phun will be fully secure, which may result in impermissible transfers, a complete loss of users' PhunCoin or Phun on the Token Ecosystem, or an unwillingness of users to access, adopt and utilize PhunCoin or Phun, whether through system faults or malicious attacks. Any such faults or attacks on PhunCoin or Phun may materially and adversely affect our business.

Because PhunCoin 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 Phun to malfunction or function in an unexpected manner, including, but not limited to, slowdown or complete cessation in functionality of the network.

The PhunCoin Ecosystem is designed to distribute PhunCoin or Phun to consumers in exchange for their agreement to 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, Phun or a user's data will be fully secure, which may result in impermissible transfer, a complete loss of users' PhunCoin, Phun or data on the Token Ecosystem or an unwillingness of users to access, adopt and utilize PhunCoin and Phun, whether through system faults or malicious attacks. Any such faults or attacks on PhunCoin, Phun or users' data may materially and adversely affect PhunCoin, Phun 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 Phun. 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 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 PhunCoin and Phun.

Regulation of digital assets, like PhunCoin and Phun, 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 Phun 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 Phunware to maintain PhunCoin and Phun, 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.

Risks Related to Capitalization Matters and Corporate Governance

We require significant additional capital funding and such capital may not be available to us.

Our operating expenses may be higher than our net revenue for the foreseeable future, we currently lack sufficient working capital, and we do not currently have financing available to pay all liabilities as they are scheduled to come due in the next twelve months. We are working on several contingency plans within our control to conserve existing liquidity through the reduction of discretionary expenses. We are also exploring various alternatives including debt and equity financing vehicles, alternative offerings (including our token offerings) and strategic partnerships.

Our cash requirements relate primarily to our current negative working capital balance plus working capital needed to operate and grow our business, including funding operating expenses and continued development and expansion of our services. We are currently unable to fund our operations without additional external financing and therefore cannot sustain future operations, we may be required to delay, reduce and/or cease our operations and/or seek bankruptcy protection. Although we have successfully raised funds from investors in the past, no assurances can be made that we will be able to obtain sufficient additional capital to satisfy the current negative working capital balances and future operations. Furthermore, if adequate additional funds are not available, we will be required to delay, reduce the scope of, or eliminate material parts of the implementation of our business strategy, including potential additional acquisitions or internally-developed businesses, which could seriously harm our business and operating results.

Additionally, even if we raise sufficient capital through additional equity or debt financings, strategic alternatives or otherwise, there can be no assurance that the revenue or capital infusion will be sufficient to enable us to develop our business to a level where it will be profitable or generate positive cash flow. If we raise additional funds through the issuance of equity or convertible debt securities, the percentage ownership of our stockholders could be significantly diluted and these newly issued securities may have rights, preferences or privileges senior to those of existing stockholders. Equity or debt financings may include additional instruments, such as warrants, to be issued in conjunction with that financing, which could further dilute existing stockholders. If we incur additional debt, a substantial portion of our operating cash flow may be dedicated to the payment of principal and interest on such indebtedness, thus limiting funds available for our business activities. The debt holders would have rights senior to common stockholders to make claims on our assets and the terms of any debt securities issued could also impose significant restrictions on our operations. Because our decision to issue securities in any future offering will depend on market conditions and other factors beyond our control, we cannot predict or estimate the amount, timing or nature of our future offerings.

Our warrants currently outstanding may and could be exercised on a cashless basis. As a result, our stockholders bear the risk of our future securities offerings reducing the market price of our common stock and diluting their interest. Broad market and industry factors may seriously harm the market price of our common stock, regardless of our operating performance and may adversely impact our ability to raise additional funds. If we raise additional funds through collaborations and/or licensing arrangements, we might be required to relinquish significant rights to our technologies, or grant licenses on terms that are not favorable to us.

Our subsidiary, PhunCoin, Inc., launched an offering to raise capital in 2018 by offering investors Rights to acquire PhunCoin. During the second quarter of 2019, we announced the launch of a separate token, Phun. During the second quarter of 2019, Phunware's board of directors authorized the issuance of \$20 million of convertible promissory notes, and in October 2019, our board of directors authorized the issuance of \$20 million of promissory notes (collectively, the "Debt Offerings"). As of December 31, 2019, \$1.1 million had been raised in the Debt Offerings, \$1.2 million had been raised in PhunCoin Rights, and the Company had not sold any Phun. The Company currently does not anticipate additional capital raise from PhunCoin Rights. There can be no assurance that the Company will be able to obtain additional funding via these capital raises or at all, and there can be no assurances that the Company will be able to obtain additional funding on satisfactory terms.

A substantial number of shares of our common stock may be issued pursuant to the terms of an outstanding Senior Convertible Note, which could cause the price of our common stock to decline.

On March 20, 2020 we issued a Senior Convertible Note in the principal amount of \$3,000,000 (the "Convertible Note") to an institutional investor. The Convertible Note is convertible into shares of our common stock immediately after issuance at an initial conversion price of \$3.00 per share.

Furthermore, the number of shares of common stock to be issued may be substantially greater, if the interest on the Convertible Note is paid in shares of our common stock or the Convertible Note is converted into shares of common stock in accordance with the installment conversion process. In such cases the number of shares issued will be determined based on the then current market price. We cannot predict the market price of our common stock at any future date, and therefore, we are unable to accurately forecast or predict the total amount of shares that ultimately may be issued under the Convertible Note.

The Convertible Note likely will be converted only at times when it is economically beneficially for the holder to do so, and we are entitled to pay interest in shares and make installment conversions only at a price per share that is at a discount to the then current market price. The issuance of these shares will dilute our other equity holders, which could cause the price of our common stock to decline.

The requirement that we repay the Convertible Note and interest thereon in cash under certain circumstances, and the restrictive covenants contained in the Convertible Note, could adversely affect our business plan, liquidity, financial condition, and results of operations.

We may be required to repay the Convertible Note and interest thereon in cash, if we do not meet certain customary equity conditions (including minimum price and volume thresholds) or in certain other circumstances. For example, we will be required to repay the outstanding principal balance and accrued but unpaid interest, along with a premium, upon the occurrence of a Change of Control (as defined in the Convertible Note). In addition, the Convertible Note contains restrictive covenants, including financial covenants. These obligations and covenants could have important consequences on our business. In particular, they could:

- require us to dedicate a substantial portion of our cash flow from operations to make payments on the Convertible Note;
- limit, among other things, our ability to borrow additional funds and otherwise raise additional capital, and our ability to conduct acquisitions, joint, ventures or similar arrangements, as a result of our obligations to make such payments and comply with the restrictive covenants in the Convertible Note;
- · limit our flexibility in planning for, or reacting to, changes in our businesses and the industries in which we operate;
- increase our vulnerability to general adverse economic and industry conditions; and
- place us at a competitive disadvantage compared to our competitors that have lower fixed costs.

In the event we are required to repay the Convertible Note in cash, we may seek to refinance the remaining balance, by either refinancing with the holder of the Convertible Note, by raising sufficient funds through a sale of equity or debt securities or by obtaining a credit facility. No assurances can be given that we will be successful in making the required payments under the Convertible Note, or in refinancing our obligations on favorable terms, or at all. Should we determine to refinance, it could be dilutive to shareholders.

If we are unable to make the required cash payments, there could be a default under the Convertible Note. In such event, or if a default otherwise occurs under the Convertible Note, including as a result of our failure to comply with the financial or other covenants contained therein, the holder of the Convertible Note could require us to immediately repay 115% of the outstanding principal and interest on the Convertible Note in cash.

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 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;
- fluctuations in the trading volume of our shares or the size of our public float, especially considering that we became a publicly-listed company through the Business
 Combination with a special purpose acquisition company, and that the trading price of our common stock since the consummation of the Business Combination has been
 very volatile on a relatively low public float for our trading volume;
- · 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. □

As a result of the offering covered by the Registration Statement on Form S-1 (as amended), which was declared effective on May 14, 2019, the number of shares of our common stock that are in the public float increased due to shares issued upon the exercise of outstanding warrants. Such shares, which are now registered are in the hands of stockholders who are not

subject to lock-ups. This resulted in a larger public market for our shares, and may or may not normalize the trading price and reduce volatility in the stock price.

Our executive officers, directors and holders of 5% or more of our common stock collectively beneficially own approximately 20% of the outstanding shares of our common stock and continue to have substantial control over us, which will limit your ability to influence the outcome of important transactions, including a change in control.

As of December 31, 2019, our executive officers, directors and each of our stockholders who own 5% or more of our outstanding common stock and their affiliates, in the aggregate, beneficially own approximately 20% of the outstanding shares of our common stock. As a result, these stockholders, if acting together, will be able to influence or control matters requiring approval by our stockholders, including the election of directors and the approval of mergers, acquisitions or other extraordinary transactions. They may also have interests that differ from yours and may vote in a way with which you disagree and which may be adverse to your interests. This concentration of ownership may have the effect of delaying, preventing or deterring a change in control of our company, could deprive our stockholders of an opportunity to receive a premium for their common stock as part of a sale of our company and might ultimately affect the market price of our common stock.

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 will be influenced by the research and reports that industry or securities analysts may publish about us, our business, our market or our competitors. Securities and industry analysts do not currently, and may never, publish research on us. If no securities or industry analysts commence coverage of us, our stock price and trading volume could be negatively impacted. If any of the analysts who may 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 on it, we could lose visibility in the financial markets, which could cause our stock price or trading volume to decline.

Sales of substantial amounts of our common stock in the public markets, or the perception that such sales could occur, could reduce the price that our common stock might otherwise attain.

Sales of a substantial number of shares of our common stock and warrants in the public market, or the perception that such sales could occur, could adversely affect the market price of our common stock and warrants and may make it more difficult for you to sell your common stock or warrants at a time and price that you deem appropriate.

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 currently intend to retain any future earnings to finance the operation and expansion of our business, and 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 and 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 662/3% 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 Phunware.

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 will designate 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.

Our certificate of incorporation provides that, unless we consent in writing to the selection of an alternative forum, the sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of Phunware, (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.

Our certificate of incorporation will also provide that the federal district courts of the United States of America will be the exclusive forum for resolving 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 bylaws 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.

Item 1B. Unresolved Staff Comments.

None

Item 2. Properties.

Our corporate headquarters is located in Austin, Texas, where we currently lease approximately 10,600 square feet under the lease agreement set to expire in 2022. We also lease facilities in Irvine, California; San Diego, California; and Miami, Florida. We believe our current facilities are adequate to meet our ongoing needs and that, to accommodate growth, we will seek additional facilities as needed to satisfy our growth.

Item 3. Legal Proceedings.

On September 26, 2017, the Company filed a breach of contract complaint against Uber Technologies, Inc. ("Uber") 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. On November 13, 2017, Uber generally denied the allegations in the Company's complaint and also filed a cross-complaint against Phunware and Fetch Media, Ltd. ("Fetch") - the advertising agency Uber retained to run its mobile advertising campaign for the period 2014 through the first quarter of 2017 (the "Fetch Campaign"), asserting numerous fraud and contract-based claims. All the claims stem from Uber's allegation that Fetch and/or the Company (and/or other-as-yet-unidentified ad networks and publishers) are liable for the Fetch Campaign, under which Uber allegedly overpaid Fetch and mobile advertising providers due to allegedly fraudulent attribution for installments of the Uber application. Uber did not allege any specific dollar amount that it is seeking in damages against either of the named cross-defendants (Fetch and Phunware). Phunware filed a motion to dismiss the cross-complaint, which was heard on February 7, 2018. The motion was granted in part and denied in part by the Court. On April 16, 2018, the action was designated complex, and the matter was assigned for all purposes to Judge Wiss of the Superior Court of California, San Francisco County (Department 305). In March 2019, Uber and Fetch settled Uber's claims against Fetch on terms that have not been disclosed to Phunware at this time. On May 7, 2019, the Company retained new counsel. In June 2019, the Court set a new trial date of April 20, 2020. On June 26, 2019, the case was reassigned for all purposes to Judge Jackson of the Superior Court of California, San Francisco County (Department 613). On July 12, 2019, Uber filed its First Amended Cross-Complaint, naming new individual cross-defendants (Phunware Chief Executive Officer Alan S. Knitowski, and former Phunware employees D. Stasiuk, M. Borotsik, and A. Cook) accused of 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 million from Uber, and claims treble damages, general and punitive damages, and attorneys' fees and costs. On October 1, 2019, Alan S. Knitowski

("Knitowski") filed his Motion to Quash Service of Summons, which was denied on October 29, 2019. On October 7, 2019, D. Stasiuk, M. Borotsik, and A. Cook filed their Motion to Quash Service of Summons, which was denied on December 17, 2019. On December 2, 2019, the case was reassigned for all purposes to Judge Cheng of the Superior Court of California, San Francisco County (Department 613). On January 22, 2020, the Court assigned the case to Judge Wiss of the Superior Court of California, San Francisco County (Department 305) for purposes of trial. On March 13, 2020, the Court ordered Phunware to pay \$78 thousand in monetary sanctions based on a discovery motion brought by Uber. Discovery is continuing. On March 13, 2020, the Court announced that jury trials will be continued for 90 days from the date they have been scheduled in response to the COVID-19 pandemic. The Company maintains that its claims against Uber are meritorious and that Uber's claims against the Company are not. However, Phunware makes no predictions on the likelihood of success of prevailing on its contract action against Uber or on the likelihood of defeating Uber's claims against the Company.

On December 17, 2019, certain stockholders (the "Plaintiffs") 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 "Lawsuit"). 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. According to the Plaintiffs, the price of Phunware stock dropped significantly during the lock up period. The Plaintiffs seek unspecified damages in excess of one million dollars. The Company maintains the Plaintiffs' claims are without merit and intends to contest vigorously the claims asserted in the Lawsuit. All defendants have answered. No discovery has been issued, and no trial setting or scheduling order is in place.

On March 9, 2020, Ellenoff Grossman & Schole LLP (the "Plaintiffs" or "EGS") filed a complaint against the Company. The complaint, captioned Ellenoff Grossman & Schole LLP versus Stellar Acquisition III, Corp a/k/a Stellar Acquisition III, Inc. n/k/a Phunware, Inc., was filed in the Supreme Court of the State of New York, New York County (Case No. 152585/2020). The Plaintiffs are seeking monetary damages in the amount of \$690 thousand for alleged unpaid invoices related to legal services rendered in conjunction with the Reverse Merger and Recapitalization for Stellar, plus legal and court costs. The Company has 30 days to respond to the complaint. The Company has \$690 thousand in accounts payable and accrued expenses in the consolidated balance sheet as of December 31, 2019 and 2018 related to the alleged unpaid invoices.

From time to time, the Company is 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.

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

Following the Business Combination, common stock, \$0.0001 par value, and warrants began trading on the Nasdaq Capital Market on December 28, 2018 under the symbols "PHUN" and "PHUNW", respectively. Prior to the Business Combination, our common stock and warrants traded on the Nasdaq Capital Market under the symbols "STLR" and "STLRW", respectively. Our common stock and warrants commenced public trading under these symbols on October 10, 2016.

Holders

On March 23, 2020, there were approximately 149 holders of record of our common stock and 90 holders of record of our warrants. We believe the number of beneficial owners of our common stock and warrants are substantially greater than the number of record holders because a large portion of our outstanding common stock and warrants are held of record in broker "street names" 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 will be within the discretion of our board of directors. It is presently expected that we will retain all earnings for use in our business operations and, accordingly, it is not expected that our board of directors will declare any dividends in the foreseeable future.

Securities Authorized for Issuance Under Equity Compensation Plans.

2018 Equity Incentive Plan

In connection with the consummation of the Business Combination, 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 to the Successor or any parent or subsidiary, 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.

Authorized Shares. As of December 31, 2019, a total of 2,436,968 equity awards were outstanding under the 2018 Plan, and 205,206 shares are reserved for future issuance pursuant to the 2018 Plan. 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 Business Combination, are assumed in connection with the Business Combination, 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, on or after the Business Combination, are forfeited to or repurchased by us. As of December 31, 2019, the maximum number of shares of common stock that may be added to the 2018 Plan pursuant to the foregoing equal to 1,471,669.

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 beginning in fiscal 2019, equal to the least of:

- 10% of the post-closing outstanding shares of common stock;
- 5% of the outstanding shares of common stock on the last day of the immediately preceding fiscal year; or
- such other amount as our board of directors may determine.

If an award expires or becomes unexercisable without having been exercised in full, is surrendered pursuant to an exchange program, or, with respect to restricted stock, restricted stock units, performance units or performance shares, is forfeited to, or repurchased by, the Successor due to failure to vest, then the unpurchased shares (or for awards other than stock options or stock appreciation rights, the forfeited or repurchased shares) will become available for future grant or sale under the 2018 Plan (unless the 2018 Plan has terminated). With respect to stock appreciation rights, the net shares issued will cease to be available under the 2018 Plan and all remaining shares will remain available for future grant or sale under the 2018 Plan. Shares used to pay the exercise price of an award or to satisfy the tax withholding obligations related to an award will become

available for future grant or sale under the 2018 Plan. To the extent an award is paid out in cash rather than shares, such cash payment will not result in a reduction in the number of shares available for issuance under the 2018 Plan.

Adjustments to Shares Subject to the 2018 Plan. In the event of any dividend or other distribution (whether in the form of cash, shares, other securities, or other property), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase, or exchange of shares or other securities of the Successor, or other change in the corporate structure affecting the common stock occurs, the administrator (as defined below), in order to prevent diminution or enlargement of the benefits or potential benefits intended to be made available under the 2018 Plan, will adjust the number and class of shares that may be delivered under the 2018 Plan, and/or the number, class and price of shares covered by outstanding awards, and the numerical share limitations in the 2018 Plan.

Administration. Our board of directors or one or more committees appointed by our board of directors administers the 2018 Plan (referred to as the administrator"). If the administrator determines it is desirable to qualify transactions under the 2018 Plan as exempt under Rule 16b-3 of the Exchange Act, such transactions will be structured to satisfy the requirements for exemption under Rule 16b-3. Subject to the provisions of the 2018 Plan, the administrator has the power to administer the 2018 Plan, including but not limited to, the power to interpret the terms of the 2018 Plan and awards granted under it, to prescribed, amend and rescind rules relating to the 2018 Plan, including creating sub-plans, and to determine the terms of the awards, including the exercise price, the number of shares of common stock subject to each such award, the exerciselitity of the awards and the form of consideration, if any, payable upon exercise. The administrator also has the authority to amend existing awards to reduce or increase their exercise prices, to allow participants the opportunity to transfer outstanding awards to a financial institution or other person or entity selected by the administrator and to institute an exchange program by which outstanding awards may be surrendered or cancelled in exchange for awards of the same type which may have a higher or lower exercise price or different type and/or cash.

Eligibility. Awards may be granted to employees, directors and consultants of the Company and employees and consultants of any parent or subsidiary corporation of the Company. Incentive stock options may be granted only to employees who, as of the time of grant, are employees of the Successor or any parent or subsidiary corporation of the Company.

Stock Options. Stock options in the form of non-statutory stock options or incentive stock options may be granted under the 2018 Plan. The administrator determines the number of shares subject to each option. The administrator determines the exercise price of options granted under the 2018 Plan, provided that the exercise price must at least be equal to the fair market value of the Successor's common stock on the date of grant. The term of an incentive stock option may not exceed ten years, except that with respect to any participant who owns more than 10% of the voting power of all classes of the outstanding stock, the term must not exceed five years and the exercise price must equal at least 110% of the fair market value on the grant date. The administrator will determine the methods of payment of the exercise price of an option, which may include cash, shares or other property acceptable to the administrator, as well as other types of consideration permitted by applicable law. After the termination of service of an employee, director or consultant, he or she may exercise his or her option for the period of time stated in his or her option agreement. Generally, if termination is due to death or disability, the option will remain exercisable for 12 months. In all other cases, the option generally will remain exercisable for three months following the termination of service. An option may not be exercised later than the expiration of its term. Subject to the provisions of the 2018 Plan, the administrator determines the other terms of options.

Stock Appreciation Rights. Stock appreciation rights may be granted under the 2018 Plan. Stock appreciation rights allow the recipient to receive the appreciation in the fair market value of common stock between the exercise date and the date of grant. Stock appreciation rights may not have a term exceeding ten years. After the termination of service of an employee, director or consultant, he or she may exercise his or her stock appreciation right for the period of time stated in his or her stock appreciation rights agreement. Generally, the terms and conditions relating to the period of post-termination exercise with respect to options described above also apply to stock appreciation rights, however, in no event may a stock appreciation right be exercised later than the expiration of its term. Subject to the provisions of the 2018 Plan, the administrator determines the other terms of stock appreciation rights, including when such rights become exercisable and whether to pay any increased appreciation in cash or with shares of common stock, or a combination thereof, except that the per share exercise price for the shares to be issued pursuant to the exercise of a stock appreciation right will be no less than 100% of the fair market value per share on the date of grant.

Restricted Stock Awards. Restricted stock may be granted under the 2018 Plan. Restricted stock awards are grants of shares of common stock that vest in accordance with terms and conditions established by the administrator. The administrator will determine the number of shares of restricted stock granted to any employee, director or consultant and, subject to the provisions of the 2018 Plan, will determine the terms and conditions of such awards. The administrator may impose whatever conditions to vesting it determines to be appropriate (for example, the administrator may set restrictions based on the achievement of specific performance goals or continued service to the Company); provided, however, that the administrator, in its sole discretion, may accelerate the time at which any restrictions will lapse or be removed. Recipients of restricted stock

awards generally will have voting and dividend rights with respect to such shares upon grant without regard to vesting, unless the administrator provides otherwise. Shares of restricted stock that do not vest are subject to our right of repurchase or forfeiture.

Restricted Stock Units. Restricted stock units may be granted under the 2018 Plan. Restricted stock units are bookkeeping entries representing an amount equal to the fair market value of one share of common stock. Subject to the provisions of the 2018 Plan, the administrator determines the terms and conditions of restricted stock units, including the vesting criteria (which may include accomplishing specified performance criteria or continued service to the Company) and the form and timing of payment. Notwithstanding the foregoing, the administrator, in its sole discretion, may reduce or waive any vesting criteria that must be met to receive a payout.

