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

FORM 10-K

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

For the fiscal year ended December 31, 2021

OR

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

For the transition period from____________to____________

Commission File Number 000-24435

MICROSTRATEGY INCORPORATED
(Exact Name of Registrant as Specified in Its Charter)

Delaware	1850 Towers Crescent Plaza, Tysons Corner, VA 22182	51-0323571
(State of Incorporation)	(Address of Principal Executive Offices) (Zip Code)	(I.R.S. Employer Identification No.)

Registrant's Telephone Number, Including Area Code: (703) 848-8600

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

Title of Each Class	Trading Symbol	Name of Each Exchange on which Registered
Class A common stock, par value $0.001 per share	MSTR	The Nasdaq Global Select Market

Securities registered pursuant to Section 12(g) of the Act: Not applicable

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☒ No ☐

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. Yes ☐ No ☒

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
		Emerging growth company	☐

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

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

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes ☐ No ☒

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the registrant (based on the last reported sale price of the registrant's class A common stock on June 30, 2021 on the Nasdaq Global Select Market) was approximately $5.172 billion.

As of February 1, 2022, the registrant had 9,321,394 and 1,964,025 shares of class A common stock and class B common stock outstanding, respectively.

Documents incorporated by reference: Portions of the definitive proxy statement for the 2022 Annual Meeting of Stockholders of the Registrant to be filed subsequently with the SEC are incorporated by reference into Part III of this Annual Report on Form 10-K to the extent indicated herein.

Auditor Firm Id:	185	Auditor Name:	KPMG LLP	Auditor Location:	McLean, Virginia

MICROSTRATEGY INCORPORATED

TABLE OF CONTENTS

		Page
PART I		
Item 1.	Business	5
Item 1A.	Risk Factors	14
Item 1B.	Unresolved Staff Comments	36
Item 2.	Properties	36
Item 3.	Legal Proceedings	36
Item 4.	Mine Safety Disclosures	36
PART II		
Item 5.	Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	37
Item 6.	[Reserved]	38
Item 7.	Management's Discussion and Analysis of Financial Condition and Results of Operations	39
Item 7A.	Quantitative and Qualitative Disclosures About Market Risk	56
Item 8.	Financial Statements and Supplementary Data	57
Item 9.	Changes in and Disagreements with Accountants on Accounting and Financial Disclosure	57
Item 9A.	Controls and Procedures	57
Item 9B.	Other Information	58
Item 9C.	Disclosure Regarding Foreign Jurisdictions that Prevent Inspections	58
PART III		
Item 10.	Directors, Executive Officers and Corporate Governance	59
Item 11.	Executive Compensation	59
Item 12.	Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	59
Item 13.	Certain Relationships and Related Transactions, and Director Independence	59
Item 14.	Principal Accountant Fees and Services	59
PART IV		
Item 15.	Exhibits, Financial Statement Schedules	60
Item 16.	Form 10-K Summary	60

The trademarks and registered trademarks of MicroStrategy Incorporated and its subsidiaries referred to herein include, but are not limited to, MicroStrategy, Intelligence Everywhere, MicroStrategy 2021, HyperIntelligence, Hyper.Now, MicroStrategy Consulting, MicroStrategy Education, Dossier, MicroStrategy Cloud, Enterprise Semantic Graph, MicroStrategy Services, Global Delivery Center, and Intelligent Enterprise. Third-party product and company names mentioned herein may be the trademarks of their respective owners.

CERTAIN DEFINITIONS

All references in this Annual Report on Form 10-K ("Annual Report") to "MicroStrategy," the "Company," "we," "us," and "our" refer to MicroStrategy Incorporated and its consolidated subsidiaries (unless the context otherwise indicates).

FORWARD-LOOKING INFORMATION AND RISK FACTOR SUMMARY

This Annual Report contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). For this purpose, any statements contained herein that are not statements of historical fact, including without limitation, certain statements under "Item 1. Business," "Item 1A. Risk Factors," and "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" and located elsewhere herein regarding industry prospects and our results of operations or financial position, may be deemed to be forward-looking statements. Without limiting the foregoing, the words "believes," "anticipates," "plans," "expects," and similar expressions are intended to identify forward-looking statements. Such forward-looking statements represent management's current expectations and are inherently uncertain. Investors are warned that actual results may differ from management's expectations.

Our business is subject to a number of risks that could cause actual results to differ materially from those indicated by forward-looking statements made herein and presented elsewhere by management from time to time. These risks are discussed more fully under "Item 1A. Risk Factors" and include, but are not limited to the following:

- Our bitcoin acquisition strategy exposes us to various risks associated with bitcoin
- The concentration of our bitcoin holdings enhances the risks inherent in our bitcoin acquisition strategy
- Fluctuations in the price of bitcoin, which may be influenced by highly uncertain regulatory, commercial, and technical factors, may significantly influence the market price of our class A common stock
- Our bitcoin holdings are less liquid than our existing cash and cash equivalents and may not be able to serve as a source of liquidity for us to the same extent as cash and cash equivalents
- Our bitcoin holdings could subject us to regulatory scrutiny
- If we or our third-party service providers experience a security breach or cyberattack, or if our private keys are lost or destroyed, we may lose some or all of our bitcoin
- Our historical financial statements do not reflect the potential variability in earnings that we may experience in the future relating to bitcoin holdings
- We depend on revenue from a single software platform, and a substantial customer shift from a product license model to a cloud subscription model could negatively affect the timing of revenue recognition
- Our results in any particular period may depend on large transactions that involve longer and less predictable sales cycles
- We may fail to maintain successful relationships with our channel partners which could adversely affect our business, operating results, and financial condition
- Our recognition of deferred revenue and advance payments may not be representative of revenues for succeeding periods
- We operate in an industry marked by rapid technological change and intense competition, and we may be unable to develop new offerings and deliver our products at a competitive price
- The performance of our software may be impacted by changes in third party-software, new industry standards and errors, bugs and security vulnerabilities that could materially adversely affect the operation of and demand for our existing software, reduce our revenue, and lead to litigation claims against us
- Business disruptions, including as a result of the novel coronavirus ("COVID-19") pandemic, could materially adversely affect our operating results or result in a material weakness in our internal controls
- Our international operations are complex and expose us to additional risks

- We or our third-party service providers may be the target of cybersecurity attacks or security breaches, which may harm our reputation and demand for our offerings and may disrupt our operations
- Changes in, or any failure to comply with, laws or regulations relating to privacy or the collection, processing and storage of personal data could materially adversely affect our business
- The market price of our class A common stock has been and may continue to be volatile
- Because of the rights of our two classes of common stock and because we are controlled by Michael J. Saylor, Mr. Saylor could prevent a third party from acquiring us, or limit the ability of our other stockholders to influence corporate matters, which could make our class A common stock less attractive
- We may sell shares of our class A common stock, convertible debt instruments or other convertible securities which could depress the price of our class A common stock
- Despite our current level of indebtedness, we may be able to incur substantially more indebtedness and enter into other transactions in the future which could further exacerbate the risks related to our indebtedness
- Servicing our debt will require a significant amount of cash, and we may not have sufficient cash flow from our business to pay our indebtedness
- We may be required to repay the 2028 Secured Notes prior to their stated maturity date, if the springing maturity feature is triggered
- We may not have the ability to raise the funds necessary to settle conversions of our outstanding convertible notes in cash or to repurchase the notes upon a fundamental change
- The conditional conversion feature of our outstanding convertible notes, if triggered, may adversely affect our financial condition and operating results

PART I

Item 1. Business

Overview

MicroStrategy® pursues two corporate strategies in the operation of its business. One strategy is to acquire and hold bitcoin and the other strategy is to grow our enterprise analytics software business. We believe that undertaking these two, interdependent corporate strategies serves as a key differentiator for our business, as our bitcoin acquisition strategy has raised our profile with potential software customers while our enterprise analytics software business has provided stable cash flows that allow us to acquire and hold bitcoin for the long-term.

We pursue, as part of our overall corporate strategy, a strategy of acquiring bitcoin with our liquid assets that exceed working capital requirements, and from time to time, subject to market conditions, issuing debt or equity securities in capital raising transactions with the objective of using the proceeds to purchase bitcoin. We view our bitcoin holdings as long-term holdings, and we do not plan to engage in regular trading of bitcoin and have not hedged or otherwise entered into derivative contracts with respect to our bitcoin holdings, though we may sell bitcoin in future periods as needed to generate cash for treasury management and other general corporate purposes. We have not set any specific target for the amount of bitcoin we seek to hold, and we will continue to monitor market conditions in determining whether to conduct debt or equity financings to purchase additional bitcoin.

We believe that bitcoin is attractive because it can serve as a store of value, supported by a robust and public open source architecture, that is untethered to sovereign monetary policy and can therefore serve as a hedge against inflation. We also believe that bitcoin offers additional opportunity for appreciation in value with increasing adoption due to its limited supply. In addition, we believe that our bitcoin acquisition strategy is complementary to our enterprise analytics software and services business, as we believe that our bitcoin and related activities in support of the bitcoin network enhance awareness of our brand and can provide opportunities to secure new customers for our analytics offerings. We are also exploring opportunities to apply bitcoin related technologies such as blockchain analytics into our software offerings.

MicroStrategy is also a global leader in enterprise analytics software and services. Since our founding in 1989, MicroStrategy has focused on empowering organizations to leverage the immense value of their data. Our vision is to enable Intelligence Everywhere™ by delivering world-class software and services that empower enterprise users with actionable intelligence.

Our core offering is the MicroStrategy platform, which delivers 1) pervasive, modern analytics experiences designed for everyone—not just the data-literate, 2) open architecture for developers to embed, extend, and inject data visualizations and direct insights into third-party websites and applications, 3) a governed, object-oriented semantic layer with our Enterprise Semantic Graph, and 4) enterprise-grade performance and security. Enterprise customers use MicroStrategy's innovative technology to make information and actions flow faster and to more users—so their people can make smarter, data-driven decisions. We also offer MicroStrategy Consulting™ and MicroStrategy Education™ to help customers deploy, optimize, and manage their analytics initiatives—minimizing their total cost of ownership while maximizing results and business impact.

<u>Bitcoin Acquisition Strategy</u>

In September 2020, our Board of Directors adopted a Treasury Reserve Policy (as amended to date, the "Treasury Reserve Policy") that updated our treasury management and capital allocation strategies, under which our treasury reserve assets will consist of:

- cash and cash equivalents and short-term investments ("Cash Assets") held by us that exceed working capital requirements; and
- bitcoin held by us, with bitcoin serving as the primary treasury reserve asset on an ongoing basis, subject to market conditions and anticipated needs of the business for Cash Assets.

In the first quarter of 2021, we adopted, in addition to and in conjunction with our Treasury Reserve Policy, a corporate strategy of acquiring and holding bitcoin, and from time to time, subject to market conditions, issuing debt or equity securities in capital raising transactions with the objective of using the proceeds to purchase bitcoin. Under this corporate strategy, we also periodically engage in activities to educate the market regarding bitcoin and the bitcoin network.

We view our bitcoin holdings as long-term holdings and we do not plan to engage in regular trading of bitcoin, though we may sell bitcoins in future periods as needed to generate Cash Assets for treasury management and other general corporate purposes. In addition, to date we have not hedged or otherwise entered into derivative contracts with respect to our bitcoin holdings, though we may consider issuing debt or other financial instruments that may be collateralized by our bitcoin holdings and may consider strategies to create income streams or otherwise generate funds using our bitcoin holdings, including lending bitcoin to counterparties. We have not targeted any specific amount of bitcoin holdings, and we will continue to monitor market conditions in determining whether to conduct debt or equity financings to purchase additional bitcoin.

Our Bitcoin Holdings

We purchased a total of approximately 53,922 bitcoin at an aggregate purchase price of approximately $2.627 billion in 2021 for an average purchase price of approximately $48,710 per bitcoin, inclusive of fees and expenses. We purchased a total of approximately 70,469 bitcoin at an aggregate purchase price of approximately $1.125 billion in 2020 for an average purchase price of approximately $15,964 per bitcoin, inclusive of fees and expenses. During the period between January 1, 2022 and February 14, 2022, we purchased a total of approximately 660 bitcoins at an aggregate purchase price of approximately $25.0 million for an average purchase price of approximately $37,865 per bitcoin, inclusive of fees and expenses. Refer to the “Our Bitcoin Acquisition Strategy” section under “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations” for further information regarding our bitcoin purchases, including the source of capital used to purchase bitcoin.

At December 31, 2021, we carried $2.850 billion of digital assets on our balance sheet, consisting of approximately 124,391 bitcoins and reflecting $901.3 million in cumulative impairment losses attributable to bitcoin trading price fluctuations, and held $63.4 million in cash and cash equivalents. At December 31, 2020, we carried $1.054 billion of digital assets on our balance sheet, consisting of approximately 70,469 bitcoins and reflecting $70.7 million in cumulative impairment losses attributable to bitcoin trading price fluctuations, and held $59.7 million in cash and cash equivalents.

As of February 14, 2022, we held approximately 125,051 bitcoins that were acquired at an aggregate purchase price of $3.777 billion and an average purchase price of approximately $30,200 per bitcoin, inclusive of fees and expenses. As of February 14, 2022, at 4:00 p.m. Eastern Time, the market price of one bitcoin reported on the Coinbase exchange (our principal market) was $42,202.99. We expect to purchase additional bitcoin in future periods, though we may also sell bitcoin in future periods as needed to generate Cash Assets for treasury management purposes.

Overview of Bitcoin

Bitcoin is a digital asset that is issued by and transmitted through an open source protocol collectively maintained by a peer-to-peer network of decentralized user nodes. This network hosts a public transaction ledger, known as the bitcoin blockchain, on which bitcoin holdings and transactions in bitcoin are recorded. Balances of bitcoin are stored in individual “wallet” functions, which associate network public addresses with a “private key” that controls the transfer of bitcoin. The bitcoin blockchain can be updated without any single entity owning or operating the network. New bitcoin is created and allocated by the protocol that governs bitcoin through a “mining” process that rewards users that verify transactions in the bitcoin blockchain. The bitcoin protocol limits the total issuance of bitcoin over time to 21 million.

Bitcoin can be converted to fiat currencies, such as the U.S. dollar, at rates of exchange determined by market forces on bitcoin trading platforms, which operate 24-hours-a-day, 7-days-a-week and are not regulated in as comprehensive a manner as traditional securities exchanges. As a result, trading on these markets is likely more subject to manipulation than on securities markets regulated by the SEC, and pricing on these markets is likely affected by such manipulative activity. In addition to these platforms, over-the-counter markets and derivatives markets for bitcoin also exist; however, these markets are still maturing and many are unregulated.

Potential Advantages and Disadvantages of Holding Bitcoin

We believe that bitcoin is attractive because it can serve as a store of value, supported by a robust and public open source architecture, that is untethered to sovereign monetary policy and can therefore serve as a hedge against inflation. Bitcoin exists entirely in electronic form, as virtually irreversible public transaction ledger entries on the blockchain, and transactions in bitcoin are recorded and authenticated not by a central repository, but by a decentralized peer-to-peer network. This decentralization limits certain threats common to centralized computer networks, such as denial of service attacks, and reduces the dependency of the bitcoin network on any single system. While the bitcoin network as a whole is decentralized, the private keys used to access bitcoin balances are not widely distributed and are held on hardware (which can be physically controlled by the holder or by a third party such as a custodian) or via software programs on third-party servers and loss of such private keys results in an inability to access, and effective loss of, the corresponding bitcoin. Consequently, bitcoin holdings are susceptible to all of the risks inherent in holding any electronic data, such as power failure, data corruption, security breach, communication failure and user error, among others. These risks, in turn, make bitcoin subject to theft, destruction, or loss of value from hackers, corruption, or technology-specific factors such as viruses that do not affect conventional fiat currency. In addition, the bitcoin network relies on open source developers to maintain and improve the bitcoin protocol. Accordingly, bitcoin may be subject to protocol design changes, governance disputes such as “forked” protocols, competing protocols, and other open source-specific risks that do not affect conventional proprietary software.

We believe that in the context of the economic and public health crisis precipitated by the COVID-19 pandemic and the unprecedented government financial stimulus measures adopted around the world, decreasing interest rates, increasing inflation, as well as the breakdown of trust in and between political institutions and political parties in the United States and globally, bitcoin represents a more attractive store of value than fiat currency, and further that opportunity for appreciation in the value of bitcoin exists in the event that such factors lead to even more widespread adoption of the use and acceptance of bitcoin and the adoption of bitcoin as a treasury reserve alternative.

Government Regulation

Activities involving bitcoin and other digital assets may fall within the jurisdiction of more than one financial regulator and are subject to U.S. federal, state and local laws, as well as laws of foreign jurisdictions where applicable. Businesses that are engaged in the transmission and custody of bitcoin and other digital assets, including brokers and custodians, can be subject to U.S. Treasury Department regulations as money services businesses as well as state money transmitter licensing requirements. Bitcoin and other digital assets are subject to anti-fraud regulations under federal and state commodity laws, and digital asset derivative instruments are substantively regulated by the U.S. Commodity Futures Trading Commission. Certain jurisdictions, including, among others, New York and a number of countries outside the United States, have developed regulatory requirements that specifically address digital assets and companies that transact in them. To the extent that we enter into bitcoin-related transactions beyond simply acquiring and holding bitcoin, such transactions may subject us to additional regulatory compliance requirements.

In addition, since transactions in bitcoin provide a reasonable degree of pseudo anonymity, they are susceptible to misuse for criminal activities, such as money laundering. This misuse, or the perception of such misuse (even if untrue), could lead to greater regulatory oversight of bitcoin and bitcoin platforms, and there is the possibility that law enforcement agencies could close bitcoin platforms or other bitcoin-related infrastructure with little or no notice and prevent users from accessing or retrieving bitcoin held via such platforms or infrastructure. For example, in her January 2021 nomination hearing before the Senate Finance Committee, Treasury Secretary Janet Yellen noted that cryptocurrencies have the potential to improve the efficiency of the financial system but that they can be used to finance terrorism, facilitate money laundering, and support malign activities that threaten U.S. national security interests and the integrity of the U.S. and international financial systems. Accordingly, Secretary Yellen expressed her view that federal regulators needed to look closely at how to encourage the use of cryptocurrencies for legitimate activities while curtailing their use for malign and illegal activities. Furthermore, in December 2020, the Financial Crimes Enforcement Network ("FinCEN"), a unit of the Treasury Department focused on money laundering, proposed a new set of rules for cryptocurrency-based exchanges aimed at reducing the use of cryptocurrencies for money laundering. These proposed rules would require banks, credit unions and money services businesses, among others, to file reports with FinCEN regarding cryptocurrency transactions in excess of $10,000 and also impose record-keeping requirements for cryptocurrency transactions in excess of $3,000 involving users who manage their own private keys. It remains unclear whether these proposed rules will take effect.

The MicroStrategy Platform

Our core product offering is our software platform. In December 2021, we released the latest version of our flagship enterprise analytics platform. MicroStrategy allows our customers to build high-performance, governed, and secure business and productivity applications that scale across the enterprise. Our platform is designed to empower the entire workforce—from executives to developers to frontline service representatives—with actionable intelligence through the following differentiated features:

- ***Pervasive, Modern Analytics***: MicroStrategy delivers insights across multiple clients and devices to users via our HyperIntelligence products, visualization and reporting capabilities, mobility features, and custom applications developed on our platform.
    - *Data Visualization and Reporting* – Dossier®, our dashboarding and data-visualization tool, provides users with the formatting, layout, and input controls needed to quickly build low-code/no-code analytics applications, from infographic-style reports to high-impact productivity applications.
    - *Transformational Mobility* – Our platform empowers the mobile workforce to make decisions and take action from any location. It delivers more ways to quickly deploy mobile productivity apps for a variety of business functions and roles on any standard smartphone or tablet.
    - *HyperIntelligence* – Our platform offers the potential to radically improve business processes by enhancing the websites, applications, and mobile devices people use every day with contextual intelligence, next-action suggestions, and workflows.
    - *Custom Applications* – Our platform enables users to create highly customized web and mobile applications that leverage the full breadth of the MicroStrategy platform to deliver intuitive BI apps for teams, departments, and organizations.

- ***Open, Federated Architecture***: MicroStrategy embraces an agile approach to development and innovation, offering the most open analytics platform on the market.
  - *Federated Analytics* – Our platform provides analysts and data scientists with seamless access to trusted, governed data directly within their favorite tools. The MicroStrategy platform integrates with popular business apps including Microsoft Excel, Power BI, and Tableau to provide users with the flexibility to leverage trusted data from MicroStrategy directly within the client applications they are accustomed to. The MicroStrategy platform also provides out-of-the-box integrations to popular data-science tools like Jupyter and RStudio, allowing users to develop predictive, machine learning-enhanced data models on top of the secure and trusted foundation offered by the MicroStrategy platform.
  - *APIs and Gateways* – Our gateways, APIs, and connectors enable the MicroStrategy platform to integrate with the most popular enterprise platforms and tools. We certify more than 200 connectors to popular data sources both locally stored and in the cloud, and we offer a comprehensive set of Representational State Transfer ("REST") APIs that makes it easy to embed the platform in packaged and custom applications, workflows, and devices. In 2021, we also introduced a new library of administrative Python modules to support advanced automation for deployment, scaling, and upgrading the platform by enterprise systems owners.
  - *Multiple Deployment Options* – We also believe that customers should have the choice of where to deploy their analytics platform without compromising functionality. Our fully featured platform can be deployed in three ways: on premises, the customer's cloud environment, or the MicroStrategy Cloud™ Environment ("MCE"). MCE is a cloud subscription service that allows customers to deploy the platform on Amazon Web Services ("AWS") or Microsoft Azure environments, fully managed and hosted by us.
- ***Enterprise Platform***: Our platform is designed to securely scale analytics at high data volumes. The MicroStrategy platform has the tools and functionality that enable organizations to deliver secure, high-performance applications at scale.
  - *Enterprise Semantic Graph*™ – The engine of our platform is our proprietary Enterprise Semantic Graph, which provides a structured view of a company's data assets by organizing them into understandable business terms. Our Enterprise Semantic Graph also enriches metadata content with real-time location intelligence and content and system usage telemetry. This allows users to have a consistent and secure view of data across the enterprise—effectively delivering what we refer to as a *single version of the truth*.
  - *Scalability* – Our platform powers some of the largest business intelligence deployments in the world. The platform is designed to scale efficiently to hundreds of thousands of users, with millions of personalized queries, across hundreds of applications, built on top of the largest datasets.
  - *Security* – Our platform includes a comprehensive set of features that provides superior administration, security, and architecture, including role-based access to both row and column data. This level of data security gives our customers that are subject to the most stringent data security requirements, including financial institutions, healthcare providers, and government agencies, the confidence they need to deploy our platform across their enterprise.

MicroStrategy Services™

Through our MicroStrategy Support, MicroStrategy Consulting, and MicroStrategy Education services, we help customers better leverage our platform by offering a comprehensive set of innovative services to deploy, optimize, and maintain their business intelligence platform and applications.

MicroStrategy Support

Our global network of MicroStrategy-certified support experts brings a wealth of experience and knowledge to help customers achieve their system availability and uptime goals and to improve the overall customer experience through highly responsive troubleshooting and proactive technical product support. Standard Support is included in each customer's maintenance plan. For additional services, customers can choose one of our three premium support options: Extended Support, Premier Support, or Elite Support. With these premium support options, customers can receive extended coverage and enhanced service at each touchpoint.

MicroStrategy Consulting

Our consulting services materially complement our software by increasing analytics adoption and helping our customers achieve returns on investment derived from better understanding their data. Many companies lack the internal expertise to define requirements and deliver solutions in a timely and high-quality manner. MicroStrategy Consulting provides customers with architecture and implementation services to help them quickly realize results. Our consultants serve as critical resources for operations, maintenance, and end-to-end lifecycle projects that develop and deploy customers' business intelligence environments. With thousands of successful projects delivered to customers worldwide spanning all major industries, our consultants apply industry best practices to guide our customers in defining, developing, and delivering business analytics solutions. MicroStrategy Consulting operates across North America, Latin America, South America, Europe, the Middle East, Africa, and the Asia Pacific region, with consultants from our local offices and our Global Delivery Center™ in Warsaw, Poland.

MicroStrategy Education

We believe the path to the Intelligent Enterprise™ involves skill-specific paths of learning. To help organizations maximize the utility, adoption, and performance of their MicroStrategy deployments, MicroStrategy Education offers free and paid learning options. MicroStrategy Education is available worldwide in multiple languages and a variety of formats—both live and on-demand.

Analytics Software and Services Strategy

Sales and Services

MicroStrategy sells its platform in two ways. The first is to sell product licenses to customers for them to deploy the platform on their infrastructure either on premises or in the customer's cloud environment. The second is through MCE, a fully managed and hosted cloud subscription service that allows customers to access our software in a cloud environment designed to deliver a myriad of business benefits. Although sales through MCE have increased as a percentage of our overall sales, the majority of our sales are product licenses sold to customers for them to deploy the platform on their infrastructure either on premises or in the customer's cloud environment. Revenues from product license sales comprise product licenses revenues, and revenues from cloud subscriptions comprise subscription services revenues.

MicroStrategy sells through our dedicated enterprise sales force and channel partners to increase market coverage in both domestic and international markets. We provide financial incentives for our channel partners to market and distribute our offerings. In addition, we offer a wide range of services that provide support in the discovery, planning, development, and deployment stages of a MicroStrategy offering.

Dedicated Sales Force

We market our offerings chiefly through our direct sales force. We have sales offices in locations throughout the world and use channel partners in several countries where we do not have sales offices.

Channel Partners

We have established strategic alliances with third-party vendors to help ensure the success of our customers' enterprise intelligence initiatives. Our channel partners are system integrators, consulting firms, resellers, solution providers, managed service providers, original equipment manufacturers ("OEMs"), and technology companies. These firms utilize the MicroStrategy platform for a variety of commercial purposes, and our agreements with them generally provide non-exclusive rights to market our offerings and allow access to our marketing materials, product training, and direct sales force for field-level assistance.

We make significant commitments to our channel partners, including technical training, certifications, pre-sales and sales enablement, and marketing programs. Through our joint efforts, we believe customers are able to minimize their risk and maximize the return on their business intelligence projects. Our channel partners allow us to leverage sales and service resources and marketing and industry-specific expertise to expand our user base and increase our market coverage.

Marketing

Our marketing programs target the following principal constituencies:

- our historical base of enterprise-wide operational and technology executives and departmental buyers across large global enterprises;
- corporate and departmental technology buyers in mid-sized enterprises;
- government technology buyers and the vendors to the government community;
- independent software vendors that want to embed our technology tools in their solutions; and
- system integrators that have technology relationships with large enterprises, governments, and information-intensive businesses.

As MicroStrategy continues to gain visibility due to our corporate strategy of acquiring and holding bitcoin, we continually seek to increase brand market awareness by focusing messaging on the possibilities for value creation, the benefits of using our platform, and competitive differentiators. The channels we use to communicate with prospective constituencies include digital and social media, advertising, free and evaluation software, events, media coverage, channel partners, and word-of-mouth and peer references.

Customers

Our customers include leading companies from a wide range of industries, including retail, consulting, technology, manufacturing, banking, insurance, finance, healthcare, telecommunications, as well as the public sector.

Competition

The analytics market is highly competitive and subject to rapidly changing technology. Within the analytics space, we compete with multiple software vendors, including IBM, Microsoft, Oracle, Qlik, Salesforce, and SAP. Our future success depends on the ability to differentiate our offerings and successfully compete across analytics implementation projects of varying sizes. Our ability to compete successfully depends on a number of factors, both within and outside of our control, including software deployment options; analytical, mobility, data discovery, and visualization capabilities; performance and scalability; the quality and reliability of our customer service and support; and brand recognition. Failure to compete successfully in any one of these or other areas may reduce the demand for our offerings and materially adversely affect our revenue from both existing and prospective customers.

Key Differentiators

- A comprehensive, modern, and open enterprise analytics platform uniquely featuring HyperIntelligence, embedded analytics, transformational mobility, and federated analytics.
- Our exclusive and patented HyperIntelligence capabilities that inject contextual analytics into existing tools, websites, and online workflows.
- Our proprietary Enterprise Semantic Graph.
- Over 200 connectors to popular drivers and gateways to enterprise data sources on premise and in the cloud.
- A comprehensive set of REST APIs that makes it easy to embed the platform in packaged and custom applications, workflows, and devices.
- Flexible deployment methods that allow our customers to deploy our platform efficiently and securely using their own hardware or in a cloud environment they manage or via the MCE, our fully managed and hosted cloud subscription service.
- Comprehensive platform administration, security, and architecture, including role-based access to both row and column data.
- A platform that is designed to scale with large datasets and deliver rapid response times.

Government Regulation

Aspects of our business involve collecting, processing, disclosing, storing, and transmitting personal data, which are subject to certain privacy policies, contractual obligations, and U.S. and foreign laws, regulations, and directives relating to privacy and data protection. We store a substantial amount of customer and employee data, including personal data, on our networks and other systems and the cloud environments we manage. In addition, the types of data subject to protection as personal data in the European Union, the United States, and elsewhere have been expanding. In recent years, the collection and use of personal data by companies have come under increased regulatory and public scrutiny, especially in relation to the collection and processing of sensitive data, such as healthcare, biometric, genetic, financial services, and children's data, precise location data, and data regarding a person's race or ethnic origins, political opinions, or religious beliefs. For example, in the United States, protected health information is subject to the Health Insurance Portability and Accountability Act of 1996 ("HIPAA"), which can provide for civil and criminal penalties for noncompliance. Entities (such as us) that engage in creating, receiving, maintaining, or transmitting protected health information provided by covered entities and other business associates are subject to enforcement under HIPAA. Our access to protected health information triggers obligations to comply with certain privacy rules and data security requirements under HIPAA.

There are a broad variety of other data protection laws in the United States that are applicable to our activities, and a wide range of enforcement agencies at both the state and federal levels that can review companies for privacy and data security concerns based on general consumer protection laws. The Federal Trade Commission and state Attorneys General all are aggressive in reviewing privacy and data security protections for consumers. New laws also are being considered at both the state and federal levels. A broad range of legislative measures also have been introduced at the federal level. Accordingly, failure to comply with federal and state laws (both those currently in effect and future legislation) regarding privacy and security of personal information could expose us to fines and penalties under such laws. In the event of a security breach, we also may have obligations to notify our customers or other parties or individuals about this breach, and this can lead to significant costs and the risk of potential enforcement and/or litigation. There is also a threat of consumer class actions related to these laws and the overall protection of personal data. Even if we are not determined to have violated these laws, government investigations into these issues typically require the expenditure of significant resources and generate negative publicity, which could harm our reputation and our business.

In the European Union, the General Data Protection Regulation ("GDPR") imposes requirements regarding the handling and security of personal data, requires disclosure of data breaches to individuals, customers, and data protection authorities in certain circumstances, requires companies to honor data subjects' requests relating to their personal data, permits regulators to impose fines of up to €20,000,000 or 4% of global annual revenue, whichever is higher, and establishes a private right of action. Furthermore, a new ePrivacy Regulation, regulating electronic communications, was proposed in 2017 and is under consideration by the European Commission, the European Parliament, and the European Council. More recently, the Court of Justice of the European Union ("CJEU") invalidated the U.S.-EU Privacy Shield in July 2020. The U.S.-EU Privacy Shield provided a mechanism to lawfully transfer personal data from the European Union to the United States and certain other countries. In the wake of the invalidation of the U.S.-EU Privacy Shield, we have transitioned to reliance on the EU Standard Contractual Clauses ("SCCs") to lawfully transfer certain personal data from the European Union to the United States. The rules involving this alternative data transfer option are also undergoing revision and this transfer mechanism may also be declared invalid (or require us to change our business practices) in the future, requiring us to provide an alternative means of data transfer.

In June 2021, the European Data Protection Board ("EDPB") issued formal recommendations on measures to ensure compliance with the EU data protection requirements when transferring personal data outside of the European Economic Area (the "EDPB Recommendations"). In summary, if "problematic legislation" or practices are identified in the destination country which impinge on the effectiveness of the appropriate safeguards of the transfer tool(s), the EDPB now recommends the data exporter to consider whether the laws/practices will be applied in practice to the relevant data, taking into account the importer's experience and sector.

In addition, the EDPB issued a new set of SCCs in June 2021, which were required to be adopted for new transfers of personal data from September 2021 and replace those used for existing transfers of personal data by December 2022. The new SCCs place obligations on us as a data importer in relation to government authorities' access requests in respect of personal data transferred under the SCCs. The EDPB Recommendations are designed to be read in tandem with the new SCCs and set out requirements for organizations to assess third countries and identify appropriate data protection supplementary measures to be implemented on a case-by-case basis where needed.

The rules involving this alternative SCC data transfer option are continually undergoing revision and this transfer mechanism may also be declared invalid (or require us to change our business practices) in the future, requiring us to provide an alternative means of data transfer or implement significant changes in our data security and protection practices.

As with other issues related to Brexit, there are open questions about how personal data will be protected in the UK and whether personal information can transfer from the EU to the UK. Following the withdrawal of the UK from the EU, the UK Data Protection Act of 2018 applies to the processing of personal data that takes place in the UK and includes parallel obligations to those set forth by GDPR. While the Data Protection Act of 2018 in the United Kingdom that "implements" and complements GDPR achieved Royal Assent on May 23, 2018, and is now effective in the United Kingdom, it is still unclear whether transfer of data from the European Economic Area, or EEA, to the United Kingdom will remain lawful under GDPR. The United Kingdom government has already determined that it considers all European Union and EEA member states to be adequate for the purposes of data protection, ensuring that data flows from the United Kingdom to the European Union/EEA remain unaffected. In addition, a recent decision from the European Commission appears to deem the UK as being "essentially adequate" for purposes of data transfer from the EU to the UK, although this decision may be reevaluated in the future.

Brazil also enacted the Lei Geral de Proteção de Dados (the Brazilian General Data Protection Law), which became effective in August 2020 and imposes requirements largely similar to GDPR on products and services offered to users in Brazil. We may also be subject in China to the Cybersecurity Law that went into effect in June 2017 and a revision of the Personal Information Security Specification that went into effect in October 2020, which have uncertain but broad application and impose a number of new privacy and data security obligations. In the summer of 2021, China passed the Data Security Law of the P.R.C ("DSL"), which came into effect on September 1, 2021. China also passed the Personal Information Protection Law of the P.R.C. ("PIPL"), which came into effect on November 1, 2021. The PIPL resembles GDPR in many aspects but will create new and challenging obligations for companies doing business in China. Under these new regulations, if an entity operating in China violates the law, regulators may order it to take corrective actions, issue warnings, confiscate illegal income, suspend services, revoke operating permits or business licenses, or issue a fine. The fine can be up to ¥50 million or 5 percent of an organization's annual revenue for the prior financial year. A broad range of other countries continue to explore either new privacy and data security laws or changes to existing laws. These laws may impact our ongoing business activities and our relationships with our business partners, customers and service providers.

In addition to these specific laws, we also are subject to other privacy, security, and data protection laws around the world. In addition, other countries are also considering new or expanded laws governing privacy and data security that may impact our business practices.

The state of California also adopted a comprehensive privacy law, the California Consumer Privacy Act ("CCPA"), which took effect in January 2020 and became enforceable in July 2020. We may be required to devote substantial resources to implement and maintain compliance with the CCPA, and noncompliance could result in regulatory investigations and fines or private litigation. Moreover, in November 2020, California voters approved a privacy law, the California Privacy Rights Act ("CPRA"), which amends the CCPA to create privacy rights and obligations in California. In addition, other states, including Virginia and Colorado, already have passed state privacy laws. Additional states will be considering these laws in the future which may impact our business activities and our relationships with business partners, customers and service providers.

Furthermore, the U.S. Congress is considering comprehensive privacy legislation. At this time, it is unclear whether Congress will pass such a law and if so, when and what it will require and prohibit. Moreover, it is not clear whether any such legislation would give the Federal Trade Commission ("FTC") any new authority to impose civil penalties for violations of the Federal Trade Commission Act in the first instance, whether Congress will grant the FTC rulemaking authority over privacy and information security, or whether Congress will vest some or all privacy and data security regulatory authority and enforcement power in a new agency, akin to EU data protection authorities.

Employees

As of December 31, 2021, we had a total of 2,121 employees, of whom 796 were based in the United States and 1,325 were based internationally. None of our employees in the United States is represented by a labor union; however, employees of certain of our foreign subsidiaries are members of trade or local unions. For example, in France, our employees are represented by a works council as required by local law. We have not experienced any work stoppages and generally consider our relations with our employees to be good.

The following table summarizes employee headcount as of the dates indicated:

	December 31, 2021	December 31, 2020	December 31, 2019
Subscription services	72	49	69
Product support	174	154	219
Consulting	413	393	392
Education	36	37	38
Sales and marketing	470	479	597
Research and development	699	642	743
General and administrative	257	243	338
Total headcount	2,121	1,997	2,396

We recognize and value the contribution of all our employees. Due to their dedication, hard work, loyalty, and commitment, we have had continued success as a company. Our philosophy is to create an agile, evolving environment that allows all of our employees to grow and thrive, with initiatives and platforms that reward and recognize employees for their hard work and commitment to delivering personal excellence and creativity at MicroStrategy.

Our human capital management objectives are to attract, retain, and develop leading talent to deliver on our business strategies. To accomplish these objectives, we constantly strive to understand the drivers of talent attraction, retention, and sustainable engagement with our employees in each of the geographies in which we operate. As part of this process, we regularly benchmark the benefits we offer our employees against those offered within our industry generally and the local markets in which we operate. During 2021, we continued to expand our equity compensation programs worldwide to provide our employees with greater opportunities to share in any appreciation of our class A common stock. In addition, we pride ourselves on preparing a highly skilled workforce through technical boot camps, regular training workshops, and a variety of other learning experiences. Our initiative-driven teams work with a modern technology stack, and they meet and learn from some of the most experienced innovators in their field. Through these efforts we seek to create an environment in which our employees can flourish, respond quickly to client demand and enhance their connections with colleagues and towards the communities they are a part of globally.

Available Information

Our website is located at www.microstrategy.com. We make available free of charge, on or through the Investor Relations section of our website (http://ir.microstrategy.com), our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and all amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act, as soon as reasonably practicable after electronically filing or furnishing such reports with the Securities and Exchange Commission ("SEC"). Information found on our website is not part of this Annual Report or any other report filed with the SEC. The SEC maintains an Internet site that contains reports, proxy and information statements, and other information regarding issuers, including us, that file or furnish electronically with the SEC at www.sec.gov.

Item 1A. Risk Factors

You should carefully consider the risks described below before making an investment decision. The risks and uncertainties described below are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our business operations.

If any of the following risks occur, our business, financial condition, or results of operations could be materially adversely affected. In such case, the market price of our class A common stock could decline, and you may lose all or part of your investment.

Risks Related to Our Business in General

Our quarterly operating results, revenues, and expenses may fluctuate significantly, which could have an adverse effect on the market price of our stock

For many reasons, including those described below, our operating results, revenues, and expenses have varied in the past and may vary significantly in the future from quarter to quarter. These fluctuations could have an adverse effect on the market price of our class A common stock.

Fluctuations in Quarterly Operating Results. Our quarterly operating results may fluctuate, in part, as a result of:

- fluctuations in the price of bitcoin, of which we have significant holdings and with respect to which we expect to continue to make significant future purchases, and potential material impairment charges that may be associated therewith;
- any sales by us of our bitcoin at prices above their then current carrying costs, which would result in our recording gains upon sale of our digital assets;
- regulatory, commercial, and technical developments related to bitcoin or the bitcoin blockchain;
- the size, timing, volume, and execution of significant orders and shipments;
- the mix of our offerings ordered by customers, including product licenses and cloud subscriptions, which can affect the extent to which revenue is recognized immediately or over future quarterly periods;
- the timing of the release or delivery of new or enhanced offerings and market acceptance of new and enhanced offerings;
- the timing of announcements of new offerings by us or our competitors;
- changes in our pricing policies or those of our competitors;
- the length of our sales cycles;
- seasonal or other buying patterns of our customers;
- changes in our operating expenses;
- the impact of the COVID-19 pandemic, or other future infectious disease pandemics, on the global economy and on our customers, suppliers, employees, and business;
- the timing of research and development projects;
- utilization of our consulting and education services, which can be affected by delays or deferrals of customer implementation of our software;
- fluctuations in foreign currency exchange rates;
- bilateral or multilateral trade tensions, which could affect our offerings in particular foreign markets;
- our profitability and expectations for future profitability and their effect on our deferred tax assets and net income for the period in which any adjustment to our net deferred tax asset valuation allowance may be made;
- increases or decreases in our liability for unrecognized tax benefits; and
- changes in customer decision-making processes or customer budgets.

Limited Ability to Adjust Expenses. We base our operating expense budgets on expected revenue trends and strategic objectives. Many of our expenses, such as interest expense on our long-term debt, office leases and certain personnel costs, are relatively fixed. We may be unable to adjust spending quickly enough to offset any unexpected revenue shortfall or impairment losses related to our digital assets. Accordingly, any shortfall in revenue from our enterprise analytics software business or impairment losses related to our digital assets may cause significant variation in operating results in any quarter.

Based on the above factors, we believe quarter-to-quarter comparisons of our operating results are not a good indication of our future performance. It is possible that in one or more future quarters, our operating results may be below the expectations of public market analysts and investors. In that event, the market price of our class A common stock may fall.

We may not be able to regain or increase profitability in the future

We generated a net loss for the fiscal year ended December 31, 2021, and we may not be able to regain or increase profitability on a quarterly or annual basis in the future. If our revenues are not sufficient to offset our operating expenses, or we are unable to adjust our operating expenses in a timely manner in response to any shortfall in anticipated revenue, we may incur operating losses in future periods, our profitability may decrease, or we may cease to be profitable. As a result, our business, results of operations, and financial condition may be materially adversely affected.

As of December 31, 2021, we had $319.8 million of deferred tax assets, which reflects a $1.0 million valuation allowance. The largest deferred tax asset relates to the impairment on our bitcoin holdings. If the market value of bitcoin declines, we may be required to increase the valuation allowance against the deferred tax asset. Additionally, if we are unable to regain or increase profitability in the future, we may also be required to increase the valuation allowance against the remaining deferred tax assets. A significant increase in the valuation allowance could result in a charge that would materially adversely affect net income in the period in which the charge is incurred.

We may have exposure to greater than anticipated tax liabilities

We are subject to income taxes and non-income taxes in a variety of domestic and foreign jurisdictions. Our future income tax liability could be materially adversely affected by earnings that are lower than anticipated in jurisdictions where we have lower statutory rates, earnings that are higher than anticipated in jurisdictions where we have higher statutory rates, changes in the valuation of our deferred tax assets and liabilities, changes in the amount of unrecognized tax benefits, or changes in tax laws, regulations, accounting principles, or interpretations thereof (including in response to the COVID-19 pandemic). In addition, if we sold any of our bitcoin at prices greater than the cost basis of the bitcoin sold, we would incur a tax liability with respect to any gain recognized, and such tax liability could be material.

Changes in the tax laws of foreign jurisdictions could arise, including as a result of the project undertaken by the Organisation for Economic Co-operation and Development ("OECD") to combat base erosion and profit shifting ("BEPS"). The OECD, which represents a coalition of member countries, has issued recommendations that, in some cases, make substantial changes to numerous long-standing tax positions and principles. These changes, many of which have been adopted or are under active consideration by OECD members and/or other countries, could increase tax uncertainty and may adversely affect our provision for income taxes.

In addition, in response to significant market volatility and disruptions to business operations resulting from the COVID-19 pandemic, legislatures and taxing authorities in many jurisdictions in which we operate have implemented, and in the future may implement additional, changes to their tax rules. As part of the U.S. Congress's response to the COVID-19 pandemic, the Families First Coronavirus Response Act ("FFCR Act") and the CARES Act were enacted in March 2020. Both contain numerous tax provisions. Regulatory guidance under the U.S. Tax Cuts and Jobs Act (the "Tax Act"), FFCR Act, and CARES Act is and continues to be forthcoming, and such guidance could ultimately increase or lessen the impact of these laws on our business and financial condition. Additional legislation may be enacted in connection with the COVID-19 pandemic, some of which could have tax provisions that impact us. In addition, it is uncertain if and to what extent various states will conform to the Tax Act, FFCR Act, or CARES Act. These changes in law could include modifications that have temporary effect or more permanent changes. The impact of these changes on us, our long-term tax planning, and our effective tax rate could be material.

Our determination of our tax liability is subject to review by applicable domestic and foreign tax authorities. Any adverse outcome of such reviews could have an adverse effect on our operating results and financial condition. The determination of our worldwide provision for income taxes and other tax liabilities requires significant judgment and, in the ordinary course of business, there are many transactions and calculations where the ultimate tax determination is uncertain. Moreover, as a multinational business, we have subsidiaries that engage in many intercompany transactions in a variety of tax jurisdictions where the ultimate tax determination is uncertain.

We also have contingent tax liabilities that, in management's judgment, are not probable of assertion. If such unasserted contingent liabilities were to be asserted, or become probable of assertion, we may be required to record significant expenses and liabilities in the period in which these liabilities are asserted or become probable of assertion.

As a result of these and other factors, the ultimate amount of tax obligations owed may differ from the amounts recorded in our financial statements and any such difference may materially affect our financial results in future periods in which we change our estimates of our tax obligations or in which the ultimate tax outcome is determined.

Risks Related to Our Bitcoin Acquisition Strategy and Holdings

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

In September 2020, our Board of Directors adopted our Treasury Reserve Policy, under which our treasury reserve assets will consist of (i) Cash Assets held by us that exceed working capital requirements and (ii) bitcoin held by us, with bitcoin serving as the primary treasury reserve asset on an ongoing basis, subject to market conditions and anticipated needs of the business for Cash Assets.

In the first quarter of 2021, we determined to adopt, in addition to and in conjunction with our Treasury Reserve Policy, a corporate strategy of acquiring and holding bitcoin, and from time to time, subject to market conditions, issuing debt or equity securities in capital raising transactions with the objective of using the proceeds to purchase additional bitcoin.

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

As of February 14, 2022, we held approximately 125,051 bitcoins that were acquired at an aggregate purchase price of $3.777 billion and an average purchase price of approximately $30,200 per bitcoin, inclusive of fees and expenses. These purchases included purchases of bitcoin using the net proceeds from our issuance of $650.0 million aggregate principal amount of our 2025 Convertible Notes in the fourth quarter of 2020, our issuance of $1.050 billion aggregate principal amount of our 2027 Convertible Notes in the first quarter of 2021, our issuance of $500.0 million aggregate principal amount of our 2028 Secured Notes in the second quarter of 2021, and our issuance and sale of 1,413,767 shares of our class A common stock pursuant to an Open Market Sale Agreement (the "Open Market Sale Agreement") with Jefferies LLC, as agent ("Jefferies"), pursuant to which we issued and sold shares of our class A common stock having an aggregate offering price of approximately $1.0 billion from time to time through Jefferies (the "Open Market Offering") in the third and fourth quarters of 2021. As part of our overall corporate strategy, we expect to purchase additional bitcoin in future periods, though we may also sell bitcoin in future periods as needed to generate Cash Assets for treasury management purposes.

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

Bitcoin is a highly volatile asset that has traded below $30,000 per bitcoin and above $65,000 per bitcoin on the Coinbase exchange (our principal market) in the 12 months preceding the date of this Annual Report. Bitcoin does not pay interest or other returns and so our ability to generate cash from our bitcoin holdings depends on sales or implementing strategies that we may consider to create income streams or otherwise generate funds using our bitcoin holdings, including lending bitcoin to counterparties. The impact of our bitcoin holdings on our financial results and the market price of our class A common stock will increase as we increase our overall holdings of bitcoin in the future. See "Risks Related to Our Bitcoin Acquisition Strategy and Holdings – Our historical financial statements do not reflect the potential variability in earnings that we may experience in the future relating to our bitcoin holdings."

The price of bitcoin may be influenced by regulatory, commercial, and technical factors that are highly uncertain, and fluctuations in the price of bitcoin are likely to influence our financial results and the market price of our class A common stock

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

- decreased user and investor confidence in bitcoin;
- investment and trading activities of highly active retail and institutional users, speculators, miners and investors;
- negative publicity or events relating to bitcoin;
- negative or unpredictable media or social media coverage on bitcoin;

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

In addition, bitcoin and other digital assets are relatively novel and are subject to various risks and uncertainties that may adversely impact their price. The application of securities laws and other regulations to such assets is unclear in certain respects, and it is possible that regulators in the United States or foreign countries may create new regulations or interpret laws in a manner that adversely affects the price of bitcoin. For example, foreign government authorities have recently expanded their efforts to restrict certain activities related to bitcoin and other digital assets. In China, the People's Bank of China and the National Development and Reform Commission have outlawed cryptocurrency mining and declared all cryptocurrency transactions illegal within the country. In India, it has been reported that the Ministry of Corporate Affairs has circulated draft legislation that would prohibit mining, holding, selling, trading, or using cryptocurrencies in the country. Similarly, the Central Bank of the Russian Federation issued a report in January 2022 advocating for a wide-ranging ban on crypto-related activities including the issuance, exchange, and mining of cryptocurrencies in Russian territory, citing threats to financial stability, citizens' wellbeing and its monetary policy sovereignty. Moreover, the risks of engaging in a bitcoin-focused business strategy are relatively novel and have created, and may create further, complications due to the lack of experience that third parties have with companies engaging in such a business, such as the unavailability of director and officer liability insurance on acceptable terms.

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

Because bitcoin has no physical existence beyond the record of transactions on the bitcoin blockchain, a variety of technical factors related to the bitcoin blockchain could also impact the price of bitcoin. For example, malicious attacks by miners, inadequate mining fees to incentivize validating of bitcoin transactions, hard "forks" of the bitcoin blockchain into multiple blockchains, and advances in digital computing, algebraic geometry, and quantum computing could undercut the integrity of the bitcoin blockchain and negatively affect the price of bitcoin. The liquidity of bitcoin may also be reduced and damage to the public perception of bitcoin may occur, if financial institutions were to deny banking services to businesses that hold bitcoin, provide bitcoin-related services or accept bitcoin as payment, which could also decrease the price of bitcoin.

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

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

The price of bitcoin has historically been subject to dramatic price fluctuations and is highly volatile. As explained more fully in Note 2(g) to our consolidated financial statements for the year ended December 31, 2021 included in this annual report, we determine the fair value of our bitcoin based on quoted (unadjusted) prices on the Coinbase exchange (our principal market). We perform an analysis each quarter to identify whether events or changes in circumstances, principally decreases in the quoted (unadjusted) prices on the active exchange, indicate that it is more likely than not that any of our bitcoin assets are impaired. In determining if an impairment has occurred, we consider the lowest price of one bitcoin quoted on the active exchange at any time since acquiring the specific bitcoin held. If the carrying value of a bitcoin exceeds that lowest price at any time during the quarter, an impairment loss is deemed to have occurred with respect to that bitcoin in the amount equal to the difference between its carrying value and such lowest price, and subsequent increases in the price of bitcoin will not affect the carrying value of our bitcoin. Gains (if any) are not recorded until realized upon sale, at which point they would be presented net of any impairment losses. In determining the gain to be recognized upon sale, we calculate the difference between the sale price and carrying value of the specific bitcoin sold immediately prior to sale.

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

At December 31, 2021, we carried $2.850 billion of digital assets on our balance sheet, consisting of approximately 124,391 bitcoins and reflecting $901.3 million in cumulative impairment losses attributable to bitcoin trading price fluctuations, and held $63.4 million in cash and cash equivalents, compared to a carrying value of $1.054 million of digital assets, consisting of approximately 70,469 bitcoins, and $59.7 million in cash and cash equivalents at December 31, 2020. Digital asset impairment losses of $830.6 million incurred during the year ended December 31, 2021 represented 69.0% of our operating expenses, compared to $70.7 million in digital asset impairment losses representing 17.5% of our operating expenses in the year ended December 31, 2020, contributing to our net loss of $535.5 million for the year ended December 31, 2021 compared to net loss of $7.5 million for the year ended December 31, 2020.

Because we intend to purchase additional bitcoin in future periods and increase our overall holdings of bitcoin, we expect that the proportion of our total assets represented by our bitcoin holdings will increase in the future. As a result, volatility in our earnings in future periods may be significantly more than what we experienced in prior periods.

Changes in securities regulation may adversely impact the market price of our class A common stock

Although bitcoin and other digital assets have experienced a surge of investor attention since bitcoin was invented in 2008, investors in the United States currently have limited means to gain exposure to bitcoin through traditional investment channels such as 401(k) retirement accounts, and instead generally must hold bitcoin through "hosted" wallets provided by digital asset service providers or through "unhosted" wallets that expose the investor to risks associated with loss or hacking of their private keys. Given the relative novelty of digital assets, general lack of familiarity with the processes needed to hold bitcoin directly, as well as the potential reluctance of financial planners and advisers to recommend direct bitcoin holdings to their retail customers because of the manner in which such holdings are custodied, some investors have sought exposure to bitcoin through investment vehicles that hold bitcoin and issue shares representing fractional undivided interests in their underlying bitcoin holdings. Although a number of investment vehicles currently offer this exposure to bitcoin, none of these investment vehicles currently offers its shares directly to the public in the United States, and such shares are offered only to "accredited investors" on a private placement basis. Investors who are not eligible to participate in these private placements may nevertheless purchase shares of these investment vehicles in the over-the-counter market, where such shares have historically traded at a premium to the net asset value ("NAV") of the underlying bitcoin. These premiums have at times been substantial.

One reason for the substantial premium to NAV exhibited by the trading prices of shares of some bitcoin investment vehicles may be because of the relative scarcity of traditional investment vehicles providing investment exposure to bitcoin. To the extent investors view the value of our class A common stock as providing such exposure, it is possible that the value of our class A common stock also includes a premium over the value of our bitcoin.

Another reason for the substantial premium to NAV exhibited by the trading prices of shares of some bitcoin investment vehicles is that such vehicles operate in a manner similar to closed-end investment funds as opposed to exchange-traded funds ("ETFs") and therefore do not continuously offer to create and redeem their shares at NAV in exchange for bitcoin. Although several bitcoin investment vehicles have attempted to list their shares on a U.S. national securities exchange to permit them to function in the manner of an ETF with continuous share creation and redemption at NAV, the SEC has generally declined to approve any such listing, citing concerns over the surveillance of trading in markets for the underlying bitcoin as well as concerns about fraud and manipulation in bitcoin trading markets. However, in October 2021, the SEC permitted the listing of the ProShares Bitcoin Strategy ETF (the "ProShares ETF"), an ETF that invests primarily in bitcoin futures contracts. Although this ETF allows investors to obtain managed exposure to bitcoin futures contracts, it does not invest directly in bitcoin. As a result, it is unclear as to whether or to what extent the existence of this ETF or other ETFs that invest in bitcoin futures contracts that may be listed in the future will have on any premium over the value of our bitcoin holdings that may be included in the value of our class A common stock. Shortly after the listing of the ProShares ETF, the SEC permitted the listing of the Valkyrie Bitcoin Strategy ETF (the "Valkyrie ETF"), another ETF that invests primarily in bitcoin futures contracts.

If the SEC were to further resolve its concerns regarding surveillance of and the existence of fraud and manipulation in the bitcoin trading markets, it is possible that the SEC would permit the listing of ETFs specializing in the direct acquisition and holding of bitcoin, allowing these funds to offer their shares directly to the public. In addition to greatly simplifying the task of gaining investment exposure to bitcoin, the listing of a bitcoin ETF with continuous share creation and redemption at NAV would be expected to eliminate the NAV premiums currently exhibited by shares of investment vehicles that trade in the over-the-counter market. To the extent that our class A common stock is viewed as an alternative-to-bitcoin investment vehicle and trades at a premium to the value of our bitcoin holdings, that premium may also be eliminated, causing the price of our class A common stock to decline.

In addition, the introduction of the ProShares ETF, the Valkyrie ETF, and any additional bitcoin ETFs on U.S. national securities exchanges may be viewed by investors as offering “pure play” exposure to bitcoin that would generally not be subject to federal income tax at the entity level as we are.

As a result of the foregoing factors, to the extent investors view our class A common stock as linked to the value of our bitcoin holdings, the introduction of bitcoin ETFs on U.S. national securities exchanges could have a material adverse effect on the market price of our class A common stock.

Our bitcoin holdings could subject us to regulatory scrutiny

As noted above, several bitcoin investment vehicles have attempted to list their shares on a U.S. national securities exchange to permit them to function in the manner of an ETF with continuous share creation and redemption at NAV. To date the SEC has declined to approve any such listing, citing concerns over the surveillance of trading in markets for the underlying bitcoin as well as concerns about fraud and manipulation in bitcoin trading markets. Even though we do not function in the manner of an ETF and do not offer continuous share creation and redemption at NAV, it is possible that we nevertheless could face regulatory scrutiny from the SEC, as a company with a class of securities registered under the Exchange Act and traded on The Nasdaq Global Select Market.

In addition, as digital assets, including bitcoin, have grown in popularity and market size, there has been increasing focus on the extent to which digital assets can be used to launder the proceeds of illegal activities or fund criminal or terrorist activities, or entities subject to sanctions regimes. While we have implemented and maintain policies and procedures reasonably designed to promote compliance with applicable anti-money laundering and sanctions laws and regulations and take care to only acquire our bitcoin through entities subject to anti-money laundering regulation and related compliance rules in the United States, if we are found to have purchased any of our bitcoin from bad actors that have used bitcoin to launder money or persons subject to sanctions, we may be subject to regulatory proceedings and any further transactions or dealings in bitcoin by us may be restricted or prohibited.

We may consider issuing debt or other financial instruments that may be collateralized by our bitcoin holdings and may consider strategies to create income streams or otherwise generate funds using our bitcoin holdings, including lending bitcoin to counterparties. To the extent that we enter into bitcoin-related transactions beyond simply acquiring and holding bitcoin, such transactions subject us to additional regulatory compliance requirements, including federal and state money services regulations, money transmitter licensing requirements and various commodity laws and regulations.

In addition, private actors that are wary of bitcoin or the regulatory concerns associated with bitcoin may take actions that may have an adverse effect on the market price of our class A common stock. For example, an affiliate of HSBC Holdings has prohibited customers of its HSBC InvestDirect retail investment platform from buying shares of our class A common stock after determining that the value of our stock is related to the performance of bitcoin, indicating that it did not want to facilitate exposure to virtual currencies.

Due to the unregulated nature and lack of transparency surrounding the operations of many bitcoin trading venues, they may experience fraud, security failures or operational problems, which may adversely affect the value of our bitcoin

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

For example, in 2019 there were reports claiming that 80-95% of bitcoin trading volume on trading venues was false or non-economic in nature, with specific focus on unregulated exchanges located outside of the United States. Such reports may indicate that the bitcoin market is significantly smaller than expected and that the United States makes up a significantly larger percentage of the bitcoin market than is commonly understood. Any actual or perceived false trading in the bitcoin market, and any other fraudulent or manipulative acts and practices, could adversely affect the value of our bitcoin.

Negative perception, a lack of stability in the broader bitcoin markets and the closure or temporary shutdown of bitcoin trading venues due to fraud, business failure, hackers or malware, or government-mandated regulation may reduce confidence in bitcoin and result in greater volatility in the prices of bitcoin. To the extent investors view our class A common stock as linked to the value of our bitcoin holdings, these potential consequences of a bitcoin trading venue's failure could have a material adverse effect on the market price of our class A common stock.

The concentration of our bitcoin holdings enhances the risks inherent in our bitcoin acquisition strategy

As of February 14, 2022, we held approximately 125,051 bitcoins that were acquired at an aggregate purchase price of $3.777 billion and we intend to purchase additional bitcoin and increase our overall holdings of bitcoin in the future. The concentration of our bitcoin holdings limits the risk mitigation that we could take advantage of by purchasing a more diversified portfolio of treasury assets, and the absence of diversification enhances the risks inherent in our bitcoin acquisition strategy. If there is a significant decrease in the price of bitcoin, we will experience a more pronounced impact on our financial condition than if we used our cash to purchase a more diverse portfolio of assets.

Our bitcoin holdings are less liquid than our existing cash and cash equivalents and may not be able to serve as a source of liquidity for us to the same extent as cash and cash equivalents

In September 2020, we adopted bitcoin as our primary treasury reserve asset. Historically, the bitcoin markets have been characterized by more price volatility, less liquidity, and lower trading volumes compared to sovereign currencies markets, as well as relative anonymity, a developing regulatory landscape, susceptibility to market abuse and manipulation, and various other risks inherent in its entirely electronic, virtual form and decentralized network. During times of market instability, we may not be able to sell our bitcoin at reasonable prices or at all. As a result, our bitcoin holdings may not be able to serve as a source of liquidity for us to the same extent as cash and cash equivalents. If we are unable to sell our bitcoin, or if we are forced to sell our bitcoin at a significant loss, in order to meet our working capital requirements, our business and financial condition could be negatively impacted.

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

Security breaches and cyberattacks are of particular concern with respect to our bitcoin. Bitcoin and other blockchain-based cryptocurrencies have been, and may in the future be, subject to security breaches, cyberattacks, or other malicious activities. For example, in October 2021 it was reported that hackers exploited a flaw in the account recovery process and stole from the accounts of at least 6,000 customers of the Coinbase exchange (our principal market), although the flaw was subsequently fixed and Coinbase reimbursed affected customers. Nonetheless, a successful security breach or cyberattack could result in:

- a partial or total loss of our bitcoin in a manner that may not be covered by insurance or indemnity provisions of the custody agreement with a custodian who holds our bitcoin;
- harm to our reputation and brand;
- improper disclosure of data and violations of applicable data privacy and other laws; or
- significant regulatory scrutiny, investigations, fines, penalties, and other legal, regulatory, contractual and financial exposure.

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

Attacks upon systems across a variety of industries, including industries related to bitcoin, are increasing in frequency, persistence, and sophistication, and, in many cases, are being conducted by sophisticated, well-funded and organized groups and individuals, including state actors. The techniques used to obtain unauthorized, improper or illegal access to systems and information (including personal data and digital assets), disable or degrade services, or sabotage systems are constantly evolving, may be difficult to detect quickly, and often are not recognized or detected until after they have been launched against a target. These attacks may occur on our systems or those of our third-party service providers or partners. We may experience breaches of our security measures due to human error, malfeasance, insider threats, system errors or vulnerabilities or other irregularities. In particular, unauthorized parties have attempted, and we expect that they will continue to attempt, to gain access to our systems and facilities, as well as those of our partners and third-party service providers, through various means, such as hacking, social engineering, phishing and fraud. In the past, hackers have successfully employed a social engineering attack against one of our service providers and misappropriated our digital assets, although, to date, such events have not been material to our financial condition or operating results. Threats can come from a variety of sources, including criminal hackers, hacktivists, state-sponsored intrusions, industrial espionage, and insiders. In addition, certain types of attacks could harm us even if our systems are left undisturbed. For example, certain threats are designed to remain dormant or undetectable, sometimes for extended periods of time, or until launched against a target and we may not be able to implement adequate preventative measures.

Further, there has been an increase in such activities as a result of the COVID-19 pandemic. Any future breach of our operations or those of others in the bitcoin industry, including third-party services on which we rely, could materially and adversely affect our business.

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

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

In light of the significant amount of bitcoin we hold, we are continuing to seek a greater degree of diversification in the use of custodial services as the extent of potential risk of loss is dependent, in part, on the degree of diversification. As of December 31, 2021, the insurance that covers losses of our bitcoin holdings covers only a small fraction of the value of the entirety of our bitcoin holdings, and there can be no guarantee that such insurance will be maintained as part of the custodial services we have or that such coverage will cover losses with respect to our bitcoin.

Regulatory change reclassifying bitcoin as a security could lead to our classification as an "investment company" under the Investment Company Act of 1940 and could adversely affect the market price of bitcoin and the market price of our class A common stock

While senior SEC officials have stated their view that bitcoin is not a "security" for purposes of the federal securities laws, the SEC has so far refused to permit the listing of any bitcoin-based ETFs, citing, among other things, concerns regarding bitcoin market integrity and custodial protections. It is possible that the SEC could take a contrary position to the one taken by its senior officials or a federal court could conclude that bitcoin is a security. Such a determination could lead to our classification as an "investment company" under the Investment Company Act of 1940, which would subject us to significant additional regulatory controls that could have a material adverse effect on our business and operations and also may require us to substantially change the manner in which we conduct our business.

In addition, if bitcoin is determined to constitute a security for purposes of the federal securities laws, the additional regulatory restrictions imposed by such a determination could adversely affect the market price of bitcoin and in turn adversely affect the market price of our class A common stock.

A significant decrease in the market value of our bitcoin holdings could adversely affect our ability to service our indebtedness

As a result of our bitcoin acquisition strategy and our Treasury Reserve Policy, the majority of our assets are concentrated in our bitcoin holdings. The concentration of our assets in bitcoin limits our ability to mitigate risk that could otherwise be achieved by purchasing a more diversified portfolio of treasury assets. Accordingly, if there is a significant decrease in the market price of bitcoin, the market value of our bitcoin holdings will experience a significant decline, which may have a material adverse effect on our financial condition. Any material adverse effect on our financial condition caused by a significant decline in the market value of our bitcoin holdings may create liquidity and credit risks for our business operations, as we would have limited means to obtain cash beyond the revenues generated by our enterprise analytics software business. To the extent that the cash generated by our enterprise analytics software business is insufficient to satisfy our debt service obligations, and to the extent that the liquidation of our bitcoin holdings would be insufficient to satisfy our debt service obligations, we may be unable to make scheduled payments on our current or future indebtedness, which could cause us to default on our debt obligations. Any default on our current or future indebtedness may have a material adverse effect on our financial condition. See "Risks Related to Our Outstanding and Potential Future Indebtedness" for additional details about the risks which may impact us if we are unable to service our indebtedness.

Risks Related to Our Enterprise Analytics Software Business Strategy

We depend on revenue from a single software platform and related services as well as revenue from our installed customer base

Our revenue is derived from sales of our analytics software platform and related services. Although demand for analytics software has continued to grow, the market for analytics offerings continues to evolve. Resistance from consumer and privacy groups to commercial collection, use, and sharing of personal data has grown in recent years and our customers, potential customers, or the general public may perceive that use of our analytics software could violate individual privacy rights. In addition, increasing government restrictions on the collection, use, and transfer of personal data could impair the further growth of the market for analytics software, especially in foreign markets. Because we depend on revenue from a single software platform and related services, our business could be harmed by a decline in demand for, or in the adoption or prices of, our platform and related services as a result of, among other factors, any change in our pricing or packaging model, increased competition, maturation in the markets for our platform, or other risks described in this Annual Report. We also depend on our installed customer base for a substantial portion of our revenue. If our existing customers cancel or fail to renew their service contracts or fail to make additional purchases from us, our revenue could decrease and our operating results could be materially adversely affected.

A substantial customer shift in the deployment of the MicroStrategy platform from a product license model to a cloud subscription model could result in higher future rates of attrition of customers from the MicroStrategy platform and could affect the timing of revenue recognition, reduce product licenses and product support revenues, and materially adversely affect our operating results, and our ability to accelerate our cloud strategy could be negatively impacted by any inability to provide necessary sales and engineering support

We offer our analytics platform in the form of a product license or a cloud subscription. Given that it is relatively easy for customers to migrate on and off our cloud subscription platform, a substantial shift among our customers toward our cloud platform could result in higher future rates of attrition among our customers. In addition, the payment streams and revenue recognition timing for our product licenses are different from those for our cloud subscriptions. For product licenses, customers typically pay us a lump sum soon after entering into a license agreement, and we typically recognize product licenses revenue when control of the license is transferred to the customer. For cloud subscriptions, customers typically make periodic payments over the subscription period and we recognize subscription services revenues ratably over the subscription period. As a result, if a substantial number of current customers shift to, or new customers purchase, cloud subscriptions instead of product licenses, the resulting change in payment terms and revenue recognition may result in our recognizing less revenue in the reporting period in which the sale transactions are consummated than has been the case in prior periods, with more revenue being recognized in future periods. This change in the timing of revenue recognition could materially adversely affect our operating results and cash flows for the periods during which such a shift or change in purchasing occurs. Accordingly, in any particular reporting period, cloud subscription sales could negatively impact product license sales to our existing and prospective customers, which could reduce product licenses and product support revenues. Finally, our ability to accelerate our cloud strategy could be negatively impacted by any inability to provide necessary sales and sales engineering support, including the support of channel partners, our internal sales team, and digital marketing.

We use channel partners and if we are unable to maintain successful relationships with them, our business, operating results, and financial condition could be materially adversely affected

In addition to our direct sales force, we use channel partners, such as system integrators, consulting firms, resellers, solution providers, managed service providers, OEMs, and technology companies, to license and support our offerings. For the year ended December 31, 2021, transactions by channel partners for which we recognized revenue accounted for 32.0% of our total product licenses revenues, and our ability to achieve revenue growth in the future will depend in part on our ability to maintain these relationships. Our channel partners may offer customers the products and services of several different companies, including competing offerings, and we cannot be certain that they will prioritize or devote adequate resources to selling our offerings. If we are unable to maintain our relationships with our channel partners, or if we experience a reduction in sales by our channel partners, our business, operating results, and financial condition could be materially adversely affected.

In addition, we rely on our channel partners to operate in accordance with applicable laws and regulatory requirements. If they fail to do so, we may need to incur significant costs in responding to investigations or enforcement actions or paying penalties assessed by the applicable authorities. We also rely on our channel partners to operate in accordance with the terms of their contractual agreements with us. For example, some of our agreements with our channel partners prescribe the terms and conditions pursuant to which they are authorized to resell or distribute our software and offer technical support and related services. If our channel partners do not comply with their contractual obligations to us, our business, operating results, and financial condition may be materially adversely affected.

Our recognition of deferred revenue and advance payments is subject to future performance obligations and may not be representative of revenues for succeeding periods

Our deferred revenue and advance payments totaled $217.9 million as of December 31, 2021. The timing and ultimate recognition of our deferred revenue and advance payments depend on various factors, including our performance of various service obligations.

Because of the possibility of customer changes or delays in customer development or implementation schedules or budgets, and the need for us to satisfactorily perform product support and other services, deferred revenue and advance payments at any particular date may not be representative of actual revenue for any succeeding period.

In addition, we had $49.7 million of other remaining performance obligations as of December 31, 2021, consisting of the portions of multi-year contracts that will be invoiced in the future that are not reflected on our balance sheet. As with deferred revenue and advanced payments, these other remaining performance obligations at any particular date may not be representative of actual revenue for any succeeding period.

We may lose sales, or sales may be delayed, due to the long sales and implementation cycles of certain of our offerings, which could materially adversely affect our revenues and operating results

The decision to purchase our offerings typically requires our customers to invest substantial time, money, personnel, and other resources, which can result in long sales cycles that can exceed nine months. These long sales cycles increase the risk that intervening events, such as the introduction of new offerings and changes in customer budgets and purchasing priorities, will affect the size, timing, and completion of an order. Even if an order is completed, the time and resources required to implement and integrate our offerings vary widely depending on customer needs and the complexity of deployment. If we lose sales or sales are delayed due to these long sales and implementation cycles, our revenues and operating results for that period may be materially adversely affected.

Our results in any particular period may depend on the number and volume of large transactions in that period and these transactions may involve lengthier, more complex, and more unpredictable sales cycles than other transactions

Larger, enterprise-level transactions often require considerably more resources, are often more complex to implement, and typically require additional management approval, which may result in a lengthier, more complex, and less predictable sales cycle and may increase the risk that an order is delayed or not brought to completion. We may also encounter greater competition and pricing pressure on these larger transactions, and our sales and delivery efforts may be more costly. The presence or absence of one or more large transactions in a particular period may have a material effect on our revenues and operating results for that period and may result in lower estimated revenues and earnings in future periods. For the year ended December 31, 2021, our top three product licenses transactions with recognized revenue totaled $12.6 million, or 12.4% of total product licenses revenues, compared to $15.3 million, or 17.6% of total product licenses revenues, for the year ended December 31, 2020.

Our offerings face intense competition, which may lead to lower prices for our offerings, reduced gross margins, loss of market share, and reduced revenue

The analytics market is highly competitive and subject to rapidly changing technology. Within the analytics space, we compete with many different software vendors, including IBM, Microsoft, Oracle, Qlik, Salesforce, and SAP. Our future success depends on our ability to differentiate our offerings and successfully compete across analytics implementation projects of varying sizes. Our ability to compete successfully depends on a number of factors, both within and outside of our control. Some of these factors include software deployment options; analytical, mobility, data discovery, and visualization capabilities; performance and scalability; the quality and reliability of our customer service and support; and brand recognition. Failure to compete successfully in any one of these or other areas may reduce the demand for our offerings and materially adversely affect our revenue from both existing and prospective customers.

Some of our competitors have longer operating histories, more focused business strategies and significantly greater financial, technical, and marketing resources than we do. As a result, they may be able to respond more quickly to new or emerging technologies and changes in customer requirements or devote greater resources to the development, promotion, sale, and marketing of their offerings than we can, such as offering certain analytics products free of charge when bundled with other products. In addition, many of our competitors have strong relationships with current and potential customers, extensive industry and specialized business knowledge, and corresponding proprietary technologies that they can leverage. As a result, they may be able to prevent us from penetrating new accounts or expanding existing accounts.

Increased competition may lead to price cuts, reduced gross margins, and loss of market share. The failure to compete successfully and meet the competitive pressures we face may have a material adverse effect on our business, operating results, and financial condition.

Current and future competitors may also make strategic acquisitions or establish cooperative relationships among themselves or with others. By doing so, these competitors may increase their ability to meet the needs of our potential customers by their expanded offerings and rapidly gain significant market share, which could limit our ability to obtain revenues from new customers and to sustain software maintenance revenues from our installed customer base. In addition, basic office productivity software suites, such as Microsoft Office, could evolve to offer advanced analysis and reporting capabilities that may reduce the demand for our analytics offerings.

Risks Related to Our Technology and Intellectual Property

If we are unable to develop and release new offerings and software enhancements to respond to rapid technological change, new customer requirements, or evolving industry standards in a timely and cost-effective manner, our business, operating results, and financial condition could be materially adversely affected

The market for our offerings is characterized by frequent new offerings and software enhancements in response to rapid technological change, new customer requirements, and evolving industry standards. The introduction of new or enhanced offerings can quickly make existing ones obsolete. We believe our future success depends largely on our ability to continue to support popular operating systems and databases, maintain and improve our current offerings, rapidly develop new offerings and software enhancements that achieve market acceptance, maintain technological competitiveness, and meet an expanding range of customer requirements.

Analytics applications are inherently complex, and research and development can be costly and time consuming. In addition, customers may delay their purchasing decisions because they anticipate that new or enhanced versions of our offerings will soon become available or because of concerns regarding the complexity of migration or performance issues related to new offerings. We cannot be sure that we will succeed in developing, marketing, and delivering, on a timely and cost-effective basis, new or enhanced offerings that will achieve market acceptance. Moreover, even if our new offerings achieve market acceptance, we may experience a decline in revenues of our existing offerings that is not fully matched by the new offering's revenue. This could result in a temporary or permanent revenue shortfall and materially adversely affect our business, operating results, and financial condition.

We depend on technology licensed to us by third parties, and changes in or discontinuances of such licenses could impair our software, delay implementation of our offerings, or force us to pay higher license fees

We license third-party technologies that are incorporated into or utilized by our existing offerings. These licenses may be terminated, or we may be unable to license third-party technologies for future offerings. In addition, we may be unable to renegotiate acceptable third-party license terms, or we may be subject to infringement liability if third-party technologies that we license are found to infringe intellectual property rights of others. Changes in or discontinuance of third-party licenses could lead to a material increase in our costs or to our offerings becoming inoperable or their performance being materially reduced. As a result, we may need to incur additional development costs to help ensure continued performance of our offerings, and we may experience a decreased demand for our offerings.

Changes in third-party software or systems or the emergence of new industry standards could materially adversely affect the operation of and demand for our existing software

The functionalities of our software depend in part on the ability of our software to interface with our customers' information technology ("IT") infrastructure and cloud environments, including software applications, network infrastructure, and end user devices, which are supplied to our customers by various other vendors. When new or updated versions of these third-party software or systems are introduced, or new industry standards in related fields emerge, we may be required to develop updated versions of or enhancements to our software to help ensure that it continues to effectively interoperate with our customers' IT infrastructure and cloud environments. If new or modified operating systems are introduced or new web standards and technologies or new standards in the field of database access technology emerge that are incompatible with our software, development efforts to maintain the interoperability of our software with our customers' IT infrastructure and cloud environments could require substantial capital investment and employee resources. If we are unable to update our software in a timely manner, cost-effectively, or at all, the ability of our software to perform key functions could be impaired, which may impact our customers' satisfaction with our software, potentially result in breach of warranty or other claims, and materially adversely affect demand for our software.

The nature of our software makes it particularly susceptible to undetected errors, bugs, or security vulnerabilities, which could cause problems with how the software performs and, in turn, reduce demand for our software, reduce our revenue, and lead to litigation claims against us

Despite extensive testing by us and our current and potential customers, we have in the past discovered software errors, bugs, or security vulnerabilities (including the log4j vulnerability which surfaced in December 2021 and affected companies worldwide) in our offerings after commercial shipments began and they may be found in future offerings or releases. This could result in lost revenue, damage to our reputation, or delays in market acceptance, which could have a material adverse effect on our business, operating results, and financial condition. We may also need to expend resources and capital to correct these defects if they occur.

Our customer agreements typically contain provisions designed to limit our exposure to product liability, warranty, and other claims. It is possible these provisions are unenforceable in certain domestic or international jurisdictions, and we may be exposed to such claims. A successful claim against us could have a material adverse effect on our business, operating results, and financial condition.

Our intellectual property is valuable, and any inability to protect it could reduce the value of our offerings and brand

Unauthorized third parties may try to copy or reverse engineer portions of our software or otherwise obtain and use our intellectual property. Copyrights, patents, trademarks, trade secrets, confidentiality procedures, and contractual commitments can only provide limited protection. Any intellectual property owned by us may be invalidated, circumvented, or challenged. Any of our pending or future intellectual property applications, whether or not currently being challenged, may not be issued with the scope we seek, if at all. Moreover, amendments to and developing jurisprudence regarding U.S. and international law may affect our ability to protect our intellectual property and defend against claims of infringement. In addition, although we generally enter into confidentiality agreements with our employees and contractors, the confidential nature of our intellectual property may not be maintained. Furthermore, the laws of some countries do not provide the same level of protection of our intellectual property as do the laws of the United States. If we cannot protect our intellectual property against unauthorized copying or use, we may not remain competitive.

Third parties may claim we infringe their intellectual property rights

We periodically receive notices from third parties claiming we are infringing their intellectual property rights. The number of such claims may increase as we expand our offerings and branding, the number of offerings and level of competition in our industry grow, the functionality of offerings overlaps, and the volume of issued patents, patent applications, and copyright and trademark registrations continues to increase. Responding to any infringement claim, regardless of its validity, could:

- be time-consuming, costly, and/or result in litigation;
- divert management's time and attention from developing our business;
- require us to pay monetary damages or enter into royalty or licensing agreements that we would normally find unacceptable;
- require us to stop selling certain of our offerings;
- require us to redesign certain of our offerings using alternative non-infringing technology or practices, which could require significant effort and expense;
- require us to rename certain of our offerings or entities; or
- require us to satisfy indemnification obligations to our customers or channel partners.

Additionally, while we monitor our use of third-party software, including open source software, our processes for controlling such use in our offerings may not be effective. If we fail to comply with the terms or conditions associated with third-party software that we use, if we inadvertently embed certain types of third-party software into one or more of our offerings, or if third-party software that we license is found to infringe the intellectual property rights of others, we could subject ourselves to infringement liability and be required to re-engineer our offerings, discontinue the sale of our offerings, or make available to certain third parties or generally available, in source code form, our proprietary code, any of which could materially adversely affect our business, operating results, and financial condition.

If a successful infringement claim is made against us and we fail to develop or license a substitute technology or brand name, as applicable, our business, results of operations, financial condition, or cash flows could be materially adversely affected.

Risks Related to Our Operations

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

The COVID-19 pandemic has had a significant adverse impact on global commercial activity and has created significant volatility in financial markets. Many governmental authorities have instituted quarantines, work-from-home directives, social distancing mandates, travel restrictions, border closures, limitations on public gatherings, and closures of or operational limitations on non-essential businesses, which are adversely impacting a number of industries such as travel, leisure, hospitality, and retail. Government recommendations and requirements are continuing to change, and we may not be able to immediately respond to, meet or enforce all required health and safety measures in all of our locations. There is significant uncertainty around the breadth and duration of business disruptions related to COVID-19, as well as its impact on the global economy and consumer confidence. The COVID-19 pandemic could have a sustained adverse impact on economic and market conditions and trigger a period of prolonged global economic slowdown, which could decrease technology spending, adversely affect demand for our offerings, and harm our business and operating results.

Although our total revenues for the year ended December 31, 2021 were not materially impacted by COVID-19, we believe our revenues may be negatively impacted in future periods until the effects of the pandemic have fully subsided and the current macroeconomic environment has substantially recovered. The uncertainty related to COVID-19 may also result in increased volatility in the financial projections we use as the basis for estimates and assumptions used in our financial statements.

In light of the uncertain and rapidly evolving situation relating to COVID-19, we have taken precautionary measures intended to reduce the risk of the virus to our employees, customers, and communities in which we operate. We have established remote working arrangements for our employees, limited non-essential business travel, and cancelled or shifted our customer, employee, and industry events to a virtual-only format for the foreseeable future. As a result of these precautionary measures, there could be a negative impact on our sales, marketing, and customer success efforts, continued delays in our sales cycles, delays in the release or delivery of new or enhanced offerings or unexpected changes to such offerings, or operational or other challenges, any of which could significantly disrupt our business and operating results. For example, our shift to creating virtual customer and industry events may not be successful, and we may not be able to showcase our products as effectively or generate the same customer interest, opportunities, and leads through virtual events as we have historically done through in-person events. Additionally, while we have not experienced any material disruptions to date, our technological systems or infrastructure may not be equipped to facilitate effective remote working arrangements or operate in compliance with all laws and regulations for our employees in the short or long term.

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

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

Business disruptions, including interruptions, delays, or failures of our systems, third-party data center hosting facility, or other third-party services, could materially adversely affect our operating results or result in a material weakness in our internal controls that could adversely affect the market price of our stock

A significant portion of our research and development activities or certain other critical business operations are concentrated in facilities in Northern Virginia, China, and Poland. In addition, we serve our customers and manage certain critical internal processes using a third-party data center hosting facility located in the United States and other third-party services, including AWS, Azure, and other cloud services. Any disruptions or failures of our systems or the third-party hosting facility or other services that we use, including as a result of a natural disaster, fire, cyberattack, act of terrorism, geopolitical conflict, pandemic (including the ongoing COVID-19 pandemic), the effects of climate change, or other catastrophic event, as well as power outages, telecommunications infrastructure outages, a decision by one of our third-party service providers to close facilities that we use without adequate notice or to materially change the pricing or terms of their services, host country restrictions on the conduct of our business operations or the availability of our offerings, or other unanticipated problems with the third-party services that we use, such as a failure to meet service standards, could severely impact our ability to conduct our business operations or to attract new customers or maintain existing customers, or result in a material weakness in our internal control over financial reporting, any of which could materially adversely affect our future operating results.

Our international operations are complex and expose us to risks that could have a material adverse effect on our business, operating results, and financial condition

We receive a significant portion of our total revenues from international sales and conduct our business activities in various foreign countries, including some emerging markets where we have limited experience, where the challenges of conducting our business can be significantly different from those we have faced in more developed markets, and where business practices may create internal control risks. International revenues accounted for 44.0%, 41.9%, and 43.7% of our total revenues for the years ended December 31, 2021, 2020, and 2019, respectively. Our international operations require significant management attention and financial resources and expose us to additional risks, including:

- fluctuations in foreign currency exchange rates;
- new, or changes in, regulatory requirements;
- tariffs, export and import restrictions, restrictions on foreign investments, tax laws, sanctions, laws and policies that favor local competitors (such as mandatory technology transfers), and other trade barriers or protection measures;

- compliance with a wide variety of laws, including those relating to labor matters, antitrust, procurement and contracting, consumer and data protection, privacy, data localization, governmental access to data, network security, and encryption;
- costs of localizing offerings and lack of acceptance of localized offerings;
- difficulties in and costs of staffing, managing, and operating our international operations;
- economic weakness or currency-related crises;
- generally longer payment cycles and greater difficulty in collecting accounts receivable;
- weaker intellectual property protection;
- increased risk of corporate espionage or misappropriation, theft, or misuse of intellectual property, particularly in foreign countries where we have significant software development operations that have access to product source code, such as China;
- our ability to adapt to sales practices and customer requirements in different cultures;
- natural disasters, acts of war, terrorism, or pandemics (including the ongoing COVID-19 pandemic); and
- political instability and security risks in the countries where we are doing business.

Disruptions to trade, weakening of economic conditions, economic and legal uncertainties, or changes in currency rates may adversely affect our business, financial condition, operating results, and cash flows. For example, we may face heightened risks in connection with our international operations as a result of the withdrawal of the United Kingdom from the European Union, commonly referred to as "Brexit." The future effects of Brexit are uncertain and will depend on the implementation of the Trade and Cooperation Agreement between the United Kingdom and the European Union and any other future agreements the United Kingdom may make to retain access to European Union markets. Brexit could, among other outcomes, disrupt the free movement of goods, services, and people between the United Kingdom and the European Union. Brexit could also lead to legal uncertainty and potentially divergent national laws and regulations as the United Kingdom determines which EU laws to replace or replicate. Recently, the United States has put in place higher tariffs and other trade restrictions and signaled that it may additionally alter trade agreements and terms between the United States and China, the European Union, Canada, and Mexico, among others, including limiting trade and/or imposing tariffs on imports from such countries. In addition, China, the European Union, Canada, and Mexico, among others, have either threatened or put into place retaliatory tariffs of their own. These tariffs and any further escalation of protectionist trade measures could adversely affect the markets in which we sell our offerings and, in turn, our business, financial condition, operating results, and cash flows and it is unclear to what extent the Biden administration will work to reverse such measures in the future or pursue similar policy initiatives imposed by the prior administration or make additional changes to U.S. trade policy that may result in further impacts on our business.

Changes to the U.S. taxation of our international income, or changes in foreign tax laws, could have a material effect on our future operating results. For example, the Tax Act led to corporate income tax rate changes, the modification or elimination of certain tax incentives, changes to the existing regime for taxing overseas earnings, and measures to prevent BEPS, and the United Kingdom adopted legislation imposing a tax related to offshore receipts in respect of intangible property held in low tax jurisdictions.

Moreover, compliance with foreign and U.S. laws and regulations that are applicable to our international operations is complex and may increase our cost of doing business in international jurisdictions. Our failure to comply with these laws and regulations has exposed, and may in the future expose, us to fines and penalties. These laws and regulations include anti-bribery laws, such as the U.S. Foreign Corrupt Practices Act, the UK Bribery Act, local laws prohibiting corrupt payments to government officials, and local laws relating to procurement, contracting, and antitrust. These laws and regulations also include import and export requirements and economic and trade sanctions administered by the Office of Foreign Assets Control and the U.S. Department of Commerce based on U.S. foreign policy and national security goals against targeted foreign states, organizations, and individuals. Although we have implemented policies and procedures designed to help ensure compliance with these laws, our employees, channel partners, and other persons with whom we do business may take actions in violation of our policies or these laws. For example, following an internal review initiated in 2018, we believe our Brazilian subsidiary failed or likely failed to comply with local procurement regulations in conducting business with certain Brazilian government entities. Any violation of these laws could subject us to civil or criminal penalties, including substantial fines or prohibitions on our ability to sell our offerings to one or more countries, and could also materially damage our reputation and our brand.

These factors may have a material adverse effect on our future sales, business, operating results, and financial condition.

We face a variety of risks in doing business with U.S. and foreign federal, state, and local governments and government agencies, including risks related to the procurement process, budget constraints and cycles, termination of contracts, and compliance with government contracting requirements

Our customers include the U.S. government and a number of state and local governments and government agencies. There are a variety of risks in doing business with government entities, including:

Procurement. Contracting with public sector customers is highly competitive and can be time-consuming and expensive, requiring us to incur significant up-front time and expense without any assurance that we will win a contract.

Budgetary Constraints and Cycles. Public sector funding reductions or delays adversely impact demand and payment for our offerings.

Termination of Contracts. Public sector customers often have contractual or other legal rights to terminate contracts for convenience or due to a default. If a contract is terminated for convenience, we may only be able to collect fees for software or services delivered prior to termination and settlement expenses. If a contract is terminated due to a default, we may not recover even those amounts, and we may be liable for excess costs incurred by the customer for procuring alternative software or services.

Compliance with Government Contracting Requirements. Government contractors are required to comply with a variety of complex laws, regulations, and contractual provisions relating to the formation, administration, or performance of government contracts that give public sector customers substantial rights and remedies, many of which are not typical for commercial contracts. These may include rights regarding price protection, the accuracy of information provided to the government, contractor compliance with socio-economic policies, and other terms unique to government contracts. Governments and government agencies routinely investigate and audit contractors for compliance with these requirements. If, as a result of an audit or review, it is determined that we have failed to comply with these requirements, we may be subject to civil and criminal penalties or administrative sanctions, including contract termination, forfeiture of profits, fines, and suspensions or debarment from future government business and we may suffer harm to our reputation.

Our customers also include a number of foreign governments and government agencies. Similar procurement, budgetary, contract, and audit risks also apply to these entities. In addition, compliance with complex regulations and contracting provisions in a variety of jurisdictions can be expensive and consume significant management resources. In certain jurisdictions, our ability to win business may be constrained by political and other factors unrelated to our competitive position in the market. Each of these difficulties could materially adversely affect our business and results of operations.

If we are unable to recruit or retain skilled personnel, or if we lose the services of our Chairman of the Board of Directors & Chief Executive Officer, our business, operating results, and financial condition could be materially adversely affected

Our future success depends on our continuing ability to attract, train, assimilate, and retain highly skilled personnel. Competition for qualified employees in the technology industry has historically been high, and may be further amplified by evolving restrictions on immigration, travel, or availability of visas for skilled technology workers, including restrictions imposed in response to the COVID-19 pandemic. We may not be able to retain our current key employees or attract, train, assimilate, and retain other highly skilled personnel in the future. Our future success also depends in large part on the continued service of Michael J. Saylor, our Chairman of the Board of Directors & Chief Executive Officer. If we lose the services of Mr. Saylor, or if we are unable to attract, train, assimilate, and retain the highly skilled personnel we need, our business, operating results, and financial condition could be materially adversely affected.

Changes in laws or regulations relating to privacy or the collection, processing, disclosure, storage, localization, or transmission of personal data, or any actual or perceived failure by us or our third-party service providers to comply with such laws and regulations, contractual obligations, or applicable privacy policies, could materially adversely affect our business

Aspects of our business involve collecting, processing, disclosing, storing, and transmitting personal data, which are subject to certain privacy policies, contractual obligations, and U.S. and foreign laws, regulations, and directives relating to privacy and data protection. We store a substantial amount of customer and employee data, including personal data, on our networks and other systems and the cloud environments we manage. In addition, the types of data subject to protection as personal data in the European Union, China, the United States, and elsewhere have been expanding. In recent years, the collection and use of personal data by companies have come under increased regulatory and public scrutiny, especially in relation to the collection and processing of sensitive data, such as healthcare, biometric, genetic, financial services, and children's data, precise location data, and data regarding a person's race or ethnic origins, political opinions, or religious beliefs. For example, in the United States, protected health information is subject to the Health Insurance Portability and Accountability Act of 1996 ("HIPAA"), which can provide for civil and criminal penalties for noncompliance. Entities (such as us) that engage in creating, receiving, maintaining, or transmitting protected health information provided by covered entities and other business associates are subject to enforcement under HIPAA. Our access to protected health information triggers obligations to comply with certain privacy rules and data security requirements under HIPAA.

Any systems failure or security breach that results in the release of, or unauthorized access to, personal data, or any failure or perceived failure by us or our third-party service providers to comply with applicable privacy policies, contractual obligations, or any applicable laws or regulations relating to privacy or data protection, could result in proceedings against us by domestic or foreign government entities or others, including private plaintiffs in litigation. Such proceedings could result in the imposition of sanctions, fines, penalties, liabilities, government orders, and/or orders requiring that we change our data practices, any of which could have a material adverse effect on our business, operating results, reputation, and financial condition.