Performance Units and Performance Shares. Performance units and performance shares may be granted under the 2018 Plan. Performance units and performance shares are awards that will result in a payment to a participant only if performance goals established by the administrator are achieved or the awards otherwise vest. The administrator will establish organizational or individual performance goals or other vesting criteria in its discretion, which, depending on the extent to which they are met, will determine the number and/or the value of performance units and performance shares to be paid out to participants. After the grant of a performance unit or performance share, the administrator, in its sole discretion, may reduce or waive any performance criteria or other vesting provisions for such performance units or performance shares. Performance units shall have an initial dollar value established by the administrator on or prior to the grant date. Performance shares shall have an initial value equal to the fair market value of common stock on the grant date. The administrator, in its sole discretion, may pay earned performance units or performance shares in the form of cash, in shares of common stock or in some combination thereof.

Transferability of Awards. Unless the administrator provides otherwise, the 2018 Plan generally does not allow for the transfer of awards and only the recipient of an award may exercise an award during his or her lifetime.

Dissolution or Liquidation. In the event of a proposed liquidation or dissolution of the Company, the administrator will notify participants as soon as practicable prior to the effective date of such proposed transaction, and, to the extent not exercised, all awards will terminate immediately prior to the consummation of such proposed transaction.

Merger or Change in Control. The 2018 Plan provides that in the event of a merger or change in control, as defined under the 2018 Plan, each outstanding award will be treated as the administrator determines, except that if a successor corporation or its parent or subsidiary does not assume or substitute an equivalent award for any outstanding award, then such award will fully vest, all restrictions on such award will lapse, all performance goals or other vesting criteria applicable to such award will be deemed achieved at 100% of target levels. In addition, if an option or stock appreciation right is not assumed or substituted, the administrator will notify the participant in writing or electronically that the option or stock appreciation right will become fully exercisable, for a specified period prior to the transaction, and will then terminate upon the expiration of the specified period of time. Upon a change in control, awards granted to an outside director will vest fully and become immediately exercisable, all restrictions on his or her restricted stock and restricted stock units will lapse, and with respect to awards with performance-based vesting, all performance goals or other vesting criteria will be deemed achieved at 100% of target levels, and all other terms and conditions met.

Amendment; Termination. The administrator has the authority to amend, alter, suspend, or terminate the 2018 Plan provided such action does not impair the existing rights of any participant. The 2018 Plan automatically will terminate in 2028, unless it is terminated sooner.

2018 Employee Stock Purchase Plan

In connection with the consummation of the Business Combination, our board of directors adopted, and our stockholders approved, the 2018 Employee Stock Purchase Plan (the "2018 ESPP"). The purpose of the 2018 ESPP is to provide eligible employees with an opportunity to purchase shares of our common stock through accumulated contributions, which generally will be made through payroll deductions. The 2018 ESPP permits the administrator (as discussed below) to grant purchase rights that qualify for preferential tax treatment under Code Section 423. In addition, the 2018 ESPP authorizes the grant of purchase rights that do not qualify under Code Section 423 pursuant to rules, procedures or sub-plans adopted by the administrator that are designed to achieve desired tax or other objectives.

Authorized Shares. 272,942 shares of common stock are available for sale under the 2018 ESPP. 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 least of:

- 3% of the expected post-closing outstanding shares of common stock;
- 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.

2018 ESPP Administration. The 2018 ESPP will be administered by our board of directors or a committee appointed by the board (the "administrator"). The administrator has full and exclusive discretionary authority to construe, interpret, and apply the terms of the 2018 ESPP, to designate separate offerings under the 2018 ESPP, to adjudicate disputed claims under the 2018 ESPP, and to establish such procedures that it deems necessary for the administration of the 2018 ESPP. The administrator is specifically authorized to adopt rules and procedures regarding eligibility to participate, the definition of "compensation," handling of contributions, and making of contributions to the 2018 ESPP, among other responsibilities. Every finding, decision and determination made by the administrator will, to the full extent permitted by law, be final and binding upon all parties.

Eligibility. Any eligible employee on a given enrollment date will be eligible to participate in the 2018 ESPP. Generally, all of our employees will be eligible to participate if they are employed by the Company, or any participating subsidiary, for at least 20 hours per week and more than five months in any calendar year. However, an employee may not be granted rights to purchase shares of common stock under the 2018 ESPP if such employee:

- immediately after the grant would own capital stock and/or hold outstanding options to purchase 5% or more of the total combined voting power or value of all classes of capital stock; or
- hold rights to purchase shares of common stock under all of our employee stock purchase plans that accrue at a rate that exceeds \$25,000 worth of shares of common stock for each calendar year.

Offering Periods. The offering periods under the 2018 ESPP will begin on such date as determined by the administrator and expire on the earliest to occur of (a) the completion of the purchase of shares on the last exercise date occurring within 27 months of the applicable enrollment date of the offering period on which the purchase right was granted, or (b) a shorter period established by the administrator prior to an enrollment date for all options to be granted on such enrollment date.

An eligible employee may participate in the 2018 ESPP by timely submitting a properly completed subscription agreement or following an electronic or other enrollment procedure determined by the administrator. On the enrollment date of each offering period, each participant automatically is granted a right to purchase shares of common stock. This purchase right is exercised on each purchase date during an offering period to the extent of the contributions made during such offering period, unless the purchase right has expired (upon termination of a participant's employment) or the participant has withdrawn from the 2018 ESPP, as described in further detail below.

Once an employee becomes a participant in the 2018 ESPP, the employee automatically will participate in each successive offering period until the employee withdraws from the 2018 ESPP or the employee's employment with the Company or one of our designated subsidiaries terminates.

Contributions. The 2018 ESPP permits participants to purchase shares of common stock through contributions (generally in the form of payroll deductions) of up to an amount of their eligible compensation determined by the administrator. Eligible compensation includes a participant's base straight time gross earnings, but exclusive of payments for incentive compensation, bonuses, payments for overtime and shift premium, equity compensation income and other similar compensation. Unless otherwise determined by the administrator, a participant may purchase a maximum of 2,000 shares of common stock during a purchase period.

Exercise of Purchase Right. Amounts deducted and accumulated by the participant are used to purchase shares of common stock on each exercise date. The purchase price of the shares will be determined by the administrator but in no event will be less than 85% of the lower of the fair market value of common stock on the enrollment date or on the exercise date. Participants may end their participation at any time during an offering period and will be paid their accrued contributions that have not yet been used to purchase shares of common stock. Participation ends automatically upon termination of employment with the Company.

Non-Transferability. Neither contributions credited to a participant's account nor any rights with regard to the exercise of a purchase right or to receive shares under the 2018 ESPP may be assigned, transferred, pledged or otherwise disposed of in any way, other than by will, the laws of descent and distribution or as otherwise provided under the 2018 ESPP.

Changes in Capitalization. If there is any dividend or other distribution (whether in the form of cash, common stock, other securities, or other property), recapitalization, stock split, reverse stock split, reorganization, merger, consolidation, split-up, spin-off, combination, repurchase, or exchange of common stock or other securities of the Successor, or other change in the

corporate structure of the Company affecting common stock such that an adjustment is appropriate in order to prevent dilution or enlargement of the benefits or potential benefits intended to be made available under the 2018 ESPP, then the administrator will adjust the number and class of common stock that may be delivered under the 2018 ESPP, the purchase price per share, the number of shares of common stock covered by each right to purchase shares under the 2018 ESPP that has not yet been exercised, and the numerical limitations set forth in the 2018 ESPP.

Dissolution or Liquidation. In the event of the proposed dissolution or liquidation of the Company, any offering period then in progress will be shortened by setting a new purchase date and any offering periods will end on the new purchase date. The new purchase date will be prior to the proposed dissolution or liquidation. The administrator will notify each participant in writing or electronically prior to the new purchase date that the purchase date has been changed to the new purchase date and that the right to purchase shares under the 2018 ESPP will be exercised automatically on the new purchase date, unless the participant has already withdrawn from the offering period prior to such date.

Change in Control. If there is a merger or "change in control," as defined in the 2018 ESPP, each right to purchase shares under the 2018 ESPP will be assumed or an equivalent right to purchase shares will be substituted by the successor corporation or a parent or substituty of such successor corporation. If the successor corporation refuses to assume or substitute for the 2018 ESPP purchase rights, the offering period covered by such 2018 ESPP purchase right by setting a new purchase date on which such offering period will end. The new purchase date will be before the proposed merger or change in control. The administrator will notify each participant in writing or electronically prior to the new purchase date that the purchase date has been changed to the new purchase date and that the right to purchase shares under the 2018 ESPP will be exercised automatically on the new purchase date, unless the participant has already withdrawn from the offering period prior to such date.

Amendment; Termination. The administrator, in its sole discretion, may amend, suspend or terminate the 2018 ESPP, subject to its terms. The 2018 ESPP automatically will terminate in 2038, unless we terminate it sooner.

2009 Equity Incentive Plan

In February 2009, the Phunware board of directors adopted, and the Phunware stockholders approved, the 2009 Plan. The 2009 Plan was most recently amended in December 2017. The 2009 Plan permits the grant of incentive stock options, within the meaning of Section 422 of the Code, to Phunware employees and any parent and subsidiary corporations' employees, and for the grant of nonstatutory stock options, stock appreciation rights, restricted stock, and restricted stock units to Phunware employees, directors and consultants and Phunware's parent and subsidiary corporations' employees and consultants. In addition, the 2009 Plan permits the grant of EMI stock options, which are options granted under the 2009 Plan to an eligible employee which is a qualifying option as defined in paragraph 1(2) of Schedule 5 ("Schedule 5"), to the United Kingdom Income Tax (Earnings and Pensions) Act 2003 ("ITEPA 2003"). EMI stock options ("EMI Options"), may only be granted to Phunware employees and any parent and subsidiary corporations' employees whose time the employee is required to spend on Phunware business or that of any subsidiary (including any time which the employee would have been so required to spend but for permitted absence (as such term is defined in the 2009 Plan)) is not less than twenty-five (25) hours per week, or, if less, 75% of this working time and who does not have a material interest (as such term is defined in the 2009 Plan) in Phunware or any subsidiary corporation.

Authorized Shares. The 2009 Plan terminated in connection with the consummation of the Business Combination, and accordingly, no shares will be available for issuance under the 2009 Plan following the consummation of the Business Combination. The 2009 Plan will continue to govern outstanding awards granted thereunder. As of December 31, 2019, options to purchase 1,465,450 shares of our common stock remained outstanding under the 2009 Plan.

Plan Administration. Phunware's board of directors or one or more committees appointed by the Phunware board of directors administers the 2009 Plan (the "administrator"). Subject to the provisions of the 2009 Plan, the administrator has the power to administer the 2009 Plan, including but not limited to, the power to interpret the terms of the 2009 Plan and awards granted under it, to prescribe, amend and rescind rules relating to the 2009 Plan, including creating sub-plans, and to determine the terms of the awards, including the exercise price, the number of shares of Phunware's common stock subject to each such award, the exercisability of the awards, any conditions attaching to the shares under an award which makes the shares "restricted securities" or "restricted interest in securities" within the meaning of ITEPA 2003 (if applicable), and the form of consideration, if any, payable upon exercise. The administrator also has the authority to amend existing awards, including the power to extend the post-termination exercisability period of awards and to extend the maximum term of an option and to allow participants to defer the receipt of the payment of cash or the delivery of shares that otherwise would be due to such participant under an award. The administrator also has the authority to amend existing awards to reduce or increase their exercise prices, to allow participants the opportunity to transfer outstanding awards to a financial institution or other person or entity selected by the administrator and to institute an exchange program by which outstanding awards may be surrendered or cancelled in exchange for awards of the same type which may have a higher or lower exercise price or different terms, awards of a different

type and/or cash and to make all other determinations the administrator deems necessary or advisable for administering the 2009 Plan.

Options (other than EMI Options). Stock options may be granted under the 2009 Plan. The exercise price of options granted under the 2009 Plan must at least be equal to the fair market value of Phunware's common stock on the date of grant. The term of an option may not exceed ten years, except that with respect to incentive stock options, any participant who owns more than 10% of the voting power of all classes of Phunware's outstanding stock, the term must not exceed five years and the exercise price must equal at least 110% of the fair market value on the grant date. The administrator will determine the methods of payment of the exercise price of an option, which may include cash, shares or other property acceptable to the administrator, as well as other types of consideration permitted by applicable law. After termination of an employee, director or consultant, he or she may exercise his or her option for the period of time as specified in the applicable option agreement. If termination is due to death or disability, the option generally will remain exercisable for at least 12 months. In all other cases, the option will generally remain exercisable for at least three months. However, in no event may an option be exercised later than the expiration of its term. Subject to the provisions of the 2009 Plan, the administrator determines the other terms of options.

EMI Options. EMI Options may be granted under the 2009 Plan. An option may only be an EMI Option if Phunware was a qualifying company, within the meaning of Schedule 5, on the date of grant and if the option is granted for commercial reasons in order to recruit or retain an eligible employee (as such term is defined in the 2009 Plan) and not as part of a scheme or arrangement for the main purpose (or one of the main purposes) of which is the avoidance of tax. In addition, certain limitations, as described in the 2009 Plan, with respect to the total value of shares that may be treated as EMI Options apply. If an option does not comply with the requirements of Schedule 5 and as a result, the option is not an EMI Option, or the extent the limits described in the 2009 Plan are not met, the option will be a nonstatutory stock option. Except as noted herein, the provisions applicable to nonstatutory stock options described above will also apply to EMI Options.

Stock Appreciation Rights. Stock appreciation rights may be granted under the 2009 Plan. Stock appreciation rights allow the recipient to receive the appreciation in the fair market value of Phunware common stock between the exercise date and the date of grant. Stock appreciation rights may not have a term exceeding ten years. After the termination of service of an employee, director or consultant, he or she may exercise his or her stock appreciation right for the period of time stated in his or her award agreement. However, in no event may a stock appreciation right be exercised later than the expiration of its term. Subject to the provisions of the 2009 Plan, the administrator determines the other terms of stock appreciation rights, including when such rights become exercisable and whether to pay any increased appreciation in cash or with shares of Phunware common stock, or a combination thereof, except that the per share exercise price for the shares of Phunware common stock to be issued pursuant to the exercise of a stock appreciation right will be no less than 100% of the fair market value per share on the date of grant.

Restricted Stock. Restricted stock may be granted under the 2009 Plan. Restricted stock awards are grants of shares of Phunware common stock that vest in accordance with terms and conditions established by the administrator. The administrator will determine the number of shares of restricted stock granted to any employee, director or consultant and, subject to the provisions of the 2009 Plan, will determine the terms and conditions of such awards. The administrator may impose whatever conditions for lapse of the restriction on the shares it determines to be appropriate (for example, the administrator may set restrictions based on the achievement of specific performance goals or continued service); provided, however, that the administrator, in its discretion, may accelerate the time at which any restrictions will lapse or be removed. Recipients of restricted stock awards generally will have voting and dividend rights with respect to such shares upon grant without regard to the restriction, unless the administrator provides otherwise. Shares of restricted stock as to which the restrictions have not lapsed are subject to Phunware's right of repurchase or forfeiture.

Restricted Stock Units. Restricted stock units may be granted under the 2009 Plan. Restricted stock units are bookkeeping entries representing an amount equal to the fair market value of one share Phunware's common stock. Subject to the provisions of the 2009, the administrator will determine the terms and conditions of restricted stock units, including the vesting criteria (which may include accomplishing specified performance criteria or continued service) and the form and timing of payment. Notwithstanding the foregoing, the administrator, in its sole discretion, may reduce or waive any vesting criteria that must be met to receive a payout.

Non-Transferability of Awards. Unless the administrator provides otherwise (excluding EMI Options), the 2009 Plan generally does not allow for the transfer of awards and only the recipient of an award may exercise an award during his or her lifetime. An EMI Option is personal to the participant and may not be transferred and only the recipient of an EMI Option may exercise such award during his or her lifetime.

Certain Adjustments. In the event of certain changes in Phunware's capitalization, to prevent diminution or enlargement of the benefits or potential benefits available under the 2009 Plan, the administrator will adjust the number and

class of shares that may be delivered under the 2009 Plan and/or the number, class and price of shares covered by each outstanding award.

Dissolution or Liquidation. In the event of Phunware's proposed liquidation or dissolution, the administrator will notify participants as soon as practicable prior to the date of such proposed action and, to the extent not exercised, all awards will terminate immediately prior to the consummation of such proposed transaction.

Merger or Change in Control. The 2009 Plan provides that in the event of a merger or change in control, as defined under the 2009 Plan, each outstanding award will be treated as the administrator determines. If a successor corporation or its parent or subsidiary does not assume or substitute an equivalent award for any outstanding award, then such award will fully vest, all restrictions on the shares subject to such award will lapse, all performance goals or other vesting criteria applicable to the shares subject to such award will be deemed achieved at 100% of target levels and all of the shares subject to such award will become fully exercisable, if applicable, for a specified period prior to the transaction. The award will then terminate upon the expiration of the specified period of time. If an option or stock appreciation right becomes fully vested and exercisable in connection with a change in control due to the successor corporation's refusal to assume the award, the administrator will notify the applicable participant in writing or electronically that the award will be exercisable for a period of time determined by the administrator, and the option or stock appreciation right will terminate upon the expiration of such period. The Business Combination was not deemed a change in control as prescribed by the plan, and the Successor assumed all outstanding awards at the exchange ratio of 0.459.

Amendment; Termination. The Phunware board of directors has the authority to amend, alter, suspend or terminate the 2009 Plan, provided such action will not impair the existing rights of any participant, unless mutually agreed to in writing between the participant and the administrator. As noted above, upon the consummation of the Business Combination, the 2009 Plan terminated, and no further awards will be granted thereunder. All outstanding awards will continue to be governed by their existing terms.

Stock Performance Graph

Not required for smaller reporting companies.

Recent Sales of Unregistered Securities

None.

Purchases of Equity Securities by the Issuer and Affiliated Purchasers

None.

Item 6. Selected Financial Data.

Not required for smaller reporting companies.

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. References to "management" or "management team" refer to Phunware's 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 to those statements 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. Phunware's 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 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.

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. Phunware's Multiscreen as a Service ("MaaS") platform provides the entire mobile lifecycle of applications, media and data in one login through one procurement relationship. Its offerings include:

- Enterprise mobile software including content management, location-based services, marketing automation, business intelligence and analytics, alerts, notifications
 and messaging, audience engagement, audience monetization, vertical solutions and cryptonetworking, MaaS software application framework that pre-integrates all
 of our MaaS software ingredients for use within mobile application portfolios, solutions and services;
- · Application transactions for mobile audience building, user acquisition, application discovery, audience engagement and audience monetization; and
- · Data for data enrichment expanding connections and attributes of a Phunware ID and building custom audience for use in mobile media campaigns.

Additionally, we plan to launch PhunCoin and Phun, blockchain-powered tokens, and our associated Token Ecosystem which will enable consumers, brands and application developers to transact directly and create a value-based and voluntary data exchange.

We intend to continue investing for long-term growth. We have invested and expect to continue investing in expanding 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 and dollar-based revenue retention rate.

Backlog and Deferred Revenue. Backlog represents future amounts to be invoiced under our current agreements. We generally sign multiple-year platform subscriptions and services contracts and invoice an initial annual amount at contract signing followed by subsequent annual invoices. 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 revenues, 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 half of our backlog as of December 31, 2019 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 that 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 revenues, and provides visibility into future revenue streams.

The following table sets forth the backlog and deferred revenue:

	 December 31,			
	 2019		2018	
	(in the	ousands))	
Backlog	\$ 5,496	\$	16,730	
Deferred revenue	7,124		8,251	
Total backlog and deferred revenue	\$ 12,620	\$	24,981	

Period Ended

Dollar-based Revenue Retention Rate, based on platform subscriptions and services revenue. We calculate dollar-based revenue retention rate, based on platform subscriptions and services revenue, expressed as a percentage, by dividing total revenue in the current 12-month period from those customers who were customers during the prior 12-month period by total revenue from the customers in the prior 12-month period. We believe that our ability to retain our customers and expand their use of our solutions over time is an indicator of the stability of our revenue base and the long-term value of our customer relationships. Our revenue retention rate provides insight into the impact on current period revenue of the number of new customers acquired during the prior 12-month period, the timing of our implementation of those new customers, growth in the usage of our solutions by our existing customers and customer attrition. If our revenue retention rate for a period exceeds 100%, this means that the revenue retentiod during the period including expansion and upsells more than offset the revenue that we lost from customers that did not renew their contracts during the period. Our revenue retention rate may decline or fluctuate as a result of a number of factors, including customers' satisfaction or dissatisfaction with our platform, pricing, economic conditions or overall reductions in our customers' spending levels.

The following table sets forth the dollar-based revenue retention rates:

		Ended aber 31,
	2019	2018
Dollar-based revenue retention rate	76 %	94 %

Our dollar-based revenue retention rate decreased during the periods presented above mainly due to the conclusion and non-renewal of our statement of work with Fox Networks Group as of September 30, 2019.

Non-GAAP Financial Measures

Adjusted Net Revenues, Adjusted Gross Profit, Adjusted Gross Margin and Adjusted EBITDA

Our non-GAAP financial measures include adjusted net revenues, adjusted gross profit, adjusted gross margin and adjusted 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 its employees, (iii) for planning purposes including the preparation of its 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 its 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,
- 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 its 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, including transaction costs and the income tax impact of adjustments in order to facilitate a more useful period-over-period comparison of its 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,				
	 2019		2018		
	 (in th	ousand	s)		
Adjusted net revenues (1)	\$ 19,150	\$	22,455		
Adjusted gross profit (2)	\$ 10,311	\$	10,748		
Adjusted gross margin (2)	53.8 %)	47.9 %		
Adjusted EBITDA (3)	\$ (10,173)	\$	(16,997)		

- (1) Adjusted net revenues is a non-GAAP financial measure. We believe that adjusted net revenues provides helpful information for management and investors regarding past performance and future results. We define adjusted net revenues by excluding items from net revenues that are one-time in nature including, but not limited to, forfeited customer deposits and contract settlements.
- (2) 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 adjusted net revenues.
- (3) 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 revenue 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	Decemb	oer 31,
	2019		2018
	(in the	ousands)	
revenues	\$ 19,150	\$	30,883
ess: One-time revenue adjustments	_		(8,428)
usted net revenues	\$ 19,150	\$	22,455

	Year Ended December 31,			
	2019		2018	
	(in th	ousand	s)	
Gross profit	\$ 10,130	\$	19,081	
Less: One-time revenue adjustments	_		(8,428)	
Add back: Amortization of intangibles	35		50	
Add back: Stock-based compensation	146		45	
Adjusted gross profit	\$ 10,311	\$	10,748	
Adjusted gross margin	53.8 %	, D	47.9 %	

	Year Ended December 31,				
	 2019		2018		
	 (in the	usands)	,		
Net loss	\$ (12,871)	\$	(9,803)		
Add back: Depreciation and amortization	328		434		
Add back: Interest expense	581		724		
Add back/less: Income tax (expense) benefit	5		(374)		
EBITDA	 (11,957)		(9,019)		
Less: One-time revenue adjustments	_		(8,428)		
Add Back: Stock-based compensation	1,784		450		
Adjusted EBITDA	\$ (10,173)	\$	(16,997)		

The one-time revenue adjustments of \$8.4 million noted above for the year ended December 31, 2018 relate to an application transaction partner released the Company from a liability of \$6.3 million, \$1.6 million from the expiration of a platform subscription and services partner arrangement and \$0.5 million related to a platform subscription and services customer contract settlement.