Various U.S. and foreign government bodies may enact new or additional laws or regulations, or issue rulings that invalidate prior laws or regulations, concerning privacy, data storage, data protection, and cross-border transfer of data that could materially adversely impact our business. In the European Union, GDPR took effect in May 2018. GDPR establishes requirements regarding the handling and security of personal data, requires disclosure of data breaches to individuals, customers, and data protection authorities in certain circumstances, requires companies to honor data subjects' requests relating to their personal data, permits regulators to impose fines of up to €20,000,000 or 4% of global annual revenue, whichever is higher, and establishes a private right of action. Furthermore, a new ePrivacy Regulation, regulating electronic communications, was proposed in 2017 and is under consideration by the European Commission, the European Parliament, and the European Council. More recently, the Court of Justice of the European Union ("CJEU") invalidated the U.S.-EU Privacy Shield in July 2020. The U.S.-EU Privacy Shield provided a mechanism to lawfully transfer personal data from the European Union to the United States and certain other countries. In the wake of the invalidation of the U.S.-EU Privacy Shield, we have transitioned to reliance on the EU Standard Contractual Clauses ("SCCs") to lawfully transfer certain personal data from the European Union to the United States. The rules involving this alternative data transfer option are also undergoing revision and this transfer mechanism may also be declared invalid (or require us to change our business practices) in the future, requiring us to provide an alternative means of data transfer. In addition, the required terms for contracts containing SCCs along with recommended supplemental provisions are changing and may require us to assume additional obligations, otherwise inhibit or restrict our ability to undertake certain activities, or incur additional costs related to data protection.

In addition, in June 2021, the European Data Protection Board ("EDPB") issued a new set of SCCs and formal recommendations on measures to ensure compliance with the EU data protection requirements when transferring personal data outside of the European Economic Area (the "EDPB Recommendations"). The new SCCs place obligations on us in relation to government authorities' access requests in respect of personal data transferred under the SCCs. The EDPB Recommendations are designed to be read in tandem with the new SCCs and set out new requirements for organizations to assess third countries and identify appropriate supplementary data protection and security measures to be implemented on a case-by-case basis where needed.

The rules involving this alternative SCC data transfer option are continually undergoing revision and this transfer mechanism may also be declared invalid (or require us to change our business practices) in the future, requiring us to provide an alternative means of data transfer or implement significant changes in our data security and protection practices. In addition, the required terms for contracts containing SCCs along with recommended supplemental provisions are changing and may require us to assume additional obligations, otherwise inhibit or restrict our ability to undertake certain activities, or incur additional costs related to data protection.

Similar requirements are also coming into force in other countries. Brazil enacted the Lei Geral de Proteção de Dados (the "Brazilian General Data Protection Law"), which became effective in August 2020 and imposes requirements largely similar to GDPR on products and services offered to users in Brazil. In China, we may also be subject to the Cybersecurity Law that went into effect in June 2017 and the revision of the Personal Information Security Specification that went into effect in October 2020, which have broad but uncertain application and impose a number of new privacy and data security obligations. China also adopted new legislation on the protection of privacy and personal data in November 2021, including the Personal Information Protection Law and Data Security Law that impose new data processing obligations on us. Under these new regulations, if an entity operating in China violates the law, regulators may order it to take corrective actions, issue warnings, confiscate illegal income, suspend services, revoke operating permits or business licenses, or issue a fine. The fine can be up to ¥50 million or 5 percent of an organization's annual revenue for the prior financial year. Other countries are considering new or expanded laws governing privacy and data security that may impact our business practices. These developments, including in China, may impact our activities with our customers, other MicroStrategy entities and vendors, and require us to take appropriate steps in light of data transfers between the U.S. and the EU (and the UK), as well as transfers and onward transfers of personal data from the EU to other non-EU countries.

The state of California has also adopted a comprehensive privacy law, the California Consumer Privacy Act ("CCPA"), which took effect in January 2020 and became enforceable in July 2020. We may be required to devote substantial resources to implement and maintain compliance with the CCPA, and noncompliance could result in regulatory investigations and fines or private litigation. Moreover, in November 2020, California voters approved a privacy law, the California Privacy Rights Act ("CPRA"), which amends the CCPA to create privacy rights and obligations in California. Virginia and Colorado have passed laws similar to the CCPA and several other states are considering bills similar to the CCPA or other generally applicable privacy laws that may impose additional costs and obligations on us.

Furthermore, the U.S. Congress is considering comprehensive privacy legislation. At this time, it is unclear whether Congress will pass such a law and if so, when and what it will require and prohibit. Moreover, it is not clear whether any such legislation would give the Federal Trade Commission ("FTC") any new authority to impose civil penalties for violations of the Federal Trade Commission Act in the first instance, whether Congress will grant the FTC rulemaking authority over privacy and information security, or whether Congress will vest some or all privacy and data security regulatory authority and enforcement power in a new agency, akin to EU data protection authorities.

Complying with these and other changing requirements could cause us or our customers to incur substantial costs or pay substantial fines or penalties, require us to change our business practices, require us to take on more onerous obligations in our contracts, or limit our ability to provide certain offerings in certain jurisdictions, any of which could materially adversely affect our business and operating results. New laws or regulations restricting or limiting the collection or use of mobile data could also reduce demand for certain of our offerings or require changes to our business practices, which could materially adversely affect our business and operating results.

If we or our third-party service providers experience a disruption due to a cybersecurity attack or security breach and unauthorized parties obtain access to our customers', prospects', vendors', or channel partners' data, our data, our networks or other systems, or the cloud environments we manage, our offerings may be perceived as not being secure, our reputation may be harmed, demand for our offerings may be reduced, our operations may be disrupted, we may incur significant legal and financial liabilities, and our business could be materially adversely affected

As part of our business, we process, store, and transmit our customers', prospects', vendors', and channel partners' data as well as our own, including in our networks and other systems and the cloud environments we manage. Security breaches may occur due to technological error, computer viruses, or third-party action, including intentional misconduct by computer hackers or state actors, physical break-ins, industrial espionage, fraudulent inducement of employees, customers, or channel partners to disclose sensitive information such as user names or passwords, and employee, customer, or channel partner error or malfeasance. A security breach could result in unauthorized access to or disclosure, modification, misuse, loss, or destruction of our customers', prospects', vendors', or channel partners' data, our data (including our proprietary information, intellectual property, or trade secrets), our networks or other systems, or the cloud environments we manage. Third parties may also conduct attacks designed to prevent access to critical data or systems through ransomware or temporarily deny customers access to our cloud environments.

We, and our service providers, may experience and have experienced attempts by third parties to identify and exploit software and service vulnerabilities, penetrate or bypass our security measures, and gain unauthorized access to our or our customers' or service providers' cloud environments, networks, and other systems. Security measures that we or our third-party service providers have implemented may not be effective against all current or future security threats, including any potential threats from the exploitation of the log4j vulnerability. Because there are many different security breach techniques and such techniques continue to evolve, we may be unable to anticipate, detect, or mitigate attempted security breaches and implement adequate preventative measures.

Any security breach, ransomware attack, or successful denial of service attack could result in a loss of customer confidence in the security of our offerings and damage to our brand, reduce the demand for our offerings, disrupt our normal business operations, require us to spend material resources to investigate or correct the breach, require us to notify affected customers or individuals and/or applicable regulators and others, provide identity theft protection services to individuals, expose us to legal liabilities, including litigation, regulatory enforcement, and indemnity obligations, and materially adversely affect our revenues and operating results. Our software operates in conjunction with and is dependent on third-party products and components across a broad ecosystem. If there is a security vulnerability in one of these products or components, and if there is a security exploit targeting it, we could face increased costs, liability claims, customer dissatisfaction, reduced revenue, or harm to our reputation or competitive position.

These risks will increase as we continue to grow the number and scale of our cloud subscriptions and process, store, and transmit increasingly large amounts of our customers', prospects', vendors', channel partners', and our own data. In particular, in connection with the COVID-19 pandemic, there has been an increase in cyberattacks and other malicious activities as shelter-in-place orders and remote working conditions have led businesses to increasingly rely on virtual environments and communication systems.

Our having entered into an indemnification agreement with Michael J. Saylor, our Chairman of the Board of Directors & Chief Executive Officer, in lieu of procuring conventional director and officer liability insurance offered by a third-party insurance carrier could negatively affect our business and the market price of our class A common stock

Due to market trends toward higher premiums and the novelty of our bitcoin acquisition strategy, we have been unable to obtain director and officer liability insurance on acceptable terms, and in lieu of such insurance, we have entered into an indemnification agreement with Michael J. Saylor, our Chairman of the Board of Directors & Chief Executive Officer, pursuant to which Mr. Saylor has agreed to personally indemnify our directors and officers with respect to claims and expenses substantially similar to those typically covered under conventional director and officer insurance policies, for which we agreed to pay Mr. Saylor a fee. Our having entered into such an indemnification agreement with Mr. Saylor in lieu of procuring director and officer insurance offered by a third-party insurance carrier could have adverse effects on our business, including making it more difficult to attract and retain qualified directors and officers due to the unconventional nature of the arrangement and potential concerns that the indemnification arrangement might not provide the same level of protection that might otherwise be provided by conventional director and officer insurance. In addition, the arrangement may result in some investors perceiving that our independent directors are not sufficiently independent from Mr. Saylor due to their entitlement to personal indemnification from him, which may have an adverse effect on the market price of our class A common stock.

Risks Related to Our Class A Common Stock

The market price of our class A common stock has been and may continue to be volatile

The market price of our class A common stock has historically been volatile and this volatility has been significant in recent periods. Since August 11, 2020, the date on which we announced our initial purchase of bitcoin, the closing price of our class A common stock has increased from $123.62 as of August 10, 2020, the last trading day before our announcement, to $409.49 as of February 14, 2022. The market price of our class A common stock may fluctuate widely in response to various factors, some of which are beyond our control. These factors include, but are not limited to:

- fluctuations in the price of bitcoin, of which we have significant holdings, and in which we expect we will continue to make significant purchases and announcements about our transactions in bitcoin;
- regulatory, commercial and technical developments related to bitcoin or the bitcoin blockchain;
- quarterly variations in our results of operations or those of our competitors;
- announcements about our earnings that are not in line with analyst expectations, the likelihood of which may be enhanced because it is our policy not to give guidance relating to our anticipated financial performance in future periods;
- announcements by us or our competitors of acquisitions, dispositions, new offerings, significant contracts, commercial relationships, or capital commitments;
- our ability to develop, market, and deliver new and enhanced offerings on a timely basis;
- commencement of, or our involvement in, litigation;
- recommendations by securities analysts or changes in earnings estimates and our ability to meet those estimates;
- investor perception of our Company;
- announcements by our competitors of their earnings that are not in line with analyst expectations;
- the volume of shares of our class A common stock available for public sale;
- sales or purchases of stock by us or by our stockholders and issuances of awards under our stock incentive plan; and
- general economic conditions and slow or negative growth of related markets, including as a result of the COVID-19 pandemic.

In addition, the stock market and the markets for both bitcoin-influenced and technology companies have experienced extreme price and volume fluctuations that have often been unrelated or disproportionate to the operating performance of companies in those markets. These market and industry factors may seriously harm the market price of our class A common stock, regardless of our actual operating performance.

Because of the rights of our two classes of common stock and because we are controlled by Michael J. Saylor, who beneficially owns the majority of our class B common stock, Mr. Saylor could transfer control of MicroStrategy to a third party without the approval of our Board of Directors or our other stockholders, prevent a third party from acquiring us, or limit the ability of our other stockholders to influence corporate matters

We have two classes of common stock: class A common stock and class B common stock. Holders of our class A common stock generally have the same rights as holders of our class B common stock, except that holders of class A common stock have one vote per share while holders of class B common stock have ten votes per share. As of February 1, 2022, holders of our class B common stock owned 1,964,025 shares of class B common stock, or 67.8% of the total voting power. As of February 1, 2022, Mr. Saylor, our Chairman of the Board of Directors & Chief Executive Officer, beneficially owned 1,961,668 shares of class B common stock, or 67.7% of the total voting power. Accordingly, Mr. Saylor can control MicroStrategy through his ability to determine the outcome of elections of our directors, amend our certificate of incorporation and by-laws, and take other actions requiring the vote or consent of stockholders, including mergers, going-private transactions, and other extraordinary transactions and their terms.

Our certificate of incorporation allows holders of class B common stock to transfer shares of class B common stock, subject to the approval of stockholders holding a majority of the outstanding class B common stock. Mr. Saylor could, without the approval of our Board of Directors or our other stockholders, transfer voting control of MicroStrategy to a third party. Such a transfer of control could have a material adverse effect on our business, operating results, and financial condition. Mr. Saylor could also prevent a change of control of MicroStrategy, regardless of whether holders of class A common stock might otherwise receive a premium for their shares over the then current market price. In addition, this concentrated control limits stockholders' ability to influence corporate matters and, as a result, we may take actions that our non-controlling stockholders do not view as beneficial or that conflict with their interests. As a result, the market price of our class A common stock could be materially adversely affected.

Our status as a "controlled company" could make our class A common stock less attractive to some investors or otherwise materially adversely affect our stock price

Because we qualify as a "controlled company" under Nasdaq corporate governance rules, we are not required to have independent directors comprise a majority of our Board of Directors. Additionally, our Board of Directors is not required to have an independent compensation or nominating committee or to have the independent directors exercise the nominating function. We are also not required to have the compensation of our executive officers be determined by a compensation committee of independent directors. In addition, we are not required to empower our Compensation Committee with the authority to engage the services of any compensation consultants, legal counsel, or other advisors, or to have the Compensation Committee assess the independence of compensation consultants, legal counsel, and other advisors that it engages.

In light of our status as a controlled company, our Board of Directors has determined not to establish an independent nominating committee or have its independent directors exercise the nominating function and has elected instead to have the Board of Directors be directly responsible for nominating members of the Board. A majority of our Board of Directors is currently comprised of independent directors, and our Board of Directors has established a Compensation Committee comprised entirely of independent directors. The Compensation Committee determines the compensation of our Chief Executive Officer. However, our Board of Directors has authorized our Chief Executive Officer to determine the compensation of executive officers other than himself, rather than having such compensation determined by the Compensation Committee, except that certain performance-based executive officer compensation is determined by the Compensation Committee. Awards made to directors and officers subject to Section 16 of the Exchange Act under our 2013 Stock Incentive Plan (as amended, the "2013 Equity Plan") are also approved by the Compensation Committee. Additionally, while our Compensation Committee is empowered with the authority to retain and terminate outside counsel, compensation consultants, and other experts or consultants, it is not required to assess their independence.

Although currently a majority of our Board of Directors is comprised of independent directors and the Compensation Committee is comprised entirely of independent directors, we may elect in the future not to have independent directors constitute a majority of the Board of Directors or the Compensation Committee, our Chief Executive Officer's compensation determined by a compensation committee of independent directors, or a compensation committee of the Board of Directors at all.

Accordingly, should the interests of our controlling stockholder differ from those of other stockholders, the other stockholders may not have the same protections that are afforded to stockholders of companies that are required to follow all of the Nasdaq corporate governance rules. Our status as a controlled company could make our class A common stock less attractive to some investors or otherwise materially adversely affect our stock price.

Future sales, or the perception of future sales, of our class A common stock, convertible debt instruments or other convertible securities could depress the price of our class A common stock

We may issue and sell additional shares of class A common stock, convertible notes, or other securities in subsequent offerings to raise capital or issue shares for other purposes, including in connection with the acquisition of additional bitcoin. We cannot predict:

- the size of future issuances of equity securities;
- the size and terms of future issuances of convertible debt instruments or other convertible securities; or
- the effect, if any, that future issuances and sales of our securities will have on the market price of our class A common stock.

Transactions involving newly issued class A common stock, convertible debt instruments, or other convertible securities could result in possibly substantial dilution to holders of our class A common stock.

Our amended and restated by-laws provide that the Court of Chancery of the State of Delaware (or, if the Court of Chancery of the State of Delaware does not have jurisdiction, then any other state court located in the State of Delaware, or if no state court located within the State of Delaware has jurisdiction, the federal district court for the District of Delaware) is the exclusive forum for certain litigation that may be initiated by our stockholders, which could limit our stockholders' ability to obtain a favorable judicial forum for such disputes with us or our directors, officers or employees

Our amended and restated by-laws provide that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery of the State of Delaware (or, if the Court of Chancery of the State of Delaware does not have jurisdiction, then any other state court located in the State of Delaware, or if no state court located within the State of Delaware has jurisdiction, the federal district court for the District of Delaware) shall, to the fullest extent permitted by law, be the sole and exclusive forum for (i) any derivative action or proceeding brought on behalf of the Company, (ii) any action asserting a claim of breach of a fiduciary duty owed by any director, officer, other employee or stockholder of the Company to the Company or the Company's stockholders, (iii) any action asserting a claim arising pursuant to any provision of the General Corporation Law of the State of Delaware or the Company's certificate of incorporation or by-laws (in each case, as they may be amended from time to time), or (iv) any action asserting a claim governed by the internal affairs doctrine. This exclusive forum provision would not apply to suits brought to enforce a duty or liability created by the Exchange Act, which provides for exclusive jurisdiction of the federal courts. It could apply, however, to a suit that falls within one or more of the categories enumerated in the choice of forum provision and asserts claims under the Securities Act, inasmuch as Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all suits brought to enforce any duty or liability created by the Securities Act or the rules and regulations thereunder. There is uncertainty as to whether a court would enforce such provision with respect to claims under the Securities Act, and our stockholders will not be deemed to have waived our compliance with the federal securities laws and the rules and regulations thereunder.

The choice of forum provision may limit a stockholder's ability to bring a claim in a judicial forum that it finds favorable for disputes with us or our directors, officers or other employees, which may discourage such lawsuits against us and our directors, officers and other employees. Alternatively, if a court were to find the choice of forum provision contained in our amended and restated by-laws to be inapplicable or unenforceable in an action, we may incur additional costs associated with resolving such action in other jurisdictions.

Risks Related to Our Outstanding and Potential Future Indebtedness

Our level and terms of indebtedness could adversely affect our ability to raise additional capital to further execute on our bitcoin acquisition strategy, fund our enterprise analytics software operations, and take advantage of new business opportunities

As of December 31, 2021, we had $1.7 billion aggregate principal amount of indebtedness under the Convertible Notes and $500.0 million aggregate principal amount of indebtedness under the 2028 Secured Notes.

Our substantial indebtedness and interest expense could have important consequences to us, including:

- limiting our ability to use a substantial portion of our cash flow from operations in other areas of our business, including for acquisition of additional bitcoin, working capital, research and development, expanding our infrastructure, capital expenditures, and other general business activities and investment opportunities in our company, because we must dedicate a substantial portion of these funds to pay interest on and/or service our debt;
- limiting our ability to obtain additional financing in the future for acquisition of additional bitcoin, working capital, capital expenditures, debt service, acquisitions, execution of our strategy, and other expenses or investments planned by us;
- limiting our flexibility and our ability to capitalize on business opportunities and to react to competitive pressures and adverse changes in government regulation, our business, and our industry;
- increasing our vulnerability to a downturn in our business and to adverse economic and industry conditions generally;
- placing us at a competitive disadvantage as compared to our competitors that are less leveraged; and
- limiting our ability, or increasing the costs, to refinance indebtedness.

We may be unable to service our indebtedness, which could cause us to default on our debt obligations and could force us into bankruptcy or liquidation

Our ability to make scheduled payments on and to refinance our indebtedness depends on and is subject to our financial and operating performance, which is influenced, in part, by general economic, financial, competitive, legislative, regulatory, counterparty business, and other risks that are beyond our control, including the availability of financing in the U.S. banking and capital markets. If our cash flows and capital resources are insufficient to fund our debt service obligations, we may be forced to reduce or delay capital expenditures, sell assets, seek additional capital, or restructure or refinance our indebtedness. We cannot assure you that future borrowings will be available to us in an amount sufficient to enable us to service our indebtedness, to refinance our indebtedness, or to fund our other liquidity needs. Even if refinancing indebtedness is available, any refinancing of our indebtedness could be at higher interest rates and may require us to comply with more onerous covenants that could further restrict our business operations. In addition, our bitcoin acquisition strategy anticipates that we may issue additional debt in future periods to finance additional purchases of bitcoin, but if we are unable to generate sufficient cash flow to service our debt and make necessary capital expenditures, we may be required to sell bitcoin. These alternative measures may not be successful and may not permit us to meet our scheduled debt service obligations or our financial covenants, which could cause us to default on our debt obligations. In addition, any failure to make payments of interest and principal on our outstanding indebtedness on a timely basis would likely result in a reduction of our credit rating, which could harm our ability to incur additional indebtedness.

In the event of an event of default under any of our indebtedness, the holders of the defaulted indebtedness could elect to declare all the funds borrowed to be due and payable, together with accrued and unpaid interest and, in the case of our 2028 Secured Notes, enforce their security interests on substantially all of our assets and the assets of our subsidiary guarantors, including any bitcoins or other digital assets acquired on or after the closing of our sale of the 2028 Secured Notes, but excluding our bitcoin acquired prior to that date ("Prior Bitcoins"), as well as bitcoins and digital assets acquired with the proceeds from the sale of Prior Bitcoins and bitcoins acquired from proceeds of debt secured by Prior Bitcoins. Any of these events could in turn result in cross-defaults under our other indebtedness. We may not have sufficient funds available to pay the amounts due upon any such default, particularly in the event that there has been a decrease in the market value of our bitcoin holdings, and we may not be able to raise additional funds to pay such amounts on a timely basis, on terms we find acceptable, or at all. Any financing that we may undertake under such circumstances could result in substantial dilution of our existing stockholders, and in the absence of being able to obtain such financing, we could be forced into bankruptcy or liquidation.

The indenture governing our 2028 Secured Notes imposes significant operating and financial restrictions on us and certain restricted subsidiaries of ours, which may prevent us from capitalizing on business opportunities

The indenture governing our 2028 Secured Notes imposes significant operating and financial restrictions on us and certain designated restricted subsidiaries of ours. These restrictions limit our ability, and the ability of such restricted subsidiaries, to, among other things:

- incur or guarantee additional debt or issue disqualified stock or certain preferred stock;
- create or incur liens;
- pay dividends, redeem stock, or make certain other distributions;
- make certain investments;
- create restrictions on the ability of our restricted subsidiaries to pay dividends to us or make other intercompany transfers;
- transfer or sell assets;
- merge or consolidate; and
- enter into certain transactions with affiliates.

As a result of these restrictions, we are limited as to how we conduct our business and we may be unable to raise additional indebtedness or conduct equity financing to compete effectively or to take advantage of new business opportunities. The terms of any future indebtedness we may incur could include more restrictive covenants. We cannot assure you that we will be able to maintain compliance with these covenants in the future and, if we fail to do so, that we will be able to obtain waivers from the lenders or amend the covenants.

Our failure to comply with the restrictive covenants described above, as well as other terms of our indebtedness or the terms of any future indebtedness from time to time could result in an event of default, which, if not cured or waived, could result in our being required to repay these borrowings before their due date and/or face insolvency proceedings. If we are forced to refinance these borrowings on less favorable terms or cannot refinance these borrowings, our results of operations and financial condition could be adversely affected.

We may be required to repay the 2028 Secured Notes prior to their stated maturity date, if the springing maturity feature is triggered

The 2028 Secured Notes have a stated maturity date of June 15, 2028, but include a springing maturity feature that will cause the stated maturity date to spring ahead to the date that is 91 days prior to the existing maturity date of the 2025 Convertible Notes (which is September 15, 2025), the 2027 Convertible Notes (which is November 16, 2026), or the maturity date of any future convertible debt that we may issue that is then outstanding, unless on such dates we meet specified liquidity requirements or less than $100,000,000 of aggregate principal amount of the 2025 Convertible Notes, the 2027 Convertible Notes, or such future convertible debt, as applicable, remains outstanding. If such springing maturity feature is triggered, we will be required to pay all amounts outstanding under the 2028 Secured Notes sooner than they would otherwise be due, we may not have sufficient funds available to pay such amounts at that time, and we may not be able to raise additional funds to pay such amounts on a timely basis, on terms we find acceptable, or at all.

We may not be able to finance required repurchases of the 2028 Secured Notes or the Convertible Notes upon a change of control or a fundamental change

Upon a change of control or a fundamental change as defined in the indentures governing the 2028 Secured Notes and the Convertible Notes, the holders of such notes will have the right to require us to offer to purchase all of the applicable notes then outstanding at a price equal to 101% of the principal amount of the 2028 Secured Notes and 100% of the principal amount of the Convertible Notes, respectively, plus, in each case, accrued and unpaid interest, if any, to, but excluding, the repurchase date. In order to obtain sufficient funds to pay the purchase price of such notes, we expect that we would have to refinance the notes and we may not be able to refinance the notes on reasonable terms, if at all. Our failure to offer to purchase all applicable notes or to purchase all validly tendered notes would be an event of default under the indentures governing the 2028 Secured Notes and the Convertible Notes.

If a change of control or a fundamental change occurs, we may not have enough assets to satisfy all obligations under the indentures governing the 2028 Secured Notes and the Convertible Notes. Upon the occurrence of a change of control or a fundamental change we could seek to refinance the indebtedness under the 2028 Secured Notes or the Convertible Notes or obtain a waiver from the applicable note holders. However, we may not be able to obtain a waiver or refinance the applicable notes on commercially reasonable terms, if at all. Moreover, the exercise by holders of the 2028 Secured Notes or the Convertible Notes of their right to require us to repurchase such notes could cause a default under future debt agreements, even if the change of control or fundamental change itself does not, due to the financial effect of such repurchase on us.

We may not have the ability to raise the funds necessary to settle for cash conversions of the Convertible Notes

Upon conversion of the 2025 Convertible Notes or the 2027 Convertible Notes, unless we elect (or have previously irrevocably elected) to deliver solely shares of our class A common stock to settle such conversion of such Convertible Notes (other than paying cash in lieu of delivering any fractional share), we will be required to make cash payments in respect of the applicable Convertible Notes being converted as described in the applicable indenture. However, we may not have enough available cash or be able to obtain financing at the time we are required to pay cash with respect such notes being converted. In addition, our ability to pay cash upon conversions of the Convertible Notes may be limited by law, regulatory authority, the covenants contained in the indenture governing the 2028 Secured Notes, or agreements governing any future indebtedness. Our failure to pay any cash payable on future conversions of the Convertible Notes as required by the respective indentures would constitute a default under the indenture for that series of Convertible Notes and could also lead to a default under the indenture for the other series of Convertible Notes or the 2028 Secured Notes. A default under any indenture could also lead to a default under agreements governing any future indebtedness. If the repayment of the related indebtedness were to be accelerated after any applicable notice or grace periods, we may not have sufficient funds to repay the indebtedness.

The conditional conversion feature of the Convertible Notes, if triggered, may adversely affect our financial condition and operating results

In the event the conditional conversion feature of either the 2025 Convertible Notes or the 2027 Convertible Notes is triggered, holders of the applicable Convertible Notes will be entitled to convert such notes at any time during specified periods at their option. If one or more holders elect to convert their Convertible Notes, unless we elect to satisfy our conversion obligation by delivering solely shares of our class A common stock (other than paying cash in lieu of delivering any fractional share), we would be required to settle a portion or all of our conversion obligation through the payment of cash, which could adversely affect our liquidity. In addition, even if holders do not elect to convert their Convertible Notes, we could be required under applicable accounting rules to reclassify all or a portion of the outstanding principal of the applicable Convertible Notes as a current rather than long-term liability, which would result in a material reduction of our net working capital.

We rely on the receipt of funds from our subsidiaries in order to meet our cash needs and service our indebtedness, including the 2028 Secured Notes and the Convertible Notes, and certain of our subsidiaries holding digital assets may not provide any dividends, distributions, or other payments to us to fund our obligations and meet our cash needs

We depend on dividends, distributions, and other payments from our subsidiaries to fund our obligations, including those arising under the 2028 Secured Notes and the Convertible Notes, and meet our cash needs. The operating results of our subsidiaries at any given time may not be sufficient to make dividends, distributions, or other payments to us in order to allow us to make payments on the 2028 Secured Notes and the Convertible Notes. Our MacroStrategy LLC subsidiary that holds the bitcoin that we owned prior to the issuance of the 2028 Secured Notes and the bitcoin that we acquired from the proceeds of the Open Market Offering is not obligated to provide and may in the future be prohibited from providing any dividends, distributions, or other payments to us to fund our obligations and meet our cash needs. MacroStrategy LLC holds digital assets that as of December 31, 2021 had a carrying value of $2.458 billion on our Consolidated Balance Sheet, representing 69.1% of our consolidated total assets at such date. In addition, dividends, distributions, or other payments, as well as other transfers of assets, between our subsidiaries and from our subsidiaries to us may be subject to legal, regulatory, or contractual restrictions, which may materially adversely affect our ability to transfer cash within our consolidated companies and our ability to meet our cash needs and service our indebtedness.

Despite our current level of indebtedness, we may be able to incur substantially more indebtedness and enter into other transactions in the future which could further exacerbate the risks related to our indebtedness

Although the indenture governing our 2028 Secured Notes contains, and future debt instruments may contain, restrictions on the incurrence of additional indebtedness and entering into certain types of other transactions, these restrictions are subject to a number of qualifications and exceptions and we may be able to incur significant additional indebtedness in the future. For example, these restrictions do not prevent us from incurring obligations, such as certain trade payables and operating leases, that do not constitute indebtedness as defined under our debt instruments. To the extent we incur additional indebtedness or other obligations, the risks described herein with respect to our indebtedness may increase significantly.

Item 1B. Unresolved Staff Comments

None.

Item 2. Properties

As of December 31, 2021, we leased approximately 214,000 square feet of office space at a location in Northern Virginia that serves as our corporate headquarters. This lease provides for certain tenant allowances and incentives and will expire in December 2030. In December 2020, we exercised an option to early terminate approximately 24,000 square feet of space at our corporate headquarters at the beginning of January 2022.

In addition, we lease offices in U.S. and foreign locations for our services and support, sales and marketing, research and development, and administrative personnel. As of December 31, 2021, we leased approximately 26,000 square feet of office and other space in the United States, in addition to our corporate headquarters, and approximately 105,000 square feet of office space in various foreign locations.

Item 3. Legal Proceedings

We are involved in various legal proceedings arising in the normal course of business. Although the outcomes of these legal proceedings are inherently difficult to predict, we do not expect the resolution of these legal proceedings to have a material adverse effect on our financial position, results of operations, or cash flows.

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

Our class A common stock is traded on the Nasdaq Global Select Market under the symbol "MSTR." There is no established public trading market for our class B common stock. As of February 1, 2022, there were approximately 1,028 stockholders of record of our class A common stock and two stockholders of record of our class B common stock.

Holders of our class A common stock generally have the same rights as holders of our class B common stock, except that holders of class A common stock have one vote per share while holders of class B common stock have ten votes per share.

We have never declared or paid any cash dividends on either our class A or class B common stock and have no current plans to declare or pay any such dividends.

Information regarding our equity compensation plans and the securities authorized for issuance thereunder is incorporated herein by reference to "Part III. Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters."

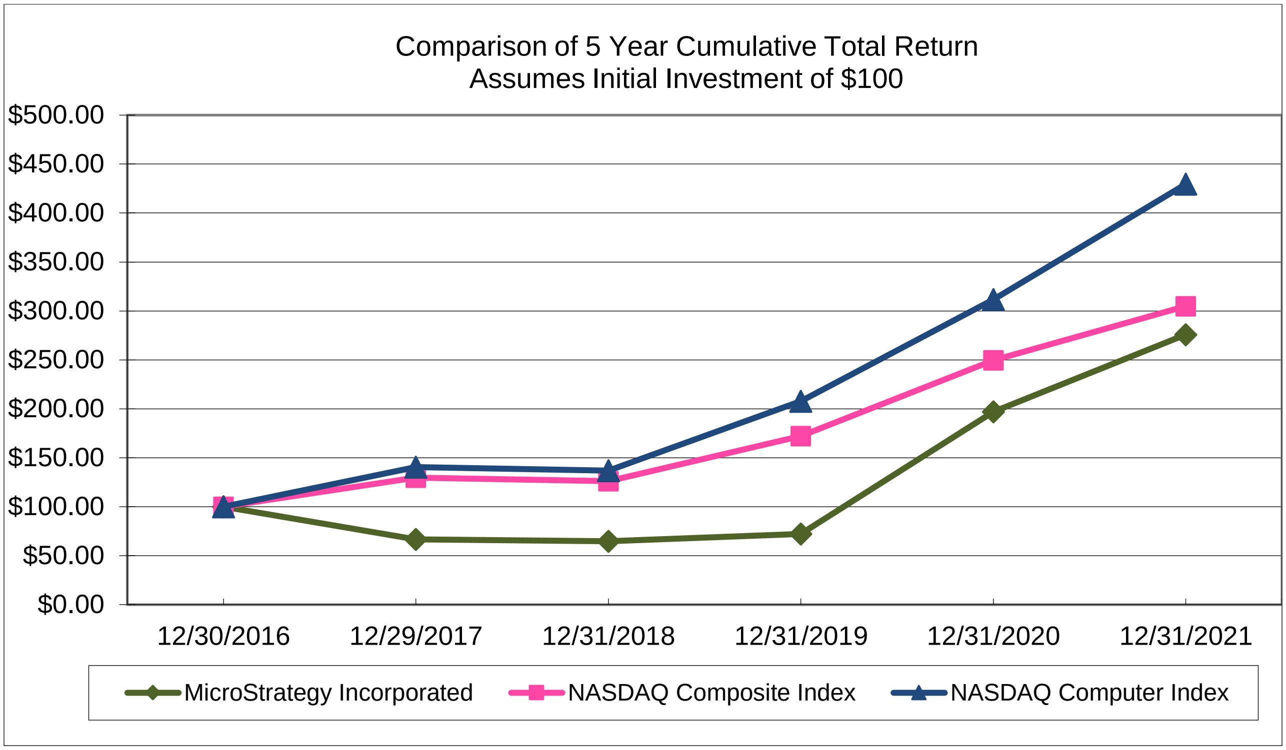
The following table provides information about our repurchases of equity securities that are registered by us pursuant to Section 12 of the Exchange Act during the periods indicated:

Period	(a) Total Number of Shares (or Units) Purchased	(b) Average Price Paid per Share (or Unit) (1)	(c) Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs (1)	(d) Maximum Number (or Approximate Dollar Value) of Shares (or Units) that May Yet Be Purchased Under the Plans or Programs (1)
October 1, 2021 – October 31, 2021	0	N/A	0	$ 209,137,964
November 1, 2021 – November 30, 2021	0	N/A	0	$ 209,137,964
December 1, 2021 – December 31, 2021	0	N/A	0	$ 209,137,964
Total:	0	N/A	0	$ 209,137,964

(1) On July 28, 2005, we announced that the Board of Directors authorized us to repurchase up to an aggregate of $300.0 million of our class A common stock from time to time on the open market (the "Share Repurchase Program"). The Share Repurchase Program was subsequently amended to authorize us to repurchase up to an aggregate of $800.0 million of our class A common stock through April 29, 2023, although the program may be suspended or discontinued by us at any time. The timing and amount of any shares repurchased will be determined by management based on its evaluation of market conditions and other factors. The Share Repurchase Program may be funded using our working capital, as well as proceeds from any other funding arrangements that we may enter into in the future. As of December 31, 2021, pursuant to the Share Repurchase Program, we had repurchased an aggregate of 5,674,226 shares of our class A common stock at an average price per share of $104.13 and an aggregate cost of $590.9 million. As of December 31, 2021, $209.1 million of our class A common stock remained available for repurchase pursuant to the Share Repurchase Program. The average price per share and aggregate cost amounts disclosed above include broker commissions.

Performance Graph

The following graph compares the cumulative total stockholder return on our class A common stock from December 30, 2016 (the last trading day before the beginning of our fifth preceding fiscal year) to December 31, 2021 (the last trading day of the fiscal year ended December 31, 2021) with the cumulative total return of (i) the Total Return Index for The Nasdaq Stock Market (U.S. Companies) (the "Nasdaq Composite Index") and (ii) the Nasdaq Computer Index. The graph assumes the investment of $100.00 on December 30, 2016 in our class A common stock, the Nasdaq Composite Index, and the Nasdaq Computer Index, and assumes that any dividends are reinvested. Measurement points are December 30, 2016, December 29, 2017, December 31, 2018, December 31, 2019, December 31, 2020, and December 31, 2021.



	12/30/16	12/29/17	12/31/18	12/31/19	12/31/20	12/31/21
MicroStrategy Incorporated	$ 100.00	$ 66.51	$ 64.72	$ 72.25	$ 196.83	$ 275.82
Nasdaq Composite Index	$ 100.00	$ 129.64	$ 125.96	$ 172.17	$ 249.51	$ 304.85
Nasdaq Computer Index	$ 100.00	$ 140.38	$ 136.70	$ 207.72	$ 311.54	$ 429.48

NOTE: Prepared by Zacks Investment Research, Inc. Used with permission. All rights reserved. Copyright 1980-2022.
NOTE: Index Data: Copyright NASDAQ OMX, Inc. Used with permission. All rights reserved.

Item 6. [Reserved]

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

Forward-Looking Information

This Annual Report contains forward-looking statements within the meaning of Section 21E of the Exchange Act. For this purpose, any statements contained herein that are not statements of historical fact, including without limitation, certain statements regarding industry prospects and our results of operations or financial position, may be deemed to be forward-looking statements. Without limiting the foregoing, the words "believes," "anticipates," "plans," "expects," and similar expressions are intended to identify forward-looking statements. The important factors discussed under "Part I. Item 1A. Risk Factors," among others, could cause actual results to differ materially from those indicated by forward-looking statements made herein and presented elsewhere by management from time to time. Such forward-looking statements represent management's current expectations and are inherently uncertain. Investors are warned that actual results may differ from management's expectations.

Management's Discussion and Analysis for the Year Ended December 31, 2019

Management's discussion and analysis of financial condition and results of operations for the year ended December 31, 2019, including comparison of our results for the years ended December 31, 2020 and 2019, is included in Item 7 of our Annual Report on Form 10-K for the year ended December 31, 2020.

Business Overview

MicroStrategy pursues two corporate strategies in the operation of its business. One strategy is to acquire and hold bitcoin and the other strategy is to grow our enterprise analytics software business. We believe that undertaking these two, interdependent corporate strategies serves as a key differentiator for our business, as our bitcoin acquisition strategy has raised our profile with potential software customers while our enterprise analytics software business has provided stable cash flows that allow us to acquire and hold bitcoin for the long-term.

We pursue, as part of our overall corporate strategy, a strategy of acquiring bitcoin with our liquid assets that exceed working capital requirements, and from time to time, subject to market conditions, issuing debt or equity securities in capital raising transactions with the objective of using the proceeds to purchase bitcoin. We view our bitcoin holdings as long-term holdings, and we do not plan to engage in regular trading of bitcoin and have not hedged or otherwise entered into derivative contracts with respect to our bitcoin holdings, though we may sell bitcoin in future periods as needed to generate cash for treasury management and other general corporate purposes. We have not set any specific target for the amount of bitcoin we seek to hold, and we will continue to monitor market conditions in determining whether to conduct debt or equity financings to purchase additional bitcoin.

We believe that bitcoin is attractive because it can serve as a store of value, supported by a robust and public open source architecture, that is untethered to sovereign monetary policy and can therefore serve as a hedge against inflation. We also believe that bitcoin offers additional opportunity for appreciation in value with increasing adoption due to its limited supply. In addition, we believe that our bitcoin acquisition strategy is complementary to our enterprise analytics software and services business, as we believe that our bitcoin and related activities in support of the bitcoin network enhance awareness of our brand and can provide opportunities to secure new customers for our analytics offerings. We are also exploring opportunities to apply bitcoin related technologies such as blockchain analytics into our software offerings.

As of February 14, 2022, we hold approximately 125,051 bitcoin that were acquired at an aggregate purchase price of $3.777 billion and an average purchase price of approximately $30,200 per bitcoin, inclusive of fees and expenses.

We are also a global leader in enterprise analytics software and services. Our vision is to enable Intelligence Everywhere. The MicroStrategy platform brings together data from our customers' enterprise applications, such as their financial systems, human resources systems, and supply chain and customer relationship management tools, to provide analytics for actionable insights. Customers can also use our consulting and education offerings to harness MicroStrategy's innovative technology and empower their people to make better, faster decisions.

Our customers include leading companies from a wide range of industries, including retail, consulting, technology, manufacturing, banking, insurance, finance, healthcare, telecommunications, as well as the public sector.

The analytics market is highly competitive. Our future success depends on the effectiveness with which we can differentiate our offerings from those offered by large software vendors that provide products across multiple lines of business, including one or more products that directly compete with our offerings, and other potential competitors across analytics implementation projects of varying sizes. We believe a key differentiator of MicroStrategy is our modern, open, comprehensive enterprise platform that can be extended to other tools and systems, can scale across the enterprise, is optimized for cloud or on-premises deployments, and can be combined with unique packages of our expert services and education offerings.

Our Bitcoin Acquisition Strategy

In September 2020, our Board of Directors adopted a Treasury Reserve Policy (as amended to date, the "Treasury Reserve Policy") that updated our treasury management and capital allocation strategies, under which our treasury reserve assets will consist of:

- cash and cash equivalents and short-term investments ("Cash Assets") held by us that exceed working capital requirements; and
- bitcoin held by us, with bitcoin serving as the primary treasury reserve asset on an ongoing basis, subject to market conditions and anticipated needs of the business for Cash Assets.

In the first quarter of 2021, we adopted, in addition to and in conjunction with our Treasury Reserve Policy, a corporate strategy of acquiring and holding bitcoin, and from time to time, subject to market conditions, issuing debt or equity securities in capital raising transactions with the objective of using the proceeds to purchase bitcoin.

During 2020 and 2021, we issued the following debt and equity securities to raise capital to purchase bitcoin, which issuances are further described in the "Convertible Senior Notes and 2028 Senior Secured Notes" and "Open Market Sale Agreement" sections under this "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations":

- $650.0 million aggregate principal amount of 0.750% Convertible Senior Notes due 2025 (the "2025 Convertible Notes") issued in December 2020;
- $1.050 billion aggregate principal amount of 0% Convertible Senior Notes due 2027 (the "2027 Convertible Notes" and, together with the 2025 Convertible Notes, the "Convertible Notes") issued in February 2021;
- $500.0 million aggregate principal amount of 6.125% Senior Secured Notes due 2028 (the "2028 Secured Notes") issued in June 2021; and
- 1,413,767 shares of class A common stock issued during 2021, for aggregate gross proceeds of $1.0 billion pursuant to our Open Market Sale Agreement with Jefferies LLC, as agent ("Jefferies").

The following table presents a rollforward of our bitcoin holdings, including additional information related to our bitcoin purchases and digital asset impairment losses within the respective periods. We have not sold any of our bitcoin as of the date of this Annual Report.

	Source of Capital Used to Purchase Bitcoin	Digital Asset Original Cost Basis (in thousands)	Digital Asset Impairment Losses (in thousands)	Digital Asset Carrying Value (in thousands)	Approximate Number of Bitcoins Held	Approximate Average Purchase Price Per Bitcoin
Balance at December 31, 2019		**$ 0**	**$ 0**	**$ 0**	**0**	**n/a**
Digital asset purchases	(a)	1,125,000		1,125,000	70,469	15,964
Digital asset impairment losses			(70,698)	(70,698)		
Balance at December 31, 2020		**$ 1,125,000**	**$ (70,698)**	**$ 1,054,302**	**70,469**	**$ 15,964**
Digital asset purchases	(b)	2,626,529		2,626,529	53,922	48,710
Digital asset impairment losses			(830,621)	(830,621)		
Balance at December 31, 2021		**$ 3,751,529**	**$ (901,319)**	**$ 2,850,210**	**124,391**	**$ 30,159**

(a) During 2020, we purchased bitcoin using $634.7 million in net proceeds from our issuance of the 2025 Convertible Notes and excess cash, including cash from the liquidation of short-term investments.

(b) During 2021, we purchased bitcoin using $1.026 billion in net proceeds from our issuance of the 2027 Convertible Notes, $990.5 million in net proceeds from our sale of 1,413,767 shares of class A common stock offered under the Open Market Sale Agreement, $487.2 million in net proceeds from our issuance of the 2028 Secured Notes, and excess cash.

The following table shows the approximate number of bitcoins held at the end of each respective period, as well as market value calculations of our bitcoin holdings based on the lowest, highest, and ending market prices of one bitcoin on the Coinbase exchange (our principal market) for each respective year, as further defined below:

	Approximate Number of Bitcoins Held at End of Year	Lowest Market Price Per Bitcoin During Year (a)	Market Value of Bitcoin Held at End of Year Using Lowest Market Price (in thousands) (b)	Highest Market Price Per Bitcoin During Year (c)	Market Value of Bitcoin Held at End of Year Using Highest Market Price (in thousands) (d)	Market Price Per Bitcoin at End of Year (e)	Market Value of Bitcoin Held at End of Year Using Ending Market Price (in thousands) (f)
December 31, 2019	0	n/a	n/a	n/a	n/a	n/a	n/a
December 31, 2020	70,469	$ 8,905.84	$ 627,586	$ 29,321.90	$ 2,066,285	$ 29,181.00	$ 2,056,356
December 31, 2021	124,391	$ 27,678.00	$ 3,442,894	$ 69,000.00	$ 8,582,979	$ 45,879.97	$ 5,707,055

(a) The "Lowest Market Price Per Bitcoin During Year" represents the lowest market price for one bitcoin reported on the Coinbase exchange during the respective year, without regard to when we purchased any of our bitcoin. For the year ended December 31, 2020, the lowest market price reported in the above table reflects the lowest market price for one bitcoin reported on the Coinbase exchange during the period July 1, 2020 (the beginning of the first quarterly period that we purchased and held bitcoin) to December 31, 2020.

(b) The "Market Value of Bitcoin Held Using Lowest Market Price" represents a mathematical calculation consisting of the lowest market price for one bitcoin reported on the Coinbase exchange during the respective year (or for 2020, during the period July 1, 2020 to December 31, 2020) multiplied by the number of bitcoins held by us at the end of the applicable year.