Components of Results of Operations

There are a number of factors that impact the revenue and margin profile of the services 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.

Revenue and Gross Profit

Platform Subscriptions and Services Revenue. Subscription revenue is derived from software license fees, which comprise subscription fees from customers licensing the Company's Software Development Kits (SDKs), which includes 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.

Subscription revenue from SDK licenses gives the customer the right to access the Company's 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, the Company also provides 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, cost per click and cost per action. In addition, we generate application transaction revenue thru in-app purchases from application on our platform.

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 direct premium, performance and network cost as well as based on the activity of mobile users viewing ads and marketing engagements through mobile applications. As a result, our application transaction gross profit may fluctuate from period to period due to variable activity of mobile users.

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.

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.

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 to 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 factoring fees associated related to our factoring financing arrangement and interest related to our outstanding debt.

Our board of directors has authorized two different debt offerings allowing the Company to seek up to \$20 million in each debt offering.

Refer to Note 7 "Factoring Agreement" and Note 8 "Debt" of the Notes to Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K for more information on 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 its interest expense.

Other Expense

Other expenses consist primarily of an impairment on digital currencies and expenses in excess of proceeds related to the Company's Business Combination in 2018.

— *Income Tax Benefit*

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.

Results of Operations (In thousands, except per share information)

The following tables set forth our consolidated financial data in dollar amounts and as a percentage of total revenue.

	 Year Ended	Decer	ecember 31,	
	2019		2018	
Net revenues	\$ 19,150	\$	30,883	
Cost of revenues	 9,020		11,802	
Gross profit	10,130		19,081	
Operating expenses:				
Sales and marketing	2,706		5,417	
General and administrative	15,403		13,562	
Research and development	 4,333		6,965	
Total operating expenses	22,442		25,944	
Operating loss	(12,312)		(6,863)	
Other income (expense):				
Interest expense	(581)		(724)	
Fair value adjustment for warrant liabilities	_		(54)	
Impairment of digital currencies	_		(334)	
Other income (expense)	 27		(2,202)	
Total other expense	 (554)		(3,314)	
Loss before taxes	(12,866)		(10,177)	
Income tax (provision) benefit	 (5)		374	
Net loss	(12,871)		(9,803)	
Cumulative translation adjustment	36		(71)	
Comprehensive loss	\$ (12,835)	\$	(9,874)	
Loss per share, basic and diluted	\$ (0.35)	\$	(0.38)	
Weighted-average common shares used to compute loss per share, basic and diluted	36,879		25,556	

Comparison of Fiscal Years Ended December 31, 2019 and 2018

Revenue

		Year Ended	Decem	Change			
		2019		2018		Amount	%
Revenue		(in the	ousands)			
Platform subscriptions and services	\$	17,243	\$	19,409	\$	(2,166)	(11.2)%
Application transaction		1,907		11,474		(9,567)	(83.4)%
Total revenue	\$	19,150	\$	30,883	\$	(11,733)	(38.0)%
Platform subscriptions and services as a percentage of total revenue		90.0 %		62.8 %			
Application transactions as a percentage of total revenue		10.0 %		37.2 %			

Total revenue decreased \$11.7 million, or (38.0)%, in the year ended December 31, 2019 compared to the corresponding period in 2018.

Platform subscriptions and services revenue decreased \$2.2 million, or (11.2)% driven by the completion of SOW with Fox on September 30, 2019, which caused a decrease of \$3.3 million in revenue year-over-year, and one-time revenue item of \$1.4 million related to the expiration of a partner arrangement in 2018. These decreases were partially offset by increases in revenue related to Houston Methodist and American Made Media.

Application transaction revenue decreased 9.6 million, or (83.4)%, due to the Company being released from a revenue share liability of \$6.3 million from an application transaction partner, in 2018, which the Company then recorded as revenue. Other loss contribution of application transaction revenue is due to decreased or ceased advertising campaigns.

During our fiscal years ended December 31, 2019 and 2018, the Company had a concentration of net revenues with key customers. Revenue from Fox Networks Group recorded as platform subscriptions and services revenue was 50% compared to 42% of total revenue for the years ended December 31, 2019 and 2018, respectively. Revenue from Fetch Media Ltd. recorded as application transaction revenue was 21% of total revenue for 2018. No other customer was greater than 10% or more of total revenue in 2019 or 2018.

As noted on our Current Report on Form 8-K filed with the SEC on October 4, 2019, we completed our contractual obligations under our statement of work with Fox Networks Group ("Fox") as of September 30, 2019. While our master services agreement with Fox (setting forth general terms and conditions) remains in place, we do not have any active statements of work with Fox. Revenue from Fox was approximately \$9.5 million and \$12.8 million for years ended December 31, 2019 and 2018, respectively. See the subheading titled, "Concentrations of Credit Risk" in Note 2 "Summary of Significant Accounting Policies" in the Notes to Consolidated Financial Statements included in Part II, Item 8 of this Annual Report on Form 10-K.

Cost of Revenue, Gross Profit and Gross Margin

	Year Ended December 31,					Change			
		2019		2018		Amount	%		
		(in the	usana	ls)					
Cost of Revenue									
Platform subscriptions and services	\$	8,538	\$	9,628	\$	(1,090)	(11.3)%		
Application transaction		482		2,174		(1,692)	(77.8)%		
Total cost of revenue	\$	9,020	\$	11,802	\$	(2,782)	(23.6)%		
Gross Profit									
Platform subscriptions and services	\$	8,705	\$	9,781	\$	(1,076)	(11.0)%		
Application transaction		1,425		9,300		(7,875)	(84.7)%		
Total gross profit	\$	10,130	\$	19,081	\$	(8,951)	(46.9)%		
Gross Margin									
Platform subscriptions and services		50.5 %		50.4 %					
Application transaction		74.7 %		81.1 %					
Total gross margin		52.9 %		61.8 %					

Total gross profit decreased \$9.0 million, or (46.9)%, in the year ended December 31, 2019 compared to the corresponding period of 2018 primarily attributable to an application transaction partner release of the Company from its liability to them in the amount of \$6.3 million in 2018, as well as the other decreases in revenue discussed above.

Operating Expenses

	Year Ended December 31,				Chan	inge	
	 2019		2018	8 Amount		%	
	 (in the	ousands)			_	
Operating expenses							
Sales and marketing	\$ 2,706	\$	5,417	\$	(2,711)	(50.0)%	
General and administrative	15,403		13,562		1,841	13.6 %	
Research and development	4,333		6,965		(2,632)	(37.8)%	
Total operating expenses	\$ 22,442	\$	25,944	\$	(3,502)	(13.5)%	

Sales and Marketing

Sales and marketing expense decreased \$2.7 million, or (50.0)% for the year ended December 31, 2019 compared to the corresponding period of 2018 primarily due to \$1.9 million of reduced employee compensation costs due to lower

headcount and \$0.8 million related to other expenditure decreases such as marketing events, related software, contractor spend, and travel.

General and Administrative

General and administrative expense increased 1.8 million, or 13.6%, for the year ended December 31, 2019, compared to the corresponding period of 2018, primarily due to increase in stock-based compensation expense from awards granted during 2019 of \$1.1 million and an increase of \$0.9 million in legal fees mainly related to our litigation with Uber Technologies, Inc. ("Uber"), as described in detail in the section titled "Legal Proceedings,". Other increases include professional costs such as consulting fess and increased insurance costs related to director and officers insurance for public company coverage and franchise tax. These increases were partially offset by a reduction of \$1.4 million, mainly related to merger cost, software and IT expenditures.

Research and Development

Research and development expense decreased 2.6 million, or (37.8)% for the year ended December 31, 2019, compared to the corresponding period of 2018 as a result of \$2.8 million decreased employee headcount and contract spend. These decreases are primarily offset with an increase in stock-based compensation expense from awards granted during 2019 of \$0.2 million.

Other income (expense)

	Year Ended December 31,				Change			
		2019 2018		Amount		%		
		(in tho	ousar	nds)		_		
Other income (expense)								
Interest expense	\$	(581)	\$	(724)	\$	143	(19.8)%	
Fair value adjustment for warrant liabilities		_		(54)		54	— %	
Fair value adjustment for digital currencies		_		(334)		334	— %	
Other income (expense)		27		(2,202)		2,229	(101.2)%	
Total other expense	\$	(554)	\$	(3,314)	\$	2,760	(83.3)%	

Interest expense decreased \$0.1 million for the year ended December 31, 2019, compared to the corresponding period of 2018, primarily related to the amount of financing used under our factoring financing arrangement.

Total other expense decreased \$2.8 million for the year ended December 31, 2019, compared to the corresponding period of 2018 primarily related to expenses related to the Business Combination incurred in 2018.

Liquidity and Capital Resources

Accounting Standards Codification ("ASC") Topic 205-40, Presentation of Financial Statements - Going Concern ("ASC 205-40") requires management to assess our ability to continue as a going concern for one year after the date the financial statements are issued. The Company's assessment included the preparation of a detailed cash forecast that included all projected cash inflows and outflows. The Company continues to focus on growing its revenues. Accordingly, operating expenditures may exceed the revenue it expects to receive for the foreseeable future. Additionally, the Company has a history of operating losses and negative operating cash flows and expects these trends to continue into the foreseeable future. Future plans may include obtaining new debt financings and credit lines, while utilizing existing, expanding credit lines, issuing our equity securities, including the exercise of warrants, and reducing overhead expenses. Despite a history of successfully implementing similar plans to alleviate the adverse financial conditions, these sources of working capital are not currently assured, and consequently do not sufficiently mitigate the risks and uncertainties disclosed above. There can be no assurance that the Company 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 the Company's capital needs and support its growth. If additional funding cannot be obtained on a timely basis and on satisfactory terms, its operations would be materially negatively impacted. We have therefore concluded there is substantial doubt about our ability to continue as a going concern through one year from the issuance of these financial statements

In February 2016, the Financial Accounting Standards Board ("FASB") issued ASU No. 2016-02, Leases ("ASU 2016-02"). 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. For leases with a term of 12 months or less, a lessee is permitted to make an accounting policy election by class of underlying asset not to recognize lease assets and lease liabilities. Under current U.S. generally accepted accounting principles ("GAAP"), the Company recognizes rent expense on a straight-line basis for all operating leases, taking into account fixed accelerations, as well as reasonably assured renewal periods. In November 2019, the FASB issued Accounting Standards Update ("ASU") No. 2019-10 ("ASU 2019-10"). ASU 2019-10 delayed the effective date of ASU 2016-02 for certain types of businesses, including private companies. Under the JOBS Act, the Company has previously elected not to opt out of such extended transition period which means that when a standard is issued or revised and it has different eapplication dates for public or private companies, the Company, as an emerging growth company, can adopt the new or revised standard. Accordingly, this ASU is now effective for the Company for fiscal years beginning after December 15, 2020, and interim periods within those fiscal years. Although earlier application is permitted, the Company plans to implement this guidance beginning the first quarter of its fiscal year 2021. The Company currently does not expect the ASU 2016-02 to materially impact our results of operations; although, based upon our current operating leases outstanding, we believe this guidance may have a material impact on our consolidated balance sheet. We do not plan on recasting prior periods.

During the second quarter of 2019, the Company's board of directors authorized the issuance of \$20 million of convertible promissory notes (the "Convertible Notes"). The Convertible Notes bear 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 may be deferred until the earlier of (i) repayment in full of all remaining unpaid principal, and (ii) conversion. The Convertible Notes mature on June 3, 2024. The Convertible Notes are convertible into shares of the Company's common stock at a price of \$11.50 per share. Each Note will convert voluntarily upon a holder's election, or automatically upon the closing sale price of the Company's common stock equals or exceeds \$17.25 per share for 20 out of 30 consecutive trading days, if a registration statement is then in effect covering the disposition of the converted shares.

During the fourth quarter of 2019, the Company's board of directors authorized the issuance of \$20 million of promissory notes (the "Notes"). The Notes bear ordinary interest at a rate of 10% per annum. Interest under the Notes is payable monthly beginning on November 30, 2019. During the term of the Notes, the Company will 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 the Company under the Notes. The principal and unpaid accrued interest on the Notes will be due and payable on demand by the majority Note holders on or after the date that is 60 months following November 15, 2019.

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

		Year Ended December 31,				Cha	nge			
	<u></u>	2019 2018		2019 2018		2018		Amount	%	
	(in thousands)									
Consolidated statement of cash flows										
Net cash used in operating activities	\$	(6,187)	\$	(6,592)	\$	405	(6.1)%			
Net cash provided by investing activities		70		377		(307)	(81.4)%			
Net cash provided by financing activities		99		12,316		(12,217)	(99.2)%			

Operating Activities

Our primary source of cash from operating activities is receipts from the sale of our platform subscriptions and services and application transactions to our customers. Our primary uses of cash from operating activities are payments to employee for compensation and related expenses, publishers and other vendors for the purchase of digital media inventory and related costs, sales and marketing expenses and general operating expenses.

We utilized \$6.2 million of cash from operating activities during 2019 primarily resulting from a net loss of \$12.9 million, as adjusted for non-cash charges related to stock-based compensation of \$1.8 million, depreciation and amortization of \$0.3 million and allowance for doubtful receivables of \$0.1 million. In addition, during 2019 certain changes in our operating assets and liabilities resulted in cash increases (decreases) as follows: \$1.1 million from a increase in accrued expenses mainly related to accrued compensation, \$0.7 million from an increase in accounts payable related to increase in payables for legal fees, \$1.8 million from a decrease in accounts receivable mainly attributable to the conclusion of our statement of work with Fox, \$0.6 million from deferred revenue and \$0.2 million from prepaid expenses.

We utilized \$6.6 million of cash from operating activities during 2018 primarily resulting from a net loss of \$9.8 million, as adjusted for non-cash charges related to change in fair value of warrants of \$1.3 million, stock-based compensation of \$0.5 million, depreciation and amortization of \$0.4 million, impairment of digital currencies of \$0.3 million and allowance for doubtful receivables of \$0.2 million, offset by decrease of deferred taxes of (\$0.4) million. In addition, during 2018 certain changes in our operating assets and liabilities resulted in cash increases (decreases) as follows: (\$5.8) million from a decrease in accounts payable, and \$2.4 million from a decrease in accounts receivable.

Investing Activities

Investing activities during 2019 primarily consisted of proceeds received from the sale of digital currencies.

Investing activities during 2018 primarily consisted of cash proceeds from the sale of digital currencies, which was was partially offset by \$(0.5) million for the issuance of a note receivable in 2018.

Financing Activities

Our financing activities during 2019 consist primarily of the proceeds from warrant exercises offset by redemptions of Series A convertible preferred stock. We acquired \$0.1 million of cash from financing activities during 2019, primarily as follows: \$6.1 million provided by warrant exercises; \$1.1 million from our debt financings, which includes \$0.2 million received from an affiliated associated with our Chief Executive Officer; \$0.3 million from proceeds of exercises of options to purchase our common stock; and \$0.2 million from proceeds received from PhunCoin deposits. These were offset by (\$6.2) million in payments for the redemption of Series A convertible preferred stock and (\$1.4) million in net payments on our factoring financing arrangement.

Our financing activities during 2018 consist primarily of the proceeds from common stock subscriptions and proceeds received from the sale of Series A preferred stock.. We acquired \$12.3 million of cash from financing activities during 2018, primarily as follows: \$5.4 million provided by common stock subscriptions; \$0.6 million provided by net proceeds from our factoring financing agreement; and \$6 million of proceeds from the sale of Series A preferred stock, net of issuance costs.

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 \$0.7 million and \$0.6 million for the years ended December 31, 2019 and 2018, respectfully.

The following table summarizes our contractual obligations as of December 31, 2019 (in thousands):

		l	Paym	ents due by peri	od		
Contractual obligations	 Total	Less than 1 year		1-3 years		3-5 years	More than 5 years
Operating lease obligations	\$ 3.792	\$ 791	\$	1.561	\$	1.231	\$ 209

Future minimum lease obligations years ended December 31,	(Lease Obligations
2020	\$	791
2021		836
2022		725
2023		622
2024		609
Thereafter		209
Total	\$	3,792

Off-Balance Sheet Arrangements

During the years ended December 31, 2019 and 2018, 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.

Summary of Significant Accounting Policies

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 U.S. 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. We believe that the accounting policies discussed below are critical to understanding our historical and future performance, as these policies relate to the more significant areas involving management's judgments and estimates.

The critical accounting policies requiring estimates, assumption and judgments that we believe have the most significant impact on our consolidated financial statements as described below. For further information on all of our significant accounting policies, see Note 2 entitled "Summary of Significant Accounting Policies" in Part II, Item 8 "Financial Statements and Supplementary Data" of this Annual Report on Form 10-K.

Revenue Recognition

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. The Company enters into contracts that can include various combinations of products and services, which are generally capable of being distinct, distinct within 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, the Company uses 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, the Company determined that contracts do not include a significant financing component. The Company applies the 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.

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. As of December 31, 2019, approximately \$12,989 of revenue is expected to be recognized from remaining performance obligations, a majority of which is related to multi-year subscription and support and maintenance arrangements. The Company expects to recognize revenue on approximately 72% of these remaining performance obligations within the next 24 months and the remainder thereafter.

Significant Judgments

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.

Platform Subscriptions and Services Revenue

The Company derives subscription revenue from software license fees, which comprise subscription fees from customers licensing the Company's Software Development Kits (SDKs), which includes 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. The Company's contract terms generally range from one to three years. License fees are typically billed annually in advance.

Subscription revenue from SDK licenses gives the customer the right to access the Company's MaaS platform. In accordance with Accounting Standards Codification ("ASC") 606, a 'right to access' license is recognized over the license period.

Application development revenue is derived from development services around designing and building new applications or enhancing existing applications. The Company recognizes application development revenue upon the transfer of control of the completed application or application development services.

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.

When a customer contract consists of licensing, application development and support and maintenance, the Company considers these separate performance obligations, which would require an allocation of consideration.

From time to time, the Company also provides professional services by outsourcing employees to customers on a time and materials basis. Revenues from these arrangements are recognized as the services are performed. The Company typically bills professional service customers in the month in which the services are performed.

Application Transaction Revenue

The Company also generates revenue by charging advertisers to deliver advertisements (ads) to users of mobile connected devices. Depending on the specific terms of each advertising contract, the Company generally recognizes 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 the Company recognizes revenue at the time the user views, clicks, or otherwise acts on the ad. The Company sells 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 each time a consumer takes a specified action, such as downloading an app. In addition, the Company generates application transaction revenue thru in-app purchases from an application on our platform.

In the normal course of business, the Company acts 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 the Company is acting as the principal or an agent in its transactions with advertisers. Control is a determining factor in assessing principal versus agent relation. The determination of whether the Company is 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, the Company has determined that it is the principal in all advertising arrangements because it is 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, the Company acts as the principal in all advertising arrangements and therefore reports revenue earned and costs incurred related to these transactions on a gross basis.

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. We apply a practical expedient and expenses these costs as incurred if the amortization period is one year or less.

Concentrations of Credit Risk

Our financial instruments that are exposed to concentrations of credit risk consist primarily of cash and trade accounts receivable. 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. Collateral is not required for accounts receivable, and we believe the carrying value approximates fair value.

Revenue from Fox Networks Group ("Fox") was 50% and 42% of total net revenues for the years ended December 31, 2019 and 2018, respectively. Revenue from Fetch Media Ltd. was 21% of total revenue for 2018.

The following table sets forth the Company's concentration of accounts receivable, net of specific allowances for doubtful accounts.

	December 31, 2019	December 31, 2018
Fox Networks Group	<u> </u>	66%
HID Global	23%	 %
American Made Media Consultants, LLC	15%	 %
Presidio Networked Solutions LLC	11%	 %
MD Anderson	10%	 %

The Company completed its contractual obligations under its statement of work with Fox as of September 30, 2019. While the underlying master services agreement with Fox (setting forth general terms and conditions) remains in place, the Company does not have any active statements of work with Fox.

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 assess 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.

The goodwill impairment test required by ASC 350 is a two-step process. The first step of the goodwill impairment test, used to identify potential impairment, compares the fair value of a reporting unit with its carrying amount, or the net book value of the company or reporting unit, including goodwill. If the fair value of a reporting unit exceeds its carrying amount, goodwill of the reporting unit is considered not impaired; thus, the second step of the impairment test is unnecessary. If the carrying amount of a reporting unit exceeds its fair value, the second step of the goodwill impairment test shall be performed to measure the amount of impairment loss, if any. We attribute goodwill to our sole reporting unit for impairment testing.

The fair value used by the Company was derived from the market capitalization approach, whereby the Company utilizes the historical market price of its stock traded on the Nasdaq to estimate the fair value of its 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 the Company's 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 the Company's best estimate of the distribution of the economic value of the identifiable intangible assets.

The Company did not recognize any goodwill or intangible impairment losses in the years ended December 31, 2019 or 2018.

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. The Company recognized stock-based compensation expense for awards with only service conditions on a straight-line basis over the requisite

service period of the related award. The Company has not granted any awards with market or performance conditions. Forfeitures of all stock-based awards are accounted for when they occur.

Income Taxes

We account for income taxes in accordance with FASB ASC 740, *Income Taxes*. 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, the Company considers 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 accounting guidance on accounting for uncertainty in income taxes prescribes a recognition threshold and measurement attribute criterion for the 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. We have not recognized interest or penalties on our consolidated balance sheets or statements of operations and comprehensive loss.

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.

Emerging Growth Company

Section 102(b)(1) of the JOBS Act exempts emerging growth companies from being required to comply with new or revised financial accounting standards until private companies (that is, those that have not had a Securities Act registration statement declared effective or do not have a class of securities registered under the Exchange Act) are required to comply with the new or revised financial accounting standards. The JOBS Act provides that a company can elect to opt out of the extended transition period and comply with the requirements that apply to non-emerging growth companies but any such an election to opt out is irrevocable. The Company has elected not to opt out of such extended transition period which means that when a standard is issued or revised and it has different application dates for public or private companies, the Company, as an emerging growth company, can adopt the new or revised standard at the time private companies adopt the new or revised standard.

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 exposed to market risk in the ordinary course of our business. Market risk represents the risk of loss that may impact our financial position due to adverse changes in financial market prices and rates. Our market risk exposure is primarily a result of fluctuations in foreign currency exchange rates and interest rates. We do not hold or issue financial instruments for trading purposes.

Foreign Currency Risk

The functional currency of our foreign subsidiaries is generally the local currency. For all periods presented, the majority of our sales and operating expenses were denominated in U.S. dollars. Accordingly, we believe we have not had a material foreign currency risk associated with sales and cost-based activities. For the periods presented, our operations outside of the United States are not considered material; therefore, during the fiscal years ended December 31, 2019 and 2018, the effect of a hypothetical 10% change in foreign currency exchange rates applicable to our business would not have a material impact on our consolidated financial statements.

We believe the exposure to foreign currency fluctuation is immaterial at this time as the related costs do not constitute a significant portion of our total expenses. As we grow operations, our exposure to foreign currency risk may become more significant. For any of the periods presented, we did not enter into any foreign currency exchange contracts. We may, however, enter into foreign currency exchange contracts for purposes of hedging foreign exchange rate fluctuations on our business operations in future operating periods as our exposures are deemed to be material. For additional discussion on foreign currency risk, see Item 1A of Part I "Risk Factors" in this Annual Report on Form 10-K.

Interest Rate Sensitivity

We have historically had no cash equivalents balances, only cash balances. In the future we expect our cash and cash equivalents to be held in cash and short-term money market funds. Due to the short-term nature of these instruments, we believe that we will not have any material exposure to changes in the fair value of our investment portfolio as a result of changes in interest rates. Declines in interest rates, however, would reduce future interest income. During the fiscal years ended December 31, 2019 and 2018, the effect of a hypothetical 10% increase or decrease in overall interest rates would not have had a material impact on our interest income.

We have a receivables factoring line and, in 2019, we issued notes in two different private placement offerings. As these instruments have a fixed annual interest rate, a hypothetical increase or decrease in overall market interest rates is not expected to have a material impact on our interest expense.

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, 2019 and 2018, the related consolidated statements of operations and comprehensive loss, changes in redeemable convertible preferred stock and stockholders' equity and cash flows for each of the two years in the period ended December 31, 2019, 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, 2019 and 2018, and the results of its operations and its cash flows for each of the two years in the period ended December 31, 2019, in conformity with accounting principles generally accepted in the United States of America.

Chance in Accounting Principle

As discussed in Note 2 to the consolidated financial statements, the Company has changed its method of accounting for revenue in 2019 due to the adoption of the guidance in ASC 606, Revenue from Contracts with Customers.

Explanatory Paragraph — Going Concern

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

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company's financial statements based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. The Company is not required to have, nor were we engaged to perform, an audit of its internal control over financial reporting. As part of our audits we are required to obtain an understanding of internal control over financial reporting but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion.

Our audits included performing procedures to assess the risks of material misstatement of the financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

/s/ Marcum LLP

Marcum LLP

We have served as the Company's auditor since 2017.

Houston, TX March 30, 2020

Phunware, Inc. Consolidated Balance Sheets

(In thousands)

Asset S 20 8 84 4 6 6 5 7 8 44 6 6 8 7 8 4 6 6 8 8 4 6 6 8 8 6 6 6 6 7 7 6 2 2 1 6 6 7 2 1 6 6 6 2 2 1 6 6 6 2 2 1 6 6 6 2 2 1 6 6 2 2 1 6 6 2 2 1 6 2 2 1 6 2 2 1 6 2 2 1 6 2 1 6 2 1 6 2 1 6 2 1 6 2 1 6 2 1 6 2 1 6 2 1 6<		December 31, 2019	_ D	December 31, 2018
Cash \$ 26,6 \$ 844 Accounts receivable, net 1,671 3,606 Prepaid expenses and other current assets 2,315 4,722 Total current assets 2,315 4,722 Property and equipment, net 2,545 2,587 2,582 Goodwill 2,547 2,582 2,521 Intangible assets, net 2,51 4,64 6 Compaired tax asset—long term 2,61 4,64 5,00 Other assets 2,72 1,81 1,61 1,61 Total assets 2,72 2,81 1,81 1,61				
Accounts receivable, net 1,671 3,606 Propiet decemes and other current assets 2,82 2,72 Total current assets 2,231 4,722 Property and equipment, net 2,58 5,88 Goodwill 2,583 5,281 Intangible assets, net 2,61 6 Restricted cash 86 5,500 Other asset 2,70 18,70 Other assets 2,70 18,70 Total assets 2,90 3,608 Total assets 8 5,00 Cherred recentable convertible preferred stock, and stockholders' equit 8 9,00 Total assets 1,01 9,00 9,00 Accounts payable 9,10,15 9,00 9,00 Account expenses and other 1,07 2,43 9,00 Deferred revenue 1,07 2,43 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00 1,00	Current assets:			
Pepalid expenses and other current assets 368 272 Tool current assets 2,315 4,722 Property and equipment, et 24 66 Goodwill 2,585 25,825 Intense plant assets, net 25 52 Deferred tax asset Jongtern 46 6 Restricted cash 6 20 187 Total assets 270 187 Total assets 270 187 Isballitics, redecamble convertible preferred stock, and stockholders' equity 8 9,00 Libilitics, redecamble convertible preferred stock, and stockholders' equity 8 9,00 Accured expenses and other 4035 9,00 Accured expenses and other 4,035 9,00 Peferred revenue 3,30 9,00 Peterred revenue 1,07 2,434 Sort term insistities 1,07 2,434 Sort term insistities 1,07 2,434 Bott current liabilities 1,08 1,00 Deferred accivation in graph 2,0 5,0			\$	
Total current assers 4,72 Property and equipment, net 2,8 6 Goodwill 2,5 2,5 2,5 Intangible assets, net 233 5,21 Deferred tax asset-long term 241 6 Restricted cash 8 5,00 Other assets 276 187 Total assets 270 187 Total assets 2,00 3,00 Chemetal tax institutes. 2,00 3,00 Eventual tabilities. 4,03 3,00 Accerued expenses and other 4,03 3,00 Accerued expenses and other 4,03 3,00 PhunCoin deposits 1,00 2,00 Factored revenue 1,07 2,434 Short em notes payable 1,07 2,434 Short em notes payable - related party 1,105 — Debt (see Note 8) 1,105 — Debt (see Note 8) 3,1 1,6 Deferred revenue 3,2 2,0 Deferred fact is is is is is is	·			
Property and equipment, net 24 66 Goodwill 25.85 25.821 Intangible asests, net 253 521 Deferred tax asset—long term 261 6 Restricted cash 268 5,000 Other assets 276 187 Total assets 5 20,052 3 6,881 Intellistics. Expected subterovertible preferred stock, and stockholders' equit Wassets 30,052 5 30,088 Accounts payable 4,035 3,032 30,289 Accounts payable 4,035 3,032 2,629 PlumCoin deposits 1,202 - - 1,032 - - 1,032 - - 1,032 - - 1,032 - - 1,032 - - 1,032 - - - 1,032 - - - - - - - - - - - - - <t< td=""><td>Prepaid expenses and other current assets</td><td>368</td><td></td><td>272</td></t<>	Prepaid expenses and other current assets	368		272
Goodwill 25,851 25,821 Intangible assets, net 253 521 Deferred tax asset—long term 241 64 Restricted cash 86 5,500 Other assets 276 187 Total assets 276 187 Total assets 276 187 Carrier Michilers Labilities: Carrier despenses and other 4,035 9,890 Accounts payable 4,035 9,890 Accounts payable 4,035 9,890 Deferred revenue 3,36 2,629 PhunCoin deposits 1,02 - Factor dreceivables payable 1,07 2,434 Short term notes payable related party 1,03 1,933 Total current liabilities 1,103 - Deferred revenue 3,76 5,62 Deferred tax liability 3,76 5,62 Deferred revenue 3,76 5,62 Deferred revenue 3,76 5,62 </td <td>Total current assets</td> <td>2,315</td> <td></td> <td>4,722</td>	Total current assets	2,315		4,722
Intangible assets, net	Property and equipment, net	24		66
Deferred tax asset—long term 241 64 Restricted cash 86 5,000 Other assets 276 187 Total assets \$ 29,052 3,688 Labilities, redeemable convertible preferred stock, and stockholders' equity Userent liabilities: Accorded expenses and other \$ 10,159 9,890 Accorded expenses and other 3,360 2,629 Deferred revenue 3,360 2,629 PlunCoin deposits 1,072 2,434 Short term notes payable 1,073 2,434 Short term notes payable, related party 1,993 1,993 Total current liabilities 1,933 1,994 Deferred revenue 3,764 6,622 Deferred tax liability 2,116 6,22 Deferred revenue 3,764 5,622 Deferred tax liabilities 2,520 2,527 Total liabilities 2,520 2,537	Goodwill	25,857		25,821
Restricted cash 86 5,500 Other assets 276 187 Total assets \$ 29,052 \$ 36,881 Lishilities, redeemable convertible preferred stock, and stockholders' equit Current liabilities Current labilities \$ 10,159 \$ 9,890 Accounts payable \$ 10,159 \$ 9,890 Accounts payable \$ 10,05 \$ 9,890 Deferred revenue 3,60 2,622 PhunCoin deposits 1,07 2,434 Schorter motes payable - related party 1,07 2,434 Total current liabilities 1,07 2,434 Debt (see Note 8) 1,105 — Debt (see Note 8) 2,1 — Deferred tax liability 24 6 Deferred tax liability 2,37 5,2 Total liabilities 2,37 5,2 Commitments and contingencies (see Note 9) 2 5,37 Redeemable convertible preferred stock, 9,0001 par value (see Note 11) 4 3 Common stock, 9,0001 par value (see Note 12)	Intangible assets, net	253		521
Other assets 276 187 Total assets \$ 29,052 \$ 36,881 Liabilities, redeemable convertible preferred stock, and stockholders' equity Urrent liabilities Accounts payable \$ 10,159 \$ 9,890 Accurued expenses and other 4,035 3,028 Deferred revenue 3,360 2,629 PhunCoin deposits 1,077 2,434 Short term notes payable – related party 1,073 2,434 Short term notes payable – related party 1,933 19,974 Debit (see Note 8) 1,105 — Deferred tax liability 241 64 Deferred revenue 3,764 5,622 Deferred revenue 3,764 5,622 Deferred revenue 3,764 5,622 Commitments and contingencies (see Note 9) 2,507 5,777 Redeemable convertible preferred stock, \$0,0001 par value (see Note 11) 2,52 5,777 Tockholders' equity 4 3 3 4 3 Additional paid-in capital 1,802 1,802 </td <td>Deferred tax asset – long term</td> <td>241</td> <td></td> <td>64</td>	Deferred tax asset – long term	241		64
Total assets \$ 29,052 \$ 36,881 Liabilities, redeemable convertible preferred stock, and stockholder's equity Current liabilities Accounds payable \$ 10,159 \$ 9,800 Accound expenses and other 4,035 3,028 Deferred revenue 3,360 2,029 PhunCoin deposits 1,07 2,434 Short term notes payable related party 1,07 2,434 Short term notes payable related party 1,07 2,434 Short term notes payable related party 1,03 1,03 Deb (see Note 8) 1,105 — Deb (see Note 8) 1,105 — De ferred tax liability 2,11 6 Deferred revenue 3,74 5,02 Deferred revenue 3,74 5,02 Deferred revenue 3,50 25,07 Committees 25,00 25,07 Redeemable convertible preferred stock, \$0,0001 par value (see Note 1) — 5,37 Stockholders' equity 4 3 Additional pairia (aprita)	Restricted cash	86		5,500
Current liabilities, redeemable convertible preferred stock, and stockholders' equity Current liabilities: C	Other assets	276		187
Current liabilities: Accounts payable \$ 10,159 \$ 9,890 Accoude expenses and other 4,035 3,028 Deferred revenue 3,360 2,629 PhunCoin deposits 1,072 2,434 Short term notes payable 1,077 2,434 Short term notes payable – related party - 1,933 19,974 Det (see Note 8) 1,105 - - 1,933 19,974 Deferred tax liability 241 64 5,622 2,622 2,622 2,622 2,622 2,622 2,622 2,622 2,622 2,627 2,622 2,622 2,622 2,622 2,622 2,622 2,622 2,622 2,622 2,627 2,622 2,627 2,622 2,627 2,622 2,627 2,622 2,627 2,622 2,627 2,627 2,627 2,627 2,627 2,627 2,627 2,627 2,627 2,627 2,627 2,627 2,627 2,627 2,627 2,627 2,627 2,627	Total assets	\$ 29,052	\$	36,881
Accounts payable \$ 10,159 \$ 9,800 Accrued expenses and other 4,035 3,028 Deferred revenue 3,360 2,629 PhunCoin deposits 1,202 — Factored receivables payable 1,077 2,434 Short term notes payable – related party — 1,993 Total current liabilities 19,833 19,974 Debt (see Note 8) 1,105 — Deferred tax liability 241 64 Deferred revenue 3,764 5,622 Deferred revenue 3,764 5,622 Deferred revenue 3,764 5,622 Total liabilities 25,026 25,677 Commitments and contingencies (see Note 9) 3 1,7 Redeemable convertible preferred stock, \$0,0001 par value (see Note 11) 4 3 Stockholders' equity 4 3 3 Common stock, \$0,0001 par value (see Note 12) 4 3 Additional paid-in capital 128,008 118,062 Accumulated other comprehensive loss (418)	Liabilities, redeemable convertible preferred stock, and stockholders' equity			
Accrued expenses and other 4,035 3,028 Deferred revenue 3,360 2,629 PhunCoin deposits 1,202 — Factored receivables payable 1,077 2,434 Short term notes payable – related party — 1,993 Total current liabilities 19,833 19,974 Debt (see Note 8) 1,105 — Deferred ax liability 241 64 Deferred revenue 3,764 5,622 Deferred revenue 3,764 5,622 Deferred revenue 3,764 5,622 Total liabilities 25,026 25,677 Commitments and contingencies (see Note 9) Total liabilities 25,026 25,677 Stockholders' equity — 5,377 Stockholders' equity 4 3 Additional paid-in capital 128,008 118,062 Accumulated other comprehensive loss (382) (418) Accumulated deficit (123,604) (111,820) Total stockholders' equity 4,026 5,827	Current liabilities:			
Deferred revenue 3,360 2,629 PhunCoin deposits 1,202 — Factored receivables payable 1,077 2,434 Short term notes payable – related party — 1,993 Total current liabilities 19,833 19,974 Debt (see Note 8) 1,105 — Deferred ax liability 241 64 Deferred revenue 3,764 5,622 Deferred rent 83 1,7 Total liabilities 25,026 25,677 Commitments and contingencies (see Note 9) Redeemable convertible preferred stock, \$0,0001 par value (see Note 11) — 5,377 Stockholders' equity 4 3 Additional paid-in capital 128,008 118,062 Accumulated other comprehensive loss (382) (418) Accumulated deficit (123,604) (111,820) Total stockholders' equity 4,026 5,827	Accounts payable	\$ 10,159	\$	9,890
PhunCoin deposits 1,202 — Factored receivables payable 1,077 2,434 Short term notes payable – related party — 1,993 Total current liabilities 19,833 19,974 Debt (see Note 8) 1,105 — Deferred tax liability 241 64 Deferred revenue 3,764 5,622 Deferred ret 83 17 Total liabilities 25,026 25,075 Commitments and contingencies (see Note 9) — 5,377 Redeemable convertible preferred stock, \$0.0001 par value (see Note 11) — 5,377 Stockholders' equity 4 3 Additional paid-in capital 128,008 118,062 Accumulated other comprehensive loss (382) (418) Accumulated deficit (123,604) (111,820) Total stockholders' equity 4,026 5,827	Accrued expenses and other	4,035		3,028
Factored receivables payable 1,077 2,434 Short term notes payable – related party — 1,993 Total current liabilities 19,833 19,974 Debt (see Note 8) 1,105 — Deferred tax liability 241 64 Deferred revenue 3,764 5,622 Deferred rent 83 17 Total liabilities 25,026 25,677 Commitments and contingencies (see Note 9) — 5,377 Redeemable convertible preferred stock, \$0.0001 par value (see Note 11) — 5,377 Stockholders' equity 4 3 Additional paid-in capital 128,008 118,062 Accumulated other comprehensive loss (382) (418) Accumulated deficit (123,604) (111,820) Total stockholders' equity 4,026 5,827	Deferred revenue	3,360		2,629
Short term notes payable – related party — 1,993 Total current liabilities 19,833 19,974 Debt (see Note 8) 1,105 — Deferred tax liability 241 64 Deferred revenue 3,764 5,622 Deferred rent 83 17 Total liabilities 25,026 25,677 Commitments and contingencies (see Note 9) — 5,377 Redeemable convertible preferred stock, \$0.0001 par value (see Note 11) — 5,377 Stockholders' equity 4 3 Additional paid-in capital 128,008 118,062 Accumulated other comprehensive loss (382) (418) Accumulated deficit (123,604) (111,820) Total stockholders' equity 4,026 5,827	PhunCoin deposits	1,202		_
Total current liabilities 19,833 19,974 Debt (see Note 8) 1,105 — Deferred tax liability 241 64 Deferred revenue 3,764 5,622 Deferred rent 83 17 Total liabilities 25,026 25,677 Commitments and contingencies (see Note 9) — 5,377 Redeemable convertible preferred stock, \$0,0001 par value (see Note 11) — 5,377 Stockholders' equity 4 3 Additional paid-in capital 128,008 118,062 Accumulated other comprehensive loss (382) (418) Accumulated deficit (123,604) (111,820) Total stockholders' equity 4,026 5,827	Factored receivables payable	1,077		2,434
Debt (see Note 8) 1,105 — Deferred tax liability 241 64 Deferred revenue 3,764 5,622 Deferred rent 83 17 Total liabilities 25,026 25,077 Commitments and contingencies (see Note 9) — 5,377 Redeemable convertible preferred stock, \$0.0001 par value (see Note 11) — 5,377 Stockholders' equity 4 3 Additional paid-in capital 128,008 118,062 Accumulated other comprehensive loss (382) (418) Accumulated deficit (123,604) (111,820) Total stockholders' equity 4,026 5,827	Short term notes payable – related party	_		1,993
Deferred tax liability 241 64 Deferred revenue 3,764 5,622 Deferred rent 83 17 Total liabilities 25,026 25,677 Commitments and contingencies (see Note 9) - 5,377 Redeemable convertible preferred stock, \$0.0001 par value (see Note 11) - 5,377 Stockholders' equity 4 3 Additional paid-in capital 128,008 118,062 Accumulated other comprehensive loss (382) (418) Accumulated deficit (123,604) (111,820) Total stockholders' equity 4,026 5,827	Total current liabilities	19,833		19,974
Deferred revenue 3,764 5,622 Deferred rent 83 17 Total liabilities 25,026 25,677 Commitments and contingencies (see Note 9) - 5,377 Redeemable convertible preferred stock, \$0.0001 par value (see Note 11) - 5,377 Stockholders' equity - 4 3 Additional paid-in capital 128,008 118,062 Accumulated other comprehensive loss (382) (418) Accumulated deficit (123,604) (111,820) Total stockholders' equity 4,026 5,827	Debt (see Note 8)	1,105		_
Deferred rent 83 17 Total liabilities 25,026 25,677 Commitments and contingencies (see Note 9) Redeemable convertible preferred stock, \$0.0001 par value (see Note 11) — 5,377 Stockholders' equity 4 3 Additional paid-in capital 128,008 118,062 Accumulated other comprehensive loss (382) (418) Accumulated deficit (123,604) (111,820) Total stockholders' equity 4,026 5,827	Deferred tax liability	241		64
Total liabilities 25,026 25,677 Commitments and contingencies (see Note 9) - 5,377 Redeemable convertible preferred stock, \$0.0001 par value (see Note 11) - 5,377 Stockholders' equity 4 3 Additional paid-in capital 128,008 118,062 Accumulated other comprehensive loss (382) (418) Accumulated deficit (123,604) (111,820) Total stockholders' equity 4,026 5,827	Deferred revenue	3,764		5,622
Commitments and contingencies (see Note 9) 5,377 Redeemable convertible preferred stock, \$0.0001 par value (see Note 11) — 5,377 Stockholders' equity — 5,377 Common stock, \$0.0001 par value (see Note 12) 4 3 Additional paid-in capital 128,008 118,062 Accumulated other comprehensive loss (382) (418) Accumulated deficit (123,604) (111,820) Total stockholders' equity 4,026 5,827	Deferred rent	83		17
Redeemable convertible preferred stock, \$0.0001 par value (see Note 11) — 5,377 Stockholders' equity Common stock, \$0.0001 par value (see Note 12) 4 3 Additional paid-in capital 128,008 118,062 Accumulated other comprehensive loss (382) (418) Accumulated deficit (123,604) (111,820) Total stockholders' equity 4,026 5,827	Total liabilities	25,026		25,677
Redeemable convertible preferred stock, \$0.0001 par value (see Note 11) — 5,377 Stockholders' equity Common stock, \$0.0001 par value (see Note 12) 4 3 Additional paid-in capital 128,008 118,062 Accumulated other comprehensive loss (382) (418) Accumulated deficit (123,604) (111,820) Total stockholders' equity 4,026 5,827	Commitments and contingencies (see Note 9)			
Common stock, \$0.0001 par value (see Note 12) 4 3 Additional paid-in capital 128,008 118,062 Accumulated other comprehensive loss (382) (418) Accumulated deficit (123,604) (111,820) Total stockholders' equity 4,026 5,827	Redeemable convertible preferred stock, \$0.0001 par value (see Note 11)	_		5,377
Additional paid-in capital 128,008 118,062 Accumulated other comprehensive loss (382) (418) Accumulated deficit (123,604) (111,820) Total stockholders' equity 4,026 5,827	Stockholders' equity			
Additional paid-in capital 128,008 118,062 Accumulated other comprehensive loss (382) (418) Accumulated deficit (123,604) (111,820) Total stockholders' equity 4,026 5,827	Common stock, \$0.0001 par value (see Note 12)	4		3
Accumulated other comprehensive loss (382) (418) Accumulated deficit (123,604) (111,820) Total stockholders' equity 4,026 5,827		128,008		118,062
Accumulated deficit (123,604) (111,820) Total stockholders' equity 4,026 5,827		(382)		(418)
Total stockholders' equity 4,026 5,827		(123,604)		(111,820)
	Total stockholders' equity			
	Total liabilities, redeemable convertible preferred stock, and stockholders' equity	\$ 29,052	\$	36,881