(c) The "Highest Market Price Per Bitcoin During Year" represents the highest market price for one bitcoin reported on the Coinbase exchange during the respective year, without regard to when we purchased any of our bitcoin. For the year ended December 31, 2020, the highest market price reported in the above table reflects the highest market price for one bitcoin reported on the Coinbase exchange during the period July 1, 2020 to December 31, 2020.

(d) The "Market Value of Bitcoin Held Using Highest Market Price" represents a mathematical calculation consisting of the highest market price for one bitcoin reported on the Coinbase exchange during the respective year (or for 2020, during the period July 1, 2020 to December 31, 2020) multiplied by the number of bitcoins held by us at the end of the applicable year.

(e) The "Market Price Per Bitcoin at End of Year" represents the market price of one bitcoin on the Coinbase exchange at 4:00 p.m. Eastern Time on the last day of the respective year.

(f) The "Market Value of Bitcoin Held at End of Year Using Ending Market Price" represents a mathematical calculation consisting of the market price of one bitcoin on the Coinbase exchange at 4:00 p.m. Eastern Time on the last day of the respective year multiplied by the number of bitcoins held by us at the end of the applicable year.

The amounts reported as “Market Value” in the above table represent only a mathematical calculation consisting of the price for one bitcoin reported on the Coinbase exchange (our principal market) in each scenario defined above multiplied by the number of bitcoins held by us at the end of the applicable year. The Securities and Exchange Commission has previously stated that there has not been a demonstration that (i) bitcoin and bitcoin markets are inherently resistant to manipulation or that the spot price of bitcoin may not be subject to fraud and manipulation; and (ii) adequate surveillance-sharing agreements with bitcoin-related markets are in place, as bitcoin-related markets are either not significant, not regulated, or both. Accordingly, the Market Value amounts reported above may not accurately represent fair market value, and the actual fair market value of our bitcoin may be different from such amounts and such deviation may be material. Moreover, (i) the bitcoin market historically has been characterized by significant volatility in price, limited liquidity and trading volumes compared to sovereign currencies markets, relative anonymity, a developing regulatory landscape, potential susceptibility to market abuse and manipulation, and various other risks that are, or may be, inherent in its entirely electronic, virtual form and decentralized network and (ii) we may not be able to sell our bitcoins at the Market Value amounts indicated above, at the market price as reported on the Coinbase exchange (our principal market) on the date of sale, or at all.

Our digital asset impairment losses have significantly contributed to our operating expenses and net loss. During 2021, digital asset impairment losses of $830.6 million represented 69.0% of our operating expenses, contributing to our net loss of $535.5 million for 2021, compared to digital asset impairment losses of $70.7 million during 2020, representing 17.5% of our operating expenses and contributing to our net loss of $7.5 million for 2020.

As of February 14, 2022, we held approximately 125,051 bitcoins that were acquired at an aggregate purchase price of $3.777 billion and an average purchase price of approximately $30,200 per bitcoin, inclusive of fees and expenses. As of February 14, 2022, at 4:00 p.m. Eastern Time, the market price of one bitcoin reported on the Coinbase exchange was $42,202.99.

Impact of COVID-19 on Our Software Strategy

The COVID-19 pandemic has resulted, and may continue to result, in significant economic disruption despite progress made in the development and distribution of vaccines. It has continued to disrupt global travel and supply chains and adversely impacted global commercial activity. Considerable uncertainty still surrounds COVID-19, the evolution of its variants, its potential long-term economic effects, as well as the effectiveness of any responses taken by government authorities and businesses and of various efforts to inoculate the global population. The travel restrictions, limits on hours of operations and/or closures of non-essential businesses, and other efforts to curb the spread of COVID-19 have significantly disrupted business activity globally and there is uncertainty as to when these disruptions will fully subside.

Significant uncertainty continues to exist concerning the impact of the COVID-19 pandemic on our customers' and prospects' business and operations in future periods. Although our total revenues for the years ended December 31, 2021 and 2020 were not materially impacted by COVID-19, we believe our revenues may be negatively impacted in future periods until the effects of the pandemic have fully subsided and the current macroeconomic environment has substantially recovered. The uncertainty related to COVID-19 may also result in increased volatility in the financial projections we use as the basis for estimates and assumptions used in our financial statements.

We have adapted our operations to meet the challenges of this uncertain and rapidly evolving situation, including establishing remote working arrangements for our employees, limiting non-essential business travel, and cancelling or shifting our customer, employee, and industry events to a virtual-only format for the foreseeable future. Our sales and marketing expenses decreased significantly since December 31, 2019, as we adapted to the challenges of selling in the current depressed macroeconomic environment, adopted virtual sales and marketing practices, and streamlined our team to sell in this new environment.

We have received, and may continue to receive, government assistance from various relief packages available in countries where we operate. For example, in the United States, the Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act") was enacted on March 27, 2020 to provide broad-based economic relief to various sectors of the U.S. economy through a variety of means, including payroll and income tax deferrals and employee retention credits. In the Asia Pacific region, government assistance provided to us during 2020 was primarily in the form of employer payroll tax exemptions. We deferred payment of $4.6 million of our employer portion of U.S. social security taxes accrued through December 31, 2020, half of which we paid as of December 31, 2021 and the remainder of which we expect to pay by December 31, 2022. Where taxes payable to government entities have been deferred to a later date, no reduction of expenses has been recorded.

Effects of the COVID-19 pandemic that may negatively impact our business in future periods include, but are not limited to: limitations on the ability of our customers to conduct their business, purchase our products and services, and make timely payments; curtailed consumer spending; deferred purchasing decisions; delayed consulting services implementations; and decreases in product licenses revenues driven by channel partners. We will continue to actively monitor the nature and extent of the impact to our business, operating results, and financial condition.

Operating Highlights

The following table sets forth certain operating highlights (in thousands) for the years ended December 31, 2021 and 2020:

	Years Ended December 31,	
	2021	2020
Revenues		
Product licenses	$ 101,804	$ 86,743
Subscription services	43,069	33,082
Total product licenses and subscription services	144,873	119,825
Product support	281,209	284,434
Other services	84,680	76,476
Total revenues	**510,762**	**480,735**
Cost of revenues		
Product licenses	1,721	2,293
Subscription services	16,901	14,833
Total product licenses and subscription services	18,622	17,126
Product support	19,254	23,977
Other services	54,033	49,952
Total cost of revenues	**91,909**	**91,055**
Gross profit	**418,853**	**389,680**
Operating expenses		
Sales and marketing	160,141	148,910
Research and development	117,117	103,561
General and administrative	95,501	80,136
Digital asset impairment losses	830,621	70,698
Total operating expenses	**1,203,380**	**403,305**
Loss from operations	**$ (784,527)**	**$ (13,625)**

We have incurred and may continue to incur significant impairment losses on our digital assets and we may recognize gains upon sale of our digital assets in the future, which would be presented net of any impairment losses within operating expenses. In addition, we base our internal operating expense forecasts on expected revenue trends and strategic objectives in our enterprise analytics software business. Many of our expenses, such as office leases and certain personnel costs, are relatively fixed. Accordingly, any decrease in the price of bitcoin during any quarter, any sales by us of our bitcoin at prices above their then current carrying costs or any shortfall in revenue in our software business may cause significant variation in our operating results. We therefore believe that quarter-to-quarter comparisons of our operating results may not be a good indication of our future performance.

Share-based Compensation Expense

As discussed in Note 11, Share-based Compensation, to the Consolidated Financial Statements, we have outstanding stock options to purchase shares of our class A common stock, restricted stock units, and certain other stock-based awards under our 2013 Equity Plan, as well as opportunities for eligible employees to purchase shares of our class A common stock under our 2021 Employee Stock Purchase Plan (the "2021 ESPP"). Share-based compensation expense (in thousands) from these awards was recognized in the following cost of revenues and operating expense line items in our Consolidated Statements of Operations for the periods indicated:

	Years Ended December 31,	
	2021	2020
Cost of subscription services revenues	$ 282	$ 75
Cost of product support revenues	1,176	155
Cost of consulting revenues	799	23
Cost of education revenues	112	202
Sales and marketing	12,875	1,609
Research and development	10,757	2,740
General and administrative	18,125	6,349
Total share-based compensation expense	$ 44,126	$ 11,153

The $33.0 million increase in share-based compensation expense during 2021, as compared to the prior year, is primarily due to the continued expansion of our equity award programs worldwide and an overall increase in the fair value of new awards during 2021, driven primarily by the increase in the market value of our class A common stock. As of December 31, 2021, we estimated that an aggregate of approximately $143.8 million of additional share-based compensation expense associated with the 2013 Equity Plan and the 2021 ESPP will be recognized over a remaining weighted average period of 3.1 years.

Non-GAAP Financial Measures

We are providing supplemental financial measures for (i) non-GAAP loss from operations that excludes the impact of our share-based compensation expense, (ii) non-GAAP net loss and non-GAAP diluted loss per share that exclude the impact of our share-based compensation expense, interest expense arising from the amortization of debt issuance costs and (in 2020, before the adoption of Accounting Standards Update No. 2020-06, *Debt – Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging – Contracts in Entity's Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity's Own Equity* ("ASU 2020-06")) the debt discount on our long-term debt, and related income tax effects, and (iii) certain non-GAAP constant currency revenues, cost of revenues, and operating expenses that exclude foreign currency exchange rate fluctuations. These supplemental financial measures are not measurements of financial performance under generally accepted accounting principles in the United States ("GAAP") and, as a result, these supplemental financial measures may not be comparable to similarly titled measures of other companies. Management uses these non-GAAP financial measures internally to help understand, manage, and evaluate our business performance and to help make operating decisions.

We believe that these non-GAAP financial measures are also useful to investors and analysts in comparing our performance across reporting periods on a consistent basis. The first supplemental financial measure excludes a significant non-cash expense that we believe is not reflective of our general business performance, and for which the accounting requires management judgment and the resulting share-based compensation expense could vary significantly in comparison to other companies. The second set of supplemental financial measures excludes the impact of (i) share-based compensation expense, (ii) non-cash interest expense arising from the amortization of debt issuance costs and (in 2020, before the adoption of ASU 2020-06) the debt discount related to our long-term debt, and (iii) related income tax effects. The third set of supplemental financial measures excludes changes resulting from fluctuations in foreign currency exchange rates so that results may be compared to the same period in the prior year on a non-GAAP constant currency basis. We believe the use of these non-GAAP financial measures can also facilitate comparison of our operating results to those of our competitors.

Non-GAAP financial measures are subject to material limitations as they are not in accordance with, or a substitute for, measurements prepared in accordance with GAAP. For example, we expect that share-based compensation expense, which is excluded from the first two non-GAAP financial measures, will continue to be a significant recurring expense over the coming years and is an important part of the compensation provided to certain employees, officers, and directors. Similarly, we expect that interest expense arising from the amortization of debt issuance costs will continue to be a recurring expense over the term of the long-term debt. Our non-GAAP financial measures are not meant to be considered in isolation and should be read only in conjunction with our Consolidated Financial Statements, which have been prepared in accordance with GAAP. We rely primarily on such Consolidated Financial Statements to understand, manage, and evaluate our business performance and use the non-GAAP financial measures only supplementally.

The following is a reconciliation of our non-GAAP loss from operations, which excludes the impact of share-based compensation expense, to its most directly comparable GAAP measures (in thousands) for the periods indicated:

	Years Ended December 31,	
	2021	2020
Reconciliation of non-GAAP loss from operations:		
Loss from operations	$ (784,527)	$ (13,625)
Share-based compensation expense	44,126	11,153
Non-GAAP loss from operations	$ (740,401)	$ (2,472)

The following are reconciliations of our non-GAAP net loss and non-GAAP diluted loss per share, in each case excluding the impact of (i) share-based compensation expense, (ii) interest expense arising from the amortization of debt issuance costs and (in 2020, before the adoption of ASU 2020-06) the debt discount on our long-term debt, and (iii) related income tax effects to their most directly comparable GAAP measures (in thousands, except per share data) for the periods indicated:

	Years Ended December 31,	
	2021	2020
Reconciliation of non-GAAP net loss:		
Net loss	$ (535,480)	$ (7,524)
Share-based compensation expense	44,126	11,153
Interest expense arising from amortization of debt issuance costs and debt discount	7,201	1,543
Income tax effects (1)	(47,976)	(5,656)
Non-GAAP net loss	$ (532,129)	$ (484)
Reconciliation of non-GAAP diluted loss per share (2):		
Diluted loss per share	$ (53.44)	$ (0.78)
Share-based compensation expense (per diluted share)	4.40	1.15
Interest expense arising from amortization of debt issuance costs and debt discount (per diluted share)	0.72	0.16
Income tax effects (per diluted share)	(4.79)	(0.58)
Non-GAAP diluted loss per share	$ (53.11)	$ (0.05)

(1) Income tax effects reflect the net tax effects of share-based compensation expense, which includes tax benefits on exercises of stock options and vesting of share-settled restricted stock units, and interest expense for amortization of debt issuance costs and debt discount.

(2) For reconciliation purposes, the non-GAAP diluted earnings (loss) per share calculations use the same weighted average shares outstanding as that used in the GAAP diluted earnings (loss) per share calculations for the same period. For example, in periods of GAAP net loss, otherwise dilutive potential shares of common stock from our share-based compensation arrangements and Convertible Notes are excluded from the GAAP diluted loss per share calculation as they would be antidilutive, and therefore are also excluded from the non-GAAP diluted earnings or loss per share calculation.

The following are reconciliations of certain non-GAAP constant currency revenues, cost of revenues, and operating expenses to their most directly comparable GAAP measures (in thousands) for the periods indicated.

	Years Ended December 31,					
	GAAP	Foreign Currency Exchange Rate Impact (1)	Non-GAAP Constant Currency (2)	GAAP	GAAP % Change	Non-GAAP Constant Currency % Change (3)
	2021	2021	2021	2020	2021	2021
Product licenses revenues	$ 101,804	$ (858)	$ 102,662	$ 86,743	17.4%	18.4%
Subscription services revenues	43,069	519	42,550	33,082	30.2%	28.6%
Product support revenues	281,209	3,816	277,393	284,434	-1.1%	-2.5%
Other services revenues	84,680	1,118	83,562	76,476	10.7%	9.3%
Cost of product support revenues	19,254	33	19,221	23,977	-19.7%	-19.8%
Cost of other services revenues	54,033	341	53,692	49,952	8.2%	7.5%
Sales and marketing expenses	160,141	323	159,818	148,910	7.5%	7.3%
Research and development expenses	117,117	1,586	115,531	103,561	13.1%	11.6%
General and administrative expenses	95,501	276	95,225	80,136	19.2%	18.8%

	GAAP	Foreign Currency Exchange Rate Impact (1)	Non-GAAP Constant Currency (2)	GAAP	GAAP % Change	Non-GAAP Constant Currency % Change (3)
	2020	2020	2020	2019	2020	2020
Product licenses revenues	$ 86,743	$ (1,227)	$ 87,970	$ 87,471	-0.8%	0.6%
Subscription services revenues	33,082	121	32,961	29,394	12.5%	12.1%
Product support revenues	284,434	(358)	284,792	292,035	-2.6%	-2.5%
Other services revenues	76,476	304	76,172	77,427	-1.2%	-1.6%
Cost of product support revenues	23,977	(142)	24,119	28,317	-15.3%	-14.8%
Cost of other services revenues	49,952	(347)	50,299	54,365	-8.1%	-7.5%
Sales and marketing expenses	148,910	(2,184)	151,094	191,235	-22.1%	-21.0%
Research and development expenses	103,561	42	103,519	109,423	-5.4%	-5.4%
General and administrative expenses	80,136	(444)	80,580	86,697	-7.6%	-7.1%

(1) The "Foreign Currency Exchange Rate Impact" reflects the estimated impact of fluctuations in foreign currency exchange rates on international components of our Consolidated Statements of Operations. It shows the increase (decrease) in material international revenues or expenses, as applicable, from the same period in the prior year, based on comparisons to the prior year quarterly average foreign currency exchange rates. The term "international" refers to operations outside of the United States and Canada.

(2) The "Non-GAAP Constant Currency" reflects the current period GAAP amount, less the Foreign Currency Exchange Rate Impact.

(3) The "Non-GAAP Constant Currency % Change" reflects the percentage change between the current period Non-GAAP Constant Currency amount and the GAAP amount for the same period in the prior year.

Critical Accounting Estimates

Our discussion and analysis of our financial condition and results of operations are based on our Consolidated Financial Statements, which have been prepared in accordance with GAAP. See Note 2, Summary of Significant Accounting Policies, to the Consolidated Financial Statements for a description of our significant accounting policies. As described in Note 2, the preparation of our Consolidated Financial Statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, and equity, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results and outcomes could differ from these estimates and assumptions.

Critical accounting estimates involve a significant level of estimation uncertainty and are estimates that have had or are reasonably likely to have a material impact on our financial condition or results of operations. We consider certain estimates and judgments related to revenue recognition to be critical accounting estimates for us, as discussed further below.

Revenue Recognition

See Note 2(n), Summary of Significant Accounting Policies – Revenue Recognition, to the Consolidated Financial Statements for information regarding our significant accounting policies over revenue recognition.

Many of our contracts with customers include multiple performance obligations, and we make estimates and judgments to allocate the transaction price to each performance obligation based on an observable or estimated standalone selling price ("SSP"). The SSP is the price, or estimated price, of the software or service when sold on a standalone basis at contract inception. We consider our evaluation of SSP to be a critical accounting estimate.

An observable price of a good or service sold separately provides the best evidence of SSP. However, in many situations, SSP will not be readily observable, but must still be estimated using reasonably available information. We have observable standalone selling prices of our product support, consulting services, and education services, and therefore use historical transaction data on a standalone basis, along with our judgment, to establish SSP ranges for each of these services, as described in Note 2(n). However, SSP is not directly observable for product licenses (product licenses are not sold on a standalone basis and pricing is highly variable) and subscription services (the selling price of subscription services is highly variable), and we use a residual approach to establish SSP for these revenue streams. As such, the establishment of SSP of our product support, consulting services, and education services directly impacts the amount of product licenses and subscription services revenues recognized, and therefore also impacts the overall timing of revenue recognition.

We review and analyze the SSP ranges we have established for product support, consulting services, and education services semi-annually, and these SSP ranges have not changed significantly since adopting Accounting Standards Update No. 2014-09, Revenue from Contracts with Customers (Topic 606) and its subsequent amendments ("ASU 2014-09") effective January 1, 2018. We also perform analyses on a semi-annual basis using historical pricing data for both product license and subscription services transactions to assess whether the selling price is highly variable in order to support our conclusion that the residual method to estimate SSP of our product licenses and subscription services is a fair allocation of the transaction price. We have maintained our conclusion that the residual method is appropriate for our product licenses and subscription services since adopting ASU 2014-09.

In the future, SSP for our software and services could be impacted by various factors, including potential changes in our pricing practices, customer demand for our products and services, and various market or economic conditions. However, we consider the risk of significant volatility in our established SSP to be small given our historical transaction experience and internal processes to monitor SSP ranges on an ongoing basis and work with management in the event a trend that could impact the future ranges is detected.

Results of Operations

Comparison of the Years Ended December 31, 2021 and 2020

Revenues

Except as otherwise indicated herein, the term "domestic" refers to operations in the United States and Canada and the term "international" refers to operations outside of the United States and Canada.

Product licenses and subscription services revenues. The following table sets forth product licenses and subscription services revenues (in thousands) and related percentage changes for the periods indicated:

	Years Ended December 31, 2021	Years Ended December 31, 2020	% Change
Product Licenses and Subscription Services Revenues:			
Product Licenses			
Domestic	$ 54,107	$ 51,504	5.1%
International	47,697	35,239	35.4%
Total product licenses revenues	101,804	86,743	17.4%
Subscription Services			
Domestic	31,306	24,684	26.8%
International	11,763	8,398	40.1%
Total subscription services revenues	43,069	33,082	30.2%
Total product licenses and subscription services revenues	$ 144,873	$ 119,825	20.9%

The following table sets forth a summary, grouped by size, of the number of recognized product licenses transactions for the periods indicated:

	Years Ended December 31, 2021	2020
Product Licenses Transactions with Recognized Licenses Revenue in the Applicable Period:		
More than $1.0 million in licenses revenue recognized	13	10
Between $0.5 million and $1.0 million in licenses revenue recognized	19	18
Total	32	28
Domestic:		
More than $1.0 million in licenses revenue recognized	10	8
Between $0.5 million and $1.0 million in licenses revenue recognized	11	10
Total	21	18
International:		
More than $1.0 million in licenses revenue recognized	3	2
Between $0.5 million and $1.0 million in licenses revenue recognized	8	8
Total	11	10

The following table sets forth the recognized revenue (in thousands) attributable to product licenses transactions, grouped by size, and related percentage changes for the periods indicated:

	Years Ended December 31, 2021	2020	% Change
Product Licenses Revenue Recognized in the Applicable Period:			
More than $1.0 million in licenses revenue recognized	$ 26,838	$ 25,599	4.8%
Between $0.5 million and $1.0 million in licenses revenue recognized	12,809	12,096	5.9%
Less than $0.5 million in licenses revenue recognized	62,157	49,048	26.7%
Total	101,804	86,743	17.4%
Domestic:			
More than $1.0 million in licenses revenue recognized	18,391	20,108	-8.5%
Between $0.5 million and $1.0 million in licenses revenue recognized	7,364	6,568	12.1%
Less than $0.5 million in licenses revenue recognized	28,352	24,828	14.2%
Total	54,107	51,504	5.1%
International:			
More than $1.0 million in licenses revenue recognized	8,447	5,491	53.8%
Between $0.5 million and $1.0 million in licenses revenue recognized	5,445	5,528	-1.5%
Less than $0.5 million in licenses revenue recognized	33,805	24,220	39.6%
Total	$ 47,697	$ 35,239	35.4%

Product licenses revenues increased $15.1 million during 2021, as compared to the prior year. For the years ended December 31, 2021 and 2020, product licenses transactions with more than $0.5 million in recognized revenue represented 38.9% and 43.5%, respectively, of our product licenses revenues. During 2021, our top three product licenses transactions totaled $12.6 million in recognized revenue, or 12.4% of total product licenses revenues, compared to $15.3 million, or 17.6% of total product licenses revenues, during 2020.

Domestic product licenses revenues. Domestic product licenses revenues increased $2.6 million during 2021, as compared to the prior year, primarily due to an increase in the average deal size of transactions with less than $0.5 million in recognized revenue and an increase in the number of transactions with recognized revenue between $0.5 million and $1.0 million, partially offset by a decrease in the average deal size of transactions with more than $1.0 million in recognized revenue.

International product licenses revenues. International product licenses revenues increased $12.5 million during 2021, as compared to the prior year, primarily due to an increase in the number of transactions with less than $0.5 million in recognized revenue and an increase in the number of transactions with more than $1.0 million in recognized revenue, partially offset by $0.9 million unfavorable foreign currency exchange impact.

Subscription services revenues. Subscription services revenues are derived from MCE, a cloud subscription service, that are recognized ratably over the service period in the contract. Subscription services revenues increased $10.0 million during 2021, as compared to the prior year, primarily due to conversions to cloud-based subscriptions from existing on-premises customers, an increase in the use of subscription services by existing customers, sales contracts with new customers, and a $0.5 million favorable foreign currency exchange impact. We expect our subscription services revenues to continue to grow in future periods as we continue to promote our cloud offering to new and existing customers.

Product support revenues. The following table sets forth product support revenues (in thousands) and related percentage changes for the periods indicated:

	Years Ended December 31, 2021	Years Ended December 31, 2020	% Change
Product Support Revenues:			
Domestic	$ 161,288	$ 167,266	-3.6%
International	119,921	117,168	2.3%
Total product support revenues	$ 281,209	$ 284,434	-1.1%

Product support revenues are derived from providing technical software support and software updates and upgrades to customers. Product support revenues are recognized ratably over the term of the contract, which is generally one year. Product support revenues decreased $3.2 million during 2021, as compared to the prior year, primarily due to certain existing customers converting from perpetual product licenses with separate support contracts to our subscription services or term product licenses offerings, partially offset by a $3.8 million favorable foreign currency exchange impact.

Other services revenues. The following table sets forth other services revenues (in thousands) and related percentage changes for the periods indicated:

	Years Ended December 31, 2021	Years Ended December 31, 2020	% Change
Other Services Revenues:			
Consulting			
Domestic	$ 36,814	$ 33,021	11.5%
International	42,918	38,324	12.0%
Total consulting revenues	79,732	71,345	11.8%
Education	4,948	5,131	-3.6%
Total other services revenues	$ 84,680	$ 76,476	10.7%

Consulting revenues. Consulting revenues are derived from helping customers plan and execute the deployment of our software. Consulting revenues increased $8.4 million during 2021, as compared to the prior year, primarily due to an increase in billable hours worldwide and a $1.0 million favorable foreign currency exchange impact, partially offset by a decrease in average bill rates and a decrease in billable travel and entertainment expenditures.

Education revenues. Education revenues are derived from the education and training that we provide to our customers to enhance their ability to fully utilize the features and functionality of our software. These offerings include self-tutorials, custom course development, joint training with customers' internal staff, and standard course offerings, with pricing dependent on the specific offering delivered. Education revenues did not materially change during 2021, as compared to the prior year.

Costs and Expenses

Cost of revenues. The following table sets forth cost of revenues (in thousands) and related percentage changes for the periods indicated:

	Years Ended December 31,		
	2021	2020	% Change
Cost of Revenues:			
Product licenses and subscription services:			
Product licenses	$ 1,721	$ 2,293	-24.9%
Subscription services	16,901	14,833	13.9%
Total product licenses and subscription services	18,622	17,126	8.7%
Product support	19,254	23,977	-19.7%
Other services:			
Consulting	48,773	42,923	13.6%
Education	5,260	7,029	-25.2%
Total other services	54,033	49,952	8.2%
Total cost of revenues	$ 91,909	$ 91,055	0.9%

Cost of product licenses revenues. Cost of product licenses revenues consists of referral fees paid to channel partners, the costs of product manuals and media, and royalties paid to third-party software vendors. Cost of product licenses revenues did not materially change during 2021, as compared to the prior year.

Cost of subscription services revenues. Cost of subscription services revenues consists of equipment, facility and other related support costs, and personnel and related overhead costs. Subscription services headcount increased 46.9% to 72 at December 31, 2021 from 49 at December 31, 2020; however, average headcount for the respective periods did not materially change. Cost of subscription services revenues increased $2.1 million during 2021, as compared to the prior year, primarily due to a $2.8 million increase in cloud hosting infrastructure costs, which is a result of the increased usage by new and existing cloud subscription services customers, partially offset by a $0.6 million decrease in salaries.

Cost of product support revenues. Cost of product support revenues consists of personnel and related overhead costs, including those under our Enterprise Support program. Our Enterprise Support program utilizes primarily consulting personnel to provide product support to our customers at our discretion. Compensation related to personnel providing Enterprise Support services is reported as cost of product support revenues. Product support headcount increased 13.0% to 174 at December 31, 2021 from 154 at December 31, 2020. Cost of product support revenues decreased $4.7 million during 2021, as compared to the prior year, primarily due to a $2.8 million decrease in compensation and related costs due to a decrease in product support average staffing levels and a shift in staffing levels to lower cost regions, a $2.4 million decrease in compensation and related costs attributable to non-product support personnel providing a decreased level of Enterprise Support services, and a $0.6 million decrease in facility and other related support costs, partially offset by a $1.0 million net increase in share-based compensation expense. The $1.0 million net increase in share-based compensation expense is primarily due to the grant of additional awards under the 2013 Equity Plan and an overall increase in the fair value of new awards during 2021.

Cost of consulting revenues. Cost of consulting revenues consists of personnel and related overhead costs, excluding those under our Enterprise Support program which are allocated to cost of product support revenues. Consulting headcount increased 5.1% to 413 at December 31, 2021 from 393 at December 31, 2020. Cost of consulting revenues increased $5.9 million during 2021, as compared to the prior year, primarily due to a $4.1 million increase in subcontractor costs, a $2.1 million increase in compensation and related costs attributable to consulting personnel providing a decreased level of Enterprise Support services, and a $0.8 million net increase in share-based compensation expense, partially offset by a $1.0 million decrease in travel and entertainment expenditures primarily attributable to higher expenses during the first quarter of 2020 which was not materially impacted by the COVID-19 pandemic. The $0.8 million net increase in share-based compensation expense is primarily due to the grant of additional awards under the 2013 Equity Plan and an overall increase in the fair value of new awards during 2021.

Cost of education revenues. Cost of education revenues consists of personnel and related overhead costs. Education headcount decreased 2.7% to 36 at December 31, 2021 from 37 at December 31, 2020. Cost of education revenues decreased $1.8 million during 2021, as compared to the prior year, primarily due to a $0.8 million decrease in cloud hosting infrastructure costs associated with education offerings that we made available at no charge for a limited time period during the first half of 2020 in response to the COVID-19 pandemic and a $0.6 million decrease in compensation and related costs due to a decrease in average staffing levels.

Sales and marketing expenses. Sales and marketing expenses consist of personnel costs, commissions, office facilities, travel, advertising, public relations programs, and promotional events, such as trade shows, seminars, and technical conferences. Sales and marketing headcount decreased 1.9% to 470 at December 31, 2021 from 479 at December 31, 2020. The following table sets forth sales and marketing expenses (in thousands) and related percentage changes for the periods indicated:

	Years Ended December 31,		
	2021	2020	% Change
Sales and marketing expenses	$ 160,141	$ 148,910	7.5%

Sales and marketing expenses increased $11.2 million during 2021, as compared to the prior year, primarily due to an $11.3 million net increase in share-based compensation expense, a $10.3 million increase in variable compensation (of which $2.1 million was due to the cancellation of a sales employee awards event in 2020 as a result of the COVID-19 pandemic), and a $0.5 million increase in recruiting costs, partially offset by a $5.5 million decrease in employee salaries due to a decrease in average staffing levels, a $2.9 million decrease in travel and entertainment expenditures primarily attributable to higher expenses during the first quarter of 2020 which was not materially impacted by the COVID-19 pandemic, a $1.4 million decrease in facility and other related support costs, and a $0.5 million decrease in subcontractor costs. The $11.3 million net increase in share-based compensation expense is primarily due to the grant of additional awards under the 2013 Equity Plan and the 2021 ESPP and an overall increase in the fair value of new awards during 2021.

Research and development expenses. Research and development expenses consist of the personnel costs for our software engineering personnel, depreciation of equipment, and other related costs. Research and development headcount increased 8.9% to 699 at December 31, 2021 from 642 at December 31, 2020. The following table summarizes research and development expenses (in thousands) and related percentage changes for the periods indicated:

	Years Ended December 31,		
	2021	2020	% Change
Research and development expenses	$ 117,117	$ 103,561	13.1%

Research and development expenses increased $13.6 million during 2021, as compared to the prior year, primarily due to an $8.0 million net increase in share-based compensation expense, a $3.1 million increase in variable compensation (of which $0.5 million was due to certain COVID-19-related employer payroll tax exemptions in the Asia Pacific region in 2020), a $1.7 million increase in employee salaries primarily due to periodic wage increases partially offset by a decrease in average staffing levels and a shift in staffing levels to lower cost regions, a $1.4 million gain on partial lease termination of our corporate headquarters lease recorded during the fourth quarter of 2020 and allocated to research and development expenses, and a $0.7 million increase in recruiting costs, partially offset by a $0.9 million decrease in facility and other related support costs. The $8.0 million net increase in share-based compensation expense is primarily due to the grant of additional awards under the 2013 Equity Plan and the 2021 ESPP and an overall increase in the fair value of new awards during 2021. Included in research and development expenses for 2021 is an aggregate $1.6 million unfavorable foreign currency exchange impact.

General and administrative expenses. General and administrative expenses consist of personnel and related overhead costs, and other costs of our executive, finance, human resources, information systems, and administrative departments, as well as third-party consulting, legal, and other professional fees. General and administrative headcount increased 5.8% to 257 at December 31, 2021 from 243 at December 31, 2020. The following table sets forth general and administrative expenses (in thousands) and related percentage changes for the periods indicated:

	Years Ended December 31,		
	2021	2020	% Change
General and administrative expenses	$ 95,501	$ 80,136	19.2%

General and administrative expenses increased $15.4 million during 2021, as compared to the prior year, primarily due to an $11.8 million net increase in share-based compensation expense, a $3.5 million increase in legal, consulting, and other advisory costs which includes costs from executing our new bitcoin acquisition strategy in 2021, a $3.1 million increase in custodial fees incurred on our bitcoin holdings, a $0.6 million gain on partial lease termination of our corporate headquarters lease recorded during the fourth quarter of 2020 and allocated to general and administrative expenses, and a $0.5 million increase in cloud hosting infrastructure costs, partially offset by a $3.2 million decrease in compensation and related costs due to a decrease in average staffing levels and a $1.2 million decrease in bad debt expense. The $11.8 million net increase in share-based compensation expense is primarily due to the grant of additional awards under the 2013 Equity Plan and an overall increase in the fair value of new awards during 2021, partially offset by certain awards becoming fully vested.

Digital asset impairment losses. Digital asset impairment losses are recognized when the carrying value of our digital assets exceeds their lowest fair value at any time since their acquisition. Impaired digital assets are written down to fair value at the time of impairment, and such impairment loss cannot be recovered for any subsequent increases in fair value. The following table sets forth digital asset impairment losses (in thousands) and related percentage changes for the periods indicated:

	Years Ended December 31,		
	2021	2020	% Change
Digital asset impairment losses	$ 830,621	$ 70,698	1,074.9%

We did not sell any of our digital assets during the years ended December 31, 2021 and 2020. We may continue to incur significant digital asset impairment losses in the future. For example, we have incurred at least $163.3 million in digital asset impairment losses during the first quarter of 2022 on bitcoin we held as of December 31, 2021.

Interest (Expense) Income, Net

During 2021, interest expense, net, of $29.1 million was primarily related to the contractual interest expense related to our 2028 Secured Notes and 2025 Convertible Notes, the amortization of issuance costs related to our long-term debt arrangements, and contractual interest expense incurred on trade credits with Coinbase Credit, Inc. Refer to Note 8, Long-term Debt, and Note 4, Digital Assets, to the Consolidated Financial Statements for further information. During 2020, interest income, net, of $0.7 million was primarily related to interest earned on cash and cash equivalents balances and the amortization of the discount on our short-term investments, partially offset by the amortization of the debt discount, the contractual interest expense, and the amortization of issuance costs related to our 2025 Convertible Notes.

Other Income (Expense), Net

During 2021, other income, net, of $2.3 million was comprised primarily of foreign currency transaction net gains. During 2020, other expense, net, of $7.0 million was comprised primarily of foreign currency transaction net losses.

Benefit from Income Taxes

During 2021, we recorded a benefit from income taxes of $275.9 million on pre-tax losses of $811.4 million that resulted in an effective tax rate of 34.0%, as compared to a benefit from income taxes of $12.4 million on pre-tax losses of $20.0 million that resulted in an effective tax rate of 62.3% during 2020. The change in our effective tax rate in 2021, as compared to the prior year, was primarily due to certain discrete items, overall loss level, and the change in the proportion of U.S. versus foreign (loss) income.

The Tax Act imposed a mandatory deemed repatriation transition tax (“Transition Tax”) on previously untaxed accumulated and current earnings and profits of certain of our foreign subsidiaries. As of December 31, 2021, $25.1 million of the Transition Tax was unpaid, of which $22.1 million is included in “Other long-term liabilities” and $3.0 million is included in “Accounts payable, accrued expenses, and operating lease liabilities” in our Consolidated Balance Sheets.

As of December 31, 2021, we had no U.S. federal net operating loss (“NOL”) carryforwards and $4.1 million of foreign NOL carryforwards. As of December 31, 2021, digital asset impairment losses, other temporary differences and carryforwards, and credits resulted in deferred tax assets, net of valuation allowances and deferred tax liabilities, of $319.7 million.

As of December 31, 2021, we had a valuation allowance of $1.0 million primarily related to certain foreign tax credit carryforward tax assets that, in our present estimation, more likely than not will not be realized. If the market value of bitcoin declines or we are unable to regain profitability in future periods, we may be required to increase the valuation allowance against our deferred tax assets, which could result in a charge that would materially adversely affect net (loss) income in the period in which the charge is incurred. We will continue to regularly assess the realizability of deferred tax assets.

Beginning in the third quarter of 2020, we determined to no longer permanently reinvest our foreign earnings and profits. As of December 31, 2021, we recorded a deferred tax liability of $1.7 million on undistributed foreign earnings of $117.0 million related to foreign withholding tax and U.S. state income taxes.

Deferred Revenue and Advance Payments

Deferred revenue and advance payments represent amounts received or due from our customers in advance of our transferring our software or services to the customer. In the case of multi-year service contract arrangements, the Company generally does not invoice more than one year in advance of services and does not record deferred revenue for amounts that have not been invoiced. Revenue is subsequently recognized in the period(s) in which control of the software or services is transferred to the customer.

The following table summarizes deferred revenue and advance payments (in thousands), as of:

	December 31, 2021	December 31, 2020
Current:		
Deferred product licenses revenue	$ 993	$ 1,495
Deferred subscription services revenue	35,589	26,258
Deferred product support revenue	166,477	156,216
Deferred other services revenue	6,801	7,281
Total current deferred revenue and advance payments	$ 209,860	$ 191,250
Non-current:		
Deferred product licenses revenue	$ 68	$ 139
Deferred subscription services revenue	1,064	8,758
Deferred product support revenue	6,203	5,055
Deferred other services revenue	754	710
Total non-current deferred revenue and advance payments	$ 8,089	$ 14,662
Total current and non-current:		
Deferred product licenses revenue	$ 1,061	$ 1,634
Deferred subscription services revenue	36,653	35,016
Deferred product support revenue	172,680	161,271
Deferred other services revenue	7,555	7,991
Total current and non-current deferred revenue and advance payments	$ 217,949	$ 205,912

Total deferred revenue and advance payments increased $12.0 million in 2021, as compared to the prior year, primarily due to the timing of product support, an increase in deferred revenue from new subscription services contracts, and an increase in conversions from on-premises to subscription services, partially offset by the presentation of multi-year contracts. The portions of such multi-year contracts that will be invoiced in the future are not presented on the balance sheet in "Accounts receivable, net" and "Deferred revenue and advance payments" and instead are included in the remaining performance obligation disclosure below. Included in our international deferred revenue balances at December 31, 2021 is a $5.9 million unfavorable foreign currency impact from the general strengthening of the U.S. dollar compared to the same period in the prior year.

Our remaining performance obligation represents all future revenue under contract and includes deferred revenue and advance payments and billable non-cancelable amounts that will be invoiced and recognized as revenue in future periods. The remaining performance obligation excludes contracts that are billed in arrears, such as certain time and materials contracts. As of December 31, 2021, we had an aggregate transaction price of $267.6 million allocated to the remaining performance obligation related primarily to subscription services, product support, and product licenses. We expect to recognize approximately $219.2 million of the remaining performance obligation over the next 12 months and the remainder thereafter. However, the timing and ultimate recognition of our deferred revenue and advance payments and other remaining performance obligations depend on our satisfaction of various performance obligations, and the amount of deferred revenue and advance payments and remaining performance obligations at any date should not be considered indicative of revenues for any succeeding period.

Liquidity and Capital Resources

Liquidity. Our principal sources of liquidity are cash and cash equivalents and on-going collection of our accounts receivable. Cash and cash equivalents may include holdings in bank demand deposits, money market instruments, certificates of deposit, and U.S. Treasury securities. Under our Treasury Reserve Policy and bitcoin acquisition strategy, we use a significant portion of our cash, including cash generated from capital raising activities, to acquire bitcoins. As discussed in Note 2(g) Summary of Significant Accounting Policies – Digital Assets, to our Consolidated Financial Statements, our bitcoin are classified as indefinite-lived intangible assets.

As of December 31, 2021 and 2020, the amount of cash and cash equivalents held by our U.S. entities was $13.1 million and $13.7 million, respectively, and by our non-U.S. entities was $50.3 million and $46.0 million, respectively. We earn a significant amount of our revenues outside the United States and our accumulated undistributed foreign earnings and profits as of December 31, 2021 and 2020 were $117.0 million and $136.3 million, respectively. We repatriated foreign earnings and profits of $57.5 million during 2021 and $186.6 million during 2020.

Our material contractual obligations (explained in further detail in the Notes to the Consolidated Financial Statements, as referenced below) and cash requirements consist of:

- principal and interest payments related to our long-term debt (Note 8, Long-term Debt);
- rent payments under noncancellable operating leases (Note 7, Leases);
- payments related to the Transition Tax (Note 9, Commitments and Contingencies);
- payments under various purchase agreements, primarily related to third-party software supporting our products, marketing, and operations (Note 9, Commitments and Contingencies); and
- ongoing personnel-related expenditures and vendor payments.

We believe that existing cash and cash equivalents held by us and cash and cash equivalents anticipated to be generated by us are sufficient to meet working capital requirements, anticipated capital expenditures, and contractual obligations for at least the next 12 months. Beyond the next 12 months, our long-term cash requirements are primarily for obligations related to our long-term debt (principal due upon maturity of each debt instrument ($650 million in the case of the 2025 Convertible Notes, $1.050 billion in the case of the 2027 Convertible Notes and $500 million in the case of the 2028 Secured Notes), $2.4 million in coupon interest due each semi-annual period for the 2025 Convertible Notes, and $15.3 million in coupon interest due each semi-annual period for the 2028 Secured Notes). We also have long-term cash requirements for obligations related to our operating leases, the Transition Tax, and our various purchase agreements. If cash and cash equivalents generated by future operating activities are not sufficient to enable us to satisfy these obligations, we may seek to generate cash and cash equivalents from other sources. The sources could include the sale of bitcoins, as well as the issuance and sale of shares of our class A common stock (as we have done through the Open Market Sale Agreement). Furthermore, if certain conditions are met, we may have the right to elect to settle the Convertible Notes upon a conversion of such Convertible Notes in shares of our class A common stock, or a combination of cash and shares of class A common stock, which may enable us to reduce the amount of our cash obligations under the Convertible Notes.

As of December 31, 2021, we held approximately 124,391 bitcoins. We do not believe we will need to sell any of our bitcoins within the next twelve months to meet our working capital requirements, although we may from time to time sell bitcoins as part of treasury management operations, as noted above. The bitcoin market historically has been characterized by significant volatility in its price, limited liquidity and trading volumes compared to sovereign currencies markets, relative anonymity, a developing regulatory landscape, susceptibility to market abuse and manipulation, and various other risks inherent in its entirely electronic, virtual form and decentralized network. During times of instability in the bitcoin market, we may not be able to sell our bitcoins at reasonable prices or at all. As a result, our bitcoins are less liquid than our existing cash and cash equivalents and may not be able to serve as a source of liquidity for us to the same extent as cash and cash equivalents. In addition, upon sale of our bitcoin, we may incur additional taxes related to any realized gains or we may incur capital losses as to which the tax deduction may be limited.

The following table sets forth a summary of our cash flows (in thousands) and related percentage changes for the periods indicated:

	Years Ended December 31, 2021	2020	% Change
Net cash provided by operating activities	$ 93,833	$ 53,619	75.0%
Net cash used in investing activities	$ (2,629,235)	$ (1,018,693)	158.1%
Net cash provided by financing activities	$ 2,541,685	$ 563,233	351.3%

Net cash provided by operating activities. The primary source of our cash provided by operating activities is cash collections of our accounts receivable from customers following the sales and renewals of our product licenses and product support, as well as consulting, education, and subscription services. Our primary uses of cash in operating activities are for personnel-related expenditures for software development, personnel-related expenditures for providing consulting, education, and subscription services, and for sales and marketing costs, general and administrative costs, and income taxes. Non-cash items to further reconcile net (loss) to net cash provided by operating activities consist primarily of depreciation and amortization, reduction in the carrying amount of operating lease ROU assets, credit losses and sales allowances, deferred taxes, release of liabilities for unrecognized tax benefits, share-based compensation expense, digital asset impairment losses, amortization of the issuance costs and debt discount on our long-term debt, and gain on partial lease termination.

Net cash provided by operating activities increased $40.2 million during 2021, as compared to the prior year, due to a $534.3 million increase from changes in non-cash items (principally related to digital asset impairment losses offset by deferred taxes) and a $33.9 million increase from changes in operating assets and liabilities, partially offset by a $528.0 million increase in net loss.

Net cash used in investing activities. The changes in net cash (used in) provided by investing activities primarily relate to purchases of digital assets, purchases and redemptions of short-term investments, and expenditures on property and equipment. Net cash used in investing activities increased $1.611 billion during 2021, as compared to the prior year, due to a $1.502 billion increase in purchases of bitcoins and a $119.9 million decrease in proceeds from the redemption of short-term investments, partially offset by a $9.9 million decrease in purchases of short-term investments and a $0.9 million decrease in purchases of property and equipment. During 2021, we purchased bitcoin using the net proceeds from the issuance of our 2027 Convertible Notes and 2028 Secured Notes, the issuance and sale of class A common stock under the Open Market Sale Agreement, and excess cash. During 2020, we purchased bitcoin using the net proceeds from the issuance of our 2025 Convertible Notes and excess cash, including cash from the liquidation of short-term investments.

Net cash provided by financing activities. The changes in net cash provided by (used in) financing activities primarily relate to the issuance of our long-term debt, the sale of class A common stock offered under the Open Market Sale Agreement, the purchase of treasury stock, the exercise of stock options under the 2013 Equity Plan, the issuance of class A common stock under the 2021 ESPP, and the payment of withholding tax on vesting of restricted stock units. Net cash provided by financing activities increased $1.978 billion during 2021, as compared to the prior year, due to $1.050 billion in gross proceeds from our 2027 Convertible Notes, $1.000 billion in gross proceeds from the sale of class A common stock offered under the Open Market Sale Agreement, $500.0 million in gross proceeds from our 2028 Secured Notes, a $123.2 million decrease in purchases of treasury stock, and $2.9 million in proceeds from the issuance of class A common stock under the 2021 ESPP, partially offset by $650.0 million in gross proceeds in 2020 from our 2025 Convertible Notes, $12.8 million of issuance costs paid for our 2028 Secured Notes, a $10.4 million decrease in proceeds from the exercise of stock options under the 2013 Equity Plan, a $10.2 million increase in issuance costs paid for our Convertible Notes, $9.5 million of issuance costs paid related to the Open Market Sale Agreement, and $4.7 million of withholding tax paid on vesting of restricted stock units.