Phunware, Inc. Consolidated Statements of Operations and Comprehensive Loss

(In thousands, except per share information)

	Yea	Year Ended December 31,		
	2019)	2018	
Net revenues	\$	19,150 \$	30,883	
Cost of revenues		9,020	11,802	
Gross profit		10,130	19,081	
Operating expenses:				
Sales and marketing		2,706	5,417	
General and administrative		15,403	13,562	
Research and development		4,333	6,965	
Total operating expenses		22,442	25,944	
Operating loss		12,312)	(6,863)	
Other income (expense):				
Interest expense		(581)	(724)	
Fair value adjustment for warrant liabilities		_	(54)	
Impairment of digital currencies		_	(334)	
Other income (expense)		27	(2,202)	
Total other expense		(554)	(3,314)	
Loss before taxes		12,866)	(10,177)	
Income tax (provision) benefit		(5)	374	
Net loss		12,871)	(9,803)	
Cumulative translation adjustment		36	(71)	
Comprehensive loss	\$ (12,835) \$	(9,874)	
Loss per share, basic and diluted	\$	(0.35) \$	(0.38)	
Weighted-average common shares used to compute loss per share, basic and diluted		36,879	25,556	

Phunware, Inc. Consolidated Statements of Changes in Redeemable Convertible Preferred Stock and Stockholders' Equity (In thousands)

Redeemable **Convertible Preferred** Additional Other **Total** Common Stock Stock Accumulated Comprehensive Stockholders' Paid-in Shares Amount Amount Capital Deficit **Equity** 110,265 (102,017) Balances as of December 31, 2017 24,559 3 (347) 7,904 \$ Exercise of stock options, net of vesting of restricted shares 276 152 152 1,085 Issuance of common stock, net of issuance costs 9,565 9,565 Issuance of Series A convertible preferred stock, net of issuance costs & fair value of warrants 5,377 6 1,333 (2,370)Recapitalization related to Reverse Merger (2,370)Stock-based compensation expense 450 450 Cumulative translation adjustment (71)(71) (9,803)Net loss (9,803) 6 \$ 5,377 27,253 3 \$ 118,062 \$ (111,820) (418)5,827 Balances as of December 31, 2018 Cumulative-effect adjustment resulting from the adoption of ASU 2014-09 (Note 2) 1,087 1,087 Exercise of stock options, net of vesting of restricted shares 506 287 287 Exercise of common stock warrants for cash 617 6,184 6,184 Exercise of common stock warrants pursuant to cashless provisions 10,913 (1) Series A convertible preferred stock redeemed for (6) (863)cash (5,377)(863)Waiver of sponsor promissory note originally issued in conjunction with Reverse Merger and 1,993 1,993 Recapitalization Stock-based compensation expense 1,784 1,784 Cumulative translation adjustment 36 36 Vesting of restricted stock units 45 Issuance of common stock for payment of bonus and 477 562 legal fees 562 Net loss (12,871)(12,871)39,811 4 128,008 (123,604)(382)4,026 Balances as of December 31, 2019

Phunware, Inc. Consolidated Statements of Cash Flows

(In thousands)

	Year	Ended Decen	nber 31,
	2019		2018
Operating activities			
Net loss	\$ (12	,871) \$	(9,803)
Adjustments to reconcile net loss to net cash provided by operating activities:			
Depreciation		59	62
Loss on sale of digital currencies		4	21
Bad debt expense		114	167
Amortization of acquired intangibles		268	372
Change in fair value of warrants		_	1,329
Impairment of digital currencies		_	334
Stock-based compensation	1	,784	450
Deferred income taxes		_	(387)
Changes in operating assets and liabilities:			
Accounts receivable	1	,817	2,439
Prepaid expenses and other assets		184	15
Accounts payable		740	4,156
Accrued expenses	1	,133	(5,789)
Deferred revenue		581	42
Net cash used by operating activities	(6	,187)	(6,592)
Investing activities			
Proceeds received from sale of digital currencies		88	913
Payments for note receivable		_	(536)
Capital expenditures		(18)	_
Net cash provided by investing activities		70	377
Financing activities			
Proceeds from convertible notes	1	,105	_
Proceeds from PhunCoin deposits		212	_
Net (repayments) proceeds from factoring agreement	(1	,357)	618
Proceeds from common stock subscriptions, net of issuance costs		_	5,448
Proceeds from warrant exercises	6	,092	_
Proceeds from exercise of options to purchase common stock		287	152
(Redemptions, dividend payments) and issuances of Series A convertible preferred stock	(6	,240)	6,000
Proceeds from Business Combination		_	98
Net cash provided for financing activities		99	12,316
Effect of exchange rate on cash and restricted cash		36	(65)
Net (decrease) increase in cash and restricted cash	(5	,982)	6,036
Cash and restricted cash at the beginning of the period	6	,344	308
Cash and restricted cash at the end of the period	\$	362 \$	6,344
Supplemental disclosure of cash flow information			
Interest paid	\$	603 \$	712

Phunware, Inc. Consolidated Statements of Cash Flows

(In thousands)

	Year Ended December 31,				
	2019		2019 2018		
Supplemental disclosure of non-cash information					
Common stock issuances from subscription payable	\$	_	\$	3,243	
Warrants issued in conjunction with Reverse Merger and Recapitalization	\$		\$	1,106	
Issuance of common stock for payment of bonus and legal fees	\$	562	\$	_	
Waiver of sponsor promissory note originally issued in conjunction with Reverse Merger and Recapitalization	\$	1,993	\$		

 $\label{thm:companying} \textit{The accompanying notes are an integral part of these consolidated financial statements}.$

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. (the "Company") 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. Phunware's Multiscreen as a Service ("MaaS") platform provides the entire mobile lifecycle of applications, media and data in one login through one procurement relationship. The Company's MaaS technology is available in software development kit form for organizations developing their own application, via customized development services and prepackaged solutions. Through its integrated mobile advertising platform of publishers and advertisers, the Company provides in-app application transactions for mobile audience building, user acquisition, application discovery, audience engagement and audience monetization. Founded in 2009, the Company is a Delaware corporation headquartered in Austin, Texas.

Reverse Merger

On February 27, 2018, Phunware entered into an Agreement and Plan of Merger, as amended (collectively, the "Merger Agreement") with Stellar Acquisition III, Inc. ("Stellar"). On December 26, 2018, the Company consummated the transaction contemplated by the Merger Agreement (the "Reverse Merger and Recapitalization"). In connection with the closing of the Reverse Merger and Recapitalization, the registrant changed its name from Stellar Acquisition III, Inc. to Phunware, Inc. ("Successor"). Furthermore, the holders of Phunware's preferred stock converted all of their issued and outstanding shares of preferred stock into shares of Phunware common stock at a conversion ratio of one share of common stock for each share of preferred stock (the "Preferred Stock Exchange"). Subject to the terms and conditions set forth in the Merger Agreement, at the effective time of the Reverse Merger and Recapitalization (the "Effective Time"): (i) all shares of Phunware common stock and preferred stock (the "Phunware Stock") issued and outstanding immediately prior to the Effective Time (after giving effect to the Preferred Stock Exchange) converted into the right to receive the Stockholder Merger Consideration (as defined below); (ii) each outstanding warrant to acquire shares of Phunware Stock was canceled, retired and terminated in exchange for the right to receive from the Successor a new warrant for shares of Successor common stock with its price and number of shares equitably adjusted based on the conversion of the shares of Phunware Stock into the Stockholder Merger Consideration, but with terms otherwise the same as the Phunware warrant (each, a "Replacement Warrant"); and (iii) each outstanding option to acquire Phunware Stock (whether vested or unvested) was assumed by the Successor and automatically converted into an option to acquire shares of Successor common stock, with its price and number of shares equitably adjusted based on the conversion of the shares of Phunware Stock into the Stockholder Merger Consideration".

Unless otherwise noted, the financial statements, footnotes, and basic and dilutive net loss per share presented give retroactive effect of the Reverse Merger and Recapitalization.

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.

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 the Company's 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.

The Company's assessment included the preparation of a detailed cash forecast that included all projected cash inflows and outflows. The Company continues to focus on growing its revenues. Accordingly, operating expenditures may exceed the revenue it expects to receive for the foreseeable future. Additionally, the Company has a history of operating losses and negative operating cash flows and expects these trends to continue into the foreseeable future.

Future plans may include obtaining new debt financings and credit lines, utilizing existing or expanding existing credit lines, issuing equity securities, including the exercise of warrants, and reducing overhead expenses. Despite a history of successfully implementing similar plans to alleviate the adverse financial conditions, these sources of working capital are not currently assured, and consequently do not sufficiently mitigate the risks and uncertainties disclosed above. There can be no assurance that the Company 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 the Company's capital needs and support its growth. If additional funding cannot be obtained on a timely basis and on satisfactory terms, its operations would be materially negatively impacted. The Company has therefore concluded there is substantial doubt about its ability to continue as a going concern through one year from the issuance of these financial statements.

The accompanying consolidated financial statements have been prepared on a going-concern basis, which contemplates the realization of assets and the satisfaction of liabilities in the normal course of business. The accompanying consolidated financial statements do not include any adjustments to reflect the possible future effects on the recoverability and classification of assets or the amounts and classification of liabilities that may result from uncertainty related to the Company's ability to continue as a going concern.

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, 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, reserves and certain accrued liabilities, the benefit period of deferred commissions 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.

Changes in Accounting Policies

On January 1, 2019, we adopted Financial Accounting Standards Board ("FASB") Accounting Standards Update ("ASU") No. 2014-09, Revenue from Contracts with Customers, as amended ("ASU 2014-09" or "ASC 606"), and have revised certain related accounting policies in connection with revenue recognition and deferred costs as more fully described below. Other recently adopted accounting policies can found under the subheading "Recently Adopted Accounting Standards" below.

Revenue Recognition

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. The Company enters 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, the Company uses 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, the Company determined that contracts do not include a significant financing component. The Company applies the 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.

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. As of December 31, 2019, approximately \$12,989 of revenue is expected to be recognized from remaining performance obligations, a majority of which is related to multi-year subscription and support and maintenance arrangements. The Company expects to recognize revenue on approximately 72% of these remaining performance obligations within the next 24 months and the remainder thereafter.

Significant Judgments

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.

Platform Subscriptions and Services Revenue

The Company derives subscription revenue from software license fees, which comprise subscription fees from customers licensing the Company's Software Development Kits (SDKs), which includes 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. The Company's contract terms generally range from one to three years. License fees are typically billed annually in advance.

Subscription revenue from SDK licenses gives the customer the right to access the Company's MaaS platform. In accordance with ASC 606, a 'right to access' license is recognized over the license period.

Application development revenue is derived from development services around designing and building new applications or enhancing existing applications. The Company recognizes application development revenue upon the transfer of control of the completed application or application development services. The Company typically bills 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.

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, the Company considers these separate performance obligations, which would require an allocation of consideration.

From time to time, the Company also provides professional services by outsourcing employees to customers on a time and materials basis. Revenues from these arrangements are recognized as the services are performed. The Company typically bills professional service customers in the month in which the services are performed.

Application Transaction Revenue

The Company also generates revenue by charging advertisers to deliver advertisements (ads) to users of mobile connected devices. Depending on the specific terms of each advertising contract, the Company generally recognizes 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 the Company recognizes revenue at the time the user views, clicks, or otherwise acts on the ad. The Company sells 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, the Company generates application transaction revenue thru in-app purchases from an application on our platform.

In the normal course of business, the Company acts 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 the Company is acting as the principal or an agent in its transactions with advertisers. Control is a determining factor in assessing principal versus agent relation. The determination of whether the Company is 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, the Company has determined that it is the principal in all advertising arrangements because it is 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, the Company acts as the principal in all advertising arrangements and therefore reports revenue earned and costs incurred related to these transactions on a gross basis.

Deferred Commissions

□ The Company defers commission costs and amortizes 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.

Changes in deferred commissions were as follows (in thousands):

	ed December 31, 2019
Balance, beginning of the period	\$ 369
Deferral of commissions earned	171
Recognition of commission expense	 (231)
Balance, end of the period	\$ 309

Concentrations of Credit Risk

The Company's financial instruments that are exposed to concentrations of credit risk consist primarily of cash and trade accounts receivable. Although the Company limits its exposure to credit loss by depositing its cash with established financial institutions that management believes have good credit ratings and represent minimal risk of loss of principal, its deposits, at times, may exceed federally insured limits. Collateral is not required for accounts receivable, and the Company believes the carrying value approximates fair value.

Revenue from Fox Networks Group ("Fox") was 50% and 42% of total net revenues for the years ended December 31, 2019 and 2018, respectively. Revenue from Fetch Media Ltd. was 21% of total revenue for 2018.

The following table sets forth the Company's concentration of accounts receivable, net of specific allowances for doubtful accounts.

	December 31, 2019	December 31, 2018
Fox Networks Group	<u> </u>	66%
HID Global	23%	—%
American Made Media Consultants, LLC	15%	 %
Presidio Networked Solutions LLC	11%	 %
MD Anderson	10%	 %

The Company completed its contractual obligations under its statement of work with Fox as of September 30, 2019. While the underlying master services agreement with Fox (setting forth general terms and conditions) remains in place, the Company does not have any active statements of work with Fox.

Cash, Cash Equivalents, and Restricted Cash

The Company considers all investments with a maturity of three months or less from the date of acquisition to be cash equivalents. The Company hadio cash equivalents at December 31, 2019 or 2018.

As a result of the issuance of the Notes (defined and discussed further below), the Company had \$86 in restricted cash as of December 31, 2019.

As a result of the Series A Financing (defined and discussed further below), the Company had \$5,500 in restricted cash as of December 31, 2018.

Accounts Receivable and Reserves

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

	Dec	cember 31, 2019	D	December 31, 2018		
Accounts receivable	\$	4,850	\$	6,882		
Less allowances for doubtful accounts		(3,179)		(3,276)		
Accounts receivable, net	\$	1,671	\$	3,606		

Changes in the allowance for doubtful accounts are as follows:

	D	ecember 31, 2019	December 31, 2018		
Balance as at beginning of period	\$	3,276	\$	3,089	
Allowances for bad debt		114		167	
Issuance of credit memos		(211)		20	
Balance at end of period	\$	3,179	\$	3,276	

Property and Equipment

Property and equipment are stated at cost, net of accumulated depreciation. Depreciation is computed using the straight-line method over the estimated useful lives of the related assets, generally ranging from three to seven years. Leasehold improvements are amortized over the shorter of their useful lives or the remaining terms of the related leases.

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*, the Company does 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.

The goodwill impairment test required by ASC 350 is a two-step process. The first step of the goodwill impairment test, used to identify potential impairment, compares the fair value of a reporting unit with its carrying amount, or the net book value of the company or reporting unit, including goodwill. If the fair value of a reporting unit exceeds its carrying amount, goodwill of the reporting unit is considered not impaired; thus, the second step of the impairment test is unnecessary. If the carrying amount of a reporting unit exceeds its fair value, the second step of the goodwill impairment test shall be performed to measure the amount of impairment loss, if any. The Company attributes goodwill to its sole reporting unit for impairment testing.

The fair value used by the Company was derived from the market capitalization approach, whereby the Company utilizes the historical market price of its stock traded on the Nasdaq to estimate the fair value of its 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 the Company's 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 the Company's best estimate of the distribution of the economic value of the identifiable intangible assets.

The Company did not recognize any goodwill or intangible impairment losses in the years ended December 31, 2019 or 2018.

Long-Lived Assets

Long-lived asset 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, the Company evaluates 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.

The Company did not recognize any impairment losses during the years ended December 31, 2019 or 2018.

Deferred Revenue

The Company's deferred revenue balance consisted of the following:

	Dec	December 31, 2019		ecember 31, 2018
Current deferred revenue				
Platform subscriptions and services revenue	\$	3,278	\$	1,506
Application transaction revenue		82		133
PhunCoin deposits		_		990
Total current deferred revenue	\$	3,360	\$	2,629
Non-current deferred revenue				
Platform subscriptions and services revenue	\$	3,764	\$	5,622
Total non-current deferred revenue	\$	3,764	\$	5,622
Total deferred revenue	\$	7,124	\$	8,251

Deferred revenue consists of customer billings or payments received in advance of the recognition of revenue under the arrangements with customers. The Company recognizes deferred revenue as revenue only when revenue recognition criteria are met. During the year ended December 31, 2019, the Company recognized revenue of \$3,585 that was included in its deferred revenue balance as of balance as of December 31, 2018.

During the second quarter of 2019, Phunware announced the launch of a separate token, Phun, in addition to its current token, PhunCoin. As a result of this expanded dual token structure, the Company believes the economic substance and business characteristics of all previously issued PhunCoin Rights changed such that PhunCoin would be the investment vehicle in the Company's blockchain-enabled data exchange. As a result, the Company has reclassified all PhunCoin deposits from deferred revenue to a separate line item, "PhunCoin deposits," on its consolidated balance sheet as of December 31, 2019.

Leases

Leases are reviewed and classified as capital or operating at their inception. For leases that contain rent escalations or periods during the lease term where rent is not required, the Company recognizes rent expense based on allocating the total rent payable on a straight-line basis over the term of the lease excluding lease extension periods. The difference between rent payments and straight-line rent expense is recorded as deferred rent. Deferred rent that will be recognized during the succeeding 12-month period is recorded as the current portion of deferred rent and is included in accrued expenses and other and the remainder is recorded in deferred rent on the consolidated balance sheets.

Advertising Costs

Advertising costs are expensed as incurred. Total advertising costs were \$0 and \$225 for the years ended December 31, 2019 and 2018, respectively, and were included in sales and marketing expenses on the consolidated statements of operations and comprehensive loss.

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. The Company recognized stock-based compensation expense for awards with only service conditions on a straight-line basis over the requisite service period of the related award. The Company has 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, 2019, the Company administered one employee retirement plan that qualified as a deferred salary arrangement under Section 401(k) of the Internal Revenue Code (the "IRC"). 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, 2019 or 2018.

Income Taxes

The Company accounts 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, the Company considers 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 the 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. The Company has not recognized interest or penalties on the consolidated balance sheets or statements of operations and comprehensive loss.

Redeemable Convertible Preferred Stock

In 2018, the Company issued 6,000 shares for aggregate cash proceeds of \$6,000 from the Series A 8% convertible preferred stock financing ("Series A Financing") in conjunction with the Reverse Merger and Recapitalization. In accordance with ASC 480, redemption provisions not solely within the control of the Company require the security to be classified outside of permanent equity.

Comprehensive Loss

The Company utilizes 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. The accumulated comprehensive loss at December 31, 2019 and 2018 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 the Company's 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 the Company's 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.

As of December 31, 2019 and 2018, 6,219 and 40,707 shares were restricted, respectively, relating to early exercises of the Company's 2009 Stock Option Plan and are excluded from basic shares outstanding for the years then ended.

Fair Value of Financial Instruments

Authoritative guidance on fair value measurements defines fair value, establishes a consistent framework for measuring fair value, and expands disclosures for each major asset and liability category measured at fair value on either a recurring or non-recurring basis. Fair value is an exit price representing the amount that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants. 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. As a basis for considering such assumptions, the authoritative guidance establishes a three-tier fair value hierarchy, which prioritizes the inputs used in measuring fair value as follows

- Level 1 Observable inputs such as quoted prices in active markets.
- Level 2 Inputs, other than the quoted prices in active markets, that are observable either directly or indirectly.
- Level 3 Unobservable inputs in which there is little or no market data, which require the reporting entity to develop its own assumptions.

The fair value hierarchy also requires an entity to maximize the use of observable inputs and minimize the use of unobservable inputs when measuring fair value.

The carrying value of accounts receivable, 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 17 for additional discussion on the Company's subsequent events.

Emerging Growth Company

Section 102(b)(1) of the JOBS Act exempts emerging growth companies from being required to comply with new or revised financial accounting standards until private companies (that is, those that have not had a Securities Act registration statement declared effective or do not have a class of securities registered under the Exchange Act) are required to comply with the new or revised financial accounting standards. The JOBS Act provides that a company can elect to opt out of the extended transition period and comply with the requirements that apply to non-emerging growth companies but any such an election to opt out is irrevocable. The Company has elected not to opt out of such extended transition period which means that when a standard is issued or revised and it has different application dates for public or private companies, the Company, as an emerging growth company, will adopt the new or revised standard at the time private companies adopt the new or revised standard.

Recently Adopted Accounting Standards

In May 2014, the FASB and the International Accounting Standards Board jointly issued Accounting Standards Update ("ASU") No. 2014-09 Revenue from Contracts with Customers, which is a comprehensive new revenue recognition standard

that will supersede nearly all existing revenue recognition guidance under U.S. GAAP and International Financial Reporting Standards. The standard's core principle is that a company will recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the company expects to be entitled in exchange for those goods or services. In doing so, companies will need to use more judgment and make more estimates than under previous authoritative guidance. These may include identifying performance obligations in the contract, estimating the amount of variable consideration to include in the transaction price, and allocating the transaction price to each separate performance obligation.