Convertible Senior Notes and 2028 Senior Secured Notes

In December 2020, we issued $650.0 million aggregate principal amount of the 2025 Convertible Notes and in February 2021, we issued $1.050 billion aggregate principal amount of the 2027 Convertible Notes. We used the net proceeds from the issuance of the Convertible Notes to acquire bitcoin. The terms of the Convertible Notes are discussed more fully in Note 8, Long-term Debt, to the Consolidated Financial Statements. During 2021, we paid $4.9 million in interest to holders of the 2025 Convertible Notes. The 2027 Convertible Notes do not bear regular interest and we have not paid any special interest to holders of the 2027 Convertible Notes to date.

In June 2021, we issued $500.0 million aggregate principal amount of the 2028 Secured Notes. We used the net proceeds from the issuance of the 2028 Secured Notes to acquire bitcoin. The terms of the 2028 Secured Notes are discussed more fully in Note 8, Long-term Debt, to the Consolidated Financial Statements. During 2021, we paid $15.4 million in interest to holders of the 2028 Secured Notes.

Open Market Sale Agreement

On June 14, 2021, we entered into the Open Market Sale Agreement with Jefferies, pursuant to which we issued and sold shares of our class A common stock having an aggregate offering price of approximately $1.0 billion from time to time through Jefferies. The terms of the Open Market Sale Agreement are discussed more fully in Note 13, Open Market Sale Agreement, to the Consolidated Financial Statements. During 2021, we sold 1,413,767 shares of our class A common stock under the Open Market Sale Agreement, at an average gross price per share of approximately $707.33, for aggregate net proceeds (less $9.5 million in sales commissions and expenses) of approximately $990.5 million. As of December 31, 2021, the cumulative aggregate offering price of the shares of class A common stock sold under the Open Market Sale Agreement was approximately $1.0 billion, inclusive of sales commissions, constituting the maximum program amount under the Open Market Sale Agreement.

Share repurchases. During the year ended December 31, 2021, we did not repurchase any shares of our class A common stock. During the year ended December 31, 2020, we repurchased an aggregate of 444,769 shares of our class A common stock at an average price per share of $139.12 and an aggregate cost of $61.9 million pursuant to the Share Repurchase Program. During the year ended December 31, 2020, we also repurchased an aggregate of 432,313 shares of our class A common stock through a modified Dutch Auction tender offer at a price of $140.00 per share for an aggregate cost of $61.3 million, inclusive of $0.8 million in certain fees and expenses related to such tender offer. See "Part II. Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities" of this Annual Report and Note 14, Treasury Stock, to the Consolidated Financial Statements for further information.

Unrecognized tax benefits. As of December 31, 2021, we had $6.2 million of total gross unrecognized tax benefits, including accrued interest, of which $2.1 million was recorded in "Other long-term liabilities" and $4.1 million was recorded in "Deferred tax assets, net." The timing of any payments that could result from these unrecognized tax benefits will depend on a number of factors, and accordingly the amount and period of any future payments cannot be estimated. We do not expect any significant tax payments related to these obligations during 2022.

Recent Accounting Standards

See Note 3, Recent Accounting Standards, to the Consolidated Financial Statements for further information.

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

The following discussion about our market risk exposures involves forward-looking statements. Actual results could differ materially from those projected in the forward-looking statements.

We are exposed to the impact of both market price changes in bitcoin and foreign currency fluctuations.

Market Price Risk of Bitcoin. We have used a significant portion of our cash, including proceeds from our issuance of long-term debt and proceeds from the sale of our class A common stock, to acquire bitcoin and, as of December 31, 2021, we held approximately 124,391 bitcoins. The carrying value of our bitcoins as of December 31, 2021 was $2.850 billion, which reflects cumulative impairments of $901.3 million, on our Consolidated Balance Sheet. As discussed in Note 2(g), Summary of Significant Accounting Policies, to the Consolidated Financial Statements, we account for our bitcoin as indefinite-lived intangible assets, which are subject to impairment losses if the fair value of our bitcoin decreases below their carrying value at any time since their acquisition. Impairment losses cannot be recovered for any subsequent increase in fair value. For example, the market price of one bitcoin in our principal market ranged from $27,678.00 - $69,000.00 during the year ended December 31, 2021, but the carrying value of each bitcoin we held at the end of the reporting period reflects the lowest price of one bitcoin quoted on the Coinbase exchange (our principal market) at any time since its acquisition. Therefore, negative swings in the market price of bitcoin could have a material impact on our earnings and on the carrying value of our digital assets. Positive swings in the market price of bitcoin are not reflected in the carrying value of our digital assets and impact earnings only when the bitcoin is sold at a gain. For the year ended December 31, 2021, we incurred impairment losses of $830.6 million on our bitcoin.

Foreign Currency Risk. We conduct a significant portion of our business in currencies other than the U.S. dollar, the currency in which we report our Consolidated Financial Statements. International revenues accounted for 44.0%, 41.9%, and 43.7% of our total revenues for the years ended December 31, 2021, 2020, and 2019, respectively. We anticipate that international revenues will continue to account for a significant portion of our total revenues. The functional currency of each of our foreign subsidiaries is generally the local currency.

Assets and liabilities of our foreign subsidiaries are translated into U.S. dollars at exchange rates in effect as of the applicable Balance Sheet date and any resulting translation adjustments are included as an adjustment to stockholders' equity. Revenues and expenses generated from these subsidiaries are translated at average monthly exchange rates during the quarter in which the transactions occur. Gains and losses from transactions in local currencies are included in net income (loss).

As a result of transacting in multiple currencies and reporting our Consolidated Financial Statements in U.S. dollars, our operating results may be adversely impacted by currency exchange rate fluctuations in the future. The impact of foreign currency exchange rate fluctuations on current and comparable periods is described in the "Non-GAAP Financial Measures" section under "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations."

We cannot predict the effect of exchange rate fluctuations upon our future results. We attempt to minimize our foreign currency risk by converting our excess foreign currency held in foreign jurisdictions to U.S. dollar-denominated cash accounts.

As of December 31, 2021, a 10% adverse change in foreign currency exchange rates versus the U.S. dollar would have decreased our aggregate reported cash and cash equivalents by 4.0%. If average exchange rates during the year ended December 31, 2021 had changed unfavorably by 10%, our revenues for the year ended December 31, 2021 would have decreased by 4.0%. During the year ended December 31, 2021, our revenues were higher by 0.9% as a result of a 3.0% favorable change in weighted average exchange rates, as compared to the prior year.

Item 8. Financial Statements and Supplementary Data

Our Consolidated Financial Statements, together with the related notes and the associated Reports of Independent Registered Public Accounting Firm, are set forth on the pages indicated in Item 15.

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

None.

Item 9A. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of the end of the period covered by this Annual Report. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives, and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Our disclosure controls and procedures are designed to provide reasonable assurance of achieving their control objectives. Based on the evaluation of our disclosure controls and procedures as of the end of the period covered by this Annual Report, our Chief Executive Officer and Chief Financial Officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

Management's Report on Internal Control Over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is defined in Rules 13a-15(f) and 15d-15(f) promulgated under the Exchange Act as a process designed by, or under the supervision of, the Company's principal executive and principal financial officers and effected by the Company's Board of Directors, management, and other personnel, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with GAAP. Such internal control includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the Company, (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with GAAP, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company, and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the Company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Projections of any evaluation of effectiveness to future periods are subject to the risk that the control may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Under the oversight of our Chief Executive Officer and Chief Financial Officer, our management conducted an assessment of the effectiveness of our internal control over financial reporting as of December 31, 2021 based on the criteria set forth in Internal Control-Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on its assessment, management has determined that, as of December 31, 2021, our internal control over financial reporting is effective based on those criteria.

Our independent registered public accounting firm, KPMG LLP, which audited the Consolidated Financial Statements included in this Annual Report, has issued an attestation report on our internal control over financial reporting. This report is included in the Reports of Independent Registered Public Accounting Firm in "Item 15. Exhibits, Financial Statement Schedules."

Changes in Internal Control Over Financial Reporting

No change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) occurred during the three months ended December 31, 2021 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting. We are continually monitoring and assessing the effect of the COVID-19 pandemic on our internal control over financial reporting to minimize the impact on the design and operating effectiveness of such internal control. We have not experienced any material impact on our internal control over financial reporting despite the fact that many of our employees are working remotely as a result of the COVID-19 pandemic.

Item 9B. Other Information

2021 Cash Bonus Determinations for Certain Executive Officers

On February 11, 2022, the Company's Chief Executive Officer determined cash bonus awards for the following executive officers of the Company in the amounts set forth opposite their respective names, in each case with respect to the executive's performance in 2021:

Timothy E. Lang *Senior Executive Vice President & Chief Technology Officer*	$	575,000
Phong Q. Le *President & Chief Financial Officer*	$	1,000,000
W. Ming Shao *Senior Executive Vice President & General Counsel*	$	650,000

The Chief Executive Officer determined the foregoing awards based on his subjective evaluation of the applicable executive's performance in the context of general economic and industry conditions and Company performance during 2021.

Salary Determinations for Certain Executive Officers

On February 11, 2022, the Company's Chief Executive Officer approved increases to the annual salaries of the following executive officers of the Company, resulting in the amounts set forth opposite their respective names, effective January 1, 2022:

Timothy E. Lang	$	640,000
W. Ming Shao	$	640,000

Annual Discretionary Cash Bonus Targets for Certain Executive Officers

On February 11, 2022, the Company's Chief Executive Officer established annual discretionary cash bonus targets for 2022 for the following executive officers of the Company in the amounts set forth opposite their respective names:

Timothy E. Lang	$	500,000
Phong Q. Le	$	750,000
W. Ming Shao	$	500,000

Awards pursuant to the foregoing discretionary cash bonus targets will be determined by the Company's Chief Executive Officer based on his subjective evaluation of the applicable executive's performance in the context of general economic and industry conditions and Company performance during the year.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance

The information required by this Item is incorporated herein by reference to the information provided under the headings "Executive Officers of the Company," "Election of Directors – Nominees," and "Corporate Governance and the Board of Directors and its Committees" in our definitive proxy statement to be filed with the SEC not later than 120 days after the fiscal year ended December 31, 2021 (the "2022 Proxy Statement").

Item 11. Executive Compensation

The information required by this Item is incorporated herein by reference to the information provided under the headings "Executive and Director Compensation," "Compensation Committee Report," and "Corporate Governance and the Board of Directors and its Committees – Compensation Committee" in the 2022 Proxy Statement.

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

The information required by this Item is incorporated herein by reference to the information provided under the headings "Security Ownership of Certain Beneficial Owners and Management" and "Executive and Director Compensation" in the 2022 Proxy Statement.

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

The information required by this Item is incorporated herein by reference to the information provided under the heading "Corporate Governance and the Board of Directors and its Committees" in the 2022 Proxy Statement.

Item 14. Principal Accountant Fees and Services

The information required by this Item is incorporated herein by reference to the information provided under the heading "Independent Registered Public Accounting Firm Fees and Services" in the 2022 Proxy Statement.

PART IV

Item 15. Exhibits, Financial Statement Schedules

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

1. Consolidated Financial Statements

	Page
Reports of Independent Registered Public Accounting Firm	61
Consolidated Financial Statements:	
Balance Sheets	64
Statements of Operations	65
Statements of Comprehensive (Loss) Income	66
Statements of Stockholders' Equity	67
Statements of Cash Flows	68
Notes to Consolidated Financial Statements	69
2. Exhibits	101
3. Consolidated Financial Statement Schedule	
Schedule II - Valuation and Qualifying Accounts	104

(b) Exhibits

We hereby file as part of this Annual Report the exhibits listed in the Index to Exhibits.

(c) Financial Statement Schedule

The following financial statement schedule is filed herewith:

Schedule II—Valuation and Qualifying Accounts

All other items included in an Annual Report on Form 10-K are omitted because they are not applicable or the answers thereto are none.

Item 16. Form 10-K Summary

None.

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors MicroStrategy Incorporated:

Opinion on Internal Control Over Financial Reporting

We have audited MicroStrategy Incorporated and subsidiaries' (the Company) internal control over financial reporting as of December 31, 2021, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2021, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2021 and 2020, the related consolidated statements of operations, comprehensive (loss) income, stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2021, and the related notes and the financial statement schedule, Schedule II, Valuation and Qualifying Accounts, (collectively, the consolidated financial statements), and our report dated February 15, 2022 expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the 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 audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process 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. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ KPMG LLP

McLean, Virginia
February 15, 2022

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors MicroStrategy Incorporated:

Opinion on the Consolidated Financial Statements

We have audited the accompanying consolidated balance sheets of MicroStrategy Incorporated and subsidiaries (the Company) as of December 31, 2021 and 2020, the related consolidated statements of operations, comprehensive (loss) income, stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2021, and the related notes and financial statement schedule, Schedule II, Valuation and Qualifying Accounts, (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2021 and 2020, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2021, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2021, based on criteria established in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated February 15, 2022 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Change in Accounting Principle

As discussed in Notes 2(a) and 3 to the consolidated financial statements, the Company has changed its method of accounting for convertible instruments as of January 1, 2021 due to the adoption of Accounting Standards Update No. 2020-06, Debt – Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging – Contracts in Entity's Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity's Own Equity ("ASU 2020-06").

Basis for Opinion

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

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matters

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

Evaluation of standalone selling price for standard product support

As discussed in Note 2(n) to the consolidated financial statements, the Company typically sells its software licenses (product licenses) together with technical support services and rights to when-and-if available software upgrades (standard product support). Product license revenue is recognized at the point when control to the license is transferred to the customer while standard product support revenue is recognized ratably over the term of the product support period. The accounting for revenue from contracts with multiple performance obligations requires the transaction price to be allocated to each distinct performance obligation based on their respective relative standalone selling price (SSP). Because product licenses are not sold on a standalone basis and because pricing is highly variable, the Company establishes SSP of product licenses using a residual approach after first establishing the SSP of standard product support based on observable standalone sales with pricing within a narrow range as a percentage of the net license fee.

We identified the evaluation of the SSP for standard product support as a critical audit matter. Especially subjective auditor judgment was required in evaluating the range of prices used to establish the SSP for standard product support which directly affects the amount of product license revenue recognized using a residual approach. Changes to the product support fee range could have a significant impact on the determination of the SSP for standard product support, impacting the amount and timing of revenues recognized.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls over the Company's revenue process, including controls over the methodology used to determine the standard product support SSP and controls over the Company's validation of the underlying data used in the SSP analysis. We assessed the range of prices based on observable inputs the Company used to determine SSP of standard product support by comparing them to the selling prices of standalone renewals for standard product support and evaluating whether the standalone prices were sufficiently clustered within a narrow range.

Evaluation of audit evidence pertaining to the existence and control of digital assets

As discussed in Notes 2(g) and 4 to the consolidated financial statements, the Company accounts for its digital assets as indefinite-lived intangible assets. The digital assets are recorded at cost, net of any impairment losses incurred since acquisition. As of December 31, 2021, the carrying value of the Company's digital assets was $2.850 billion, net of $901.3 million of cumulative impairments.

We identified the evaluation of audit evidence pertaining to the existence of the digital assets and whether the Company controls the digital assets as a critical audit matter. Subjective auditor judgment was involved in determining the nature and extent of evidence required to assess the existence of the digital assets and whether the Company controls the digital assets, as control over the digital assets is provided through private cryptographic keys stored using third-party custodial services at multiple locations that are geographically dispersed. In addition, information technology (IT) professionals with specialized skills and knowledge in blockchain technology were needed to assist in the evaluation of the sufficiency of certain audit procedures.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls over the digital assets process, including a control over the comparison of the Company's records of digital assets held to the custodial records. We involved IT professionals with specialized skills and knowledge in blockchain technology, who assisted in evaluating certain internal controls over the digital assets process performed at the custodial locations, related specifically to the generation of the private cryptographic keys, the storing of these keys, and the reconciliation of digital assets per the custodial service ledgers to the public blockchain. We obtained confirmation of the Company's digital assets in custody as of December 31, 2021 and compared the total digital assets confirmed to the Company's record of digital asset holdings. We also compared the Company's record of digital asset transactions to the records on the public blockchain using a software audit tool. We applied auditor judgment in determining the nature and extent of audit evidence required, especially related to assessing the existence of the digital assets and whether the Company controls the digital assets. We evaluated the sufficiency and appropriateness of audit evidence obtained by assessing the results of procedures performed over the digital assets.

/s/ KPMG LLP

We have served as the Company's auditor since 2013.

McLean, Virginia
February 15, 2022

MICROSTRATEGY INCORPORATED
CONSOLIDATED BALANCE SHEETS
(in thousands, except per share data)

	December 31, 2021	December 31, 2020
Assets		
Current assets:		
Cash and cash equivalents	$ 63,356	$ 59,675
Restricted cash	1,078	1,084
Accounts receivable, net	189,280	197,461
Prepaid expenses and other current assets	14,251	14,400
Total current assets	267,965	272,620
Digital assets	2,850,210	1,054,302
Property and equipment, net	36,587	42,975
Right-of-use assets	66,760	73,597
Deposits and other assets	15,820	15,615
Deferred tax assets, net	319,782	6,503
Total assets	$ 3,557,124	$ 1,465,612
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable, accrued expenses, and operating lease liabilities	$ 46,084	$ 44,848
Accrued compensation and employee benefits	54,548	49,249
Accrued interest	1,493	271
Deferred revenue and advance payments	209,860	191,250
Total current liabilities	311,985	285,618
Long-term debt, net	2,155,151	486,366
Deferred revenue and advance payments	8,089	14,662
Operating lease liabilities	76,608	84,328
Other long-term liabilities	26,224	33,382
Deferred tax liabilities	109	8,211
Total liabilities	2,578,166	912,567
Commitments and Contingencies		
Stockholders' Equity		
Preferred stock undesignated, $0.001 par value; 5,000 shares authorized; no shares issued or outstanding	0	0
Class A common stock, $0.001 par value; 330,000 shares authorized; 18,006 shares issued and 9,322 shares outstanding, and 16,307 shares issued and 7,623 shares outstanding, respectively	18	16
Class B convertible common stock, $0.001 par value; 165,000 shares authorized; 1,964 shares issued and outstanding, and 1,964 shares issued and outstanding, respectively	2	2
Additional paid-in capital	1,727,143	763,051
Treasury stock, at cost; 8,684 shares and 8,684 shares, respectively	(782,104)	(782,104)
Accumulated other comprehensive loss	(7,543)	(3,885)
Retained earnings	41,442	575,965
Total stockholders' equity	978,958	553,045
Total liabilities and stockholders' equity	$ 3,557,124	$ 1,465,612

The accompanying notes are an integral part of these Consolidated Financial Statements.

MICROSTRATEGY INCORPORATED
CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except per share data)

	Years Ended December 31,		
	2021	2020	2019
Revenues:			
Product licenses	$ 101,804	$ 86,743	$ 87,471
Subscription services	43,069	33,082	29,394
Total product licenses and subscription services	144,873	119,825	116,865
Product support	281,209	284,434	292,035
Other services	84,680	76,476	77,427
Total revenues	510,762	480,735	486,327
Cost of revenues:			
Product licenses	1,721	2,293	2,131
Subscription services	16,901	14,833	15,161
Total product licenses and subscription services	18,622	17,126	17,292
Product support	19,254	23,977	28,317
Other services	54,033	49,952	54,365
Total cost of revenues	91,909	91,055	99,974
Gross profit	418,853	389,680	386,353
Operating expenses:			
Sales and marketing	160,141	148,910	191,235
Research and development	117,117	103,561	109,423
General and administrative	95,501	80,136	86,697
Digital asset impairment losses	830,621	70,698	0
Total operating expenses	1,203,380	403,305	387,355
Loss from operations	(784,527)	(13,625)	(1,002)
Interest (expense) income, net	(29,149)	710	10,909
Other income (expense), net	2,287	(7,038)	28,356
(Loss) income before income taxes	(811,389)	(19,953)	38,263
(Benefit from) provision for income taxes	(275,909)	(12,429)	3,908
Net (loss) income	(535,480)	(7,524)	34,355
Basic (loss) earnings per share (1)	$ (53.44)	$ (0.78)	$ 3.35
Weighted average shares outstanding used in computing basic (loss) earnings per share	10,020	9,684	10,256
Diluted (loss) earnings per share (1)	$ (53.44)	$ (0.78)	$ 3.33
Weighted average shares outstanding used in computing diluted (loss) earnings per share	10,020	9,684	10,328

(1) Basic and fully diluted (loss) earnings per share for class A and class B common stock are the same.

The accompanying notes are an integral part of these Consolidated Financial Statements.

MICROSTRATEGY INCORPORATED
CONSOLIDATED STATEMENTS OF COMPREHENSIVE (LOSS) INCOME
(in thousands)

	Years Ended December 31,		
	2021	2020	2019
Net (loss) income	$ (535,480)	$ (7,524)	$ 34,355
Other comprehensive (loss) income, net of applicable taxes:			
Foreign currency translation adjustment	(3,658)	5,913	(11)
Unrealized (loss) gain on short-term investments	0	(147)	577
Total other comprehensive (loss) income	(3,658)	5,766	566
Comprehensive (loss) income	$ (539,138)	$ (1,758)	$ 34,921

The accompanying notes are an integral part of these Consolidated Financial Statements.

MICROSTRATEGY INCORPORATED
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(in thousands)

		Class A Common Stock		Class B Convertible Common Stock		Additional Paid-in	Treasury Stock		Accumulated Other Comprehensive	Retained
	Total	Shares	Amount	Shares	Amount	Capital	Shares	Amount	Loss	Earnings
Balance at January 1, 2019	$ 529,731	15,837	$ 16	2,035	$ 2	$ 576,957	(7,285)	$ (586,161)	$ (10,217)	$ 549,134
Net income	34,355	0	0	0	0	0	0	0	0	34,355
Other comprehensive income	566	0	0	0	0	0	0	0	566	0
Issuance of class A common stock under stock option plans	6,569	51	0	0	0	6,569	0	0	0	0
Purchases of treasury stock	(72,719)	0	0	0	0	0	(522)	(72,719)	0	0
Share-based compensation expense	10,057	0	0	0	0	10,057	0	0	0	0
Balance at December 31, 2019	$ 508,559	15,888	$ 16	2,035	$ 2	$ 593,583	(7,807)	$ (658,880)	$ (9,651)	$ 583,489
Net loss	(7,524)	0	0	0	0	0	0	0	0	(7,524)
Other comprehensive income	5,766	0	0	0	0	0	0	0	5,766	0
Conversion of class B to class A common stock	0	71	0	(71)	0	0	0	0	0	0
Issuance of class A common stock under stock option plans	51,082	348	0	0	0	51,082	0	0	0	0
Purchases of treasury stock	(123,224)	0	0	0	0	0	(877)	(123,224)	0	0
Share-based compensation expense	10,576	0	0	0	0	10,576	0	0	0	0
Equity component of convertible senior notes, net of issuance cost and deferred tax liability	107,810	0	0	0	0	107,810	0	0	0	0
Balance at December 31, 2020	$ 553,045	16,307	$ 16	1,964	$ 2	$ 763,051	(8,684)	$ (782,104)	$ (3,885)	$ 575,965
Opening balance adjustment due to the adoption of ASU 2020-06	(106,853)	0	0	0	0	(107,810)	0	0	0	957
Net loss	(535,480)	0	0	0	0	0	0	0	0	(535,480)
Other comprehensive loss	(3,658)	0	0	0	0	0	0	0	(3,658)	0
Issuance of class A common stock under stock option plans	40,651	269	0	0	0	40,651	0	0	0	0
Issuance of class A common stock under employee stock purchase plans	2,854	5	0	0	0	2,854	0	0	0	0
Issuance of class A common stock upon vesting of restricted stock units, net of withholding taxes	(4,754)	11	0	0	0	(4,754)	0	0	0	0
Issuance of class A common stock under public offerings, net of issuance costs	990,463	1,414	2	0	0	990,461	0	0	0	0
Share-based compensation expense	42,690	0	0	0	0	42,690	0	0	0	0
Balance at December 31, 2021	$ 978,958	18,006	$ 18	1,964	$ 2	$ 1,727,143	(8,684)	$ (782,104)	$ (7,543)	$ 41,442

The accompanying notes are an integral part of these Consolidated Financial Statements.

MICROSTRATEGY INCORPORATED
CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)

	Years Ended December 31,		
	2021	2020	2019
Operating activities:			
Net (loss) income	$ (535,480)	$ (7,524)	$ 34,355
Adjustments to reconcile net (loss) income to net cash provided by operating activities:			
Depreciation and amortization	11,358	13,332	8,594
Reduction in carrying amount of right-of-use assets	8,189	8,210	8,105
Credit losses and sales allowances	1,509	2,732	124
Net realized (gain) loss on short-term investments	0	(94)	41
Deferred taxes	(284,221)	(20,830)	(2,614)
Release of liabilities for unrecognized tax benefits	(561)	0	(2,837)
Share-based compensation expense	44,126	11,153	10,209
Digital asset impairment losses	830,621	70,698	0
Gain on partial lease termination	0	(2,820)	0
Amortization of issuance costs and debt discount on long-term debt	7,201	1,543	0
Changes in operating assets and liabilities:			
Accounts receivable	2,618	(774)	(3,672)
Prepaid expenses and other current assets	(25)	2,346	6,415
Deposits and other assets	(1,713)	416	761
Accounts payable and accrued expenses	3,749	9,174	(7,321)
Accrued compensation and employee benefits	2,374	(6,827)	(2,658)
Accrued interest	1,222	271	0
Deferred revenue and advance payments	14,710	(20,223)	20,836
Operating lease liabilities	(10,222)	(11,171)	(8,620)
Other long-term liabilities	(1,622)	4,007	(851)
Net cash provided by operating activities	93,833	53,619	60,867
Investing activities:			
Purchases of digital assets	(2,626,529)	(1,125,000)	0
Proceeds from redemption of short-term investments	0	119,886	684,356
Purchases of property and equipment	(2,706)	(3,651)	(10,182)
Purchases of short-term investments	0	(9,928)	(320,487)
Net cash (used in) provided by investing activities	(2,629,235)	(1,018,693)	353,687
Financing activities:			
Proceeds from convertible senior notes classified as debt	1,050,000	496,473	0
Proceeds from convertible senior notes classified as equity	0	153,527	0
Issuance costs paid for convertible senior notes	(24,796)	(14,625)	0
Proceeds from senior secured notes	500,000	0	0
Issuance costs paid for senior secured notes	(12,792)	0	0
Proceeds from sale of class A common stock under public offerings	1,000,000	0	0
Issuance costs paid related to sale of class A common stock under public offerings	(9,537)	0	0
Proceeds from sale of class A common stock under exercise of employee stock options	40,651	51,082	6,569
Proceeds from issuance of class A common stock under employee stock purchase plan	2,854	0	0
Payment of withholding tax on vesting of restricted stock units	(4,695)	0	0
Purchases of treasury stock	0	(123,224)	(72,719)
Net cash provided by (used in) financing activities	2,541,685	563,233	(66,150)
Effect of foreign exchange rate changes on cash, cash equivalents, and restricted cash	(2,608)	4,784	(1,374)
Net increase (decrease) in cash, cash equivalents, and restricted cash	3,675	(397,057)	347,030
Cash, cash equivalents, and restricted cash, beginning of year	60,759	457,816	110,786
Cash, cash equivalents, and restricted cash, end of year	$ 64,434	$ 60,759	$ 457,816
Supplemental disclosure of cash flow information:			
Cash paid during the year for interest	$ 20,416	$ 178	$ 11
Cash paid during the year for income taxes, net of tax refunds	$ 7,010	$ 6,803	$ 5,911

The accompanying notes are an integral part of these Consolidated Financial Statements.

(1) Organization

MicroStrategy pursues two corporate strategies in the operation of its business. One strategy is to acquire and hold bitcoin and the other strategy is to grow its enterprise analytics software business.

(2) Summary of Significant Accounting Policies

(a) Basis of Presentation

The accompanying Consolidated Financial Statements include the accounts of the Company and its subsidiaries. All significant intercompany accounts and transactions have been eliminated in consolidation.

Certain amounts in the Consolidated Financial Statements have been reclassified to conform to current year presentation. In particular, accrued interest related to the Company's long-term debt has been reclassified from "Accounts payable, accrued expenses, and operating liabilities" to "Accrued interest" in the Consolidated Balance Sheet as of December 31, 2020 and from "Accounts payable and accrued expenses" to "Accrued interest" within operating activities in the Consolidated Statement of Cash Flows for the year ended December 31, 2020.

As discussed in Note 3, Recent Accounting Standards, to the Consolidated Financial Statements, the Company adopted Accounting Standards Update No. 2020-06, *Debt – Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging – Contracts in Entity's Own Equity (Subtopic 815-40): Accounting for Convertible Instruments and Contracts in an Entity's Own Equity* ("ASU 2020-06"), effective January 1, 2021. Comparative prior period Consolidated Financial Statements have not been restated for ASU 2020-06 and are not directly comparable to the current period Consolidated Financial Statements.

In addition, the Company previously adopted Accounting Standards Update No. 2016-13, *Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*, and its subsequent amendments ("ASU 2016-13"), effective January 1, 2020, and Accounting Standards Update No. 2016-02, *Leases (Topic 842)* and its subsequent amendments ("ASU 2016-02") effective January 1, 2019.

(b) Use of Estimates

The preparation of the Consolidated Financial Statements, in conformity with GAAP, requires management to make estimates and judgments that affect the amounts reported in the Consolidated Financial Statements and accompanying notes. On an on-going basis, the Company evaluates its estimates, including, but not limited to, those related to revenue recognition, allowance for doubtful accounts, investments, fixed assets, digital assets, leases, debt, share-based compensation, income taxes, including the carrying value of deferred tax assets, and litigation and contingencies, including liabilities that the Company deems not probable of assertion. The Company bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying value of assets, liabilities, and equity that are not readily apparent from other sources. Actual results and outcomes could differ from these estimates and assumptions.

(c) Fair Value Measurements

The Company measures certain assets and liabilities at fair value on a recurring or nonrecurring basis. Fair value is defined as the price that is expected to be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The Company uses a three-level hierarchy that prioritizes fair value measurements based on the types of inputs used for the various valuation techniques. The three levels of the fair value hierarchy are described below:

- Level 1: Quoted (unadjusted) prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities.
- Level 2: Inputs other than quoted prices that are either directly or indirectly observable, such as quoted prices in active markets for similar assets or liabilities, quoted prices for identical or similar assets or liabilities in inactive markets, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.
- Level 3: Inputs that are generally unobservable, supported by little or no market activity, and typically reflect management's estimates of assumptions that market participants would use in pricing the asset or liability.

The categorization of an asset or liability within the fair value hierarchy is based on the lowest level of input that is significant to the fair value measurement. The valuation techniques used by the Company when measuring fair value maximize the use of observable inputs and minimize the use of unobservable inputs.

The Company also estimates the fair value of cash and cash equivalents, restricted cash, accounts receivable, accounts payable and accrued expenses, and accrued compensation and employee benefits. The Company considers the carrying value of these instruments in the Consolidated Financial Statements to approximate fair value due to their short maturities.

(d) Cash and Cash Equivalents and Restricted Cash

Cash equivalents may include bank demand deposits, money market instruments, certificates of deposit, U.S. Treasury securities, and equivalent funds. The Company generally considers all highly liquid investments with an original maturity of three months or less to be cash equivalents. Restricted cash consists of cash balances restricted in use by contractual obligations with third parties.

(e) Short-term Investments

The Company has periodically invested a portion of its cash in short-term investment instruments. All highly liquid investments with stated maturity dates between three months and one year from the purchase date are classified as short-term investments. The Company determines the appropriate classification of its short-term investments at the time of purchase and reassesses the appropriateness of the classification at each reporting date.

As of December 31, 2021 and 2020, the Company did not hold any short-term investments. Prior to their liquidation, all of the Company's short-term investments were in U.S. Treasury securities, which were classified as available-for-sale and reported at fair value within the Company's consolidated balance sheets. The fair value of the Company's short-term investments was determined based on quoted market prices in active markets for identical securities (Level 1 inputs). Premiums and discounts related to the Company's short-term investments were amortized over the life of the investment and recorded in earnings. Each reporting period, the Company determined the amount of unrealized holding gains and losses on each individual security by comparing the fair value to the amortized cost. Unrealized holding gains and unrealized holding losses that were not a result of a credit loss were reported in other comprehensive income (loss) until realized. Beginning January 1, 2020, unrealized holding losses that were a result of a credit loss were recorded in earnings, with the establishment of an allowance for credit losses.

(f) Credit Losses on Accounts Receivable

The Company maintains an allowance for credit losses on its accounts receivable balances, which represents its best estimate of current expected credit losses over the contractual life of the accounts receivable. Beginning January 1, 2020, when evaluating the adequacy of its allowance for credit losses each reporting period, the Company analyzes accounts receivable balances with similar risk characteristics on a collective basis, considering factors such as the aging of receivable balances, payment terms, geographic location, historical loss experience, current information, and future expectations. Each reporting period, the Company reassesses whether any accounts receivable no longer share similar risk characteristics and should instead be evaluated as part of another pool or on an individual basis. Changes to the allowance for credit losses are adjusted through credit loss expense, which is presented within "General and administrative" operating expenses in the Consolidated Statements of Operations.

(g) Digital Assets

The Company accounts for its digital assets, which are comprised solely of bitcoin, as indefinite-lived intangible assets in accordance with Accounting Standards Codification ("ASC") 350, *Intangibles—Goodwill and Other*. The Company has ownership of and control over its bitcoin and uses third-party custodial services at multiple locations that are geographically dispersed to store its bitcoin. The Company's digital assets are initially recorded at cost. Subsequently, they are measured at cost, net of any impairment losses incurred since acquisition.

The Company determines the fair value of its bitcoin on a nonrecurring basis in accordance with ASC 820, *Fair Value Measurement*, based on quoted (unadjusted) prices on the Coinbase exchange, the active exchange that the Company has determined is its principal market for bitcoin (Level 1 inputs). The Company performs an analysis each quarter to identify whether events or changes in circumstances, principally decreases in the quoted (unadjusted) prices on the active exchange, indicate that it is more likely than not that any of the assets are impaired. In determining if an impairment has occurred, the Company considers the lowest price of one bitcoin quoted on the active exchange at any time since acquiring the specific bitcoin held by the Company. If the carrying value of a bitcoin exceeds that lowest price, an impairment loss has occurred with respect to that bitcoin in the amount equal to the difference between its carrying value and such lowest price.

Impairment losses are recognized as "Digital asset impairment losses" in the Company's Consolidated Statements of Operations in the period in which the impairment occurs. The impaired digital assets are written down to their fair value at the time of impairment and this new cost basis will not be adjusted upward for any subsequent increase in fair value. Gains (if any) are not recorded until realized upon sale, at which point they would be presented net of any impairment losses in the Company's Consolidated Statements of Operations. In determining the gain to be recognized upon sale, the Company calculates the difference between the sales price and carrying value of the specific bitcoins sold immediately prior to sale.

See Note 4, Digital Assets, to the Consolidated Financial Statements for further information regarding the Company's purchases of digital assets.

(h) 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 assets, as follows: three years for computer equipment and purchased software; five years for office equipment; 10 years for office furniture; and 19 years for the Company's corporate aircraft, which has an estimated salvage value of 21%. Leasehold improvements are amortized using the straight-line method over the estimated useful lives of the improvements or the term of the lease, whichever is shorter. The Company periodically evaluates the appropriateness of the estimated useful lives and salvage value of all property and equipment. Any change in the estimated useful life or salvage value is treated as a change in estimate and accounted for prospectively in the period of change.

Expenditures for maintenance and repairs are charged to expense as incurred, except for certain costs related to the aircraft. The costs of normal, recurring, or periodic repairs and maintenance activities related to the aircraft are expensed as incurred. The cost of planned major maintenance activities ("PMMA") may be treated differently because those activities may involve the acquisition of additional aircraft components or the replacement of existing aircraft components. PMMA are performed periodically based on passage of time and the use of the aircraft. The classification of a maintenance activity as part of PMMA requires judgment and can affect the amount of expense recognized in any particular period. The cost of each PMMA is expected to be capitalized and amortized over the period until the next scheduled PMMA. There have been no PMMA to date.

When assets are retired or sold, the capitalized cost and related accumulated depreciation are removed from the property and equipment accounts and any resulting gain or loss is recognized in the results of operations.

Eligible internal-use software development costs are capitalized subsequent to the completion of the preliminary project stage. Such costs include external direct material and service costs, employee payroll, and payroll-related costs. After all substantial testing and deployment is completed and the software is ready for its intended use, capitalization ceases and internal-use software development costs are amortized using the straight-line method over the estimated useful life of the software, generally three years.

The Company reviews long-lived assets for impairment whenever events or changes in business circumstances indicate that the carrying value of the assets may not be fully recoverable or that the useful lives of these assets are no longer appropriate. Each impairment test is based on a comparison of the undiscounted cash flows to the recorded value of the asset. If an asset is impaired, the asset is written down by the amount by which the carrying value of the asset exceeds the related fair value of the asset.

(i) Leases

A lease is a contract, or part of a contract, that conveys the right to both (i) obtain economic benefits from and (ii) direct the use of an identified asset for a period of time in exchange for consideration. The Company evaluates its contracts to determine if they contain a lease and classifies any lease components identified as an operating or finance lease. For each lease component, the Company recognizes a right-of-use ("ROU") asset and a lease liability. ROU assets and lease liabilities are presented separately for operating and finance leases; however, the Company currently has no material finance leases. The Company's operating leases are primarily related to office space in the United States and foreign locations.

In a contract that contains a lease, a component is an item or activity that transfers a good or service to the lessee. Such contracts may be comprised of lease components, non-lease components, and elements that are not components. Each lease component represents a lessee's right to use an underlying asset in the contract if the lessee can benefit from the right of use of the asset either on its own or together with other readily available resources and if the right of use is neither highly dependent nor highly interrelated with other rights of use. Non-lease components include items such as common area maintenance and utilities provided by the lessor. The Company has elected the practical expedient to not separate lease components from non-lease components for office space, which is the Company's only material underlying asset class. For each lease within this asset class, the non-lease components and related lease components are accounted for as a single lease component. Items or activities that do not transfer goods or services to the lessee, such as administrative tasks to set up the contract and reimbursement or payment of lessor costs, are not components of the contract and therefore no contract consideration is allocated to such items or activities.

Consideration in the contract is comprised of any fixed payments and variable payments that depend on an index or rate. Payments in the Company's operating lease arrangements are typically comprised of base office rent and parking fees. Costs related to the Company's non-lease components, as described above, are generally variable and do not depend on an index or rate and are therefore excluded from the contract consideration allocated to the lease components. The Company's operating lease arrangements generally do not contain any payments related to items or activities that are not components.

Operating lease liabilities are initially and subsequently measured at the present value of unpaid lease payments, discounted at the discount rate of the lease. Operating lease ROU assets are initially measured as the sum of the initial lease liability, any initial direct costs incurred, and any prepaid lease payments, less any lease incentives received. The ROU asset is amortized over the term of the lease. The amortization of operating lease ROU assets is included in "Reduction in carrying amount of right-of-use assets" within the operating activities section of the Consolidated Statements of Cash Flows. A single lease expense is recorded within operating expenses in the Consolidated Statements of Operations on a straight-line basis over the lease term. Variable lease payments that are not included in the measurement of the lease liability are recognized in the period when the obligations for those payments are incurred. In the Company's lease agreements, these variable payments typically include certain taxes, utilities, and maintenance costs, and other fees.

The Company uses its incremental borrowing rate as the discount rate for all of its leases, as the rate implicit in the lease is not readily determinable in any of its lease contracts. In order to estimate a collateralized borrowing rate curve, the Company first estimates a synthetic credit rating and then applies modeling methodologies to an unsecured borrowing rate curve. In determining the incremental borrowing rate of each lease, the Company uses a centralized treasury approach and considers the currency of the contract, the economic environment in which the lease exists, and the term of the lease.

The Company does not recognize lease liabilities or ROU assets for any short-term leases with a non-cancellable lease term of 12 months or less. Instead, the lease payments for these short-term leases are expensed on a straight-line basis over the lease term, and any variable payments are recognized in the period when the obligations for those payments are incurred. The Company believes that, using this methodology, the expense recorded reasonably reflects the Company's short-term lease commitments.

(j) Software Development Costs

The Company did not capitalize any software development costs during the years ended December 31, 2021, 2020, and 2019. Due to the pace of the Company's software development efforts and frequency of its software releases, the Company's software development costs are expensed as incurred within "Research and development" in the Consolidated Statements of Operations.

(k) Loss Contingencies and Legal Costs

The Company accrues loss contingencies that are believed to be probable and can be reasonably estimated. As events evolve during the administration and litigation process and additional information becomes known, the Company reassesses its estimates related to loss contingencies. Legal costs are expensed in the period in which the costs are incurred.

(l) Deferred Revenue and Advance Payments

Deferred revenue and advance payments represent amounts received or due from customers in advance of the Company transferring its software or services to the customer under an enforceable contract. In the case of multi-year service contract arrangements, the Company generally does not invoice more than one year in advance of services and does not record deferred revenue for amounts that have not been invoiced. Revenue is subsequently recognized in the period(s) in which control of the software or services is transferred to the customer. Deferred revenue is comprised of deferred product licenses and subscription services, product support, or other services revenue based on the transaction price allocated to the specific performance obligation in the contract with the customer.

(m) Debt Arrangements

The Company adopted ASU 2020-06 effective January 1, 2021. As discussed in Note 8, Long-term Debt, to the Consolidated Financial Statements, the Company issued convertible senior notes in December 2020 and February 2021 and senior secured notes in June 2021. The embedded conversion features in each of the convertible notes are indexed to the Company's class A common stock and meet the criteria for classification in stockholders' equity, and therefore derivative accounting does not apply. The Company records the aggregate principal amount of each of the convertible and secured notes as a liability on its Consolidated Balance Sheet, offset by the issuance costs associated with each offering. The issuance costs are amortized to interest expense using the effective interest method over the expected term of each of the notes.

Prior to the adoption of ASU 2020-06, the Company separated the debt and equity components of the 0.750% Convertible Senior Notes due 2025 issued in December 2020 (the "2025 Convertible Notes"). The carrying amount of the liability component was determined by measuring the fair value of a similar debt instrument without any associated conversion features at the time of issuance and the carrying amount of the equity component was determined by deducting the fair value of the liability component from the initial proceeds of the 2025 Convertible Notes. The Company also allocated issuance costs associated with the offering between debt and equity based on their relative carrying values at the time of issuance. Such issuance costs were taken as a direct reduction to the debt and equity components. Both the difference between the principal and the liability component's initial carrying value and the issuance costs allocated to the debt component were amortized to interest expense using the effective interest method over the expected term of the 2025 Convertible Notes. In determining the fair value of a similar debt instrument without any associated conversion features, the Company estimated a nonconvertible debt borrowing rate at the time of issuance using a blend of different methodologies, which considered Level 2 inputs such as observable market prices of the Company's debt and class A common stock, the Company's historical and implied class A common stock volatility, a synthetic credit rating consistent with that utilized for determining the incremental borrowing rate for the Company's accounting of leasing arrangements, and analysis of similar convertible debt issuances and their equivalent nonconvertible debt yields.

(n) Revenue Recognition

The Company recognizes revenue using a five-step model:

- (i) Identifying the contract(s) with a customer,
- (ii) Identifying the performance obligation(s),
- (iii) Determining the transaction price,
- (iv) Allocating the transaction price to the performance obligations in the contract, and
- (v) Recognizing revenue when, or as, the Company satisfies a performance obligation.

The Company has elected to exclude taxes assessed by government authorities in determining the transaction price, and therefore revenue is recognized net of taxes collected from customers. The Company enters into non-cancellable nonrefundable orders with customers and does not have a history of granting returns or refunds and therefore does not have a reserve for future returns.

Performance Obligations and Timing of Revenue Recognition

The Company primarily sells goods and services that fall into the categories discussed below. Each category contains one or more performance obligations that are either (i) capable of being distinct (i.e., the customer can benefit from the good or service on its own or together with readily available resources, including those purchased separately from the Company) and distinct within the context of the contract (i.e., separately identifiable from other promises in the contract) or (ii) a series of distinct goods or services that are substantially the same and have the same pattern of transfer to the customer. Aside from the Company's term and perpetual product licenses, which are delivered at a point in time, the majority of the Company's services are delivered over time.

Product Licenses

The Company sells different types of business intelligence software, licensed on a term or perpetual basis and installed either on premises or on a public cloud that is procured and managed by the customer. Although product licenses are sold with product support, the software is fully functional at the outset of the arrangement and is considered a distinct performance obligation. Revenue from product license sales is recognized when control of the license is transferred to the customer, which is the later of delivery or commencement of the license term. The Company may also sell through resellers and OEMs who purchase the Company's software for resale. In reseller arrangements, revenue is recognized when control of the license is transferred to the end user. In OEM arrangements, revenue is recognized when control of the license is transferred to the OEM.

Subscription Services

The Company also sells access to its software through MCE, a cloud subscription service, wherein customers access the software through a cloud environment that the Company manages on behalf of the customer. Control of the software itself does not transfer to the customer under this arrangement and is not considered a separate performance obligation. Cloud subscriptions are regularly sold on a standalone basis and include technical support, monitoring, backups, updates, and quarterly service reviews. Additionally, customers with existing on-premise software licenses may convert their installations to MCE, at which time the on-premise licenses are typically terminated and replaced by a new subscription to the MCE service. At conversion, an analysis is performed for each contract to determine whether any revenue adjustments are necessary given that the contract modifications revoke previously transferred rights to perpetual on-premise software. Such revenue adjustments were not material for the years ended December 31, 2021, 2020, and 2019. Revenue related to cloud subscriptions is recognized on a straight-line basis over the contract period, which is the period over which the customer has continuous access to the software.

Product Support

In all product license transactions, customers are required to purchase a standard product support package (either separately or as an included component of a term license transaction) that may subsequently be renewed at their option. Customers may also purchase a premium product support package for a fixed annual fee. All product support packages include both technical support and when-and-if-available software upgrades, which are treated as a single performance obligation as they are considered a series of distinct services that are substantially the same and have the same duration and measure of progress. Revenue from product support is recognized on a straight-line basis over the contract period, which is the period over which the customer has continuous access to product support.