The Company elected to take advantage of the extended transition period provided in Securities Act Section 7(a)(2)(B) for complying with new or revised accounting standards. As a result, we adopted the ASU and related guidance as of January 1, 2019 using the modified retrospective method.

The most significant impact of the standard relates to the elimination of the requirement to have vendor specific objective evidence, or VSOE, of fair value to separate and recognize revenue for products and services in a contract. The elimination of the VSOE requirement causes a significant change to the timing of revenue recognition for multiple-element arrangements with our MaaS subscriptions, application development services and related support and maintenance on the development services that lacked VSOE of fair value. Under ASC 606, we recognize the application development services at the time of delivery to our customer and recognize the license subscription appropriately over the term of the subscription or support services ratably over the term of the subscription or support agreements. Due to the complexity of our revenue contracts, the actual revenue recognition treatment required under the new standard depends on contract-specific terms and in some instances may vary from recognition at the time of delivery. The timing of revenue recognized from professional services, support and maintenance and hardware remains substantially unchanged.

In addition, Accounting Standards Codification Subtopic 340-40, *Other Assets and Deferred Costs - Contracts with Customers*, or ASC 340, requires us to recognize an asset for the incremental costs of obtaining a contract with a customer if our sales incentive programs meet the requirements for capitalization. Previously we recorded these incremental costs of obtaining a contract as commission expense when we booked a sales transaction; whereas under ASC 340, we record an asset for the incremental cost to obtain a contract and recognize the cost over the period commensurate with revenue recognition.

When implementing ASC 606, the Company applied the practical expedient to reflect the aggregate effect of all contracts that were not completed as of January 1, 2019 when identifying satisfied and unsatisfied performance obligations, determining the transaction price, and allocating the transaction price to the satisfied and unsatisfied performance obligations.

The following table sets forth the cumulative impact of the adoption of the new revenue standard for select condensed consolidated balance sheet line items:

	Balance	Balance at December 31, 2018		Adjustments due to ASU 2014-09		Balance at January 1, 2019
Assets:						
Prepaid expenses and other current assets	\$	272	\$	369	\$	641
Liabilities:						
Deferred revenue short-term	\$	2,629	\$	(465)	\$	2,164
Deferred revenue long-term	\$	5,622	\$	(253)	\$	5,369
Stockholders' deficit:						
Accumulated deficit	\$	(111,820)	\$	1,087	\$	(110,733)

The following tables summarize the significant impacts of adopting ASC 606 on our financial statements as of and for the year ended December 31, 2019:

Consolidated Balance Sheet

		December 31, 2019						
As reported Impact of Adoption			Bal	ances Without Adoption of ASC 606				
Assets:								
Prepaid expenses and other current assets	\$	368	\$	(309)	\$	59		
Liabilities:								
Deferred revenue short-term	\$	3,360	\$	205	\$	3,565		
Deferred revenue long-term	\$	3,764	\$	113	\$	3,877		
Stockholders' deficit:								
Accumulated deficit	\$	(123,604)	\$	(627)	\$	(124,231)		

Consolidated Statement of Operations

	Year Ended December 31, 2019							
		As reported		Impact of Adoption	Am	ounts Without Adoption of ASC 606		
Net revenue	\$	19,150	\$	401	\$	19,551		
Sales and marketing	\$	2,706	\$	(60)	\$	2,646		
Net loss	\$	(12,871)	\$	461	\$	(12,410)		
Net loss per share, basic and diluted	\$	(0.35)	\$	0.01	\$	(0.34)		

In connection with our adoption of ASC 606 on January 1, 2019, there was an increase to the Company's deferred income tax liabilities and an offsetting reduction in the valuation allowance recorded against deferred tax assets. No income tax impact was recorded to retained earnings upon adoption as a result of the full valuation allowance on United States deferred tax assets. During the year ended December 31, 2019, there is no income tax expense or benefit recorded as a result of the adoption of the ASC 606.

In November 2016, the FASB issued ASU 2016-18, Statement of Cash Flows (Topic 230): Restricted Cash ("ASU 2016-18"), which provides amendments to current guidance to address the classification and presentation of changes in restricted cash in the statement of cash flows. We adopted ASU 2016-18 effective January 1, 2019 on a retrospective basis. As a result of this retrospective adoption, the reclassification of restricted cash into a change in total cash resulted in an increase in cash provided by financing activities of \$5,500 for the year ended December 31, 2018. The following table sets forth a reconciliation of cash, cash equivalents and restricted cash reported within the consolidated balance sheet that sum to the total of the same such amounts shown in the consolidated statement of cash flows.

Balance at the Beginning of Period	 January 1, 2019	January 1, 2018
Cash and cash equivalents	\$ 844	\$ 308
Restricted cash	5,500	_
Total cash, cash equivalents, and restricted cash shown in the consolidated statement of cash flows	\$ 6,344	\$ 308

Balance at the End of Period	December 31, 2019	December 31, 2018
Cash and cash equivalents	\$ 276	\$ 844
Restricted cash	86	5,500
Total cash, cash equivalents, and restricted cash shown in the consolidated statement of cash flows	\$ 362	\$ 6,344

In January 2017, the FASB issued ASU 2017-01, Business Combinations (Topic 805): Clarifying the Definition of a Business ("ASU 2017-01"). ASU 2017-01 provides a new framework for entities to determine whether a set of assets and activities (together referred to as "a set") is a business. The amendments in the ASU will assist entities when they evaluate whether transactions should be accounted for as acquisitions (or disposals) either of businesses or of assets. This distinction is important since there are significant differences between the accounting for business combinations and the accounting for acquisitions of assets. The Company adopted this guidance for the fiscal year ended December 31, 2019. The adoption of this standard did not have an impact to the consolidated financial statements upon adoption.

In June 2018, the FASB issued ASU No. 2018-07, Compensation - Stock Compensation (Topic 718): Improvements to Non-Employee Share-Based Payment Accounting ("ASU 2018-07"), which simplifies the accounting for nonemployee share-based payment transactions for acquiring goods and services. Currently, the accounting requirements for nonemployee and employee share-based payment transactions are significantly different. This standard expands the scope of Topic 718 to include share-based payments issued to nonemployees for goods or services by aligning the accounting for share-based payments to nonemployees and employees. As the Company is an emerging growth company and has elected to defer implementation of new or updated accounting standards, ASU 2018-07 is effective for the Company for annual reporting periods beginning after December 15, 2019, and interim periods within fiscal years beginning after December 15, 2020. However, early adoption is permitted, but no earlier than the entities adoption of Topic 606. The Company adopted this Update during its fiscal year ended December 31, 2019. The adoption did not have a material impact on the Company's consolidated financial statements.

Recent Accounting Standards Not Yet Adopted

In February 2016, the FASB issued ASU No. 2016-02, Leases (Topic 842) ("ASU 2016-02"). 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. For leases with a term of 12 months or less, a lessee is permitted to make an accounting policy election by class of underlying asset not to recognize lease assets and lease liabilities. Under current U.S. GAAP, the Company recognizes rent expense on a straight-line basis for all operating leases, taking into account fixed accelerations, as well as reasonably assured renewal periods. In November 2019, the FASB issued Accounting Standards Update ("ASU") No. 2019-10 ("ASU 2019-10"). ASU 2019-10 delayed the effective date of ASU 2016-02 for certain types of businesses, including private companies. Under the JOBS Act, the Company has previously elected not to opt out of such extended transition period which means that when a standard is issued or revised and it has different application dates for public or private companies, the Company, as an Emerging Growth Company ("EGC"), can adopt the new or revised standard at the time private companies adopt the new or revised standard. Accordingly, this ASU is now effective for the Company for fiscal years beginning after December 15, 2020, and interim periods within those fiscal years. Although earlier application is permitted, the Company plans to implement this guidance beginning the first quarter of its fiscal year 2021. The Company currently does not expect the ASU 2016-02 to materially impact our results of operations; although, based upon our current operating leases outstanding, we believe this guidance may have a material impact on our consolidated balance sheet. We do not plan on recasting prior periods.

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 to estimate credit losses for most financial assets and certain other instruments. In addition, for available-forsale 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 ("SRC") as defined by the Securities and Exchange Commission ("SEC"), the standard is currently effective for the Company 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 ASU No. 2016-13 effective January 1, 2023. Entities will apply the standard's provisions by recording a cumulative-effect adjustment to retained earnings. We do not expect the adoption of ASU 2016-13 to have a material impact on our consolidated financial statements and disclosures.

In January 2017, the FASB issued ASU 2017-04, *Intangibles—Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment* ("ASU 2017-04"). ASU 2017-04 simplifies how all entities assess goodwill for impairment by eliminating Step 2 from the goodwill impairment test. As amended, the goodwill impairment test will consist of one step; comparing the fair value of a reporting unit with its carrying amount. An entity should recognize a goodwill impairment charge

for the amount by which the carrying amount exceeds the reporting unit's fair value. Public business entities that are SEC filers should adopt the amendments in this ASU for their annual or any interim goodwill impairment tests in fiscal years beginning after December 15, 2019. As an SRC, the amendments in this Update would be effective for the Company for its annual or any interim goodwill impairment tests in fiscal years beginning after December 15, 2022. Early adoption is permitted for interim or annual goodwill impairment tests performed on testing dates after January 1, 2017. The Company does not anticipate the adoption of ASU 2017-04 will have a material impact on our consolidated financial statements and disclosures.

In August 2018, the FASB issued ASU 2018-13, Fair Value Measurement (Topic 820): Disclosure Framework—Changes to the Disclosure Requirements for Fair Value Measurement ("ASU 2018-13"). ASU 2018-13 improves the effectiveness of disclosures about fair value measurements required under ASC 820. ASU 2018-13 is effective for all entities for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. The amendments on changes in unrealized gains and losses, the range and weighted average of significant unobservable inputs used to develop Level 3 fair value measurements, and the narrative description of measurement uncertainty should be applied prospectively for only the most recent interim or annual period presented in the initial fiscal year of adoption. All other amendments should be applied prospectively to all periods presented upon their effective date. Early adoption is permitted upon issuance of this Update. An entity is permitted to early adopt any removed or modified disclosures upon issuance of this Update and delay adoption of the additional disclosures until their effective date. The Company does not believe the adoption of ASU 2018-13 will have a material effect on our financial statements and their disclosures.

In December 2019, the FASB issued Accounting Standard Update No. 2019-12, Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes ("ASU 2019-12"), which simplifies the accounting for income taxes. Should the Company retain its EGC status through the fifth anniversary of the date of its initial public offering, this guidance will be effective for us in our financial statements and consolidated notes thereto for the fiscal year ending December 31, 2021 on a prospective basis. Early adoption is permitted. The Company is currently evaluating the impact of the new guidance on its consolidated financial statements.

3. Reverse Merger

As more fully described above, on February 27, 2018, Phunware entered into the Merger Agreement with Stellar, and on December 26, 2018, the Company consummated the Reverse Merger and Recapitalization. The aggregate merger consideration paid to Phunware stockholders amounted to approximately \$301,000 plus adjustments for cash on-hand as of the date of Closing. The merger consideration paid to Phunware stockholders was paid in the form of number shares of Successor common stock at a rate of 0.459 shares of Successor stock for each share of Phunware Stock. In addition, each holder of Phunware common and convertible preferred stock was entitled to elect to receive such holder's pro rata share of up to an aggregate of 3,985,244 warrants (the "Transfer Sponsor Warrants") to purchase shares of Successor common stock that are currently held by certain shareholders of Stellar.

As consideration for the Transfer Sponsor Warrants transferred to Phunware stockholders, a promissory note was issued to the Sponsors (the "Transfer Sponsor Warrant Note"). The amount of the note was approximately \$1,993, which represented \$0.50 per warrant transferred to former stockholders of Phunware. The Transfer Sponsor Warrant Note bore no interest and was to mature on December 26, 2019. Stockholders of Phunware forfeited 187,188 shares to receive 3,985,244 Transfer Sponsor Warrants. On January 15, 2019, the Transfer Sponsor Warrant Note was waived and forgiven by the noteholders.

The Company issued 2,211,572 Private Placement Warrants to the Sponsors as repayment in full for certain promissory notes (not the Transfer Sponsor Warrant Note) at the closing of the Reverse Merger and Recapitalization. In connection with the consummation of the Reverse Merger and Recapitalization, certain holders of shares of Stellar common stock sold in its initial public offering ("Public Shares") exercised their right to redeem their Public Shares for cash. As a result of these redemptions, the cash proceeds to the Company as a result of the Reverse Merger and Recapitalization was \$400 before transaction costs.

In addition, 6,000 shares for aggregate cash proceeds of \$6,000 from the Series A 8% convertible preferred stock financing ("Series A Financing") were issued in conjunction with the Business Combination. In connection with the Series A Financing, certain Stellar shareholders transferred an aggregate of 250,000 shares of Stellar common stock and 250,000 warrants to purchase shares of Stellar common stock to the Series A Financing investor, and 81,391 shares to certain service providers. See Note 11 for additional discussion on the Series A Financing.

The Sponsors are Astra Maritime Inc. and Dominium Investments Inc., affiliated with the former chairman of the Company's board of directors and Magellan Investments Corp. and Firmus Investments Inc., affiliated with a member of our board of directors.

4. Goodwill and Other Intangible Assets

Goodwill

Changes in the Company's goodwill balance for the years ended December 31, 2019 and 2018, are summarized in the table below:

	 2019	 2018
Balance as at beginning of period	\$ 25,821	\$ 25,886
Foreign currency translation	36	(65)
Balance at end of period	\$ 25,857	\$ 25,821

Intangible Assets

The Company's 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:

			December 31, 2019				December 31, 2018						
	Weighted Average Useful Life (years)	C	Gross arrying Amount		Accumulated Amortization		t Carrying Amount		Gross Carrying Amount		Accumulated Amortization		Carrying Amount
Trade name	4.6	\$	649	\$	(649)	\$		\$	648	\$	(648)	\$	_
Acquired technology	5.1		4,828		(4,798)		30		4,828		(4,763)		65
In-process research and development	5.0		94		(94)		_		94		(94)		_
Customer relationships	5.7		4,604		(4,381)		223		4,576		(4,120)		456
Order backlog	1.5		329		(329)		_		329		(329)		_
		\$	10,504	\$	(10,251)	\$	253	\$	10,475	\$	(9,954)	\$	521

Amortization expense for the years ended December 31, 2019 and 2018, was approximately \$268 and \$372 respectively.

Expected future annual amortization expense for finite-lived intangible assets as of December 31, 2019, is as follows:

Year	Amortization
2020	\$ 142
2021	90
2022 2023	21
2023	_
Total	\$ 253

5. Property and Equipment

Property and equipment are stated at cost, net of accumulated depreciation and amortization. Depreciation is computed using the straight-line method over the estimated useful lives of the related assets, generally ranging from three to seven years. Leasehold improvements are amortized over the shorter of their useful lives or the remaining terms of the related leases. The estimated useful lives of property and equipment consist of the following:

	Life (years)	December 31, December 31, Life (years) 2019 20		,	
Equipment	3-5	\$	907	\$	907
Furniture and fixtures	7		32		32
Leasehold improvements	5 or remaining lease term		258		241
Total property and equipment		\$	1,197	\$	1,180
Accumulated depreciation			(1,173)		(1,114)
Total property and equipment, net		\$	24	\$	66

Total depreciation expense was \$59 and \$62 for the years ended December 31, 2019 and 2018, respectively.

6. Accrued Expenses

Accrued expenses consist of the following:

	Decem 20	ber 31, 19	December 31, 2018		
Partner revenue share	\$	155	\$	201	
Payroll related expenses		3,202		2,496	
Taxes		323		123	
Other		355		208	
Total accrued expenses	\$	4,035	\$	3,028	

7. Factoring Agreement

On June 15, 2016, the Company entered into a factoring agreement with CSNK Working Capital Finance Corp. (d/b/a Bay View Funding) ("Bay View") whereby it sells select accounts receivable with recourse.

Under the terms of the agreement, Bay View may make advances to the Company of amounts representing up to80% 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 are 1.80% for the first 30 days and is 0.65% for every ten days thereafter, to a maximum of 90 days total outstanding. The Company bears the risk of credit loss on the receivables. These receivables are accounted for as a secured borrowing arrangement and not as a sale of financial assets

Factor expense of \$555 and \$718 for the years ended December 31, 2019 and 2018, respectively, was recorded as interest expense in other income (expense) on the consolidated statements operations and comprehensive loss. The amount of the factored receivables outstanding was \$1,077 and \$2,434 as of December 31, 2019 and 2018, respectively. There was \$1,923 and \$566 available for future advances as of December 31, 2019 and 2018 respectively.

8. Debt

Convertible Notes

During the second quarter of 2019, the Company's 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 the Company's sole discretion, cryptocurrency, such as Bitcoin or Ethereum. The Convertible Notes will be sold in reliance on an exemption from registration. The Company 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.

The Convertible Notes bear 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 may be deferred until the earlier of (i) repayment in full of all remaining unpaid principal, and (ii) conversion. The Convertible Notes mature on June 3, 2024.

The Convertible Notes are convertible into shares of the Company's common stock at a price of \$1.50 per share. Each Convertible Note will convert voluntarily upon a holder's election, or automatically upon the closing sale price of the Company's common stock equals or exceeds \$17.25 per share for 20 out of 30 consecutive trading days, if a registration statement is then in effect covering the disposition of the converted shares.

The Company has one Convertible Note with a balance outstanding of \$250 as of December 31, 2019. Transaction costs related to the issuance of the Convertible Note was immaterial. Interest expense related to the Convertible Note for the year ended December 31, 2019, and interest payable as of December 31, 2019 was immaterial.

Promissory Notes

During the fourth quarter of 2019, the Company's 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 the Company's sole discretion, cryptocurrency, such as Bitcoin or Ethereum. The Notes will be sold in reliance on an exemption from registration provided by Section 4(a)(2) of the Securities Act, and Rule 506 of Regulation D promulgated thereunder. The Company may prepay the Notes at any time without penalty. The Company 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.

The Notes bear ordinary interest at a rate of 10% per annum. Interest under the Notes is payable monthly beginning on November 30, 2019. During the term of the Notes, the Company will 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 the Company under the Notes. The principal and unpaid accrued interest on the Notes will be due and payable on demand by the majority Note holders on or after the date that is 60 months following November 15, 2019. If an event of default occurs under the Notes, the majority Note holders may cause all principal and unpaid interest under the Notes to become immediately due and payable. In such event, the Notes will thereafter accrue interest at a rate of 12% per annum. Upon agreement between the Company and any senior creditor, the Notes will be subject to subordination in the right of payment to all current and future indebtedness or obligations of the Company for borrowed money to banks, commercial finance lenders, and other institutions regularly engaged in the business of lending money, or for factoring arrangements to parties providing such factoring.

The Notes has a balance outstanding of \$855 as of December 31, 2019. Transaction costs related to the issuance of the Notes was immaterial. Interest expense related to the Notes for the year ended December 31, 2019, and interest payable under the Notes as of December 31, 2019 was immaterial.

9. Commitments and Contingencies

Leases

The Company has operating office space leases in Austin, Texas; Irvine, California; San Diego, California; and Miami, Florida. Rent expense under operating leases totaled \$727 and \$643 for the years ended December 31, 2019 and 2018, respectively.

On July 16, 2019, the Company entered into a lease agreement with BRE CA Office Owner, LLC for new office space in Irvine, California, for the lease of approximately,687 rentable square feet located at 16845 Von Karman Avenue (the "Lease"). The Lease commences on November 1, 2019, and terminates on March 31, 2025, subject to one five-year renewal option. Under the Lease, the Company will pay monthly rent of approximately \$354 per year for the first year, with such rent increasing by a specified amount every year thereafter. The Lease also obligates the Company to pay its proportionate share of certain cost increases incurred by the landlord. The Company may receive certain abatements subject to the terms and conditions of the Lease. The Company was also obligated to pay a security deposit of approximately \$118.

On August 20, 2019, the Company entered into a lease amendment with Seamless Shoal Creek, LLC to extend its current lease in Austin, Texas (the "Amendment"). The Amendment commences on April 1, 2020, and terminates on March 31, 2022, with no renewal options. Under the Amendment, the Company will pay monthly rent of approximately \$223 and \$231 per year for the first year and second year, respectively. The Amendment also obligates the Company to pay its proportionate share of certain cost increases incurred by the landlord.

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

Future minimum lease obligations years ending December 31,		Lease ligations
2020	\$	791
2021		836
2022		725
2023		622
2024		609
Thereafter		209
Total	\$	3,792

Litigation

On September 26, 2017, the Company filed a breach of contract complaint against Uber Technologies, Inc. ("Uber") seeking approximately \$3,000 (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. On November 13, 2017, Uber generally denied the allegations in the Company's complaint and also filed a cross-complaint against Phunware and Fetch Media, Ltd. ("Fetch") - the advertising agency Uber retained to run its mobile advertising campaign for the period 2014 through the first quarter of 2017 (the "Fetch Campaign"), asserting numerous fraud and contract-based claims. All the claims stem from Uber's allegation that Fetch and/or the Company (and/or other-as-yet-unidentified ad networks and publishers) are liable for the Fetch Campaign, under which Uber allegedly overpaid Fetch and mobile advertising providers due to allegedly fraudulent attribution for installments of the Uber application. Uber did not allege any specific dollar amount that it is seeking in damages against either of the named cross-defendants (Fetch and Phunware). Phunware filed a motion to dismiss the cross-complaint, which was heard on February 7, 2018. The motion was granted in part and denied in part by the Court. On April 16, 2018, the action was designated complex, and the matter was assigned for all purposes to Judge Wiss of the Superior Court of California, San Francisco County (Department 305). In March 2019, Uber and Fetch settled Uber's claims against Fetch on terms that have not been disclosed to Phunware at this time. On May 7, 2019, the Company retained new counsel. In June 2019, the Court set a new trial date of April 20, 2020. On June 26, 2019, the case was reassigned for all purposes to Judge Jackson of the Superior Court of California, San Francisco County (Department 613). On July 12, 2019, Uber filed its First Amended Cross-Complaint, naming new individual cross-defendants (Phunware Chief Executive Officer Alan S. Knitowski, and former Phunware employees D. Stasiuk, M. Borotsik, and A. Cook) accused of 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 claims treble damages, general and punitive damages, and attorneys' fees and costs. On October 1, 2019, Alan S. Knitowski ("Knitowski") filed his Motion to Quash Service of Summons, which was denied on October 29, 2019. On October 7, 2019, D. Stasiuk, M. Borotsik, and A. Cook filed their Motion to Quash Service of Summons, which was denied on December 17, 2019. On December 2, 2019, the case was reassigned for all purposes to Judge Cheng of the Superior Court of California, San Francisco County (Department 613). On January 22, 2020, the Court assigned the case to Judge Wiss of the Superior Court of California, San Francisco County (Department 305) for purposes of trial. On March 13, 2020, the Court ordered Phunware to pay \$78 in monetary sanctions based on a discovery motion brought by Uber. Discovery is continuing. On March 13, 2020, the Court announced that jury trials will be continued for 90 days from the date they have been scheduled in response to the COVID-19 pandemic. The Company maintains that its claims against Uber are meritorious and that Uber's claims against the Company are not. However, Phunware makes no predictions on the likelihood of success of prevailing on its contract action against Uber or on the likelihood of defeating Uber's claims against the Company.

On December 17, 2019, certain stockholders (the "Plaintiffs") 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 "Lawsuit"). 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. According to the Plaintiffs, the price of Phunware stock dropped significantly during the lock up period. The Plaintiffs seek unspecified damages in excess of one million dollars. The Company maintains the Plaintiffs' claims are without merit and intends to contest vigorously the claims asserted in the Lawsuit. All defendants have answered. No discovery has been issued, and no trial setting or scheduling order is in place.

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

Plaintiffs are seeking monetary damages in the amount of \$690 for alleged unpaid invoices related to legal services rendered in conjunction with the Reverse Merger and Recapitalization for Stellar, plus legal and court costs. The Company has 30 days to respond to the complaint. The Company has \$690 in accounts payable and accrued expenses in the consolidated balance sheet as of December 31, 2019 and 2018 related to the alleged unpaid invoices.

From time to time, the Company is 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.

10. PhunCoin & PhunToken

PhunCoin

In June 2018, PhunCoin, Inc., the Company's wholly-owned subsidiary, launched an offering pursuant to Rule 506(c) of Regulation D as promulgated under the Securities Act of rights (the "Rights") to acquire PhunCoin (the "Token").

PhunCoin, Inc. accepts payment in the form of cash and digital currencies 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 Token Generation Event (as defined below) before taking into consideration an applicable discount rate, which is based on the time of the purchase.

Through December 31, 2019, the Company received cash proceeds from its Rights offering of \$1,207, pursuant to which the holders of the Rights will receive an aggregate of approximately 577.9 million PhunCoin if the Token Generation Event occurs. Proceeds from the Rights are recorded as PhunCoin deposits in the Company's consolidated balance sheet as of December 31, 2019. The Company currently does not plan to raise additional proceeds from its PhunCoin Rights offering.

The rights, privileges, and obligations of Rights holders are set forth as follows:

Issuance of PhunCoin Tokens

The PhunCoin is expected to be issued to Rights holders the earlier of (i) the launch of PhunCoin's, Inc.'s blockchain technology enabled rewards marketplace and data exchange ("Token Generation Event"), (ii) one (1) year after the issuance of the Rights to the purchaser, or (iii) the date PhunCoin, Inc. determines that it has the ability to enforce resale restrictions with respect to PhunCoin pursuant to applicable federal securities laws. Proceeds from the Rights offering are generally not refundable if the Token Generation Event is not consummated; however, the Company believes PhunCoin, Inc. has a contractual obligation to use good faith efforts to issue a Token to Rights holders under the Token Rights Agreement.

The Company currently anticipates that PhunCoin will be issued to the holders of the Rights in 2020. Holders of the Rights may be issued PhunCoin even if the Token Ecosystem is not yet operational. PhunCoin will have no usefulness until the Token Ecosystem is operational because PhunCoin is expected to only be useable on the Token Ecosystem.

There can be no assurance as to when (or if) the Company will be able to successfully launch the Token Ecosystem. The Company is currently developing multiple aspects of the Token Ecosystem and expects that a review (beta) period will likely conclude in the first half of 2020. The final software readiness date of the Token Ecosystem may be adjusted based on user feedback provided in the review (beta) period and thus 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 PhunCoin, Inc. may extend at its sole discretion if a Token Generation Event has not occurred. Upon termination of the Token Rights Agreement, PhunCoin, Inc. has no further obligation to the Rights holder. PhunCoin, Inc. has extended the termination date of the Token Rights Agreement.

Dissolution Event

A dissolution event occurs if there has been (i) a voluntary termination of PhunCoin, Inc.'s operations, (ii) a general assignment for the benefit of PhunCoin, Inc.'s 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 PhunCoin, Inc.

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 PhunCoin, Inc.in its operations or for the development of the PhunCoin Ecosystem, such remaining proceeds would be distributed pro rata to purchasers in the Rights offering following any distributions to holders of PhunCoin, Inc.'s 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, PhunCoin, Inc. 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, the Company issued warrants to receive an aggregate of approximately 27,400,000 PhunCoins to sixty-eight (68) stockholders. Should the Company complete a Token Generation Event, the stockholders would receive their requisite amount of PhunCoin. The Company believes there is no traditional "exercise period" or 'term" as with other typical embedded features, and the PhunCoin warrants were originally issued in conjunction with the Company's Series F Preferred Stock financing. The PhunCoin warrants lack characteristics of financial instruments and derivatives. In addition, the PhunCoin warrants do not obligate the Company to achieve the Token Generation Event or launch and distribute the PhunCoins to the warrantholders. Currently, there is no market for PhunCoin, and they do not exist. Accordingly, at the time of the issuance, the Company has determined there is no value assigned to the warrants of PhunCoin issued to the stockholders.

PhunToken ("Phun")

During the second quarter of 2019, Phunware announced the launch of a separate token, Phun, which is meant to act as a medium of exchange within the Token Ecosystem. Phun will be issued through a separate, wholly-owned subsidiary, Phun Token International, available initially only to persons outside of the United States and Canada. Consumers may receive Phun for actively engaging in marketing campaigns; developers and publishers may receive Phun for utilizing Phunware's loyalty software development kit in order to better engage, manage and monetize their consumers; and brands will gain access to more relevant, verifiable data by accessing Phunware's data exchange and using Phun for their own loyalty programs. As of December 31, 2019, the Company had not sold any Phun.

11. Series A Convertible Preferred Stock

In connection to the consummation of the Reverse Merger and Recapitalization, Phunware issued 6,000 shares to a single investor for aggregate cash proceeds of \$6,000 from the Series A 8% convertible preferred stock financing ("Series A Financing") with stated value of \$1,000 per share. The Company deposited \$5,500 of the \$6,000 proceeds into a restricted escrow account in accordance with the securities purchase agreement entered into with the investor.

The shares are mandatorily redeemable in cash at the following schedule; (i)104% of the aggregate value of three thousand (3,000) shares on the 30 day anniversary of the issuance; (ii) 104% of the aggregate value of two thousand five hundred (2,500) shares on the 60th anniversary of the original issue; and (iii)104% of the aggregate value of five hundred (500) shares of the 90th anniversary of the original issue. On the 30-day, 60-day, and 90-day anniversaries of the issuance, the holder redeemed an aggregate of 6,000 shares of the Series A convertible preferred stock for total proceeds of \$,240, representing \$6,000 original issue price and \$240 of dividends. Of the proceeds paid to the holder, \$5,500 was paid from the restricted cash account, and \$740 from the Company's operating account.

The Preferred Stock was also convertible into shares of the Company's common stock at the option of the holder at a price of \$1.50 per share, subject to adjustments for stock dividends, stock splits and other recapitalization type events and antidilutive events which would include subsequent issuances of equity or equity linked securities at prices more favorable than the conversion price of these preferred shares. Generally, the Preferred Stock did not have voting rights. The holder did not convert any of the Series A convertible preferred stock prior to the redemption dates.

In the event of liquidation, dissolution or winding up of the Company the Preferred Stock would be entitled to receive assets ahead of the Company's common stockholders. Total preferred stock authorized to be issued as of December 31, 2019 was 100,000,000 shares, with a par value of \$0.0001 per share. There were 0 and 6,000 shares of preferred stock outstanding as of December 31, 2019 and 2018, respectively.

12. Stockholders' Equity

Common Stock

Total common stock authorized to be issued as of December 31, 2019 was1,000,000,000 shares with a par value of \$0.0001 per share. At December 31, 2019 and 2018, there were 39,817,917 and 27,253,457 shares outstanding, inclusive of 6,219 and 40,707 restricted shares subject to repurchase for unvested shares related to early option exercises under the Company's stock equity plans, respectively.

During 2019, the Company issued an aggregate of 11,530,442 shares of common stock related to various cash and cashless (net) exercises of warrants for common stock. Cash exercises for warrants for 617,296 shares of common stock resulted in aggregate gross proceeds of approximately \$,184, of which \$6,092 was received in cash and \$92 was received in digital currencies. Furthermore, there were 13,975,359 warrants exercised under cashless (net) provisions resulting in the issuance of 10,913,146 shares of common stock. See further discussion regarding details of the Company's various warrants below.

In 2018, the Company completed several closings of stock financing. During 2018, the Company issued1,085,096 shares for cash proceeds of \$9,565, net of issuance costs, respectively.

Dividends

Dividends are paid on a when-and-if-declared basis. The Company did not declare any dividends during 2019 or 2018.

Warrants

A summary of the Company's warrant activity by warrant type is as follows:

				Warrants/U	PO's Exercised	Warrants
Warrant Type	 ish Exercise ce per share	Warrants/UPO's Outstanding 12/31/2018	Warrants issued for UPO exercises	Cash	Cashless	Outstanding 12/31/2019
Common stock warrant (Series D-1)	\$ 5.54	14,866	_	_	_	14,866
Common stock warrants (Series F)	\$ 9.22	1,085,059	_	(400,740)	(306,917)	377,402
Public Warrants (PHUNW)	\$ 11.50	6,900,610	_	_	(5,139,319)	1,761,291
Private Placement Warrants	\$ 11.50	10,182,060	_	(216,556)	(8,307,123)	1,658,381
Unit Purchase Options (UPOs)	\$ 11.50	130,000	_	_	(130,000)	_
Unit Purchase Option Warrants	\$ 11.50		116,172		(92,000)	24,172
Total		18,312,595	116,172	(617,296)	(13,975,359)	3,836,112

In 2012, the Company issued a warrant to purchase an aggregate of 14,866 shares of the Company's common stock with an exercise price of \$5.54 per share to a banking institution with which the Company previously had a revolving line of credit. 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 and Recapitalization 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 the Reverse Merger and Recapitalization, the Company issued warrants to purchase an aggregate of 1,085,059 shares of the Company's 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 shareholders 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 and Recapitalization did not trigger an expiration of the warrant pursuant to term (ii) or (iii) above. These warrants are fully vested.

The Company has 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. No fractional shares will be issued upon exercise of the Public Warrants. The Public Warrants became exercisable for cash 30 days after the completion of the Reverse Merger and Recapitalization. In addition, if a registration statement covering the shares of common stock issuable upon exercise of the Public Warrants was not filed with the SEC and declared effective within 90 days from the consummation the Reverse Merger and Recapitalization, holders were entitled to exercise warrants on a cashless basis pursuant to an available exemption from registration under the Securities Act. The Company was unable to have the registration statement declared effective by the 90-day deadline, although it was declared effective on May 14, 2019. As of December 31, 2019, 5,139,319 Public Warrants have been exercised on a cashless basis that resulted in the issuance of 2,951,741 shares. The Company 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 the Company's shares of 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 five years after the completion of the Reverse Merger and Recapitalization or earlier upon redemption or liquidation.

The Company also has Private Placement Warrants outstanding (the "Private Placement Warrants"). Each Private Placement Warrant entitles the holder to purchase one share of common stock at an exercise price of \$11.50 per share. The Private Placement Warrants became exercisable 30 days after the completion of the Reverse Merger and Recapitalization. The Private Placement Warrants are exercisable for cash (even if a registration statement covering the common stock issuable upon exercise of such warrants is not effective) 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.

Unit Purchase Option ("UPOs")

The Company sold to the underwriters for its initial public offering in 2016 an option to purchase up to a total off 30,000 units, at an exercise price of \$11.50 per unit. The units are comprised of one share of common stock and one warrant to purchase common stock. The unit purchase option may be exercised for cash or on a cashless basis, at the holder's option, at any time during the period commencing on the closing of the Reverse Merger and Recapitalization and terminating on the fifth anniversary of the Reverse Merger and Recapitalization. The units issuable upon exercise of this option are identical to those offered in the Company's initial public offering in 2016. The unit purchase option may be exercised for cash or on a cashless basis, at the holder's option, such that the holder may use the appreciated value of the unit purchase option (the difference between the exercise prices of the unit purchase option and the underlying Warrants and the market price of the UPO and underlying ordinary shares) to exercise the unit purchase option without the payment of cash. The warrants issued pursuant to UPO exercises have the same terms as the Private Placement Warrants described above. As of December 31, 2019, all UPOs had been exercised, and 24,172 warrants related to the UPO exercise remained outstanding.

13. Stock-Based Compensation

2018 Equity Incentive Plan

In connection with the consummation of the Reverse Merger and Recapitalization, 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 to the Successor or any parent or subsidiary, 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.

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) 10% of the post-closing outstanding 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 Reverse Merger and Recapitalization, are assumed in connection with the Reverse Merger and Recapitalization, 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, on or after the Reverse Merger and Recapitalization, are forfeited to or repurchased by us, with the maximum number of shares of common stock that may be added to the 2018 Plan pursuant to the foregoing equal to 1,471,669 as of December 31, 2019.

For the year ended December 31, 2019, the restricted stock units were the only stock-based incentives granted under the 2018 PlanA summary of the Company's restricted stock unit activity under the 2018 Plan is set forth below:

		Weighted Average Grant Date Fair
	Shares	Value
Outstanding as of December 31, 2018	_	\$ —
Granted	3,245,922	2.93
Released	(521,979)	1.79
Forfeited	(286,975)	3.10
Outstanding as of December 31, 2019	2,436,968	\$ 3.15

Not including the maximum number of shares from the 2009 Plan that may be added to the 2018 Plan noted above, the 2018 Plan hat 205,206 and 2,729,416 shares of common stock reserved for future issuances as of December 31, 2019 and 2018, respectively.

During the second quarter of 2019, we granted 620,363 restricted stock units to employees and 45,000 restricted stock units to non-employee directors, each with a grant date fair value of \$7.34 per share. The awards granted to team members vest over eighteen months in three equal installments on May 18, 2020, August 18, 2020, and November 18, 2020, respectively, and are subject to service conditions. The awards granted to non-employee directors vest in two equal installments on July 1, 2019 and December 26, 2019, respectively, and are subject to service conditions.

During the third quarter of 2019, we granted 1,603,000 restricted stock units to team members with an average grant date fair value of \$2.11 per share. The awards granted to team members vest over an average of 4 years with various installment and vesting dates, and are subject to service conditions.

During the fourth quarter of 2019, we granted 240,964 restricted stock units to team members,336,595 restricted stock units to non-employees directors and 400,000 restricted stock units to a non-employee service provider with an average grant date fair value of \$1.26 per share. The restricted stock units awarded to team members in lieu of cash compensation for bonuses earned in 2018. The awards granted to team members and non-employee directors have various installment and vesting dates, and were 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.

2018 Employee Stock Purchase Plan

Also, in connection with the consummation of the Reverse Merger and Recapitalization, our board of directors adopted, and our stockholders approved, the 2018 ESPP will be administered by our board of directors or a committee appointed by the board (the "administrator"). The purpose of the 2018 ESPP is to provide eligible employees with an opportunity to purchase shares of our common stock through accumulated contributions. The 2018 ESPP permits participants to purchase shares of common stock through contributions (generally in the form of payroll deductions) of up to an amount of their eligible compensation determined by the administrator. Subject to certain other limitations or unless otherwise determined by the administrator, a participant may purchase a maximum of 2,000 shares of common stock during a purchase period. The offering periods under the 2018 ESPP will begin on such date as determined by the administrator and expire on the earliest to occur of (a) the completion of the purchase of shares on the last exercise date occurring within 27 months of the applicable enrollment date of the offering period on which the purchase right was granted, or

(b) a shorter period established by the administrator prior to an enrollment date for all options to be granted on such enrollment date. Amounts deducted and accumulated by the participant are used to purchase shares of common stock on each exercise date. The purchase price of the shares will be determined by the administrator but in no event will be less than 85% of the lower of the fair market value of common stock on the enrollment date or on the exercise date. Participants may end their participation at any time during an offering period and will be paid their accrued contributions that have not yet been used to purchase shares of common stock. Participation ends automatically upon termination of employment with the Company.

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) 3% of the expected post-closing outstanding 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.

As of December 31, 2019, the Company had not consummated an enrollment or offering period related to the 2018 ESPP. The 2018 ESPP had 272,942 shares of common stock available for sale and reserved for issuance as of December 31, 2019 and 2018.

2009 Equity Incentive Plan

In 2009, the Company adopted its 2009 Equity Incentive Plan (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. Prior to the Reverse Merger and Recapitalization, the exercise price of the options granted is generally equal to the value of the Company's common stock on the date of grant, as determined by the Company's 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, 2019 and 2018, 6,219 and 40,707 shares were unvested amounting to \$3 and \$34 in accrued expenses, respectively. Effective with the Reverse Merger and Recapitalization, no additional grants will be made under the 2009 Plan.

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

		Number of Shares			Weighted Average Remaining Contractual Term Exercise Price (years)		Aggregate ntrinsic Value
12/31/2017	Outstanding	1,417,373	\$	0.54	7.18	\$	53
	Granted	1,770,225		1.11			
	Exercised	(293,778)		0.58			
	Cancelled/Expired	(528,997)		0.78			
12/31/2018	Outstanding	2,364,823	\$	0.90	8.12	\$	71,332
	Granted	_		_			
	Exercised	(488,090)		0.57			
	Cancelled/Expired	(411,283)		1.68			
12/31/2019	Outstanding	1,465,450	\$	0.80	6.86	\$	771
	Options exercisable	1,016,089	\$	0.73	6.33	\$	560

The aggregate intrinsic value is based on the Company's stock price trading price on the NASDAQ Capital Market. The aggregate intrinsic value of options exercised was \$7,619 and \$483 for the years ended December 31, 2019 and 2018, respectively, and is calculated based on the difference between the estimated fair value of the Company's common stock at the date of exercise and the exercise price.

The weighted average grant-date fair value of stock options granted during the year ended December 31, 2018 was \$0.15. The total fair value for options vested during the years ended December 31, 2019 and 2018, was \$348 and \$343, respectively.

Stock-Based Compensation

Compensation cost that has been included on the Company's consolidated statements of operations for all stock-based compensation arrangements is set forth below:

	Year Ended					
Stock-based compensation	December 31 2019	,	December 31, 2018			
Cost of revenues	\$ 14	6	\$ 45			
Sales and marketing		2	42			
General and administrative	1,4	7	313			
Research and development	20	19	50			
Total stock-based compensation	\$ 1,7	34 5	\$ 450			

As of December 31, 2019, there was approximately \$6,328 of total unrecognized compensation cost related to unvested restricted stock units under the 2018 Plan. This unrecognized compensation cost is expected to be recognized over an estimated weighted-average period of approximately 2.4 years.

As of December 31, 2019 and 2018, there was \$221 and \$640, respectively, of total unrecognized compensation cost related to unvested stock options under the 2009 Plan. This unrecognized compensation cost is expected to recognized over an estimated weighted-average amortization period of approximately 1.6 years.

The Company uses the Black-Scholes option pricing model to estimate the fair value of its stock option awards. The calculation of the fair value of the awards using the Black-Scholes option pricing model is affected by the Company's stock price on the date of grant as well as assumptions regarding the following:

Valuation of Stock Options

The Company did not grant any options under the 2009 Plan during the year ended December 31, 2019. The assumptions used to compute stock-based compensation costs for the stock options granted during the year ended December 31, 2018 are set forth below:

	Year Ended
	December 31, 2018
Weighted average risk-free rate	2.51 %
Expected dividend yield	_
Weighted average expected life (years)	6.08
Weighted average volatility	56.87 %

Details on the assumptions used above are set forth below:

The risk-free interest rate is based on the yield curve of a zero-coupon U.S. Treasury bond on the date the stock option award is granted with a maturity equal to the expected term of the stock option award.

The assumed dividend yield is based on the Company's expectation that it will not pay dividends in the foreseeable future.

The expected term represents the period of time that awards granted are expected to be outstanding. The Company calculated the expected term using the simplified method as the Company did not have enough historical data to allow for a weighted average term based on historical exercise patterns.

Estimated volatility is a measure of the amount by which the Company's stock price is expected to fluctuate each year during the expected life of the award. The date of grant for stock options granted under the 2009 Plan during the year ended December 31, 2018 occurred while the Company was a private company. The estimated volatility used was based on a weighted average of the historical stock volatility of similar peer companies whose stock prices were publicly available. The calculation of estimated volatility is based in part on historical stock prices of these peer entities over a period equal to the expected life of the awards.

14. Income Taxes

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

For the years ended December 31, 2019 and 2018, the Company had net losses before income taxes of \$12,866 and \$10,177, respectively. Net losses relating to U.S. operations for were \$12,766 and \$9,880, 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:

	 December 31,			
	2019		2018	
Income tax at statutory rate	\$ (2,703)	\$	(2,138)	
Valuation allowance	2,948		2,266	
State income tax, net of federal benefit	(606)		(521)	
Business tax credit net of reserves	_		(325)	
Non-deductible expenses	365		341	
Foreign income taxes at different rate	 1		3	
Income tax benefit	\$ 5	\$	(374)	
Effective tax rate	 (0.04)%		3.67 %	

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

	Year Ended December 3					
	 2019		2018			
Current:						
Federal	\$ _	\$	_			
State	5		13			
Foreign	_		_			
Total current	5		13			
Deferred:						
Federal	_		(346)			
State	_		(41)			
Foreign	_		_			
Total deferred	 _		(387)			
Total	\$ 5	\$	(374)			

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

		December 31,	
	2019	2018	
Deferred tax assets:			
Net operating loss	\$ 26	6,285 \$ 24,280	
Reserves and accruals	3	3,842 2,836	
Tax credits		1,463 1,349	
Gross deferred tax assets	3:	1,590 28,465	
Less valuation allowance	(31	1,349) (28,401)	
Total deferred tax assets		241 64	
Deferred tax liabilities:			
Amortization of acquired intangibles		(241) (64)	
Total deferred tax liabilities		(241) (64)	
Net deferred tax liabilities	\$	_ \$	

As of December 31, 2019, the Company had net operating loss carryforwards of \$106,644 and \$53,197 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, \$20,970 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, 2019, the Company had R&D credit carryforwards of approximately \$948 and \$515 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 net operating losses ("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 50 percentage points of the outstanding stock of a company by certain stockholders.