Consulting Services

The Company sells consulting services to help customers plan and execute deployment of the Company's software. Customers are not required to use consulting services to fully benefit from the software. Consulting services are regularly sold on a standalone basis and either (i) prepaid upfront or (ii) sold on a time and materials basis. Consulting arrangements are each considered separate performance obligations because they do not integrate with each other or with other offerings to deliver a combined output to the customer, do not modify or customize (or are not modified or customized by) each other or other offerings, and do not affect the customer's ability to use the other consulting services or the Company's other offerings. Revenue under consulting arrangements is recognized over time as services are delivered. For time and materials-based consulting arrangements, the Company has elected the practical expedient of recognizing revenue upon invoicing since the invoiced amount corresponds directly to the value of the Company's service to date.

Education Services

The Company sells various education and training services to its customers. Education services are sold on a standalone basis under two different types of arrangements: (i) annual subscriptions to live and on-demand training courses and (ii) custom courses purchased on an hourly basis. Education arrangements are each considered separate performance obligations because they do not integrate with each other or with other offerings to deliver a combined output to the customer, do not modify or customize (or are not modified or customized by) each other or other offerings, and do not affect the customer's ability to use the other education services or the Company's other offerings. Revenue on annual subscriptions is recognized on a straight-line basis over the contract period, which is the period over which the customer has continuous access to the training courses. Revenue on custom courses is recognized on a time and materials basis as the services are delivered.

See Note 16, Segment Information, to the Consolidated Financial Statements for information regarding total revenues by geographic region.

Estimates and Judgments

The Company makes estimates and judgments to allocate the transaction price based on an observable or estimated SSP. The Company also makes estimates and judgments with respect to capitalizing incremental costs to obtain a customer contract and determining the subsequent amortization period. These estimates and judgments are discussed further below.

Determining the Transaction Price

The transaction price includes both fixed and variable consideration. Variable consideration is included in the transaction price to the extent it is probable that a significant reversal will not occur. The amount of variable consideration excluded from the transaction price was not material for the years ended December 31, 2021, 2020, and 2019. The Company's estimates of variable consideration are also subject to subsequent true-up adjustments and may result in changes to its transaction prices. Such true-up adjustments have not been and are not expected to be material. The Company has the following sources of variable consideration:

(i) Performance penalties – Subscription services and product support arrangements generally contain performance response time guarantees. For subscription services arrangements, the Company estimates variable consideration using a portfolio approach because performance penalties are tied to standard up-time requirements. For product support arrangements, the Company estimates variable consideration on a contract basis because such arrangements are customer-specific. For both subscription services and product support arrangements, the Company uses an expected value approach to estimate variable consideration based on historical business practices and current and future performance expectations to determine the likelihood of incurring penalties.

(ii) Extended payment terms – The Company's standard payment terms are generally within 180 days of invoicing. If extended payment terms are granted to customers, those terms generally do not exceed one year. For contracts with extended payment terms, the Company estimates variable consideration on a contract basis because such estimates are customer-specific and uses an expected value approach to analyze historical business experience on a customer-by-customer basis to determine the likelihood that extended payment terms lead to an implied price concession.

(iii) Sales and usage-based royalties – Certain product license arrangements include sales or usage-based royalties, covering both product license and product support. In these arrangements, the Company uses an expected value approach to estimate and recognize revenue for royalty sales each period, utilizing historical data on a contract-by-contract basis. True-up adjustments are recorded in subsequent periods when royalty reporting is received from the OEMs and during the years ended December 31, 2021, 2020, and 2019 were not material.

The Company provides a standard software assurance warranty to repair, replace, or refund software that does not perform in accordance with documentation. The standard software assurance warranty period is generally less than one year. Assurance warranty claims were not material for the years ended December 31, 2021, 2020, and 2019.

The Company does not adjust the transaction price for significant financing components where the time period between cash payment and performance is one year or less. However, there are circumstances where the timing between cash payment and performance may exceed one year. These circumstances generally involve prepaid multi-year product support and subscription services arrangements where the customer determines when the service is utilized (e.g., when to request on-call support services or when to use and access the software in the cloud). In these circumstances, the Company has determined no significant financing component exists because the customer controls when to utilize the service and because there are significant business purposes behind the timing difference between payment and performance (e.g., ensuring collectability in the case of subscription services).

Allocating the Transaction Price Based on Standalone Selling Prices (SSP)

The Company allocates the transaction price to each performance obligation in a contract based on its relative SSP. The SSP is the price, or estimated price, of the software or service when sold on a standalone basis at contract inception. In circumstances where SSP is not directly observable, the Company estimates SSP using the following methodologies:

(i) Product licenses – Product licenses are not sold on a standalone basis and pricing is highly variable. The Company establishes SSP of product licenses using a residual approach after first establishing the SSP of standard product support. Standard product support is sold on a standalone basis within a narrow range of the stated net license fee, and because an economic relationship exists between product licenses and standard product support, the Company has concluded that the residual method to estimate SSP of product licenses sold on both a perpetual and term basis is a fair allocation of the transaction price.

(ii) Subscription services – Given the highly variable selling price of subscription services, the Company establishes the SSP of its subscription services arrangements using a similar residual approach after first establishing the SSP of consulting and education services to the extent they are included in the arrangement. The Company has concluded that the residual method to estimate SSP of its subscription services is a fair allocation of the transaction price.

(iii) Standard product support – The Company establishes SSP of standard product support as a percentage of the stated net license fee, given such pricing is consistent with its normal pricing practices and there exists sufficient history of customers renewing standard product support on a standalone basis at similar percentages. Semi-annually, the Company tracks renewal rates negotiated when standard product support is initially sold with a perpetual license in order to determine the SSP of standard product support within each geographic region for the upcoming quarter. If the stated standard product support fee falls within the SSP range, the specific rate in the contract will be used to determine SSP. If the stated fee is above or below SSP, the highest or lowest end of the range, respectively, will generally be used to determine SSP of standard product support for perpetual licenses. For term licenses, the Company determines SSP of standard product support at the lower end of the SSP range used for perpetual licenses because the term licenses are time bound, resulting in a lower value placed on product support as compared to a perpetual license.

(iv) Premium product support, consulting services, and education services –SSP of premium product support, consulting services, and education services is established by using a bell-shaped curve approach to define a narrow range within each geographic region in which the services are discounted off of the list price on a standalone basis.

The Company often provides options to purchase future offerings at a discount. The Company analyzes the option price against the previously established SSP of the goods or services to determine if the options represent material rights that should be accounted for as separate performance obligations. In general, an option sold at or above SSP is not considered a material right because the customer could have received that right without entering into the contract. If a material right exists, revenue associated with the option is deferred and recognized when the future goods or services are transferred, or when the option expires. During the years ended December 31, 2021, 2020, and 2019, separate performance obligations arising from future purchase options have not been material.

<u>Incremental Costs to Obtain Customer Contracts</u>

Incremental costs incurred to obtain contracts with customers include certain variable compensation (e.g., commissions and bonuses) paid to the Company’s sales team. Although the Company may bundle its goods and services into one contract, commissions are individually determined on each distinct good or service in the contract. The Company expenses as incurred those amounts earned on consulting and education services, which are generally performed within a one-year period and primarily sold on a standalone basis. The Company also expenses as incurred those amounts earned on product license sales, since the amount is earned when the license is delivered. The Company capitalizes those amounts earned on initial-year product support and cloud subscriptions and amortizes the costs over a period of time that is consistent with the pattern of transfer to the customer, which the Company has determined to be a period of three years. Although the Company typically sells product support and cloud subscriptions for a period of one year, a majority of customers renew their product support and cloud subscription arrangements. Three years is generally the period after which platforms are no longer supported by the Company's support team and when customers generally choose to upgrade their software platform. The Company does not generally pay variable compensation on product support or cloud subscription renewals. As of December 31, 2021 and 2020, capitalized costs to obtain customer contracts, net of accumulated amortization, were $4.7 million and $6.1 million, respectively, and are presented within “Deposits and other assets” in the Consolidated Balance Sheets. During the years ended December 31, 2021, 2020, and 2019, amortization expenses related to these capitalized costs were $2.7 million, $3.1 million, and $2.9 million, respectively, and are reflected within “Sales and marketing” in the Consolidated Statements of Operations.

(o) Advertising Costs

Advertising costs include production costs, which are expensed the first time the advertisement takes place, and media placement costs, which are expensed in the month the advertising appears. Total advertising costs were $1.2 million, $0.1 million, and $0.9 million for the years ended December 31, 2021, 2020, and 2019, respectively. As of December 31, 2021 and 2020, the Company had no prepaid advertising costs.

(p) Share-based Compensation

The Company maintains the 2013 Stock Incentive Plan (as amended, the "2013 Equity Plan"), under which the Company's employees, officers, directors, and other eligible participants may be awarded various types of share-based compensation, including options to purchase shares of the Company's class A common stock, restricted stock units, and other stock-based awards. During 2021, the Company adopted and the Company's stockholders approved the 2021 Employee Stock Purchase Plan (the "2021 ESPP"), under which eligible employees of the Company and certain of its subsidiaries may be provided with opportunities to purchase shares of the Company's class A common stock.

The Company recognizes share-based compensation expense associated with the 2013 Equity Plan and the 2021 ESPP on a straight-line basis over the requisite service period (generally, the vesting period for awards under the 2013 Equity Plan and the offering period under the 2021 ESPP). For options and other stock-based awards, the share-based compensation expense is based on the fair value of the awards on the date of grant, as estimated using the Black-Scholes valuation model. For the 2021 ESPP, the share-based compensation expense is based on the grant date fair value, which consists of the intrinsic value of any purchase discount and the fair value of the look-back provision using the Black-Scholes valuation model. For restricted stock units, the share-based compensation expense is based on the fair value of the Company's class A common stock on the date of grant. The fair value of liability-classified awards (e.g., the other stock-based awards and cash-settled restricted stock units) is remeasured at each reporting date. Share-based compensation expense is recorded in cost of revenues or operating expense line items in the Statement of Operations corresponding to the respective participant's role or function.

See Note 11, Share-based Compensation, to the Consolidated Financial Statements for further information regarding the 2013 Equity Plan, the 2021 ESPP, related share-based compensation expense, and assumptions used in determining fair value.

(q) Income Taxes

The Company is subject to federal, state, and local income taxes in the United States and a number of foreign countries. Deferred income taxes are provided based on enacted tax laws and rates applicable to the periods in which the taxes become payable. For uncertain income tax positions, the Company uses a more-likely-than-not recognition threshold based on the technical merits of the income tax position taken. Income tax positions that meet the more-likely-than-not recognition threshold are measured in order to determine the tax benefit recognized in the financial statements. The Company recognizes accrued interest related to unrecognized tax benefits as part of income tax expense. Penalties, if incurred, are recognized as a component of income tax expense.

The Company provides a valuation allowance to reduce deferred tax assets to their estimated realizable value, when appropriate.

(r) Basic and Diluted Earnings Per Share

Basic earnings per share is determined by dividing the net income attributable to common stockholders by the weighted average number of common shares and participating securities outstanding during the period. Participating securities are included in the basic earnings per share calculation when dilutive. Diluted earnings per share is determined by dividing the net income attributable to common stockholders by the weighted average number of common shares and potential common shares outstanding during the period. Potential common shares are included in the diluted earnings per share calculation when dilutive. Potential common shares consisting of class A common stock issuable upon the exercise of outstanding employee stock options, the vesting of restricted stock units, and in connection with the 2021 ESPP are computed using the treasury stock method. Upon the adoption of ASU 2020-06, potential common shares consisting of class A common stock issuable upon conversion of the Company's convertible senior notes are computed using the if-converted method. Prior to the adoption of ASU 2020-06, potential common shares consisting of class A common stock issuable upon conversion of the Company's convertible senior notes were computed using the treasury stock method. See Note 3, Recent Accounting Standards, to the Consolidated Financial Statements for further information regarding the differences in the if-converted and treasury stock methods. In computing diluted earnings per share, the Company first calculates the earnings per incremental share ("EPIS") for each class of potential common shares and ranks the classes from the most dilutive (i.e., lowest EPIS) to the least dilutive (i.e., highest EPIS). Basic earnings per share is then adjusted for the effect of each class of shares, in sequence and cumulatively, until a particular class no longer produces further dilution.

The Company has two classes of common stock: class A common stock and class B common stock. Holders of class A common stock generally have the same rights, including rights to dividends, as holders of class B common stock, except that holders of class A common stock have one vote per share while holders of class B common stock have ten votes per share. Each share of class B common stock is convertible at any time, at the option of the holder, into one share of class A common stock. As such, basic and fully diluted earnings per share for class A common stock and for class B common stock are the same. The Company has never declared or paid any cash dividends on either class A or class B common stock. As of December 31, 2021 and 2020, there were no shares of preferred stock issued or outstanding.

(s) Foreign Currency Translation

The functional currency of the Company's international operations is generally the local currency. Accordingly, all assets and liabilities of international subsidiaries are translated using exchange rates in effect at the end of the period, and revenue and expenses are translated using average monthly exchange rates for the period in which the transactions occur. The related translation adjustments are reported in "Accumulated other comprehensive income (loss)" in stockholders' equity. In general, upon complete or substantially complete liquidation of an investment in an international subsidiary, the amount of accumulated translation adjustments attributable to that subsidiary is reclassified from stockholders' equity to the statement of operations. Transaction gains and losses arising from transactions denominated in a currency other than the functional currency of the entity involved are included in the results of operations.

As of December 31, 2021, 2020, and 2019, the cumulative foreign currency translation balances were $(7.5) million, $(3.9) million, and $(9.8) million, respectively. No taxes were recognized on the temporary differences resulting from foreign currency translation adjustments for the years ended December 31, 2021, 2020, and 2019.

Transaction gains and losses arising from transactions denominated in foreign currencies resulted in a net gain of $2.5 million in 2021 and net losses of $7.6 million and $1.0 million in 2020 and 2019, respectively, and are included in "Other income (expense), net" in the Consolidated Statements of Operations.

(t) Concentrations of Credit Risk

Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of cash and cash equivalents, restricted cash, and accounts receivable. The Company places its cash equivalents with high credit-quality financial institutions and has established guidelines relative to credit ratings and maturities that seek to maintain safety and liquidity.

The Company sells its offerings to various companies across several industries throughout the world in the ordinary course of business. The Company routinely assesses the financial strength of its customers and maintains allowances for anticipated losses. As of December 31, 2021 and 2020, no individual customer accounted for 10% or more of net accounts receivable, and for the years ended December 31, 2021, 2020, and 2019, no individual customer accounted for 10% or more of revenue.

(3) Recent Accounting Standards

Accounting for Convertible Instruments

The Company early adopted ASU 2020-06 effective as of January 1, 2021 using the modified retrospective method, which resulted in a cumulative-effect adjustment to the opening balance of retained earnings on the date of adoption, recorded as follows (in thousands):

Consolidated Balance Sheet	**December 31, 2020 As Reported**	**Effect of the Adoption of ASU 2020-06**	**January 1, 2021 As Adjusted**
Deferred tax liabilities (assets)	$ 8,211	$ (41,693)	$ (33,482)
Convertible senior notes, net	486,366	148,546	634,912
Additional paid-in-capital	763,051	(107,810)	655,241
Retained earnings	575,965	957	576,922

The following significant accounting changes occurred as result of the adoption of ASU 2020-06:

(i) *Elimination of the cash conversion model*. Under previous GAAP, instruments that may be partially settled in cash were in the scope of the "cash conversion" model, which required conversion features to be separately reported in equity. Upon the adoption of ASU 2020-06, the cash conversion model was eliminated and the Company no longer records conversion features in equity and instead accounts for its convertible senior notes as single units of debt. As a result, there is no longer a debt discount or subsequent amortization to be recognized as interest expense. Similarly, the Company no longer allocates a portion of the related issuance costs to equity. As a result of these changes, temporary differences between the Company's book and tax bases have been eliminated and the Company no longer records any related net deferred tax liability with respect to its convertible senior notes.

(ii) *Use of the "if-converted" method for calculating diluted earnings per share*. Under previous GAAP, the Company utilized the "treasury stock" method for computing the diluted earnings per share impact of its convertible senior notes. Under the treasury stock method, only the excess of the average stock price of the Company's class A common stock for the reporting period over the conversion price was used in determining the impact to the diluted earnings per share denominator. Upon the adoption of ASU 2020-06, the Company may no longer use the treasury stock method for instruments with flexible settlement arrangements. Instead, the Company is required to use the if-converted method, which requires all underlying shares be included in the denominator regardless of the average stock price for the reporting period, in addition to adding back to the numerator the related interest expense from the stated coupon and the amortization of issuance costs, if dilutive.

Accounting for income taxes

The Company adopted Accounting Standards Update No. 2019-12, *Income Taxes (Topic 740): Simplifying the Accounting for Income Taxes* ("ASU 2019-12") effective as of January 1, 2021. ASU 2019-12 simplifies the accounting for income taxes by eliminating certain exceptions related to the approach for intraperiod tax allocation, the methodology for calculating income taxes in an interim period, and the recognition of deferred tax liabilities related to outside basis differences. ASU 2019-12 requires certain amendments to be applied prospectively and others retrospectively. The adoption of this guidance did not have a material impact on the Company's consolidated financial position, results of operations, or cash flows. Prior periods have not been adjusted and no cumulative-effect adjustment to retained earnings was made.

Credit losses

The Company adopted ASU 2016-13 effective as of January 1, 2020. Under ASU 2016-13, the Company applies a current expected credit loss ("CECL") impairment model to its trade accounts receivable, in which lifetime expected credit losses on such financial assets are measured and recognized at each reporting date based on historical, current, and forecasted information. Under the CECL model, trade accounts receivable with similar risk characteristics are analyzed on a collective (pooled) basis. ASU 2016-13 also changed the impairment accounting for available-for-sale debt securities, requiring credit losses to be recorded through an allowance for credit losses rather than as a reduction in the amortized cost basis of the securities. Impairment due to factors other than credit loss will continue to be recorded through other comprehensive income (loss). Since adoption of this guidance, all of the Company's available-for-sale debt securities have consisted of U.S. Treasury securities with stated maturity dates between three months and one year from the purchase date and none of these investments have been impaired at periods' end. As of December 31, 2021 and 2020, the Company did not hold any short-term investments. The adoption of this guidance did not have a material impact on the Company's consolidated financial position, results of operations, or cash flows. No cumulative-effect adjustment to retained earnings was made.

Lease accounting

The Company adopted ASU 2016-02 effective as of January 1, 2019 and elected the transition option to apply the new lease requirements as of the adoption date without restating comparative periods presented in its Consolidated Financial Statements. Additionally, the Company elected the package of practical expedients described in ASU 2016-02, which includes not reassessing the following: (i) lease classification of existing leases, (ii) whether expired or existing contracts contain leases, and (iii) initial direct costs for existing leases.

Upon adoption of ASU 2016-02, the Company recognized ROU assets of $88.8 million, total lease liabilities of $116.9 million, reductions in total deferred rent of $28.5 million, and reductions in prepaid expenses of $0.4 million in its 2019 beginning balances. All adjustments relate to the Company's operating leases; the Company does not have any material leases that are classified as finance leases. There was no cumulative effect adjustment to the Company's 2019 beginning retained earnings balance as the Company did not have material unamortized initial direct costs. Beginning in 2019, the Company presents the amortization of its operating ROU assets and the change in its operating lease liabilities within the operating activities section of its Consolidated Statements of Cash Flows. The adoption of ASU 2016-02 did not have a material impact on the Company's Consolidated Statements of Operations.

(4) Digital Assets

During the year ended December 31, 2021, the Company purchased approximately 53,922 bitcoins for $2.627 billion in cash, including cash from the net proceeds related to the issuance of its 0% Convertible Senior Notes due 2027 (the "2027 Convertible Notes") and its 6.125% Senior Secured Notes due 2028 (the "2028 Secured Notes"), and the sale of its class A common stock offered under the Open Market Sale Agreement described in Note 13, Open Market Sale Agreement, to the Consolidated Financial Statements. During the year ended December 31, 2020, the Company purchased approximately 70,469 bitcoins for $1.125 billion in cash, including cash from the net proceeds related to the issuance of the 2025 Convertible Notes and the liquidation of short-term investments.

During the year ended December 31, 2021, MacroStrategy LLC ("MacroStrategy") was extended short-term trade credits by Coinbase Credit, Inc., an affiliate of Coinbase, Inc. (the entity that operates the Coinbase exchange, the Company's principal market). MacroStrategy is the Company's wholly owned subsidiary formed to hold bitcoins and digital assets that are not included in the collateral securing the 2028 Secured Notes, discussed in Note 8, Long-term Debt, to the Consolidated Financial Statements. The trade credits allowed MacroStrategy to purchase bitcoin in advance of using cash funds in its trading account. The trade credits were due and payable in cash within days after they were extended. Certain of MacroStrategy's assets, including bitcoin, were subject to a first priority security interest and lien in order to secure the repayment of the trade credits. Effective November 2021, (a) MacroStrategy is required to maintain a minimum aggregate balance in its trading account and collateral account of no less than $75 million in bitcoin or cash at all times trade credits are outstanding and (b) any outstanding trade credits will incur a daily fee of 0.03% simple interest to be paid on the U.S. dollar notional value of the outstanding trade credits. MacroStrategy has only requested trade credits where cash funding was imminent from confirmed sales of stock under the Company's Open Market Sale Agreement. As of December 31, 2021, MacroStrategy had no outstanding trade credits payable. MacroStrategy may request further such trade credits from Coinbase Credit, Inc.; however, Coinbase Credit, Inc. has no obligation to issue further trade credits.

During the years ended December 31, 2021 and 2020, respectively, the Company incurred $830.6 million and $70.7 million of impairment losses on its bitcoin. As of December 31, 2021, the carrying value of the Company's approximately 124,391 bitcoins was $2.850 billion, which reflects cumulative impairments of $901.3 million. As of December 31, 2020, the carrying value of the Company's approximately 70,469 bitcoins was $1.054 billion, which reflected cumulative impairments of $70.7 million. The carrying value represents the lowest fair value (based on Level 1 inputs in the fair value hierarchy) of the bitcoins at any time since their acquisition. Therefore, these fair value measurements were made during the period from their acquisition through December 31, 2021 or 2020, respectively, and not as of December 31, 2021 or 2020, respectively. The Company did not sell any of its bitcoins during the years ended December 31, 2021 and 2020.

As of December 31, 2021, approximately 13,449 of the bitcoins held by the Company serve as part of the collateral for the 2028 Secured Notes, as further described in Note 8, Long-term Debt, to the Consolidated Financial Statements.

(5) Contract Balances

The Company invoices its customers in accordance with billing schedules established in each contract. The Company's rights to consideration from customers are presented separately in the Company's Consolidated Balance Sheets depending on whether those rights are conditional or unconditional.

The Company presents unconditional rights to consideration from customers within "Accounts receivable, net" in its Consolidated Balance Sheets. All of the Company's contracts are generally non-cancellable and/or non-refundable, and therefore an unconditional right generally exists when the customer is billed or amounts are billable per the contract.

Accounts receivable (in thousands) consisted of the following, as of:

	December 31, 2021	December 31, 2020
Billed and billable	$ 192,055	$ 200,221
Less: allowance for credit losses	(2,775)	(2,760)
Accounts receivable, net	$ 189,280	$ 197,461

Changes in the allowance for credit losses were not material for the year ended December 31, 2021. In estimating its allowance for credit losses as of December 31, 2021 and 2020, the Company considered the impact from the pandemic caused by a novel strain of coronavirus ("COVID-19") and established additional risk pools and reserves relating to customers in certain geographic areas and industries, in addition to separately assessing the reserves for certain customers that have been granted extended payment terms.

Rights to consideration that are subject to a condition other than the passage of time are considered contract assets and presented within "Prepaid expenses and other current assets" in the Consolidated Balance Sheets since the rights to consideration are expected to become unconditional and transfer to accounts receivable within one year. Contract assets generally consist of accrued sales and usage-based royalty revenue. In these arrangements, consideration is not billed or billable until the royalty reporting is received, generally in the subsequent quarter, at which time the contract asset transfers to accounts receivable and a true-up adjustment is recorded to revenue. These true-up adjustments are generally not material. During the years ended December 31, 2021, 2020, and 2019, there were no significant impairments to the Company's contract assets, nor were there any significant changes in the timing of the Company's contract assets being reclassified to accounts receivable. Contract assets included in "Prepaid expenses and other current assets" in the Consolidated Balance Sheets consisted of $1.1 million and $1.1 million in accrued sales and usage-based royalty revenue as of December 31, 2021 and 2020, respectively.

Contract liabilities are amounts received or due from customers in advance of the Company transferring the software or services to the customer. In the case of multi-year service contract arrangements, the Company generally does not invoice more than one year in advance of services and does not record deferred revenue for amounts that have not been invoiced. Revenue is subsequently recognized in the period(s) in which control of the software or services is transferred to the customer. The Company's contract liabilities are presented as either current or non-current "Deferred revenue and advance payments" in the Consolidated Balance Sheets, depending on whether the software or services are expected to be transferred to the customer within the next year.

The Company's "Accounts receivable, net" and "Deferred revenue and advance payments" balances in the Consolidated Balance Sheets include unpaid amounts related to contracts under which the Company has an enforceable right to invoice the customer for non-cancellable and/or non-refundable software and services. Changes in accounts receivable and changes in deferred revenue and advance payments are presented net of these unpaid amounts in "Operating activities" in the Consolidated Statements of Cash Flows.

Deferred revenue and advance payments (in thousands) from customers consisted of the following, as of:

	December 31,	
	2021	**2020**
Current:		
Deferred product licenses revenue	$ 993	$ 1,495
Deferred subscription services revenue	35,589	26,258
Deferred product support revenue	166,477	156,216
Deferred other services revenue	6,801	7,281
Total current deferred revenue and advance payments	$ 209,860	$ 191,250
Non-current:		
Deferred product licenses revenue	$ 68	$ 139
Deferred subscription services revenue	1,064	8,758
Deferred product support revenue	6,203	5,055
Deferred other services revenue	754	710
Total non-current deferred revenue and advance payments	$ 8,089	$ 14,662

During the years ended December 31, 2021, 2020, and 2019, the Company recognized revenues of $188.7 million, $182.6 million, and $174.7 million, respectively, from amounts included in the total deferred revenue and advance payments balances at the beginning of the respective year. For the years ended December 31, 2021, 2020, and 2019, there were no significant changes in the timing of revenue recognition on the Company's deferred balances

The Company's remaining performance obligation represents all future revenue under contract and includes deferred revenue and advance payments and billable non-cancelable amounts that will be invoiced and recognized as revenue in future periods. The remaining performance obligation excludes contracts that are billed in arrears, such as certain time and materials contracts. The portions of multi-year contracts that will be invoiced in the future are not presented on the balance sheet within contract balances and are instead included in the following remaining performance obligation disclosure. As of December 31, 2021, the Company had an aggregate transaction price of $267.6 million allocated to the remaining performance obligation related primarily to subscription services, product support, and product licenses contracts. The Company expects to recognize $219.2 million within the next 12 months and the remainder thereafter.

(6) Property and Equipment

Property and equipment (in thousands) consisted of the following, as of:

	December 31, 2021	December 31, 2020
Transportation equipment	$ 48,645	$ 48,645
Computer equipment and purchased software	61,793	61,299
Furniture and equipment	9,990	10,460
Leasehold improvements	28,872	31,403
Internally developed software	9,917	9,917
Property and equipment, gross	159,217	161,724
Less: accumulated depreciation and amortization	(122,630)	(118,749)
Property and equipment, net	$ 36,587	$ 42,975

Transportation equipment consists of the Company's corporate aircraft, including capitalizable costs related to the repairs to the aircraft, and aircraft-related equipment. As of December 31, 2021, the net carrying value of the aircraft and aircraft-related equipment was $27.5 million, net of $21.1 million of accumulated depreciation. As of December 31, 2020, the net carrying value of the aircraft and aircraft-related equipment was $30.0 million, net of $18.6 million of accumulated depreciation.

Depreciation and amortization expenses related to property and equipment were $8.7 million, $11.4 million, and $11.7 million for the years ended December 31, 2021, 2020, and 2019, respectively.

(7) Leases

The Company leases office space in the United States and foreign locations under operating lease agreements. Office space is the Company's only material underlying asset class under operating lease agreements. The Company has no material finance leases.

Under the Company's office space lease agreements, fixed payments and variable payments that depend on an index or rate are typically comprised of base rent and parking fees. Additionally, under these agreements the Company is generally responsible for certain variable payments that typically include certain taxes, utilities and maintenance costs, and other fees. These variable lease payments are generally based on the Company's occupation or usage percentages and are subject to adjustments by the lessor.

As of December 31, 2021, the Company's ROU asset and total lease liability balances were $57.3 million and $75.8 million, respectively, for leases in the United States and $9.5 million and $10.0 million, respectively, for foreign leases. As of December 31, 2020, the Company's ROU assets and total lease liabilities were $62.2 million and $82.9 million, respectively, for leases in the United States and $11.4 million and $12.2 million, respectively, for foreign leases. The Company's most significant lease is for its corporate headquarters in Northern Virginia. The ROU asset and total lease liability balances related to the Company's corporate headquarters lease were $55.2 million and $73.6 million, respectively, as of December 31, 2021, and $59.0 million and $79.7 million, respectively, as of December 31, 2020. The lease agreement for the Company's corporate headquarters location is set to expire in December 2030, with an option for the Company to extend the term for an additional five or 10 consecutive years. The Company is currently not reasonably certain it will exercise this renewal option and therefore has not included the renewal option in the lease term. The lease agreement also includes an option to early terminate a portion of the leased space in exchange for a termination fee, which the Company exercised in the fourth quarter of 2020. This modification was not accounted for as a separate contract. Upon exercise of this early termination option in 2020, the Company reduced the lease liability balance by the amount of the termination fee, which was $1.6 million, and remeasured the remaining ROU Asset and lease liability, reducing them by $4.2 million and $7.0 million, respectively, which resulted in a gain on partial lease termination of $2.8 million. The $2.8 million gain on partial lease termination was recorded as a reduction to operating lease cost and is reflected within the "Operating lease cost" line in the table below for the year ended December 31, 2020. The $1.6 million termination fee is reflected within the "Cash paid for amounts included in the measurement of operating lease liabilities" line in the table below for the year ended December 31, 2020. In remeasuring the ROU Asset, the Company elected to do so based on the on the remaining right of use. Several of the Company's remaining leases also contain options for renewal or options to terminate all or a portion of the leased space. The Company continually assesses the likelihood of exercising these options and recognizes an option as part of its ROU assets and lease liabilities if and when it is reasonably certain that it will exercise the option.

The following table presents the Company's total lease cost and other lease details for the periods indicated (in thousands, except years and discount rates):

	Years Ended December 31,		
	2021	2020	2019
Lease cost:			
Operating lease cost	$ 13,522	$ 11,772	$ 15,020
Short-term lease cost	558	1,158	2,015
Variable lease cost	1,224	1,382	1,175
Total lease cost	$ 15,304	$ 14,312	$ 18,210
Other information:			
Cash paid for amounts included in the measurement of operating lease liabilities	$ 15,772	$ 17,497	$ 15,614
ROU assets obtained in exchange for new operating lease liabilities	$ 2,420	$ 743	$ 5,016
Weighted average remaining lease term in years – operating leases	8.3	9.1	10.0
Weighted average discount rate – operating leases	6.1%	6.1%	6.0%

The following table presents the maturities of the Company's operating lease liabilities as of December 31, 2021 (in thousands):

For the year ended December 31,	
2022	$ 14,123
2023	14,213
2024	12,581
2025	12,202
2026	12,330
Thereafter	43,920
Total lease payments	109,369
Less: imputed interest	(23,550)
Total	$ 85,819
Reported as:	
Current operating lease liabilities	$ 9,211
Non-current operating lease liabilities	76,608
Total	$ 85,819

(8) Long-term Debt

As of December 31, 2021, the net carrying value of the Company's long-term debt consisted of the following (in thousands):

	December 31, 2021
2025 Convertible Notes	$ 637,882
2027 Convertible Notes	1,029,263
2028 Secured Notes	488,006
Total	$ 2,155,151

Convertible Senior Notes

In December 2020, the Company issued $650.0 million aggregate principal amount of 2025 Convertible Notes in a private offering. The 2025 Convertible Notes are senior unsecured obligations of the Company and bear interest at a fixed rate of 0.750% per annum, payable semiannually in arrears on June 15 and December 15 of each year, beginning on June 15, 2021. Holders of the 2025 Convertible Notes may receive additional interest under specified circumstances as outlined in the indenture relating to the issuance of the 2025 Convertible Notes (the "2025 Convertible Notes Indenture"). The 2025 Convertible Notes will mature on December 15, 2025, unless earlier converted, redeemed or repurchased in accordance with their terms. The total net proceeds from the 2025 Convertible Notes offering, after deducting initial purchaser discounts and issuance costs, were approximately $634.7 million.

In February 2021, the Company issued $1.050 billion aggregate principal amount of 2027 Convertible Notes in a private offering. The 2027 Convertible Notes are senior unsecured obligations of the Company and do not bear regular interest. However, holders of the 2027 Convertible Notes may receive special interest under specified circumstances as outlined in the indenture relating to the issuance of the 2027 Convertible Notes (the "2027 Convertible Notes Indenture"). Any special interest is payable semiannually in arrears on February 15 and August 15 of each year, beginning on August 15, 2021. The 2027 Convertible Notes will mature on February 15, 2027, unless earlier converted, redeemed, or repurchased in accordance with their terms. The total net proceeds from the 2027 Convertible Notes offering, after deducting initial purchaser discounts and issuance costs, were approximately $1.026 billion.

The 2025 Convertible Notes and 2027 Convertible Notes (collectively, the "Convertible Notes") are senior unsecured obligations and rank senior in right of payment to any of the Company's indebtedness that is expressly subordinated in right of payment to the Convertible Notes; equal in right of payment to any of the Company's unsecured indebtedness that is not so subordinated; effectively junior in right of payment to any of the Company's secured indebtedness to the extent of the value of the assets securing such indebtedness; and structurally junior to all indebtedness and other liabilities (including trade payables) of the Company's subsidiaries.

The Convertible Notes are convertible into shares of the Company's class A common stock at initial conversion rates of 2.5126 shares and 0.6981 shares per $1,000 principal amount of Convertible Notes for the 2025 Convertible Notes and 2027 Convertible Notes, respectively (equivalent to an initial conversion price of approximately $397.99 per share and $1,432.46 per share of class A common stock for the 2025 Convertible Notes and 2027 Convertible Notes, respectively). The conversion rates are subject to customary anti-dilution adjustments. In addition, following certain events that may occur prior to the respective maturity dates or if the Company delivers a notice of redemption, the Company will increase the conversion rate for a holder who elects to convert its Convertible Notes in connection with such corporate event or notice of redemption, as the case may be, in certain circumstances as provided in the 2025 Convertible Notes Indenture and the 2027 Convertible Notes Indenture (collectively, the "Convertible Notes Indentures"), respectively. As of December 31, 2021, the maximum number of shares into which the Convertible Notes could be potentially converted if the conversion features are triggered are 1,633,190 and 733,005 shares for the 2025 Convertible Notes and 2027 Convertible Notes, respectively.

Prior to June 15, 2025 and August 15, 2026 for the 2025 Convertible Notes and 2027 Convertible Notes, respectively, the Convertible Notes are convertible only under the following circumstances: (1) during any calendar quarter commencing after the calendar quarter ending on March 31, 2021 and June 30, 2021 for the 2025 Convertible Notes and 2027 Convertible Notes, respectively (and only during such calendar quarter), if the last reported sale price of the Company's class A common stock for at least 20 trading days (whether or not consecutive) during the period of 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price of the 2025 Convertible Notes or 2027 Convertible Notes, respectively, on each applicable trading day; (2) during the five business day period after any five consecutive trading day period (the "measurement period") in which the "trading price" (as defined in the Convertible Notes Indentures) per $1,000 principal amount of the 2025 Convertible Notes or 2027 Convertible Notes, respectively, for each trading day of the measurement period was less than 98% of the product of the last reported sale price of the Company's class A common stock and the applicable conversion rate on each such trading day; (3) if the Company calls any or all of the 2025 Convertible Notes or 2027 Convertible Notes, respectively, for redemption, at any time prior to the close of business on the second scheduled trading day immediately preceding the redemption date; and (4) upon occurrence of specified corporate events as described in the Convertible Notes Indentures.

On or after June 15, 2025 or August 15, 2026 for the 2025 Convertible Notes and 2027 Convertible Notes, respectively, until the close of business on the second scheduled trading day immediately preceding the maturity dates of the 2025 Convertible Notes or 2027 Convertible Notes, respectively, holders may convert the 2025 Convertible Notes or 2027 Convertible Notes, respectively, at any time. Upon conversion of the Convertible Notes, the Company will pay or deliver, as the case may be, cash, shares of the Company's class A common stock, or a combination of cash and shares of class A common stock, at the Company's election.

Prior to December 20, 2023 or February 20, 2024 for the 2025 Convertible Notes and 2027 Convertible Notes, respectively, the Company may not redeem the Convertible Notes. The Company may redeem for cash all or a portion of the 2025 Convertible Notes or 2027 Convertible Notes, at its option, on or after December 20, 2023 or February 20, 2024, respectively, if the last reported sale price of the Company's class A common stock has been at least 130% of the conversion price of the 2025 Convertible Notes or 2027 Convertible Notes, respectively, then in effect for at least 20 trading days (whether or not consecutive), including the trading day immediately preceding the date on which the Company provides a notice of redemption, during any 30 consecutive trading day period ending on, and including, the trading day immediately preceding the date on which the Company provides notice of redemption. The redemption price will be equal to 100% of the principal amount of the Convertible Notes to be redeemed, plus accrued and unpaid interest to, but excluding, the redemption date.

If the Company undergoes a "fundamental change," as defined in the Convertible Notes Indentures, prior to maturity, subject to certain conditions, holders may require the Company to repurchase for cash all or any portion of their Convertible Notes at a fundamental change repurchase price equal to 100% of the principal amount of the Convertible Notes to be repurchased, plus any accrued and unpaid interest to, but excluding, the fundamental change repurchase date.

The Convertible Notes Indentures contain customary terms and covenants, including that upon certain events of default occurring and continuing, either the Trustee or the holders of at least 25% in principal amount of the outstanding 2025 Convertible Notes or 2027 Convertible Notes, respectively, may declare 100% of the principal of, and accrued and unpaid interest, if any, on, all the 2025 Convertible Notes or 2027 Convertible Notes, respectively, to be due and payable.

During the year ended December 31, 2021, the 2025 Convertible Notes were convertible at the option of the holders of the 2025 Convertible Notes during the second quarter and fourth quarter of 2021 only. During the year ended December 31, 2020, the 2025 Convertible Notes were not convertible at any time. During the year ended December 31, 2021, the 2027 Convertible Notes were not convertible at any time. No conversions of the Convertible Notes occurred during the years ended December 31, 2021 and 2020. The Convertible Notes may be convertible in future periods if one or more of the conversion conditions is satisfied during future measurement periods. As of December 31, 2021, the last reported sale price of the Company's class A common stock for at least 20 trading days during the 30 consecutive trading days ending on, and including, December 31, 2021 was greater than or equal to 130% of the conversion price of the 2025 Convertible Notes on each applicable trading day. Therefore, the 2025 Convertible Notes are convertible at the option of the holders of the 2025 Convertible Notes during the first quarter of 2022.

The Company incurred approximately $15.3 million and $24.2 million in customary offering expenses associated with the 2025 Convertible Notes and 2027 Convertible Notes, respectively ("issuance costs"). The Company accounts for these issuance costs as a reduction to the principal amount of the 2025 Convertible Notes and 2027 Convertible Notes, respectively, and amortizes the issuance costs to interest expense over the contractual term of the 2025 Convertible Notes and 2027 Convertible Notes, respectively, at an effective interest rate of 1.23% and 0.39%, respectively.

Although the Convertible Notes each contain embedded conversion features, the Company accounts for each of the Convertible Notes in its entirety as a liability because the conversion features are indexed to the Company's class A common stock and meet the criteria for classification in stockholders' equity and therefore do not qualify for separate derivative accounting. As of December 31, 2021, the net carrying value of the Convertible Notes was classified as a long-term liability in the "Long-term debt, net" line item in the Company's Consolidated Balance Sheet. The following is a summary of the Company's convertible debt instruments as of December 31, 2021 (in thousands):

	Outstanding Principal Amount	Unamortized Issuance Costs	Net Carrying Value	Fair Value	
				Amount	Leveling
2025 Convertible Notes	$ 650,000	$ (12,118)	$ 637,882	$ 1,056,679	Level 2
2027 Convertible Notes	1,050,000	(20,737)	1,029,263	774,375	Level 2
Total	$ 1,700,000	$ (32,855)	$ 1,667,145	$ 1,831,054	

The fair value of the Convertible Notes is determined using observable market data other than quoted prices, specifically the last traded price at the end of the reporting period of identical instruments in the over-the-counter market (Level 2).

For the year ended December 31, 2021, interest expense related to the Convertible Notes was as follows (in thousands):

	Year Ended December 31, 2021		
	Contractual Interest Expense	Amortization of Issuance Costs	Total
2025 Convertible Notes	$ 4,875	$ 2,970	$ 7,845
2027 Convertible Notes	0	3,433	3,433
Total	$ 4,875	$ 6,403	$ 11,278

The Company paid $4.9 million in interest expense related to the 2025 Convertible Notes during the year ended December 31, 2021. The Company has not paid any special interest expense related to the 2027 Convertible Notes to date.

Accounting for the 2025 Convertible Notes prior to the adoption of ASU 2020-06

As discussed in Note 3, Recent Accounting Standards, to the Consolidated Financial Statements, the Company adopted ASU 2020-06 effective January 1, 2021. Prior to the adoption of ASU 2020-06, the Company separated the 2025 Convertible Notes into liability and equity components. The initial carrying amount of the liability component was determined by measuring the fair value of a similar debt instrument without any associated conversion features. The carrying amount of the equity component (representing the conversion option) was $153.5 million and was determined by deducting the fair value of the liability component from the par value of the 2025 Convertible Notes. The equity component was recorded in “additional paid-in-capital” in the Company’s Consolidated Balance Sheet.

Prior to the adoption of ASU 2020-06, the Company allocated the $15.3 million of issuance costs incurred to the liability and equity components of the 2025 Convertible Notes based on their relative values. Issuance costs attributable to the liability component of $11.6 million were taken as a reduction to the principal amount of the 2025 Convertible Notes. Issuance costs attributable to the equity component of $3.6 million have been netted against the equity component of the 2025 Convertible Notes in “additional paid-in-capital” in the Company’s Consolidated Balance Sheet. The excess of the principal amount of the liability component over its carrying amount (the “debt discount”) and the issuance costs attributable to the liability component were amortized to interest expense at an effective interest rate of 6.82%.

As of December 31, 2020, the net carrying amount of the liablity component of the 2025 Convertible Notes was classified as a long-term liability in the “Long-term debt, net” line item in the Company’s Consolidated Balance Sheet as follows (in thousands):

	December 31, 2020
Principal	$ 650,000
Unamortized debt discount	(152,075)
Unamortized issuance costs	(11,559)
Net carrying amount of debt	$ 486,366

As of December 31, 2020, the net carrying amount of the equity component of the 2025 Convertible Notes was classified as permanent equity and included in “additional paid in capital” in the Company’s Consolidated Balance Sheet as follows (in thousands):

	December 31, 2020
Debt discount for conversion option	$ 153,527
Issuance costs allocated to equity	(3,602)
Deferred tax liability, net of deferred tax asset, related to debt discount and issuance costs	(42,115)
Net carrying amount of equity	$ 107,810

For the year ended December 31, 2020, interest expense related to the 2025 Convertible Notes was as follows (in thousands):

	Year Ended December 31, 2020
Contractual interest expense	$ 271
Amortization of debt discount	1,452
Amortization of issuance costs allocated to debt	91
Total interest expense	$ 1,814

The Company did not pay any interest expense related to the 2025 Convertible Notes during the year ended December 31, 2020.

Senior Secured Notes

On June 14, 2021, the Company issued $500.0 million aggregate principal amount of 2028 Secured Notes. The 2028 Secured Notes were sold under a purchase agreement, dated as of June 8, 2021, entered into by and among the Company, MicroStrategy Services Corporation, a wholly owned subsidiary of the Company (the “Guarantor”), and Jefferies LLC, for resale to qualified institutional buyers pursuant to Rule 144A under the Securities Act of 1933, as amended (the "Securities Act"), and to persons outside the United States pursuant to Regulation S under the Securities Act. The terms of the 2028 Secured Notes are governed by an indenture, dated as of June 14, 2021 (the "2028 Secured Notes Indenture"), among the Company, the Guarantor, and U.S. Bank National Association, as trustee and collateral agent.

The 2028 Secured Notes are unconditionally guaranteed, jointly and severally, on a senior secured basis by the Guarantor and certain subsidiaries of the Company that may be formed or acquired on or after June 14, 2021 (collectively, the "Subsidiary Guarantors"). The 2028 Secured Notes bear interest at a fixed rate of 6.125% per annum, payable semiannually in arrears on June 15 and December 15 of each year, beginning on December 15, 2021. The 2028 Secured Notes have a stated maturity date of June 15, 2028, unless earlier redeemed or repurchased in accordance with their terms and subject to a springing maturity date of September 15, 2025 or November 16, 2026 as discussed further below. The total net proceeds from the 2028 Secured Notes, after deducting initial purchaser discounts and issuance costs, were approximately $487.2 million.

The 2028 Secured Notes and the related guarantees are secured, on a senior secured basis with the Company's existing and future senior indebtedness, by a security interest in substantially all of the Company's and the Subsidiary Guarantors' assets (the "Collateral"). The Collateral includes any bitcoins or other digital assets acquired by the Company or a Subsidiary Guarantor on or after June 14, 2021, but excludes bitcoins held by MacroStrategy and certain other excluded assets. MacroStrategy is the Company's subsidiary formed to hold bitcoins and digital assets that are not included in the Collateral, including bitcoins acquired before June 14, 2021 and bitcoins purchased by MacroStrategy from contributions made to it by the Company with the proceeds from sales of the Company's class A common stock under the Open Market Sale Agreement described in Note 13, Open Market Sale Agreement, to the Consolidated Financial Statements.

The 2028 Secured Notes and the related guarantees are the general senior secured obligations of the Company and the Subsidiary Guarantors and rank pari passu in right of payment with the Company's and the Subsidiary Guarantors' existing and future senior indebtedness, are senior in right of payment to all future subordinated indebtedness of the Company and the Subsidiary Guarantors, and are effectively senior to any existing and future unsecured indebtedness of the Company and the Subsidiary Guarantors (including the Convertible Notes) to the extent of the value of the Collateral (after giving effect to the sharing of such Collateral with holders of equal or prior ranking liens on the Collateral).

The 2028 Secured Notes and the guarantees are: (i) secured on a first priority basis by liens on the Collateral (subject to certain permitted liens and certain other exceptions, as provided in the 2028 Secured Notes Indenture) or to the extent there is outstanding ABL Indebtedness (as defined in the 2028 Secured Notes Indenture), secured on a first priority basis by the Notes Priority Collateral (as defined in the 2028 Secured Notes Indenture) and on a second priority basis by liens on the ABL Priority Collateral (as defined in the 2028 Secured Notes Indenture) (subject to certain permitted liens and certain other exceptions), (ii) effectively subordinated to any future ABL Indebtedness to the extent of the value of the ABL Priority Collateral securing such future ABL Indebtedness, (iii) effectively subordinated to any existing and future indebtedness of the Company or any Subsidiary Guarantor that is secured by liens on assets of the Company or any Subsidiary Guarantor that do not constitute a part of the Collateral, and (iv) structurally subordinated to any existing and future indebtedness and other liabilities of MacroStrategy and any other Company subsidiaries that are not Subsidiary Guarantors, other than intercompany indebtedness and liabilities owed to the Company or a Subsidiary Guarantor.

At any time and from time to time prior to June 15, 2024, the Company may redeem some or all of the 2028 Secured Notes at a redemption price equal to 100% of the principal amount of the 2028 Secured Notes being redeemed, plus accrued and unpaid interest, if any, to, but excluding, the redemption date, plus a "make-whole" premium as set forth in the 2028 Secured Notes Indenture. At any time and from time to time on or after June 15, 2024, the Company may redeem some or all of the 2028 Secured Notes at the redemption prices described in the 2028 Secured Notes Indenture, plus accrued and unpaid interest, if any, to, but excluding, the redemption date. At any time prior to June 15, 2024, but not more than once during each consecutive twelve-month period, the Company may redeem up to 10% of the aggregate principal amount of the 2028 Secured Notes at a redemption price equal to 103% of the principal amount of the 2028 Secured Notes being redeemed, plus accrued and unpaid interest, if any, to, but excluding, the redemption date. At any time prior to June 15, 2024, the Company may redeem, on one or more occasions, up to 40% of the aggregate principal amount of the 2028 Secured Notes with the proceeds of certain equity offerings, at a redemption price equal to 106.125% of the principal amount of the 2028 Secured Notes to be redeemed, plus accrued and unpaid interest, if any, to, but excluding, the redemption date.

If the Company experiences a Change of Control or Fundamental Change (each as defined in the 2028 Secured Notes Indenture), the Company may be required to offer to repurchase the 2028 Secured Notes at a purchase price equal to 101% of their principal amount plus accrued and unpaid interest, if any, to, but excluding, the repurchase date. In certain circumstances, the Company must use certain of the proceeds from a sale of assets to make an offer to repurchase 2028 Secured Notes at a purchase price equal to 100% of their principal amount, plus accrued and unpaid interest, if any, to, but excluding, the repurchase date.

The 2028 Secured Notes include a springing maturity feature that will cause the stated maturity date to spring ahead to: (1) September 15, 2025 (the "First Springing Maturity Date") unless on the First Springing Maturity Date (i) the Company has liquidity (as defined in the 2028 Secured Notes Indenture) in excess of 130% of the amount required to pay in full in cash the then outstanding aggregate principal amount of and accrued interest on the 2025 Convertible Notes or (ii) less than $100,000,000 of the aggregate principal amount of the 2025 Convertible Notes remains outstanding, (2) November 16, 2026 (the "Second Springing Maturity Date") unless on the Second Springing Maturity Date (i) the Company has liquidity in excess of 130% of the amount required to pay in full in cash the then outstanding aggregate principal amount of and accrued interest on the 2027 Convertible Notes or (ii) less than $100,000,000 of the aggregate principal amount of the 2027 Convertible Notes remains outstanding, or (3) the date (such date, an "FCCR Springing Maturity Date") that is 91 days prior to the maturity date of any FCCR Convertible Indebtedness (as defined in the 2028 Secured Notes Indenture) unless on the FCCR Springing Maturity Date (i) the Company has liquidity in excess of 130% of the amount required to pay in full in cash the then outstanding aggregate principal amount of and accrued interest on such FCCR Convertible Indebtedness or (ii) less than $100,000,000 of the aggregate principal amount of such FCCR Convertible Indebtedness remains outstanding.

The 2028 Secured Notes Indenture contains certain covenants with which the Company must comply, including covenants with respect to limitations on (i) additional indebtedness, (ii) liens, (iii) certain payments and investments, (iv) the ability to merge or consolidate with another person, or sell or otherwise dispose of substantially all the Company's assets, and (v) certain transactions with affiliates. The Company was in compliance with its debt covenants as of December 31, 2021.

The Company incurred approximately $12.8 million in customary offering expenses associated with the 2028 Secured Notes. The Company accounts for these issuance costs as a reduction to the principal amount of the 2028 Secured Notes and amortizes the issuance costs to interest expense over the contractual term of the 2028 Secured Notes at an effective interest rate of 6.58%. As of December 31, 2021, the net carrying value of the 2028 Secured Notes was classified as a long-term liability in the "Long-term debt, net" line item in the Company's Consolidated Balance Sheet. The following is a summary of the 2028 Secured Notes as of December 31, 2021 (in thousands):

	Outstanding Principal Amount	Unamortized Issuance Costs	Net Carrying Value	Fair Value	
				Amount	Leveling
2028 Secured Notes	$ 500,000	$ (11,994)	$ 488,006	$ 502,530	Level 2

The fair value of the 2028 Secured Notes is determined using observable market data other than quoted prices, specifically the last traded price at the end of the reporting period of identical instruments in the over-the-counter market (Level 2).

For the year ended December 31, 2021, interest expense related to the 2028 Secured Notes was as follows (in thousands):

	Year Ended December 31, 2021		
	Contractual Interest Expense	Amortization of Issuance Costs	Total
2028 Secured Notes	$ 16,674	$ 798	$ 17,472

The Company paid $15.4 million in interest expense related to the 2028 Secured Notes during the year ended December 31, 2021.

Maturities

The following table shows the maturities of the Company's debt instruments as of December 31, 2021 (in thousands). The principal payments related to the 2028 Secured Notes are included in the table below based on the First Springing Maturity Date of September

15, 2025, as if the springing maturity feature discussed above were triggered. The Company's expectation is that the springing maturity feature of the 2028 Secured Notes will not be triggered.

Payments due by period ended December 31,	2025 Convertible Notes	2027 Convertible Notes	2028 Secured Notes	Total
2022	$ 0	$ 0	$ 0	$ 0
2023	0	0	0	0
2024	0	0	0	0
2025	650,000	0	500,000	1,150,000
2026	0	0	0	0
Thereafter	0	1,050,000	0	1,050,000
Total	$ 650,000	$ 1,050,000	$ 500,000	$ 2,200,000

(9) Commitments and Contingencies

(a) Commitments

From time to time, the Company enters into certain types of contracts that require it to indemnify parties against third-party claims. These contracts primarily relate to agreements under which the Company assumes indemnity obligations for intellectual property infringement, as well as other obligations from time to time depending on arrangements negotiated with customers and other third parties. The conditions of these obligations vary. Thus, the overall maximum amount of the Company's indemnification obligations cannot be reasonably estimated. Historically, the Company has not been obligated to make significant payments for these obligations and does not currently expect to incur any material obligations in the future. Accordingly, the Company has not recorded an indemnification liability on its Balance Sheets as of December 31, 2021 or December 31, 2020.

The following table shows future minimum payments related to noncancelable purchase agreements with initial terms of greater than one year and anticipated payments related to the mandatory deemed repatriation transition tax resulting from the Tax Act ("Transition Tax") based on the expected due dates of the various installments as of December 31, 2021 (in thousands):

Year	Purchase Obligations	Transition Tax
2022	$ 11,506	$ 2,953
2023	9,646	5,534
2024	972	7,379
2025	671	9,223
2026	685	0
Thereafter	230	0
	$ 23,710	$ 25,089

(b) Contingencies

Following an internal review initiated in 2018, the Company believes that its Brazilian subsidiary failed or likely failed to comply with local procurement regulations in conducting business with certain Brazilian government entities.

On February 6, 2020, the Company learned that a Brazilian court authorized the Brazilian Federal Police to use certain investigative measures in its investigation into alleged corruption and procurement fraud involving certain government officials, pertaining to a particular transaction. Pursuant to this court authorization, numerous entities and individuals across Brazil were subject to the freezing of assets and other measures, including a former reseller and former employees of the Company's Brazilian subsidiary. On February 6, 2020, the bank accounts of the Company's Brazilian subsidiary were also frozen up to an amount of BRL 10.0 million. On May 22, 2020, these bank accounts of the Company's Brazilian subsidiary were unfrozen based on a court decision that found the evidence provided to support the alleged illicit origin of the relevant funds was insufficient. On October 19, 2021, an appeals court upheld the decision to unfreeze the accounts (which had remained unfrozen while the appeal was pending). This decision is final. The transaction at issue is part of the basis of the previously reported failure or likely failure of the Brazilian subsidiary to comply with local procurement regulations. The Company is not aware of any allegations that any former employee or the Company made any payments to Brazilian government officials. The Brazilian Federal Police expanded the investigation to include other possible cases of procurement fraud involving Brazilian government entities. Criminal penalties may be imposed against individuals; however, neither employees of the Company's Brazilian subsidiary nor the subsidiary itself have been targets of the Federal Police investigation.

The Company has also learned that Brazil's Federal Comptroller General filed an administrative action against the Company's Brazilian subsidiary with respect to the alleged procurement violations. These matters remain the subject of investigation by Brazilian authorities. The Company is taking measures to attempt to resolve these matters.

While the Company believes that it is probable that the resolution of these Brazilian matters will result in a loss, the amount or range of loss is not reasonably estimable at this time. Given the stage of these matters, the outcome may result in a material impact on the Company's earnings and financial results for the period in which any such liability is accrued. However, the Company believes that the outcome of these matters will not have a material effect on the Company's financial position.

On November 4, 2020, a complaint was filed against the Company in the U.S. District Court for the Eastern District of Virginia by a patent assertion entity called Daedalus Blue, LLC ("Daedalus"). In its complaint, Daedalus alleges that the Company has infringed U.S. Patent Nos. 8,341,172 (the "'172 Patent") and 9,032,076 (the "'076 Patent") based on specific functionality in the MicroStrategy platform. The '172 Patent relates to a method for providing aggregate data access in response to a query, whereas the '076 Patent relates to a role-based access control system.

On March 1, 2021, Daedalus provided its formal infringement contentions which included additional accused functionality as part of its infringement allegations from the complaint, materially expanding the scope of its case. The Company has filed a motion to dismiss the complaint with prejudice, asking the court to rule that the asserted claims are invalid as being directed to patent ineligible matter. This matter is in the latter stage of factual discovery and the parties filed claim construction briefs with the court requesting the court construe the asserted claim terms of the patent. The court conducted a claim construction hearing on July 15, 2021. On August 17, 2021, the case was stayed by the court pending the appointment of a special master to provide assistance to the court with its claim construction order and other outstanding matters including the Company's motion to dismiss. The special master was appointed on October 28, 2021 and was directed by the court to submit a Report and Recommendation as to the issue of claim construction and the pending motion to dismiss by February 1, 2022. On January 21, 2022, the special master issued two separate Reports and Recommendations. The first Report and Recommendation recommended constructions of certain patent claim terms and the second Report and Recommendation recommended, without reaching the merits, dismissing the Company's motion to dismiss without prejudice to re-filing after discovery ends. The parties filed their respective objections to the special master's Reports and Recommendations on February 4, 2022, and have until February 18, 2022 to file responses to the other party's objections. The outcome of this matter is not presently determinable.

The Company is also involved in various legal proceedings arising in the normal course of business. Although the outcomes of these legal proceedings are inherently difficult to predict, management does not expect the resolution of these legal proceedings to have a material adverse effect on the Company's financial position, results of operations, or cash flows.

The Company has contingent liabilities that, in management's judgment, are not probable of assertion. If such unasserted contingent liabilities were to be asserted, or become probable of assertion, the Company may be required to record significant expenses and liabilities in the period in which these liabilities are asserted or become probable of assertion.

(10) Income Taxes

U.S. and international components of (loss) income before income taxes (in thousands) were comprised of the following for the periods indicated:

	Years Ended December 31,		
	2021	**2020**	**2019**
U.S.	$ (854,610)	$ (53,250)	$ 9,944
Foreign	43,221	33,297	28,319
Total	$ (811,389)	$ (19,953)	$ 38,263

The (benefit from) provision for income taxes (in thousands) consisted of the following for the periods indicated:

	Years Ended December 31,		
	2021	2020	2019
Current:			
Federal	$ (4,622)	$ 1,861	$ 1,256
State	2,184	1,445	143
Foreign	5,533	5,221	5,135
	$ 3,095	$ 8,527	$ 6,534
Deferred:			
Federal	$ (204,784)	$ (15,038)	$ (749)
State	(74,796)	(6,269)	(480)
Foreign	576	351	(1,397)
	$ (279,004)	$ (20,956)	$ (2,626)
Total (benefit) provision	$ (275,909)	$ (12,429)	$ 3,908

The benefit from or provision for income taxes differs from the amount computed by applying the federal statutory income tax rate to the Company's loss or income before income taxes as follows for the periods indicated:

	Years Ended December 31,		
	2021	2020	2019
Income tax expense at federal statutory rate	21.0%	21.0%	21.0%
State taxes, net of federal tax effect	9.1%	18.0%	(1.7)%
Foreign earnings taxed at different rates	0.4%	21.7%	(6.1)%
Book tax difference in amortization of intangible property	0.0%	0.0%	(4.6)%
Withholding tax	(0.1)%	(12.5)%	3.1%
Foreign tax credit	0.4%	3.8%	(3.0)%
Other international components	0.0%	(3.5)%	0.2%
Change in valuation allowance	0.0%	2.7%	1.6%
Deferred tax adjustments and rate changes	0.0%	(3.4)%	1.0%
Meals and entertainment	0.0%	(1.3)%	1.3%
Non-deductible officers compensation	(1.0)%	(12.5)%	1.4%
Subpart F income	(0.1)%	(2.0)%	3.2%
Research and development tax credit	0.8%	19.9%	(9.3)%
Share-based compensation	4.0%	11.8%	1.8%
Global Intangible Low Income, net of foreign tax credit	(0.5)%	(1.1)%	0.9%
Foreign-derived intangible income	0.0%	3.1%	(1.9)%
Other permanent differences	0.0%	(3.4)%	1.3%
Total	34.0%	62.3%	10.2%

The Company's U.S. and foreign effective tax rates for (loss) income before income taxes were as follows for the periods indicated:

	Years Ended December 31,		
	2021	2020	2019
U.S.	33.0%	33.8%	1.7%
Foreign	14.1%	16.7%	13.2%
Combined	34.0%	62.3%	10.2%

The change in the Company's effective tax rate in 2021, as compared to the prior year, was primarily due to certain discrete items, overall loss level, and the change in the proportion of U.S. versus foreign (loss) income.

As of December 31, 2021 and 2020, the amount of cash and cash equivalents and short-term investments held by the Company's U.S. entities was $13.1 million and $13.7 million, respectively, and by the Company's non-U.S. entities was $50.3 million and $46.0 million, respectively. The Company earns a significant amount of its revenues outside the United States. The Company repatriated foreign earnings and profits of $57.5 million during 2021 and $186.6 million during 2020. The Company's accumulated undistributed foreign earnings and profits as of December 31, 2021 and 2020 were $117.0 million and $136.3 million, respectively. Beginning in the third quarter of 2020, the Company determined to no longer permanently reinvest its foreign earnings and profits. As of December 31, 2021, the Company recorded a deferred tax liability of $1.7 million on undistributed foreign earnings.

Deferred income taxes reflect the net tax effects of the temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of the Company's deferred tax assets and liabilities (in thousands) were as follows for the periods indicated:

	December 31, 2021	December 31, 2020
Deferred tax assets, net:		
Net operating loss carryforwards	$ 968	$ 1,690
Tax credits	3,844	4,158
Intangible assets	20,963	1,707
Deferred revenue	13,954	408
Accrued compensation	6,290	6,527
Share-based compensation expense	15,493	11,410
Digital asset impairment losses	258,458	19,843
Disallowed interest	5,532	0
Other	1,889	3,605
Deferred tax assets before valuation allowance	327,391	49,348
Valuation allowance	(999)	(1,259)
Deferred tax assets, net of valuation allowance	326,392	48,089
Deferred tax liabilities:		
Prepaid expenses and other	2,101	1,792
Property and equipment	2,936	4,233
Debt discount, net of issuance costs	0	41,693
Deferred tax on undistributed foreign earnings	1,682	1,741
Method change	0	338
Total deferred tax liabilities	6,719	49,797
Total net deferred tax asset (liability)	$ 319,673	$ (1,708)
Reported as:		
Non-current deferred tax assets, net	319,782	6,503
Non-current deferred tax liabilities	(109)	(8,211)
Total net deferred tax asset (liability)	$ 319,673	$ (1,708)

As of December 31, 2021, the Company had gross unrecognized income tax benefits of $6.2 million, of which $2.1 million was recorded in "Other long-term liabilities" and $4.1 million was recorded in "Deferred tax assets, net" in the Company's Consolidated Balance Sheets. The change in unrecognized income tax benefits (in thousands) is presented in the table below:

Unrecognized income tax benefits at January 1, 2021	$ 4,293
Increase related to positions taken in prior period	1,082
Increase related to positions taken in current period	1,146
Decrease related to expiration of statute of limitations	(561)
Unrecognized income tax benefits at December 31, 2021	5,960
Accrued interest	272
Gross unrecognized income tax benefits at December 31, 2021	$ 6,232

If recognized, $5.9 million of the gross unrecognized income tax benefits would impact the Company's effective tax rate. Over the next 12 months, the amount of the Company's liability for unrecognized income tax benefits shown above is not expected to change materially. The Company recognizes estimated accrued interest related to unrecognized income tax benefits in the benefit from income taxes. During the years ended December 31, 2021, 2020, and 2019, the Company released or recognized an immaterial amount of accrued interest. The amount of accumulated accrued interest related to the above unrecognized income tax benefits was approximately $0.3 million and $0.3 million as of December 31, 2021 and 2020, respectively.

The Company files tax returns in numerous foreign countries as well as the United States and its tax returns may be subject to audit by tax authorities in all countries in which it files. Each country has its own statute of limitations for making assessment of additional tax liabilities. In 2019, the Company settled the tax examination in Italy for tax years 2013 to 2015 without any material audit assessments. The Company's U.S. tax returns for tax years from 2018 and forward are subject to potential examination by the Internal Revenue Service. However, due to the Company's use of state NOL carryovers in the United States, state tax authorities may attempt to reduce or fully offset the amount of state NOL carryovers from tax years ended 2011 and forward that the Company used in later tax years. The Company's major foreign tax jurisdictions and the tax years that remain subject to potential examination are Italy and Poland for tax years 2017 and forward; Spain for tax years 2018 and forward, Germany for tax years 2019 and forward, and the United Kingdom for tax years 2020 and forward. To date there have been no material audit assessments related to audits in the United States or any of the applicable foreign jurisdictions.

The Company had no U.S. NOL carryforwards as of December 31, 2021 and 2020. The Company had $4.1 million and $7.9 million of foreign NOL carryforwards as of December 31, 2021 and 2020, respectively.

The Company's valuation allowances of $1.0 million and $1.3 million at December 31, 2021 and 2020, respectively, primarily relate to certain foreign tax credit carryforward tax assets that, in the Company's present estimation, more likely than not will not be realized.

In determining the Company's (benefit from) provision for income taxes, net deferred tax assets, liabilities, and valuation allowances, management is required to make estimates and judgments related to projections of domestic and foreign profitability, the timing and extent of the utilization of NOL carryforwards, applicable tax rates, transfer pricing methods, and prudent and feasible tax planning strategies. As a multinational company, the Company is required to calculate and provide for estimated income tax liabilities for each of the tax jurisdictions in which it operates. This process involves estimating current tax obligations and exposures in each jurisdiction, as well as making judgments regarding the future recoverability of deferred tax assets. Changes in the estimated level of annual pre-tax income, changes in tax laws, particularly changes related to the utilization of NOLs in various jurisdictions, and changes resulting from tax audits can all affect the overall effective income tax rate which, in turn, impacts the overall level of income tax expense or benefit and net income.

Estimates and judgments related to the Company's projections and assumptions are inherently uncertain. Therefore, actual results could differ materially from projections. Currently, the Company expects to use its deferred tax assets, subject to Internal Revenue Code limitations, within the carryforward periods. Valuation allowances have been established where the Company has concluded that it is more likely than not that such deferred tax assets are not realizable. If the Company is unable to regain or increase profitability in future periods, it may be required to increase the valuation allowance against the deferred tax assets, which could result in a charge that would materially adversely affect net income (loss) in the period in which the charge is incurred.

(11) Share-based Compensation

2013 Stock Incentive Plan

The 2013 Equity Plan authorizes the issuance of various types of share-based awards to the Company's employees, officers, directors, and other eligible participants. In the second quarter of 2021, the Board of Directors authorized and the stockholders approved an amendment to the 2013 Equity Plan to increase the total number of shares of the Company's class A common stock authorized for issuance under the 2013 Equity Plan from 2,300,000 shares to 2,750,000 shares. As of December 31, 2021, there were 549,269 shares of class A common stock reserved and available for future issuance under the 2013 Equity Plan.

Under the 2013 Equity Plan, the Company has issued stock option awards, share-settled restricted stock units, other stock-based awards, and cash-settled restricted stock units. Regardless of the type of award issued, any shares issued under the 2013 Equity Plan may consist in whole or in part of authorized but unissued shares or treasury shares. No awards may be issued more than 10 years after the 2013 Equity Plan's effective date. In determining related share-based compensation expense for any award under the 2013 Equity Plan, the

Company has made an accounting policy election to account for forfeitures of awards as they occur and therefore share-based compensation expense presented below has not been adjusted for any estimated forfeitures.

Stock option awards

Stock options that are granted under the 2013 Equity Plan must have an exercise price equal to at least the fair market value of the Company's class A common stock on the date of grant, become exercisable as established by the Board of Directors or the Compensation Committee, and expire no later than 10 years following the date of grant. The Company recognizes share-based compensation expense associated with such stock option awards on a straight-line basis over the award's requisite service period (generally, the vesting period). The stock option awards granted to date vest in equal annual installments over an approximately four-year vesting period (unless accelerated in connection with a change in control event under specified conditions as set forth in the applicable option agreement or otherwise in accordance with provisions of the 2013 Equity Plan or applicable option agreement).

Share-based compensation expense related to stock option awards is based on the fair value of the stock option awards on the date of grant, as estimated using the Black-Scholes valuation model. The Black-Scholes valuation model requires the input of certain management assumptions, including the expected term, expected stock price volatility, risk-free interest rate, and expected dividend yield. The Company estimates the term over which option holders are expected to hold their stock options by using the simplified method for "plain-vanilla" stock option awards because the Company's stock option exercise history does not provide a reasonable basis to compute the expected term for stock options granted under the 2013 Equity Plan. Beginning in 2021, as a result of the significant increase in the Company's stock price volatility, the Company established estimates for the expected stock price volatility by calculating a blended rate from the historical stock price volatility of its class A common stock and the implied volatility of the Company's traded financial instruments with similar terms to the respective award. For stock options granted prior to 2021, the Company relied exclusively on its historical stock price volatility using a simple average calculation method to estimate the expected stock price volatility over the expected term because the Company believed at the date of grant that future volatility was unlikely to differ from the past. The risk-free interest rate is based on U.S. Treasury securities with terms that approximate the expected term of the stock options. The expected dividend yield is zero, as the Company has not previously declared cash dividends and does not currently intend to declare cash dividends in the foreseeable future. These assumptions are based on management's best judgment, and changes to these assumptions could materially affect the fair value estimates and amount of share-based compensation expense recognized.

As of December 31, 2021, there were options to purchase 1,166,754 shares of class A common stock outstanding under the 2013 Equity Plan. The following table summarizes the Company's stock option activity (in thousands, except per share data and years) for the periods indicated:

	Stock Options Outstanding			
	Shares	**Weighted Average Exercise Price Per Share**	**Aggregate Intrinsic Value**	**Weighted Average Remaining Contractual Term (Years)**
Balance as of January 1, 2019	1,480	$ 137.16		
Granted	470	150.88		
Exercised	(51)	128.17	$ 799	
Forfeited/Expired	(265)	135.88		
Balance as of December 31, 2019	1,634	141.60		
Granted	118	146.76		
Exercised	(348)	146.80	$ 29,994	
Forfeited/Expired	(247)	146.63		
Balance as of December 31, 2020	1,157	139.48		
Granted	305	676.10		
Exercised	(269)	151.19	$ 163,427	
Forfeited/Expired	(26)	499.11		
Balance as of December 31, 2021	1,167	$ 268.74		
Exercisable as of December 31, 2021	576	$ 131.39	$ 237,948	3.5
Expected to vest as of December 31, 2021	591	$ 402.66	122,964	8.4
Total	1,167	$ 268.74	$ 360,912	6.0

Stock options outstanding as of December 31, 2021 are comprised of the following range of exercise prices per share (in thousands, except per share data and years):

	Stock Options Outstanding at December 31, 2021		
Range of Exercise Prices per Share	**Shares**	**Weighted Average Exercise Price Per Share**	**Weighted Average Remaining Contractual Term (Years)**
$121.43 - $200.00	880	$ 135.94	4.9
$400.01 - $500.00	20	$ 470.00	9.4
$600.01 - $691.23	267	$ 691.23	9.1
Total	1,167	$ 268.74	6.0

An aggregate of 200,625, 200,000, and 216,250 stock options with an aggregate grant date fair value of $11.0 million, $11.2 million, and $12.6 million vested during the years ended December 31, 2021, 2020, and 2019, respectively.

The weighted average grant date fair value of stock option awards using the Black-Scholes valuation model was $372.05, $49.68, and $54.36 for each share subject to a stock option granted during the years ended December 31, 2021, 2020, and 2019, respectively, based on the following assumptions:

	Years Ended December 31,		
	2021	**2020**	**2019**
Expected term of options in years	6.3	6.3	6.3
Expected volatility	56.8% - 59.0%	33.6% - 34.6%	33.2% - 33.4%
Risk-free interest rate	0.8% - 1.1%	0.3% - 0.5%	1.7% - 2.5%
Expected dividend yield	0.0%	0.0%	0.0%

The Company recognized approximately $32.0 million, $10.1 million, and $10.1 million in share-based compensation expense for the years ended December 31, 2021, 2020, and 2019, respectively, from stock options granted under the 2013 Equity Plan. As of December 31, 2021, there was approximately $96.1 million of total unrecognized share-based compensation expense related to unvested stock options. As of December 31, 2021, the Company expects to recognize this remaining share-based compensation expense over a weighted average vesting period of approximately 3.0 years.

Share-settled restricted stock units

During the fourth quarter of 2020, the Company began granting share-settled restricted stock units under the 2013 Equity Plan. The share-settled restricted stock units entitle recipients to receive a number of shares of the Company's class A common stock over a vesting period, as specified in the applicable restricted stock unit agreement. Although the Company may in its sole discretion elect to pay fully or partially in cash in lieu of settling solely in shares, it does not currently intend to do so.

Share-based compensation expense related to share-settled restricted stock units is based on the fair value of the Company's class A common stock on the date of grant. The Company recognizes share-based compensation expense associated with such share-settled restricted stock unit awards on a straight-line basis over the award's requisite service period (generally, the vesting period). The share-settled restricted stock unit awards granted to date vest in equal annual installments over a four-year period (unless accelerated in connection with a change in control event under specified conditions as set forth in the applicable restricted stock unit agreement or otherwise in accordance with provisions of the 2013 Equity Plan or applicable restricted stock unit agreement). Upon vesting of the share-settled restricted stock units, the Company covers the minimum tax withholding obligation by withholding shares with equivalent value based on the closing stock price on the vesting date. The Company then pays the withholding tax obligation to the appropriate taxing authorities which is reflected as a financing activity on the Consolidated Statements of Cash Flows.

As of December 31, 2021, there were 105,115 share-settled restricted stock units outstanding under the 2013 Equity Plan. The following table summarizes the Company's share-settled restricted stock unit activity (in thousands) for the periods indicated:

	Share-Settled Restricted Stock Units Outstanding	
	Units	Aggregate Intrinsic Value
Balance as of January 1, 2020	0	
Granted	76	
Vested	0	$ 0
Forfeited	(2)	
Balance as of December 31, 2020	74	
Granted	58	
Vested	(17)	$ 13,803
Forfeited	(10)	
Balance as of December 31, 2021	105	
Expected to vest as of December 31, 2021	105	$ 57,234

During the year ended December 31, 2021, 17,004 share-settled restricted stock units having an aggregate grant date fair value of $3.3 million vested, 5,857 shares were withheld to satisfy tax obligations, resulting in 11,147 issued shares. No share-settled restricted stock units vested during the year ended December 31, 2020. The weighted average grant date fair value of share-settled restricted stock units granted during the years ended December 31, 2021 and 2020 was $736.46 and $192.43, respectively, based on the fair value of the Company's class A common stock. The Company recognized approximately $8.0 million and $0.5 million in share-based compensation expense for the years ended December 31, 2021 and 2020, respectively, from share-settled restricted stock units granted under the 2013 Equity Plan. No share-settled restricted stock units were granted under the 2013 Equity Plan prior to the fourth quarter of 2020. As of December 31, 2021, there was approximately $44.6 million of total unrecognized share-based compensation expense related to unvested share-settled restricted stock units. As of December 31, 2021, the Company expects to recognize this remaining share-based compensation expense over a weighted average vesting period of approximately 3.4 years.

Other stock-based awards and cash-settled restricted stock units

During 2021, the Company granted 9,000 "other stock-based awards" under the 2013 Equity Plan. Other stock-based awards were not granted in 2020 or 2019. As of December 31, 2021, there were a total of 10,250 other stock-based awards outstanding under the 2013 Equity Plan. These other stock-based awards are similar to stock options, except these awards are settled in cash only and not in shares of the Company's class A common stock.

During 2021, the Company granted 900 cash-settled restricted stock units under the 2013 Equity Plan. Cash-settled restricted stock units were not granted prior to 2021. As of December 31, 2021, there were a total of 900 cash-settled restricted stock units outstanding under the 2013 Equity Plan. These cash-settled restricted stock units are similar to the Company's share-settled restricted stock units, except they are settled in cash only and not in shares of the Company's class A common stock.

Both the other stock-based awards and the cash-settled restricted stock units are classified as liabilities in the Company's Consolidated Balance Sheets due to the required cash settlement feature and the fair value of the awards is remeasured each quarterly reporting period. The Company recognized approximately $1.4 million in share-based compensation expense from other stock-based awards and cash-settled restricted stock units for the year ended December 31, 2021. The Company recognized approximately $0.6 million in share-based compensation expense from other stock-based awards for the year ended December 31, 2020. For the year ended December 31, 2019 share-based compensation expense from other stock-based awards was not material. As of December 31, 2021, there was approximately $2.5 million of total unrecognized share-based compensation expense related to other stock-based awards and cash-settled restricted stock units. The Company expects to recognize this remaining share-based compensation expense over a weighted average vesting period of approximately 2.9 years, subject to additional fair value adjustments through the earlier of settlement or expiration.

2021 ESPP

During the first quarter of 2021, the Company adopted the 2021 ESPP, and in the second quarter of 2021, the Company's stockholders approved the 2021 ESPP. The purpose of the 2021 ESPP is to provide eligible employees of the Company and certain of its subsidiaries with opportunities to purchase shares of the Company's class A common stock, commencing at such time and on such dates as the Board of Directors of the Company shall determine. An aggregate of 100,000 shares of the Company's class A common stock has been authorized for issuance under the 2021 ESPP.

Unless otherwise determined by the Board of Directors, shares are purchased at a price equal to 85% of the lesser of the closing price of the Company's class A common stock on the first or last business day of the offering period, respectively. Share-based compensation expense is based on the grant date fair value, which consists of the intrinsic value of the 15% discounted share purchase rights and the fair value of the look-back provision using the Black-Scholes valuation model, recognized on a straight-line basis over the offering period. The grant date is the offering period commencement date.

The first offering period under the 2021 ESPP commenced on February 16, 2021 and ended on August 15, 2021. A second offering period under the 2021 ESPP commenced on September 1, 2021 and will end on February 28, 2022. During the year ended December 31, 2021, the Company recognized approximately $2.6 million in share-based compensation expense related to the 2021 ESPP. As of December 31, 2021, there was approximately $0.5 million of total unrecognized share-based compensation expense related to the 2021 ESPP. The Company expects to recognize this remaining share-based compensation expense over a period of approximately 0.2 years. During the year ended December 31, 2021, 4,612 shares of class A common stock were issued in connection with the 2021 ESPP. As of December 31, 2021, 95,388 shares of the Company's class A common stock remained available for issuance under the 2021 ESPP.

Tax Benefits Related to Equity Plans

During the year ended December 31, 2021, the Company recognized tax benefits on exercises of stock options and vesting of share-settled restricted stock units of approximately $37.7 million and tax benefits on share-based compensation expense of approximately $8.2 million, for a total tax benefit of $45.9 million related to the Company's equity plans. During the year ended December 31, 2020, the Company recognized tax benefits on exercises of stock options of approximately $3.2 million and tax benefits on share-based compensation expense of approximately $2.0 million, for a total tax benefit of $5.2 million related to the Company's equity plans. The tax benefits related to the Company's equity plans were not material for the year ended December 31, 2019.

(12) Basic and Diluted (Loss) Earnings per Share

The following table sets forth the computation of basic and diluted (loss) earnings per share (in thousands, except per share data) for the periods indicated:

	Years Ended December 31,		
	2021	2020	2019
Numerator:			
Net (loss) income	$ (535,480)	$ (7,524)	$ 34,355
Denominator:			
Weighted average common shares of class A common stock	8,056	7,658	8,221
Weighted average common shares of class B common stock	1,964	2,026	2,035
Total weighted average common stock shares outstanding	10,020	9,684	10,256
Effect of dilutive securities:			
Employee stock options	0	0	72
Adjusted weighted average shares	10,020	9,684	10,328
(Loss) earnings per share:			
Basic (loss) earnings per share	$ (53.44)	$ (0.78)	$ 3.35
Diluted (loss) earnings per share	$ (53.44)	$ (0.78)	$ 3.33

The following weighted average shares of potential class A common stock were excluded from the diluted (loss) earnings per share calculation because their impact would have been anti-dilutive (in thousands):

	Years Ended December 31,		
	2021	2020	2019
Stock Options	1,233	1,487	933
Restricted Stock Units	95	10	0
Employee Stock Purchase Plan	2	0	0
2025 Convertible Notes	1,633	94	0
2027 Convertible Notes	635	0	0
Total	3,598	1,591	933

(13) Open Market Sale Agreement

On June 14, 2021, the Company entered into an Open Market Sale Agreement (the "Open Market Sale Agreement") with Jefferies LLC, as agent ("Jefferies"), pursuant to which the Company issued and sold shares of its class A common stock having an aggregate offering price of approximately $1.0 billion from time to time through Jefferies (the "Open Market Offering").

The Company agreed to pay Jefferies commissions for its services in acting as agent in the sale of the shares in the amount of up to 2.0% of gross proceeds from the sale of shares pursuant to the Open Market Sale Agreement. The Company also agreed to provide Jefferies with customary indemnification and contribution rights.

During 2021, the Company issued and sold 1,413,767 shares of its class A common stock under the Open Market Sale Agreement, at an average gross price per share of approximately $707.33, for aggregate net proceeds (less $9.5 million in sales commissions and expenses) of approximately $990.5 million. The sales commissions and expenses related to the Open Market Sale Agreement are considered direct and incremental costs and are charged against "Additional paid-in capital" on the balance sheet in the period in which the related shares are issued and sold. As of December 31, 2021, the cumulative aggregate offering price of the shares of class A common stock sold under the Open Market Sale Agreement was approximately $1.0 billion, inclusive of sales commissions, constituting the maximum program amount under the Open Market Sale Agreement.

(14) Treasury Stock

The Board of Directors has authorized the Company's repurchase of up to an aggregate of $800.0 million of its class A common stock from time to time on the open market through April 29, 2023 under the Share Repurchase Program, although the program may be suspended or discontinued by the Company at any time. The timing and amount of any shares repurchased will be determined by the Company's management based on its evaluation of market conditions and other factors. The Share Repurchase Program may be funded using the Company's working capital, as well as proceeds from any other funding arrangements that the Company may enter into in the future.

During 2021, the Company did not repurchase any shares of its class A common stock pursuant to the Share Repurchase Program. During 2020, the Company repurchased an aggregate of 444,769 shares of its class A common stock at an average price per share of $139.12 and an aggregate cost of $61.9 million pursuant to the Share Repurchase Program. During 2019, the Company repurchased an aggregate of 521,843 shares of its class A common stock at an average price per share of $139.35 and an aggregate cost of $72.7 million pursuant to the Share Repurchase Program. As of December 31, 2021, the Company had repurchased an aggregate of 5,674,226 shares of its class A common stock at an average price per share of $104.13 and an aggregate cost of $590.9 million pursuant to the Share Repurchase Program. As of December 31, 2021, $209.1 million of the Company's class A common stock remained available for repurchase pursuant to the Share Repurchase Program. The average price per share and aggregate cost amounts disclosed above include broker commissions.

During 2020, the Company repurchased an aggregate of 432,313 shares of its class A common stock through a "modified Dutch Auction" tender offer (the "Offer") at a price of $140.00 per share for an aggregate cost of $61.3 million, inclusive of $0.8 million in certain fees and expenses related to the Offer. The Offer expired in September 2020.

(15) Employee Benefit Plan

The Company sponsors a benefit plan to provide retirement benefits for its employees, known as the MicroStrategy 401(k) Savings Plan (the "401(k) Plan"). Participants may make voluntary contributions to the 401(k) Plan of up to 50% of their annual base pre-tax compensation, cash bonuses, and commissions not to exceed the federally determined maximum allowable contribution amounts. Participants may designate all or a portion of the 401(k) Plan elective deferral contributions as Roth elective deferral contributions instead of pre-tax elective deferral contributions. The 401(k) Plan permits for discretionary Company contributions.

The Company makes a matching contribution to each 401(k) Plan participant in the amount of 50% of the first 12% of a participant's contributions, up to a maximum of $5,000 per year. Further, all active participants become fully vested in the Company's matching contributions after completing four years of employment, vesting in increments based on the participant's years of employment with the Company.

The Company made contributions to the 401(k) Plan totaling $2.9 million, $3.3 million, and $4.1 million during the years ended December 31, 2021, 2020, and 2019, respectively.

(16) Segment Information

The Company manages its business in one reportable operating segment. The Company's one reportable operating segment is engaged in the design, development, marketing, and sales of its software platform through licensing arrangements and cloud subscriptions and related services. The following table presents total revenues, gross profit, and long-lived assets, excluding long-term deferred tax assets, (in thousands) according to geographic region:

Geographic regions:	Domestic	EMEA	Other Regions	Consolidated
Year ended December 31, 2021				
Total revenues	$ 286,131	$ 171,140	$ 53,491	$ 510,762
Gross profit	$ 238,347	$ 139,704	$ 40,802	$ 418,853
Year ended December 31, 2020				
Total revenues	$ 279,220	$ 155,478	$ 46,037	$ 480,735
Gross profit	$ 229,466	$ 124,513	$ 35,701	$ 389,680
Year ended December 31, 2019				
Total revenues	$ 273,581	$ 159,643	$ 53,103	$ 486,327
Gross profit	$ 216,365	$ 126,939	$ 43,049	$ 386,353
As of December 31, 2021				
Long-lived assets	$ 2,951,832	$ 10,753	$ 6,792	$ 2,969,377
As of December 31, 2020				
Long-lived assets	$ 1,165,283	$ 11,441	$ 9,765	$ 1,186,489

The domestic region consists of the United States and Canada. The EMEA region includes operations in Europe, the Middle East, and Africa. The other regions include all other foreign countries, generally comprising Latin America and the Asia Pacific region. For the years ended December 31, 2021, 2020, and 2019, no individual foreign country accounted for 10% or more of total consolidated revenues.

For the years ended December 31, 2021, 2020, and 2019, no individual customer accounted for 10% or more of total consolidated revenues.

As of December 31, 2021 and 2020, no individual foreign country accounted for 10% or more of total consolidated assets.

(17) Related Party Transaction

In June 2021, Michael J. Saylor, the Company's Chairman of the Board of Directors & Chief Executive Officer, entered into an indemnification agreement with the Company for an initial term of 90 days. The indemnification agreement provides that Mr. Saylor will provide during the term of the agreement, from his personal funds, directors' and officers' indemnity coverage to the Company for the benefit of the directors and officers of the Company and its subsidiaries in the event such coverage is not indemnifiable by the Company, up to a total of $40 million. In return, the Company paid Mr. Saylor a one-time fee of $388,945 for the initial 90-day term. In 2021, pursuant to the terms of the indemnification agreement, the Company elected to extend the term for two additional 90-day periods which began in September 2021 and December 2021, respectively, and paid Mr. Saylor an additional $777,890 in the aggregate for these extensions. In February 2022, pursuant to the terms of the indemnification agreement, the Company elected to extend the term for a final 90-day period to begin in March 2022, and paid Mr. Saylor an additional $388,945 for the final extension.

Prior to entering into the indemnification agreement with Mr. Saylor, the Company obtained and considered binding market quotes for directors' and officers' liability insurance policies. The Company determined that these policies would have provided insufficient coverage and would have required substantial premiums.

(18) Sale of Domain Name

On May 30, 2019, the Company completed the sale of its Voice.com domain name for consideration of $30.0 million in cash (the "Domain Name Sale"). As of the date of the Domain Name Sale, the Company had no unamortized costs associated with the Voice.com domain name asset. The Company did not incur any material costs related to the Domain Name Sale. The Domain Name Sale resulted in a gain of $29.8 million in the second quarter of 2019, which was recorded as "Other income, net" for such quarter in the Consolidated Statements of Operations. The Company also recorded a discrete $8.1 million tax provision in the second quarter of 2019 related to the Domain Name Sale.

(19) Subsequent Events

In February 2022, the Company elected to extend the term of the indemnification agreement with Mr. Saylor for a final 90-day period to begin in March 2022. See Note 17, Related Party Transaction, to the Consolidated Financial Statements for further details.

The Company has incurred at least $163.3 million in digital asset impairment losses during the first quarter of 2022 on bitcoin held as of December 31, 2021. See Note 2(g), Summary of Significant Accounting Policies, to the Consolidated Financial Statements for further detail on accounting for digital assets.

INDEX TO EXHIBITS

Exhibit Number	Description
3.1	Second Restated Certificate of Incorporation of the registrant (incorporated herein by reference to Exhibit 3.1 to the registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2003 (File No. 000-24435)).
3.2	Amended and Restated By-Laws of the registrant (incorporated herein by reference to Exhibit 3.1 to the registrant's Current Report on Form 8-K filed with the SEC on January 30, 2015 (File No. 000-24435)).
4.1	Form of Certificate of Class A Common Stock of the registrant (incorporated herein by reference to Exhibit 4.1 to the registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2003 (File No. 000-24435)).
4.2	Description of the registrant's registered securities (incorporated herein by reference to Exhibit 4.2 to the registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2019 (File No. 000-24435)).
4.3	Indenture, dated as of December 11. 2020, by and between the registrant and U.S. Bank National Association, as trustee (incorporated herein by reference to Exhibit 4.1 to the registrant's Current Report on Form 8-K filed with the SEC on December 11, 2020 (File No. 000-24435)).
4.4	Form of 0.750% Convertible Senior Note due 2025 (included within Exhibit 4.3 incorporated herein by reference to Exhibit 4.1 to the registrant's Current Report on Form 8-K filed with the SEC on December 11, 2020 (File No. 000-24435)).
4.5	Indenture, dated as of February 19, 2021, by and between the registrant and U.S. Bank National Association, as trustee (incorporated herein by reference to Exhibit 4.1 to the registrant's Current Report on Form 8-K filed with the SEC on February 19, 2021 (File No. 000-24435)).
4.6	Form of 0% Convertible Senior Note due 2027 (included within Exhibit 4.5 incorporated herein by reference to Exhibit 4.1 to the registrant's Current Report on Form 8-K filed with the SEC on February 19, 2021 (File No. 000-24435)).
4.7	Indenture, dated as of June 14, 2021, by and among the registrant, as issuer, MicroStrategy Services Corporation, as a guarantor, and U.S. Bank National Association, as trustee and notes collateral agent (incorporated herein by reference to Exhibit 4.1 to the registrant's Current Report on Form 8-K filed with the SEC on June 14, 2021 (File No. 000-24435)).
4.8	Form of 6.125% Senior Secured Note due 2028 (included within Exhibit 4.7 incorporated herein by reference to Exhibit 4.1 to the registrant's Current Report on Form 8-K filed with the SEC on June 14, 2021 (File No. 000-24435)).
10.1†	MicroStrategy Incorporated 2013 Stock Incentive Plan (incorporated herein by reference to Exhibit 10.1 to the registrant's Current Report on Form 8-K filed with the SEC on September 9, 2013 (File No. 000-24435)).
10.2†	Amendment No. 1 to the MicroStrategy Incorporated 2013 Stock Incentive Plan (incorporated herein by reference to Exhibit 10.1 to the registrant's Current Report on Form 8-K filed with the SEC on April 28, 2014 (File No. 000-24435)).
10.3†	Amendment No. 2 to the MicroStrategy Incorporated 2013 Stock Incentive Plan (incorporated herein by reference to Exhibit 99.3 to the registrant's Registration Statement on Form S-8 filed with the SEC on July 25, 2014 (File No. 333-197645)).
10.4†	Amendment No. 3 to the MicroStrategy Incorporated 2013 Stock Incentive Plan (incorporated herein by reference to Exhibit 10.1 to the registrant's Current Report on Form 8-K filed with the SEC on October 26, 2015 (File No. 000-24435)).
10.5†	Amendment No. 4 to the MicroStrategy Incorporated 2013 Stock Incentive Plan (incorporated herein by reference to Exhibit 10.4 to the registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2018 (File No. 000-24435)).
10.6†	Amendment No. 5 to the MicroStrategy Incorporated 2013 Stock Incentive Plan (incorporated herein by reference to Exhibit 10.1 to the registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2021 (File No. 000-24435)).
10.7†	2013 Form of Nonstatutory Stock Option Agreement (incorporated herein by reference to Exhibit 10.2 to the registrant's Current Report on Form 8-K filed with the SEC on September 9, 2013 (File No. 000-24435)).
10.8†	2016 Form of Nonstatutory Stock Option Agreement (incorporated herein by reference to Exhibit 10.1 to the registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2016 (File No. 000-24435)).