As of December 31, 2019, the Company had not yet completed its analysis of the deferred tax assets for its NOL and tax credits. The future utilization of the Company's 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. The Company has not yet determined whether such an ownership change has occurred. In order to make this determination, the Company will need to complete an analysis regarding the limitation of the net operating loss.

The Company has established a full valuation allowance for its deferred tax assets due to uncertainties that preclude it from determining that it is more likely than not that the Company will be able to generate sufficient taxable income to realize such assets. The Company monitors positive and negative factors that may arise in the future as it assesses the need for a valuation allowance against its deferred tax assets. As of December 31, 2019 and 2018, the Company has a valuation allowance of \$31,349 and \$28,401 respectively, against its deferred tax assets.

The Company accounts for the provisions under the Income Taxes topic of the ASC which addresses accounting for the uncertainty in income taxes.

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,		
	 2019		2018
Unrecognized tax benefits, beginning of period	\$ 1,516	\$	889
Tax positions taken in prior periods:			
Gross increases	_		166
Gross decreases	_		_
Tax positions taken in current period:			
Gross increases	15		461
Settlements	_		_
Lapse of statute of limitations	_		_
Unrecognized tax benefits, end of period	\$ 1,531	\$	1,516

The Company's practice is to recognize interest and/or penalties related to income tax matters in income tax expense. The Company had 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, 2019 and 2018.

The Company is subject to taxation in the United States and various state jurisdictions. The Company's tax years from inception are subject to examination by the United States and state taxing authorities due to the carryforward of unutilized NOLs.

On January 22, 2018, the FASB released guidance on the accounting for tax on the Global Intangible Low-Taxed Income ("GILTI") provisions of H.R. 1, "The Tax Cuts and Jobs Act" signed into law in 2017 (the "Tax Act"). Under U.S. GAAP, the Company is allowed to make an accounting policy election of either (1) treating taxes due on the future U.S. inclusions in taxable income related to GILTI as a current-period expense when incurred, or the period cost method, or (2) factoring such amounts into the Company's measurement of its deferred taxes, or the deferred method. The Company has selected the period cost method as its accounting policy with respect to the potential GILTI tax obligations.

The Company has ownership interest in controlled foreign corporations. The Company analyzed the potential impact of the GILTI provisions of the Tax Act, as well as Base Erosion and Anti-Abuse Tax ("BEAT"). Based on the foreign subsidiaries' tax position, the Company did not incur any impact relating to these provisions for the years ended December 31, 2019 or 2018.

15. Segment and Geographic Information

The Company's chief operating decision maker is its Chief Executive Officer ("CEO"). The CEO reviews the financial information presented on a consolidated basis for purposes of allocating resources and evaluating the Company's financial performance. Accordingly, the Company has determined that it operates in a single reporting segment.

The Company generates revenue in domestic and foreign regions. Net revenues attributed to the United States and international geographies are based upon the country in which the customer is located. The United Kingdom accounted for 1% and 21% of total revenue for the years ended December 31, 2019 and 2018, respectively. Information about these operations is presented below:

	December 31,		
	 2019		2018
Net revenues			
United States	\$ 18,950	\$	24,477
Europe	17		6,358
Other international revenue	183		48
Total net revenue	\$ 19,150	\$	30,883

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, 2019 and 2018, all of the Company's identifiable long-lived assets were in the United States.

16. Related-Party Transactions

As consideration for the Transfer Sponsor Warrants transferred to Phunware stockholders, a promissory note was issued to the Sponsors (the "Transfer Sponsor Warrant Note"). The amount of the note was approximately \$1,993, which represented \$0.50 per warrant transferred to former stockholders of Phunware. The Transfer Sponsor Warrant Note bore no interest. The Transfer Sponsor Warrants have an exercise price of \$11.50 per share. The Transfer Sponsor Warrant Note was to mature on December 26, 2019. The Transfer Sponsor Warrant Note was waived and forgiven by the noteholders on January 15, 2019.

With the Reverse Merger and Recapitalization, the Company assumed \$255 in payables from Stellar for Nautilus Energy Management Corporation, an affiliate of a current member and former member of the Company's board of directors.

On November 15, 2019, the Company issued a Note (as defined above) in the principal amount of \$95, 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.

17. Subsequent Events

The Company has evaluated subsequent events through March 30, 2020, the date the financial statements were issued.

Related Party Bridge Loans

Through the date noted above, various related parties loaned the Company \$560. The Related Party Bridge Loans ("RPBLs") have an interest of 10% per annum and will mature on November 14, 2024. Payments on or payoff of the RPBLs may be made early with no penalty. The RPBLs were made by the following related parties and amounts thereof: (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 the Company's 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) \$50 by Luan Dang, the Company's Chief Technology Officer.

Senior Convertible Note

On March 19, 2020, the Company entered into a Securities Purchase Agreement ("Purchase Agreement") for the sale of a Senior Convertible Note with an institutional investor (the "Investor") with an initial principal amount of \$3,000 (the "Senior Convertible Note") for a cash purchase price of \$2,760 (reflecting an original issue discount of \$240) in a private placement (the "Private Placement") that closed on March 20, 2020. After deducting the placement agent fee and other estimated expenses associated with the Private Placement, estimated net cash proceeds at the closing were approximately \$2,371. In addition, we granted the Investor participation rights in future equity and equity-linked offerings of securities during the two years after the closing in an amount of up to 30% of the securities being sold in such offerings.

Interest

The Senior Convertible Note was issued to the Investor on March 20, 2020, bears interest at a rate of % per annum and matures on December 31, 2021 (subject to extension in certain circumstances, including bankruptcy and outstanding events of default). Upon any conversion or redemption, the Senior Convertible Note shall include a make-whole of interest from such date of determination through the maturity date. After the occurrence and during the continuance of an Event of Default (as defined in the Senior Convertible Note), the Senior Convertible Note will accrue interest at the rate of 18.0% per annum.

Amortization

Starting on April 30, 2020 and on the last trading day of the month for each month thereafter, and on the maturity date (each, an "Installment Date"), unless deferred or accelerated as described below, the Company is required to make monthly amortization payments equal to 1/20th of the initial principal and interest of the Senior Convertible Note payable (the "Installment Amount"), which, subject to the satisfaction of certain equity conditions set forth in the Senior Convertible Note, shall be satisfied in shares of our common stock (each, an "Installment Conversion") at 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 Installment Date or, at our option, may be satisfied in cash at a redemption price equal to 105% of such Installment Amount (each, an "Installment Redemption"). Shares to be issued with respect to any such installment will be predelivered on the second (2nd) trading day after the applicable Installment Notice Date (as defined in the Senior Convertible Note) with a true-up on the applicable Installment Date.

Notwithstanding the foregoing, the noteholder may, at its sole option, elect to defer any Installment Amount until a subsequent Installment Date selected by the noteholder and may also elect to accelerate the conversion of future Installment Amounts to the current Installment Date, so long as such accelerated amount does not exceed three times any applicable Installment Amount.

Conversion

Subject to certain beneficial ownership limitations, the Senior Convertible Note is convertible, at the option of the noteholder, into shares of our common stock at a conversion price of \$3.00 per share. The conversion price is subject to full ratchet antidilution protection upon any subsequent transaction at a price lower than the conversion price then in effect and standard adjustments in the event of any stock split, stock dividend, stock combination, recapitalization or other similar transaction. If we enter into any agreement to issue (or issue) any variable rate securities, the noteholder has the additional right to substitute such variable price (or formula) for the conversion price.

Subsequent Placement Optional Redemption

At any time after the earlier of the date a noteholder becomes aware of any placement by us of equity or equity-linked securities or the date of consummation of such a placement with net proceeds in the aggregate exceeding \$5,000,000, subject to certain limited exceptions, the noteholder will have the right to have us redeem a portion of the Senior Convertible Note not in excess of 30% of the net proceeds from such placement at a redemption price of 110% of the portion of the Senior Convertible Note subject to redemption. If the noteholder is participating in any such placement, the noteholder may apply the redemption amount against the purchase price of the securities in such placement.

Company Redemption Rights

At any time on or prior to May 19, 2020, we may redeem the Senior Convertible Note at a price equal td 00% of the outstanding principal of the Senior Convertible Note (or, if greater, the market value of the shares underlying the Senior Convertible Note) to be redeemed, and accrued and unpaid interest and unpaid late charges thereon. Thereafter, the Company's optional redemption price will equal 110% of the outstanding principal of the Senor Convertible Note (or, if greater, the market value of the shares underlying the Senior Convertible Note) to be redeemed, and accrued and unpaid interest and unpaid late charges thereon.

Events of Default

In connection with an Event of Default, the noteholder may require us to redeem in cash any or all of the Senior Convertible Note. The redemption price will equal 15% of the outstanding principal of the Senior Convertible Note to be redeemed, and accrued and unpaid interest and unpaid late charges thereon, or an amount equal to market value of the shares of our common stock underlying the Senior Convertible Note, as determined in accordance with the Senior Convertible Note, if greater.

If an Event of Default has occurred, the noteholder may elect to alternatively convert the Senior Convertible Note (including thel 5% premium that would otherwise be payable in a cash acceleration thereof) at an alternate 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 applicable conversion date.

Change of Control

In connection with a Change of Control (as defined in the Senior Convertible Note), a noteholder may require us to redeem all or any portion of the Senior Convertible Note. The redemption price per share will equal the greatest of (i) 115% of the

outstanding principal of the Senior Convertible Note to be redeemed, and accrued and unpaid interest and unpaid late charges thereon, (ii)115% of the market value of the shares of our common stock underlying the Senior Convertible Note, as determined in accordance with the Senior Convertible Note, and (iii) 115% of the aggregate cash consideration that would have been payable in respect of the shares of our common stock underlying the Senior Convertible Note, as determined in accordance with the Senior Convertible Note.

Covenants

We will be subject to certain customary affirmative and negative covenants regarding the incurrence of indebtedness, the existence of liens, the repayment of indebtedness, the payment of cash in respect of dividends, distributions or redemptions, and the transfer of assets, among other matters. We also will be subject to a financial covenant that requires us to maintain available cash in the amount of \$200,000 at the end of each fiscal quarter.

Registration Rights

The Company is required to file a registration statement covering the resale of the shares underlying the Senior Convertible Note within 60 days and to have the registration statement declared effective within 90 days of after the closing of the Purchase Agreement. It also grants the Investor customary "piggyback" registration rights. If we fail to file the registration statement or have it declared effective by the deadlines above, or if certain other conditions relating to the availability of the registration statement and current public information are not met, we will pay certain Registration Delay Payments to such noteholders (as defined in the Registration Rights Agreement).

COVID-19

The COVID-19 outbreak in the United States has caused business disruption through mandated and voluntary closing of businesses and cancellation of events for which the Company's application transition business serves. Furthermore, the Company's platform software and services business serves healthcare and hospitals throughout the United States. While the disruption is currently expected to be temporary, there is considerable uncertainty around the duration of the closings. While the related financial impact and duration cannot be reasonably estimated at this time, the Company is taking steps to implement measures to reduce operating expenses. To that end, on March 27, 2020, the Company committed to cost reduction by furloughing approximately 37 persons, or approximately 42%, of its workforce.

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

Reference is made to Item 4.01 on the Company's Current Report on Form 8-K filed with the SEC on January 2, 2019 regarding changes in accounting firm and is hereby incorporated by reference.

Item 9A. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

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, 2019. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits 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 by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to our management, including our Certifying Officers, as appropriate to allow timely decisions regarding required disclosure.

Based on the foregoing, our Certifying Officers concluded that our disclosure controls and procedures were effective as of December 31, 2019.

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 generally accepted accounting principles.

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, 2019, based on the criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission for newly public companies (COSO). Based on this evaluation, our management concluded that our internal control over financial reporting was effective as of December 31, 2019.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting identified in conjunction with the evaluation required by Rules 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the quarter ended December 31, 2019 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.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

Information required by this item will be set forth in our proxy statement for our 2020 Annual Meeting of Stockholders ("2020 Proxy Statement") or an amendment to this Annual Report on Form 10-K, to be filed with the SEC within 120 days of our fiscal year ended December 31, 2019 and is incorporated herein by reference.

Item 11. Executive Compensation.

Information required by this item will be set forth in our 2020 Proxy Statement or an amendment to this Annual Report on Form 10-K, to be filed with the SEC within 120 days of our fiscal year ended December 31, 2019 and is incorporated herein by reference.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters.

Information required by this item will be set forth in our 2020 Proxy Statement or an amendment to this Annual Report on Form 10-K, to be filed with the SEC within 120 days of our fiscal year ended December 31, 2019 and is incorporated herein by reference.

Item 13. Certain Relationships and Related Transactions, and Director Independence.

Information required by this item will be set forth in our 2020 Proxy Statement or an amendment to this Annual Report on Form 10-K, to be filed with the SEC within 120 days of our fiscal year ended December 31, 2019 and is incorporated herein by reference.

Item 14. Principal Accounting Fees and Services.

Information required by this item will be set forth in our 2020 Proxy Statement or an amendment to this Annual Report on Form 10-K, to be filed with the SEC within 120 days of our fiscal year ended December 31, 2019 and is incorporated herein by reference.

PART IV

Item 15. Exhibits, Financial Statement Schedules.

(a) The following documents are filed as part of this Report:

(1) 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.

(2) 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.

(3) 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

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Exhibit No.	Description	
2.1	Agreement and Plan of Merger, dated February 27, 2018, by and among Stellar, STLR Merger Subsidiary Inc. and Phunware, Inc (Incorporated by reference to Exhibit 2.1 of the Registrant's Form 8-K (File No. 001-37862), filed with the SEC on February 28, 2018, and also included as Annex C to the joint proxy statement/prospectus).	
2.2	First Amendment to Agreement and Plan of Merger, dated November 1, 2018, by and among Stellar, Phunware, Inc. and the Holder Representative named therein (Incorporated by reference to Annex C-1 to the Registrant's Form S-4/A (File No. 333-224227), filed with the SEC on November 13, 2018).	
3.1	Amended and 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).
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).
10.1	Form of Indemnification Agreement between Phunware and its directors and officers (Incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K (File No. 001-37862), filed with the SEC on January 2, 2019).
10.2+	Phunware, Inc. 2018 Equity Incentive Plan (Incorporated by reference to Annex D of the Registrant's Form S-4/A (File No. 333-224227), filed with the SEC on November 13, 2018).
10.3+	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).
10.4+	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).
10.5	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).
10.6	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).
10.7	Form of Voting Agreement (Incorporated by reference to Exhibit 10.1 of the Registrant's Form 8-K (file No. 001-37862), filed with the SEC on February 28, 2018).
10.8	Form of Sponsor Voting Agreement (Incorporated by reference to Exhibit 102 of the Registrant's Form 8-K (file No. 001-37862), filed with the SEC on February 28, 2018).
10.9	Form of Lock-up Agreement (Incorporated by reference to Exhibit 10.3 of the Registrant's Form 8-K (file No. 001-37862), filed with the SEC on February 28, 2018).
10.10	Form of Sponsor Lock-up Agreement (Incorporated by reference to Exhibit 10.4 of the Registrant's Form 8-K (file No. 001-37862), filed with the SEC on February 28, 2018).
10.11	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).
10.12	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).
10.13	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).
10.14	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).
10.15	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).
10.16	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).
10.17	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).
10.18	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-O (File No. 001-37862), filed with the SEC on August 13, 2019)

10.19	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).
10.20	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).
10.21+	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).
10.22+	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).
10.23+	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).
10.24+	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).
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).
16.1	Letter regarding Change in Independent Registered Public Accounting Firm, dated December 26, 2018 (Incorporated by reference to Exhibit 16.1 of the Registrant's Form 8-K (File No. 001-37862), filed with the SEC on January 2, 2019).
21.1*	List of Subsidiaries of the Registrant.
23.1*	Consent of Independent Registered Public Accounting Firm.
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*

^{*} Filed herewith

Item 16. Form 10–K Summary.

None.

⁺ Indicates a management contract or compensatory plan or arrangement

SIGNATURES

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

March 30, 2020 PHUNWARE, INC.

By: /s/ Alan S. Knitowski

Name: Alan S. Knitowski Title: Chief Executive Officer (Principal Executive Officer)

By: /s/ Matt Aune

Name: Matt Aune

Title: Chief Financial Officer

(Principal Accounting and Financial Officer)

The undersigned directors and officers of Phunware, Inc. (the "Company"), a Delaware corporation, hereby constitute and appoint Alan S. Knitowski and Matt Aune, and each of them with full power to act without the other, the undersigned's true and lawful attorney-in-fact, with full power of substitution and re-substitution, for the undersigned and in the undersigned's name, place and stead in the undersigned's capacity as an officer and/or director of the Company, to execute in the name and on behalf of the undersigned this Report and to file such Report, with exhibits thereto and other documents in connection therewith and any and all amendments thereto, with the Securities and Exchange Commission, granting unto said attorneys-in-fact, and each of them, full power and authority to do and perform each and every act and thing necessary or desirable to be done and to take any other action of any type whatsoever in connection with the foregoing which, in the opinion of such attorney-in-fact, may be of benefit to, in the best interest of, or legally required of, the undersigned, it being understood that the documents executed by such attorney-in-fact on behalf of the undersigned pursuant to this Power of Attorney shall be in such form and shall contain such terms and conditions as such attorney-in-fact may approve in such attorney-in-fact's discretion.

Pursuant to the requirements of the Securities Exchange Act of 1934, this Report has been signed below (and the above Powers of Attorney Granted) by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Alan S. Knitowski	Chief Executive Officer and Director	March 30, 2020
Alan S. Knitowski	(Principal Executive Officer)	
/s/ Matt Aune	Chief Financial Officer	March 30, 2020
Matt Aune	(Principal Accounting and Financial Officer)	
/s/ Keith Cowan	Director	March 30, 2020
Keith Cowan		
/s/ Randall Crowder	Chief Operating Officer and Director	March 30, 2020
Randall Crowder		
/s/ Eric Manlunas	Director	March 30, 2020
Eric Manlunas		
/s/ Lori Tauber Marcus	Director	March 30, 2020
Lori Tauber Marcus		
/s/ Blythe Masters	Director	March 30, 2020
Blythe Masters		
/s/ Kathy Tan Mayor	Director	March 30, 2020
Kathy Tan Mayor		
/s/ George Syllantavos	Director	March 30, 2020
George Syllantavos		

List of Subsidiaries of the Registrant

Subsidiaries:

Phunware OpCo, Inc.

GoTV Networks, Inc. (Delaware corporation)

Taurus Merger Company, LLC (Delaware corporation)

GoTV Studios, LLC (California LLC)

Rain Acquisition, LLC

Faith Based Apps, LLC (California 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)

Odyssey Mobile Marketing Limited (UK)

Odyssey Mobile Northern Europe Ltd. (Sweden)

Odyssey Mobile Asia Pte. Ltd. (Singapore)

Rain Acquisition Sub, Inc.

Dutch Holdings CV (Netherlands)

Phunware Europe BV

PhunCoin, Inc. (Wyoming)

PhunToken International (Cayman Islands)

Independent Registered Public Accounting Firm's Consent

We consent to the incorporation by reference in the Registration Statement of Phunware, Inc. on Form S-3 (File No. 333-235896), Form S-8 (File No. 333-236145) and Form S-8 (File No. 333-231104) of our report which includes an explanatory paragraph as to the Company's ability to continue as a going concern, dated March 30, 2020, with respect to our audits of the consolidated financial statements of Phunware, Inc. as of December 31, 2019 and 2018 and for each of the two years in the period ended December 31, 2019, which report is included in this Annual Report on Form 10-K of Phunware, Inc. for the year ended December 31, 2019.

Our report on the consolidated financial statements refers to a change in the method of accounting for revenue in 2019 due to the adoption of the guidance in ASC 606, Revenue from Contracts with Customers.

/s/ Marcum LLP

Marcum LLP Houston, TX March 30, 2020

CERTIFICATION

I, Alan S. Knitowski, certify that:

- 1. I have reviewed this Annual Report on Form 10-K of Phunware Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
- a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
- b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
- c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
- d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
- (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
- (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 30, 2020 By: /s/ Alan S. Knitowski

Alan S. Knitowski Chief Executive Officer (Principal Executive Officer)

CERTIFICATION

I, Matt Aune, certify that:

- 1. I have reviewed this Annual Report on Form 10-K of Phunware Inc.;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
- a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
- b) Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
- c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
- d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
- (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
- (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 30, 2020 By: /s/ Matt Aune

Matt Aune

Chief Financial Officer

(Principal Accounting and Financial Officer)

CERTIFICATION

Pursuant to the requirement set forth in Rule 13a-14(b) of the Securities Exchange Act of 1934, as amended, (the "Exchange Act") and Section 1350 of Chapter 63 of Title 18 of the United States Code (18 U.S.C. §1350), Alan S. Knitowski, Chief Executive Officer (Principal Executive Officer) of Phunware, Inc. (the "Company"), and Matt Aune, Chief Financial Officer (Principal Accounting and Financial Officer) of the Company, each hereby certifies that, to the best of his or her knowledge:

- 1. The Company's Annual Report on Form 10-K for the period ended December 31, 2019, to which this Certification is attached as Exhibit 32.1, fully complies with the requirements of Section 13(a) or Section 15(d) of the Exchange Act, and
- 2. The information contained in the Annual Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

March 30, 2020 Phunware, Inc.

Form 10-K), irrespective of any general incorporation language contained in such filing."

By: /s/ Alan S. Knitowski

Name: Alan S. Knitowski

Title: Chief Executive Officer
(Principal Executive Officer)

By: /s/ Matt Aune

Name: Matt Aune

Title: Chief Financial Officer

(Principal Accounting and Financial Officer)

"This certification accompanies the Form 10-K to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of Phunware, Inc. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of the