10.9†	Form of Restricted Stock Unit Agreement.
10.10†	Form of International Restricted Stock Unit Agreement.
10.11†	Form of UK Restricted Stock Unit Agreement.
10.12†	Form of Canada Restricted Stock Unit Agreement.
10.13†	Summary of Perquisites and Associated Other Compensation Arrangements for Named Executive Officers (incorporated herein by reference to Exhibit 10.6 to the registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2015 (File No. 000-24435)).
10.14†	Summary of Director Fees and Perquisites and Associated Other Compensation Arrangements for Non-Employee Directors (incorporated herein by reference to Exhibit 10.2 to the registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended March 31, 2014 (File No. 000-24435)).
10.15†	Sublease Agreement, dated as of January 31, 2011, by and between the Company and Aeromar Management Company, LLC (incorporated herein by reference to Exhibit 10.14 to the registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2010 (File No. 000-24435)).
10.16†	Summary of Designated Company Vehicles Policy (incorporated herein by reference to Exhibit 10.1 to the registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2007 (File No. 000-24435)).
10.17†	Amended and Restated Performance Incentive Plan (incorporated herein by reference to Exhibit 99.1 to the registrant's Current Report on Form 8-K filed with the SEC on December 28, 2012 (File No. 000-24435)).
10.18†	Summary of Cash Bonus and Salary Determinations for Certain Executive Officers (incorporated herein by reference to Part II Item 9B of the registrant's Annual Report on Form 10-K for the fiscal year ended December 31, 2020 (File No. 000-24435)).
10.19†	MicroStrategy Incorporated 2021 Employee Stock Purchase Plan (incorporated herein by reference to Exhibit 99.1 to the registrant's Registration Statement on Form S-8 filed with the SEC on February 1, 2021 (File No. 333-252608)).
10.20†	Summary of Bitcoin-related Compensation Arrangements for Non-employee Directors (incorporated herein by reference to the registrant's Current Report on Form 8-K filed with the SEC on April 12, 2021 (File No. 000-24435)).
10.21†	Indemnification Agreement, effective as of June 16, 2021, by and between the registrant and Michael J. Saylor (incorporated herein by reference to Exhibit 10.3 to the registrant's Quarterly Report on Form 10-Q for the fiscal quarter ended June 30, 2021 (File No. 000-24435)).
21.1	Subsidiaries of the registrant.
23.1	Consent of KPMG LLP.
31.1	Certification pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the Chairman of the Board of Directors & Chief Executive Officer.
31.2	Certification pursuant to Rule 13a-14(a) or Rule 15d-14(a) of the President & Chief Financial Officer.
32.1	Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	Inline XBRL Instance Document. The instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document.
101.SCH	Inline XBRL Taxonomy Extension Schema.
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase.
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase.
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase.
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase.
104	Cover Page Interactive Data File (formatted as inline XBRL with applicable taxonomy extension information contained in Exhibits 101).

† Management contracts and compensatory plans or arrangements.

SIGNATURES

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

MICROSTRATEGY INCORPORATED
(Registrant)

By: /s/ Michael J. Saylor
Name: **Michael J. Saylor**
Title: **Chairman of the Board of Directors & Chief Executive Officer**

Date: February 15, 2022

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

Name	Position	Date
/S/ MICHAEL J. SAYLOR **Michael J. Saylor**	Chairman of the Board of Directors & Chief Executive Officer (Principal Executive Officer)	February 15, 2022
/S/ PHONG LE **Phong Le**	President & Chief Financial Officer (Principal Financial Officer)	February 15, 2022
/S/ JEANINE MONTGOMERY **Jeanine Montgomery**	Senior Vice President & Chief Accounting Officer (Principal Accounting Officer)	February 15, 2022
/S/ STEPHEN X. GRAHAM **Stephen X. Graham**	Director	February 15, 2022
/S/ JARROD M. PATTEN **Jarrod M. Patten**	Director	February 15, 2022
/S/ LESLIE RECHAN **Leslie Rechan**	Director	February 15, 2022
/S/ CARL J. RICKERTSEN **Carl J. Rickertsen**	Director	February 15, 2022

SCHEDULE II
VALUATION AND QUALIFYING ACCOUNTS
For the years ended December 31, 2021, 2020, and 2019
(in thousands)

	Balance at the beginning of the period	Additions (1)	Deductions	Balance at the end of the period
Allowance for credit losses:				
December 31, 2021	$ 2,760	669	(654)	$ 2,775
December 31, 2020	$ 1,637	1,550	(427)	$ 2,760
December 31, 2019	$ 5,489	124	(3,976)	$ 1,637
Deferred tax valuation allowance:				
December 31, 2021	$ 1,259	0	(260)	$ 999
December 31, 2020	$ 2,130	10	(881)	$ 1,259
December 31, 2019	$ 1,507	633	(10)	$ 2,130

(1) Reductions in/charges to revenues and expenses.

Exhibit 10.9

MICROSTRATEGY INCORPORATED

Restricted Stock Unit Agreement
Granted Under 2013 Stock Incentive Plan

MicroStrategy Incorporated, a Delaware corporation (the "Company"), hereby grants the following restricted stock units pursuant to its 2013 Stock Incentive Plan. The terms and conditions attached hereto are also a part hereof.

Notice of Grant

Name of recipient (the "Participant"):	
Grant Date:	
Number of restricted stock units ("RSUs") granted:	
Number, if any, of RSUs that vest immediately on the Grant Date:	
RSUs that are subject to vesting schedule:	
Vesting Start Date:	

Vesting Schedule:

<table>
<tr><td>Vesting Date:</td><td>Number of RSUs that Vest:</td></tr>
<tr><td>25% of the RSUs</td><td>One-year anniversary of the Vesting Start Date</td></tr>
<tr><td>25% of the RSUs</td><td>Two-year anniversary of the Vesting Start Date</td></tr>
<tr><td>25% of the RSUs</td><td>Three-year anniversary of the Vesting Start Date</td></tr>
<tr><td>25% of the RSUs</td><td>Four-year anniversary of the Vesting Start Date</td></tr>
<tr><td colspan="2">All vesting is dependent on the Participant remaining an Eligible Participant, as provided herein, and is subject to Section 3(b) below. The Participant shall be an "Eligible Participant" if he or she is an employee, director or officer of, or consultant or advisor to, any entity included in the definition of the Company in the Plan (each, a "Specified Company").</td></tr>
</table>

This grant of RSUs satisfies in full all commitments that the Company has to the Participant with respect to the issuance of stock, stock options or other equity securities.

MICROSTRATEGY INCORPORATED

By:___________________________________
Name:
Title:

MICROSTRATEGY INCORPORATED

Restricted Stock Unit Agreement
Incorporated Terms and Conditions

1. Award of Restricted Stock Units. In consideration of services rendered and to be rendered to the Company, by the Participant, the Company has granted to the Participant, subject to the terms and conditions set forth in this Restricted Stock Unit Agreement (this "Agreement") and in the Company's 2013 Stock Incentive Plan, as amended (the "Plan"), an award with respect to the number of RSUs set forth in the Notice of Grant that forms part of this Agreement (the "Notice of Grant"). Each RSU represents the right to receive one share of class A common stock, $0.001 par value per share, of the Company (the "Common Stock") upon vesting of the RSU, subject to the terms and conditions set forth herein. To accept this award, the Participant must accept this Agreement within six (6) months of the Grant Date. If this Agreement is not accepted within six (6) months of the Grant Date, the Company's offer to grant RSUs under this Agreement will be withdrawn and cease to be in effect and the Participant shall have no rights to any RSUs under this Agreement.

2. Definitions.

(a) "Adverse Event" shall mean the occurrence of (x) any material diminution in the Participant's authority, duties, responsibility, or base compensation, or (y) the requirement by the Company that the Participant be principally located at a place of business that is more than 50 miles from the place of business where the Participant was principally located immediately prior to the Change in Control Event (as defined in paragraph 2(c) below).

(b) "Cause" shall mean willful misconduct by the Participant or willful failure by the Participant to perform his or her responsibilities to any Specified Company (including, without limitation, breach by the Participant of any provision of any employment, consulting, advisory, nondisclosure, non-competition or other similar agreement between the Participant and any Specified Company), as determined by the Company, which determination shall be conclusive. Notwithstanding the foregoing, if the Participant is party to an employment, consulting or severance agreement with a Specified Company that contains a definition of "cause" for termination of employment or other relationship as an Eligible Participant, "Cause" shall have the meaning ascribed to such term in such agreement. The Participant's employment or other relationship as an Eligible Participant shall be considered to have been terminated for "Cause" if the Company determines no later than 30 days after the Participant's termination of employment or other relationship as an Eligible Participant, that termination for Cause was warranted.

(c) A "Change in Control Event" shall mean any of the following, provided that such event constitutes a "change in control event" within the meaning of Section 409A of the Code:

(i) the acquisition by an individual, entity or group (within the meaning of Section 13(d)(3) or 14(d)(2) of the Securities Exchange Act of 1934, as amended (the "Exchange Act")) (a "Person") of beneficial ownership of any capital stock of the Company after the date hereof if, after such acquisition, such Person beneficially owns (within the meaning of Rule 13d-

3 under the Exchange Act) 50% or more of the combined voting power of the then-outstanding securities of the Company entitled to vote generally in the election of directors (the "Outstanding Company Voting Securities"); provided, however, that for purposes of this subsection (i), the following acquisitions shall not constitute a Change in Control Event: (I) any acquisition directly from the Company (excluding an acquisition pursuant to the exercise, conversion or exchange of any security exercisable for, convertible into or exchangeable for Common Stock, class B common stock, par value $0.001 per share of the Company ("Class B Common Stock") or other voting securities of the Company, unless the Person exercising, converting or exchanging such security acquired such security directly from the Company or an underwriter or agent of the Company), (II) any acquisition by any corporation pursuant to a Business Combination (as defined in paragraph 2(b)(iii) below) which complies with clauses (x) and (y) of subsection (iii) of this definition, (III) any transfer by Michael J. Saylor or any of his affiliates (within the meaning of Rule 12b-2 of the Exchange Act) (the "MS Affiliates") to Michael J. Saylor or any MS Affiliate or (IV) any acquisition by Michael J. Saylor or any MS Affiliate not pursuant to a Business Combination, except for an acquisition that results in any of the effects described in paragraph (a)(3)(ii)(B) of Rule 13e-3 under the Exchange Act (or any successor provision) with respect to the Common Stock; or

(ii) on any date after Michael J. Saylor and the MS Affiliates cease to own in the aggregate more than 50% of the combined voting power of the Outstanding Company Voting Securities (the "Applicable Date"), there is a change in the composition of the board of the Company (the "Board") that results in the Continuing Directors (as defined below) no longer constituting a majority of the Board (or, if applicable, the board of directors of a successor corporation to the Company), where the term "Continuing Director" means at any date a member of the Board (x) who was a member of the Board on the date immediately prior to the Applicable Date or (y) who was nominated or elected subsequent to the Applicable Date by at least a majority of the directors who were Continuing Directors at the time of such nomination or election or whose election to the Board was recommended or endorsed by at least a majority of the directors who were Continuing Directors at the time of such nomination or election; provided, however, that there shall be excluded from this clause (y) any individual whose initial assumption of office occurred as a result of an actual or threatened election contest with respect to the election or removal of directors or other actual or threatened solicitation of proxies or consents, by or on behalf of a person other than the Board; or

(iii) the consummation of a merger, consolidation, reorganization, recapitalization or share exchange involving the Company or a sale or other disposition of all or substantially all of the assets of the Company (a "Business Combination"), unless, immediately following such Business Combination, each of the following two conditions is satisfied: (x) all or substantially all of the individuals and entities who were the beneficial owners of the outstanding shares of the Common Stock and Class B Common Stock and any other Outstanding Company Voting Securities immediately prior to such Business Combination beneficially own, directly or indirectly, more than 50% of the combined voting power of the then-outstanding securities entitled to vote generally in the election of directors, respectively, of the resulting or acquiring corporation in such Business Combination (which shall include, without limitation, a corporation which as a result of such transaction owns the Company or substantially all of the Company's assets either directly or through one or more subsidiaries) (such resulting or acquiring corporation is referred to herein as the "Acquiring Corporation") in substantially the same proportions as their ownership of the Common Stock, Class B Common Stock and such other Outstanding Company Voting Securities, respectively, immediately prior to such Business Combination and (y) no Person (excluding Michael J. Saylor or any MS Affiliate, any employee benefit plan (or related trust) maintained or sponsored by the Company or by the Acquiring Corporation or any Person who beneficially owned, directly or indirectly, 50% or more of the combined voting power of the Outstanding Company Voting Securities prior to the Business Combination) beneficially owns, directly or indirectly, 50% or more of the combined voting power of the then-outstanding securities of such corporation entitled to vote generally in the election of directors; provided, however, that for the avoidance of doubt, the consummation of any Business Combination that results in any of the effects described in paragraph (a)(3)(ii)(B) of Rule 13e-3 under the Exchange Act (or any successor provision) with respect to the Common Stock shall be deemed not to satisfy the condition set forth in clause (x).

(d) "Good Reason" shall mean the occurrence of an Adverse Event, in each case, after the Change in Control Event. Notwithstanding the foregoing, an Adverse Event shall not be deemed to constitute Good Reason unless (i) the Participant gives the Company or the Acquiring Corporation, as applicable, notice of termination of employment or other relationship as an Eligible Participant no more than 90 days after the initial occurrence of the Adverse Event, (ii) such Adverse Event has not been fully corrected and the Participant has not been reasonably compensated for any losses or damages resulting therefrom within 30 days of the Company's or the Acquiring Corporation's receipt of such notice and (iii) the Participant's termination of employment or other relationship as an Eligible Participant occurs within six (6) months following the Company's or the Acquiring Corporation's receipt of such notice.

3. Vesting.

(a) The RSUs shall vest in accordance with the Vesting Schedule set forth in the Notice of Grant (the "Vesting Schedule"). Any fractional shares resulting from the application of any percentages used in the Vesting Schedule shall be rounded down to the nearest whole number of RSUs. Upon each Vesting Date (or, if applicable, an earlier vesting date pursuant to Section 3(b) below, which, in such event, shall also be hereinafter referred to as the "Vesting Date"), the Company shall settle the vested portion of the RSUs and shall therefore, subject to the payment of any taxes pursuant to Section 8(b), (i) issue and deliver to the Participant one share of Common Stock for each RSU that vests on such Vesting Date (the "RSU Shares") and (ii) enter the Participant's name as a shareholder of record with respect to the RSU Shares on the books of the Company. Alternatively, the Board may, in its sole discretion, elect to pay cash or part cash and part RSU Shares in lieu of settling the RSUs that vest on such Vesting Date solely in RSU Shares (such discretion of the Board to settle in cash shall not apply to a Participant who is subject to Canadian tax, whose shares must be settled in previously unissued shares). If a cash payment is made in lieu of delivering RSU Shares, the amount of such payment shall be equal to the Fair Market Value (as defined in the Plan) of the RSU Shares as of the Vesting Date less an amount equal to any federal, state, local and other taxes of any kind required to be withheld with respect to the vesting of the RSUs. The RSUs or any cash payment in lieu of RSU Shares will be delivered to the Participant as soon as practicable following each Vesting Date, but in any event within 30 days of such date.

(b) Notwithstanding the provisions of Section 9(b) of the Plan or Section 3(a) above, in the event of a Change in Control Event:

(i) If the Change in Control Event also constitutes a Reorganization Event (as defined in the Plan) and the RSUs are not assumed, or substantially equivalent RSUs substituted, by the Acquiring Corporation, these RSUs shall automatically become vested in full immediately prior to such Change in Control Event; and

(ii) If otherwise, these RSUs shall continue to vest in accordance with the Vesting Schedule; provided, however, that these RSUs shall immediately become vested in full if, on or prior to the first anniversary of the date of the consummation of the Change in Control Event, the Participant's employment or other relationship as an Eligible Participant with the Company or the Acquiring Corporation is terminated for Good Reason by the Participant or is terminated without Cause by the Company or the Acquiring Corporation.

4. Forfeiture of Unvested RSUs Upon Cessation of Service. In the event that the Participant ceases to be an Eligible Participant for any reason or no reason, with or without Cause, all of the RSUs that are unvested as of the time of such cessation shall be forfeited immediately and automatically to the Company, without the payment of any consideration to the Participant, effective as of such cessation. The Participant shall have no further rights with respect to the unvested RSUs or any Common Stock that may have been issuable with respect thereto.

5. Restrictions on Transfer. The Participant shall not sell, assign, transfer, pledge, hypothecate, encumber or otherwise dispose of, by operation of law or otherwise (collectively "transfer") any RSUs, or any interest therein. The Company shall not be required to treat as the owner of any RSUs or issue any Common Stock or make any cash payment, to any transferee to whom such RSUs have been transferred in violation of any of the provisions of this Agreement.

6. Rights as a Stockholder. The Participant shall have no rights as a stockholder of the Company with respect to any shares of Common Stock that may be issuable with respect to the RSUs until the issuance of the shares of Common Stock to the Participant following the vesting of the RSUs.

7. Provisions of the Plan. This Agreement is subject to the provisions of the Plan, a copy of which is furnished to the Participant with this Agreement. Capitalized terms used herein and not otherwise defined shall have the meanings ascribed to them in the Plan.

8. Tax Matters.

(a) Acknowledgments; No Section 83(b) Election. The Participant acknowledges that he or she is responsible for obtaining the advice of the Participant's own tax advisors with respect to the award of RSUs and the Participant is relying solely on such advisors and not on any statements or representations of the Company or any of its agents with respect to the tax consequences relating to the RSUs. The Participant understands that the Participant (and not the Company) shall be responsible for the Participant's tax liability that may arise in connection with the acquisition, vesting and/or disposition of the RSUs. The Participant acknowledges that no election under Section 83(b) of the Internal Revenue Code of 1986, as amended, (the "Code") is available with respect to RSUs.

(b) Withholding. The Participant acknowledges and agrees that the Company has the right to deduct from payments of any kind otherwise due to the Participant any federal, state, local or other taxes of any kind required by law to be withheld with respect to the vesting of the RSUs. On each Vesting Date (or other date or time at which the Company is required to withhold taxes associated with the RSUs), the Company will retain from the RSU Shares otherwise issuable on such date a number of shares of Common Stock having a Fair Market Value equal to the Company's minimum statutory withholding obligation with respect to such taxable event. If the Company is unable to retain sufficient shares of Common Stock to satisfy such tax withholding obligation, the Participant acknowledges and agrees that the Company or an affiliate of the Company shall be entitled to immediate payment from the Participant of the amount of any tax required to be withheld by the Company. The Company shall not deliver any RSU Shares to the Participant until it is satisfied that all required withholdings have been made.

9. Miscellaneous.

(a) Section 409A. The RSUs awarded pursuant to this Agreement are intended to be exempt from or comply with the requirements of Section 409A of the Code and the Treasury Regulations issued thereunder ("Section 409A"). The delivery of RSU Shares on the vesting of the RSUs may not be accelerated or deferred to dates or events other than those set forth herein, unless permitted or required by Section 409A.

(b) Participant's Acknowledgements. The Participant acknowledges that he or she: (i) has read this Agreement; (ii) has been represented in the preparation, negotiation and execution of this Agreement by legal counsel of the Participant's own choice or has voluntarily declined to seek such counsel; (iii) understands the terms and consequences of this Agreement; (iv) is fully aware of the legal and binding effect of this Agreement; and (v) agrees that in accepting this award, he or she will be bound by any clawback policy that the Company may adopt in the future. To accept this award, the Participant acknowledges that they must accept this Agreement within six (6) months of the Grant Date. If this Agreement is not accepted within six (6) months of the Grant Date, the Company's offer to grant RSUs under this Agreement will be withdrawn and cease to be in effect and the Participant shall have no rights to any RSUs under this Agreement.

*****

The terms and conditions of this Agreement have been accepted by:

###PARTICIPANT_NAME###
Dated: ###ACCEPTANCE_DATE###

Exhibit 10.10

MICROSTRATEGY INCORPORATED

Restricted Stock Unit Agreement
Granted Under 2013 Stock Incentive Plan

MicroStrategy Incorporated, a Delaware corporation (the "Company"), hereby grants the following restricted stock units pursuant to its 2013 Stock Incentive Plan. The terms and conditions attached hereto are also a part hereof.

Notice of Grant

Name of recipient (the "Participant"):	
Grant Date:	
Number of restricted stock units ("RSUs") granted:	
Number, if any, of RSUs that vest immediately on the Grant Date:	
RSUs that are subject to vesting schedule:	
Vesting Start Date:	

Vesting Schedule:

Vesting Date:	Number of RSUs that Vest:
25% of the RSUs	One-year anniversary of the Vesting Start Date
25% of the RSUs	Two-year anniversary of the Vesting Start Date
25% of the RSUs	Three-year anniversary of the Vesting Start Date
25% of the RSUs	Four-year anniversary of the Vesting Start Date
All vesting is dependent on the Participant remaining an Eligible Participant, as provided herein, and is subject to Section 3(b) below. The Participant shall be an "Eligible Participant" if he or she is an employee, director or officer of, or consultant or advisor to, any entity included in the definition of the Company in the Plan (each, a "Specified Company").	

This grant of RSUs satisfies in full all commitments that the Company has to the Participant with respect to the issuance of stock, stock options or other equity securities.

MICROSTRATEGY INCORPORATED

By: ____
Name:
Title:

MICROSTRATEGY INCORPORATED

Restricted Stock Unit Agreement
Incorporated Terms and Conditions

1. Award of Restricted Stock Units. In consideration of services rendered and to be rendered to the Company by the Participant, the Company has granted to the Participant, subject to the terms and conditions set forth in this Restricted Stock Unit Agreement (this "Agreement") and in the Company's 2013 Stock Incentive Plan, as amended (the "Plan"), an award with respect to the number of RSUs set forth in the Notice of Grant that forms part of this Agreement (the "Notice of Grant"). Each RSU represents the right to receive one share of class A common stock, $0.001 par value per share, of the Company (the "Common Stock") upon vesting of the RSU, subject to the terms and conditions set forth herein. To accept this award, the Participant must accept this Agreement within six (6) months of the Grant Date. If this Agreement is not accepted within six (6) months of the Grant Date, the Company's offer to grant RSUs under this Agreement will be withdrawn and cease to be in effect and the Participant shall have no rights to any RSUs under this Agreement.

2. Definitions.

(a) "Adverse Event" shall mean the occurrence of (x) any material diminution in the Participant's authority, duties, responsibility, or base compensation, or (y) the requirement by the Company that the Participant be principally located at a place of business that is more than 50 miles from the place of business where the Participant was principally located immediately prior to the Change in Control Event (as defined in paragraph 2(c) below).

(b) "Cause" shall mean willful misconduct by the Participant or willful failure by the Participant to perform his or her responsibilities to any Specified Company, (including, without limitation, breach by the Participant of any provision of any employment, consulting, advisory, nondisclosure, non-competition or other similar agreement between the Participant and any Specified Company), as determined by the Company, which determination shall be conclusive. Notwithstanding the foregoing, if the Participant is party to an employment, consulting or severance agreement with a Specified Company that contains a definition of "cause" for termination of employment or other relationship as an Eligible Participant, "Cause" shall have the meaning ascribed to such term in such agreement. The Participant's employment or other relationship as an Eligible Participant shall be considered to have been terminated for "Cause" if the Company determines no later than 30 days after the Participant's termination of employment or other relationship as an Eligible Participant, that termination for Cause was warranted.

(c) A "Change in Control Event" shall mean any of the following, provided that such event constitutes a "change in control event" within the meaning of Section 409A of the Code:

(i) the acquisition by an individual, entity or group (within the meaning of Section 13(d)(3) or 14(d)(2) of the Securities Exchange Act of 1934, as amended (the "Exchange Act")) (a "Person") of beneficial ownership of any capital stock of the Company after the date hereof if, after such acquisition, such Person beneficially owns (within the meaning of Rule 13d-3 under the Exchange Act) 50% or more of the combined voting power of the then-outstanding securities of the Company entitled to vote generally in the election of directors (the "Outstanding Company Voting Securities"); provided, however, that for purposes of this subsection (i), the following acquisitions shall not constitute a Change in Control Event: (I) any acquisition directly from the Company (excluding an acquisition pursuant to the exercise, conversion or exchange of any security exercisable for, convertible into or exchangeable for Common Stock, class B common stock, par value $0.001 per share of the Company ("Class B Common

Stock") or other voting securities of the Company, unless the Person exercising, converting or exchanging such security acquired such security directly from the Company or an underwriter or agent of the Company), (II) any acquisition by any corporation pursuant to a Business Combination (as defined in paragraph 2(b)(iii) below) which complies with clauses (x) and (y) of subsection (iii) of this definition, (III) any transfer by Michael J. Saylor or any of his affiliates (within the meaning of Rule 12b-2 of the Exchange Act) (the "MS Affiliates") to Michael J. Saylor or any MS Affiliate or (IV) any acquisition by Michael J. Saylor or any MS Affiliate not pursuant to a Business Combination, except for an acquisition that results in any of the effects described in paragraph (a)(3)(ii)(B) of Rule 13e-3 under the Exchange Act (or any successor provision) with respect to the Common Stock; or

(ii) on any date after Michael J. Saylor and the MS Affiliates cease to own in the aggregate more than 50% of the combined voting power of the Outstanding Company Voting Securities (the "Applicable Date"), there is a change in the composition of the board of the Company (the "Board") that results in the Continuing Directors (as defined below) no longer constituting a majority of the Board (or, if applicable, the board of directors of a successor corporation to the Company), where the term "Continuing Director" means at any date a member of the Board (x) who was a member of the Board on the date immediately prior to the Applicable Date or (y) who was nominated or elected subsequent to the Applicable Date by at least a majority of the directors who were Continuing Directors at the time of such nomination or election or whose election to the Board was recommended or endorsed by at least a majority of the directors who were Continuing Directors at the time of such nomination or election; provided, however, that there shall be excluded from this clause (y) any individual whose initial assumption of office occurred as a result of an actual or threatened election contest with respect to the election or removal of directors or other actual or threatened solicitation of proxies or consents, by or on behalf of a person other than the Board; or

(iii) the consummation of a merger, consolidation, reorganization, recapitalization or share exchange involving the Company or a sale or other disposition of all or substantially all of the assets of the Company (a "Business Combination"), unless, immediately following such Business Combination, each of the following two conditions is satisfied: (x) all or substantially all of the individuals and entities who were the beneficial owners of the outstanding shares of the Common Stock and Class B Common Stock and any other Outstanding Company Voting Securities immediately prior to such Business Combination beneficially own, directly or indirectly, more than 50% of the combined voting power of the then-outstanding securities entitled to vote generally in the election of directors, respectively, of the resulting or acquiring corporation in such Business Combination (which shall include, without limitation, a corporation which as a result of such transaction owns the Company or substantially all of the Company's assets either directly or through one or more subsidiaries) (such resulting or acquiring corporation is referred to herein as the "Acquiring Corporation") in substantially the same proportions as their ownership of the Common Stock, Class B Common Stock and such other Outstanding Company Voting Securities, respectively, immediately prior to such Business Combination and (y) no Person (excluding Michael J. Saylor or any MS Affiliate, any employee benefit plan (or related trust) maintained or sponsored by the Company or by the Acquiring Corporation or any Person who beneficially owned, directly or indirectly, 50% or more of the combined voting power of the Outstanding Company Voting Securities prior to the Business Combination) beneficially owns, directly or indirectly, 50% or more of the combined voting power of the then-outstanding securities of such corporation entitled to vote generally in the election of directors; provided, however, that for the avoidance of doubt, the consummation of any Business Combination that results in any of the effects described in paragraph (a)(3)(ii)(B) of Rule 13e-3 under the Exchange Act (or any successor provision) with respect to the Common Stock shall be deemed not to satisfy the condition set forth in clause (x).

(d) "Good Reason" shall mean the occurrence of an Adverse Event, in each case, after the Change in Control Event. Notwithstanding the foregoing, an Adverse Event shall not be deemed to constitute Good Reason unless (i) the Participant gives the Company or the Acquiring Corporation, as applicable, notice of termination of employment or other relationship as an Eligible Participant no more than 90 days after the initial occurrence of the Adverse Event, (ii) such Adverse Event has not been fully corrected and the Participant has not been reasonably compensated for any losses or damages resulting therefrom within 30 days of the Company's or the Acquiring Corporation's receipt of such notice and (iii) the Participant's termination of employment or other relationship as an Eligible Participant occurs within six (6) months following the Company's or the Acquiring Corporation's receipt of such notice.

3. Vesting.

(a) The RSUs shall vest in accordance with the Vesting Schedule set forth in the Notice of Grant (the "Vesting Schedule"). Any fractional shares resulting from the application of any percentages used in the Vesting Schedule shall be rounded down to the nearest whole number of RSUs. Upon each Vesting Date (or, if applicable, an earlier vesting date pursuant to Section 3(b) below, which, in such event, shall also be hereinafter referred to as the "Vesting Date"), the Company shall settle the vested portion of the RSUs and shall therefore, subject to the payment of any taxes pursuant to Section 8(b), (i) issue and deliver to the Participant one share of Common Stock for each RSU that vests on such Vesting Date (the "RSU Shares") and (ii) enter the Participant's name as a shareholder of record with respect to the RSU Shares on the books of the Company. Alternatively, the Board may, in its sole discretion, elect to pay cash or part cash and part RSU Shares in lieu of settling the RSUs that vest on such Vesting Date solely in RSU Shares (such discretion of the Board to settle in cash shall not apply to a Participant who is subject to Canadian tax, whose shares must be settled in previously unissued shares). If a cash payment is made in lieu of delivering RSU Shares, the amount of such payment shall be equal to the Fair Market Value (as defined in the Plan) of the RSU Shares as of the Vesting Date less an amount equal to any federal, state, local and other taxes of any kind required to be withheld with respect to the vesting of the RSUs. The RSU Shares or any cash payment in lieu of RSU Shares will be delivered to the Participant as soon as practicable following each Vesting Date, but in any event within 30 days of such date.

(b) Notwithstanding the provisions of Section 9(b) of the Plan or Section 3(a) above, in the event of a Change in Control Event:

(i) If the Change in Control Event also constitutes a Reorganization Event (as defined in the Plan) and the RSUs are not assumed, or substantially equivalent RSUs substituted, by the Acquiring Corporation, these RSUs shall automatically become vested in full immediately prior to such Change in Control Event; and

(ii) If otherwise, these RSUs shall continue to vest in accordance with the Vesting Schedule; provided, however, that these RSUs shall immediately become vested in full if, on or prior to the first anniversary of the date of the consummation of the Change in Control Event, the Participant's employment or other relationship as an Eligible Participant with the Company or the Acquiring Corporation is terminated for Good Reason by the Participant or is terminated without Cause by the Company or the Acquiring Corporation.

4. Forfeiture of Unvested RSUs Upon Cessation of Service. In the event that the Participant ceases to be an Eligible Participant for any reason or no reason, with or without Cause, including in the case of resignation or dismissal with or without Cause, all of the RSUs that are unvested as of the time of such cessation shall be forfeited immediately and automatically to the Company, without the payment of any consideration to the Participant, effective as of such cessation and the Participant will not be entitled to any compensation in relation to any unvested RSUs. The Participant shall have no further rights with respect to the unvested RSUs or any Common Stock that may have been issuable with respect thereto.

5. Restrictions on Transfer. The Participant shall not sell, assign, transfer, pledge, hypothecate, encumber or otherwise dispose of, by operation of law or otherwise (collectively "transfer") any RSUs, or any interest therein. The Company shall not be required to treat as the owner of any RSUs or issue any Common Stock or make any cash payment, to any transferee to whom such RSUs have been transferred in violation of any of the provisions of this Agreement.

6. Rights as a Stockholder. The Participant shall have no rights as a stockholder of the Company with respect to any shares of Common Stock that may be issuable with respect to the RSUs until the issuance of the shares of Common Stock to the Participant following the vesting of the RSUs.

7. Provisions of the Plan. This Agreement is subject to the provisions of the Plan, a copy of which is furnished to the Participant with this Agreement. Capitalized terms used herein and not otherwise defined shall have the meanings ascribed to them in the Plan.

8. Tax Matters.

(a) Acknowledgments; No Section 83(b) Election. The Participant acknowledges that he or she is responsible for obtaining the advice of the Participant's own tax advisors with respect to the award of RSUs and the Participant is relying solely on such advisors and not on any statements or representations of the Company or any of its agents with respect to the tax consequences relating to the RSUs. The Participant understands that the Participant (and not the Company) shall be responsible for the Participant's tax liability that may arise in connection with the acquisition, vesting and/or disposition of the RSUs. The Participant acknowledges that no election under Section 83(b) of the Internal Revenue Code of 1986, as amended, (the "Code") is available with respect to RSUs.

(b) Withholding. The Participant acknowledges and agrees that the Company has the right to deduct from payments of any kind otherwise due to the Participant any federal, state, local or other taxes or social security contributions of any kind required by law to be withheld with respect to the vesting of the RSUs or otherwise in connection with the RSUs. On each Vesting Date (or other date or time at which the Company is required to withhold taxes or social security contributions associated with the RSUs), the Company will retain from the RSU Shares otherwise issuable on such date a number of shares of Common Stock having a Fair Market Value equal to the Company's minimum statutory withholding obligation with respect to such taxable event. If the Company is unable to retain sufficient shares of Common Stock to satisfy such tax withholding obligation, the Participant acknowledges and agrees that the Company or an affiliate of the Company shall be entitled to immediate payment from the Participant of the amount of any tax required to be withheld by the Company. The Company shall not deliver any RSU Shares to the Participant until it is satisfied that all required withholdings have been made.

(c) Australian Participants. Subdivision 83A-C of the Australian Income Tax Assessment Act 1997 (the "Australian Income Tax Act") applies to the Plan and this Agreement in relation to RSUs awarded to Participants who are subject to Australian taxes (subject to the requirement of the Australian Income Tax Act).

9. Miscellaneous.

(a) Section 409A. The RSUs awarded pursuant to this Agreement are intended to be exempt from or comply with the requirements of Section 409A of the Code and the Treasury Regulations issued thereunder ("Section 409A"). The delivery of RSU Shares on the vesting of the RSUs may not be accelerated or deferred to dates or events other than those set forth herein, unless permitted or required by Section 409A.

(b) Participant's Acknowledgements. The Participant acknowledges that he or she: (i) has read this Agreement; (ii) has been represented in the preparation, negotiation and execution of this Agreement by legal counsel of the Participant's own choice or has voluntarily declined to seek such counsel; (iii) understands the terms and consequences of this Agreement; (iv) can read and understand English and does not require this Agreement, the Plan or any related documentation to be translated into any other language; (v) is fully aware of the legal and binding effect of this Agreement; and (vi) agrees that in accepting this award, he or she will be bound by any clawback policy that the Company may adopt in the future. Neither the Company nor any employee of the MicroStrategy group can advise the Participant on whether the Participant should participate in the Plan or accept the grant of the RSUs, or provide the Participant with any legal, tax or financial advice with respect to the grant of RSUs. To accept this award, the Participant acknowledges that they must accept this Agreement within six (6) months of the Grant Date. If this Agreement is not accepted within six (6) months of the Grant Date, the Company's offer to grant RSUs under this Agreement will be withdrawn and cease to be in effect and the Participant shall have no rights to any RSUs under this Agreement.

(c) No Compensation. In no circumstances shall the Participant, on ceasing to hold employment or office with his or her employer, be entitled to any compensation for any loss of any right or benefit or prospective right or benefit under the Plan or this Agreement which he or she might otherwise have enjoyed, whether such compensation is claimed by way of damages for wrongful dismissal or other breach of contract or by way of compensation for loss of office or otherwise.

(d) Severance Pay. The grant of the RSUs and the Plan shall be disregarded for the purposes of calculating any end-of-service severance or other termination payment, to the extent such end-of-service severance or termination payment is due to the Participant.

10. Data Privacy.

(a) Personal Information. In connection with this Agreement and the grant of RSUs, the Company may collect, process, use and/or disclose personal information about the Participant. Any such information will be collected, processed, used and/or disclosed in accordance with the Privacy Policy provided to the Participant and available from the Company's legal department (the "Privacy Policy"). In relation to Participants who reside in Poland, Italy, Germany, Spain or France, the processing of personal information in order to implement, administer, and manage the Plan is justified by reasons other than consent, as explained in the Privacy Policy. Participants who reside in the Republic of Korea, Japan and Singapore hereby give explicit consent to the collection, processing, use and/or disclosure of any such personal information. Participants who reside in Australia hereby give consent to the collection, processing, use and/or disclosure of their Tax File Number in order to implement, administer, and manage the Plan, for the purposes of the Privacy Act 1988 (Cth).

(b) Transfer of Personal Information. In connection with this Agreement and the grant of RSUs, the Company may transfer any personal information referred to in Section 10(a) above outside, or within the country in which the Participant works or is employed, including, with respect to non-U.S. resident Participants, to the United States of America, to transferees as described in the Privacy Policy. In relation to Participants who reside in Poland, Italy, Germany, Spain or France, the transfer of personal information in order to implement, administer, and manage the Plan is justified by reasons other than consent, as explained in the Privacy Policy. Participants who reside in Singapore, Japan and the United Arab Emirates hereby give explicit consent to the transfer of any such personal information. Participants who reside in Singapore may object to the collection, use, disclosure, processing or transfer of personal information by notifying the general counsel of the Company in writing, but understand that such objection may impair his or her ability to participate in the Plan. Participants who reside in Australia hereby give consent to the transfer of their Tax File Number to entities in the United States of America.

*****

The terms and conditions of this Agreement have been accepted by:

###PARTICIPANT_NAME###
Dated: ###ACCEPTANCE_DATE###

Exhibit 10.11

MICROSTRATEGY INCORPORATED

Restricted Stock Unit Agreement
Granted Under the UK Sub-Plan to the 2013 Stock Incentive Plan

MicroStrategy Incorporated, a Delaware corporation (the "Company"), hereby grants the following restricted stock units pursuant to its United Kingdom Sub-Plan to its 2013 Stock Incentive Plan. The terms and conditions attached hereto are also a part hereof.

Notice of Grant

Name of recipient (the "Participant"):	
Grant Date:	
Number of restricted stock units ("RSUs") granted:	
Number, if any, of RSUs that vest immediately on the Grant Date:	
RSUs that are subject to vesting schedule:	
Vesting Start Date:	

Vesting Schedule:

Vesting Date:	Number of RSUs that Vest:
25% of the RSUs	One-year anniversary of the Vesting Start Date
25% of the RSUs	Two-year anniversary of the Vesting Start Date
25% of the RSUs	Three-year anniversary of the Vesting Start Date
25% of the RSUs	Four-year anniversary of the Vesting Start Date
All vesting is dependent on the Participant remaining an Eligible Participant, as provided herein, and is subject to Section 3(b) below. The Participant shall be an "Eligible Participant" if he or she is an employee (including an employee director) of any entity included in the definition of the Company in the Plan (each, a "Specified Company").	

This grant of RSUs satisfies in full all commitments that the Company has to the Participant with respect to the issuance of stock, stock options or other equity securities.

MICROSTRATEGY INCORPORATED

By: ______________________________________
Name:
Title:

MICROSTRATEGY INCORPORATED

Restricted Stock Unit Agreement
Incorporated Terms and Conditions

1. Award of Restricted Stock Units. In consideration of services rendered and to be rendered to the Company by the Participant, the Company has granted to the Participant, subject to the terms and conditions set forth in this Restricted Stock Unit Agreement (this "Agreement") and in the Company's United Kingdom Sub-Plan (the "Sub-Plan") to the 2013 Stock Incentive Plan, as amended (the "Plan"), an award with respect to the number of RSUs set forth in the Notice of Grant that forms part of this Agreement (the "Notice of Grant"). Each RSU represents the right to receive one share of class A common stock, $0.001 par value per share, of the Company (the "Common Stock") upon vesting of the RSU, subject to the terms and conditions set forth herein. To accept this award, the Participant must accept this Agreement within six (6) months of the Grant Date. If this Agreement is not accepted within six (6) months of the Grant Date, the Company's offer to grant RSUs under this Agreement will be withdrawn and cease to be in effect and the Participant shall have no rights to any RSUs under this Agreement.

2. Definitions.

(a) "Adverse Event" shall mean the occurrence of (x) any material diminution in the Participant's authority, duties, responsibility, or base compensation, or (y) the requirement by the Company that the Participant be principally located at a place of business that is more than 50 miles from the place of business where the Participant was principally located immediately prior to the Change in Control Event (as defined in paragraph 2(c) below).

(b) "Cause" shall mean willful misconduct by the Participant or willful failure by the Participant to perform his or her responsibilities to any Specified Company (as defined below) (including, without limitation, breach by the Participant of any provision of any employment, consulting, advisory, nondisclosure, non-competition or other similar agreement between the Participant and any Specified Company), as determined by the Company, which determination shall be conclusive. Notwithstanding the foregoing, if the Participant is party to an employment, consulting or severance agreement with a Specified Company that contains a definition of "cause" for termination of employment or other relationship as an Eligible Participant, "Cause" shall have the meaning ascribed to such term in such agreement. The Participant's employment or other relationship as an Eligible Participant shall be considered to have been terminated for "Cause" if the Company determines no later than 30 days after the Participant's termination of employment or other relationship as an Eligible Participant, that termination for Cause was warranted.

(c) A "Change in Control Event" shall mean any of the following, provided that such event constitutes a "change in control event" within the meaning of Section 409A of the Code:

(i) the acquisition by an individual, entity or group (within the meaning of Section 13(d)(3) or 14(d)(2) of the Securities Exchange Act of 1934, as amended (the "Exchange Act")) (a "Person") of beneficial ownership of any capital stock of the Company after the date hereof if, after such acquisition, such Person beneficially owns (within the meaning of Rule 13d-3 under the Exchange Act) 50% or more of the combined voting power of the then-outstanding securities of the Company entitled to vote generally in the election of directors (the "Outstanding Company Voting Securities"); provided, however, that for purposes of this subsection (i), the following acquisitions shall not constitute a Change in Control Event: (I) any acquisition directly from the Company (excluding an acquisition pursuant to the exercise, conversion or exchange of any security exercisable for, convertible into or exchangeable for Common Stock, class B common stock, par value $0.001 per share of the Company ("Class B Common

Stock") or other voting securities of the Company, unless the Person exercising, converting or exchanging such security acquired such security directly from the Company or an underwriter or agent of the Company), (II) any acquisition by any corporation pursuant to a Business Combination (as defined in paragraph 2(b)(iii) below) which complies with clauses (x) and (y) of subsection (iii) of this definition, (III) any transfer by Michael J. Saylor or any of his affiliates (within the meaning of Rule 12b-2 of the Exchange Act) (the "MS Affiliates") to Michael J. Saylor or any MS Affiliate or (IV) any acquisition by Michael J. Saylor or any MS Affiliate not pursuant to a Business Combination, except for an acquisition that results in any of the effects described in paragraph (a)(3)(ii)(B) of Rule 13e-3 under the Exchange Act (or any successor provision) with respect to the Common Stock; or

(ii) on any date after Michael J. Saylor and the MS Affiliates cease to own in the aggregate more than 50% of the combined voting power of the Outstanding Company Voting Securities (the "Applicable Date"), there is a change in the composition of the board of the Company (the "Board") that results in the Continuing Directors (as defined below) no longer constituting a majority of the Board (or, if applicable, the board of directors of a successor corporation to the Company), where the term "Continuing Director" means at any date a member of the Board (x) who was a member of the Board on the date immediately prior to the Applicable Date or (y) who was nominated or elected subsequent to the Applicable Date by at least a majority of the directors who were Continuing Directors at the time of such nomination or election or whose election to the Board was recommended or endorsed by at least a majority of the directors who were Continuing Directors at the time of such nomination or election; provided, however, that there shall be excluded from this clause (y) any individual whose initial assumption of office occurred as a result of an actual or threatened election contest with respect to the election or removal of directors or other actual or threatened solicitation of proxies or consents, by or on behalf of a person other than the Board; or

(iii) the consummation of a merger, consolidation, reorganization, recapitalization or share exchange involving the Company or a sale or other disposition of all or substantially all of the assets of the Company (a "Business Combination"), unless, immediately following such Business Combination, each of the following two conditions is satisfied: (x) all or substantially all of the individuals and entities who were the beneficial owners of the outstanding shares of the Common Stock and Class B Common Stock and any other Outstanding Company Voting Securities immediately prior to such Business Combination beneficially own, directly or indirectly, more than 50% of the combined voting power of the then-outstanding securities entitled to vote generally in the election of directors, respectively, of the resulting or acquiring corporation in such Business Combination (which shall include, without limitation, a corporation which as a result of such transaction owns the Company or substantially all of the Company's assets either directly or through one or more subsidiaries) (such resulting or acquiring corporation is referred to herein as the "Acquiring Corporation") in substantially the same proportions as their ownership of the Common Stock, Class B Common Stock and such other Outstanding Company Voting Securities, respectively, immediately prior to such Business Combination and (y) no Person (excluding Michael J. Saylor or any MS Affiliate, any employee benefit plan (or related trust) maintained or sponsored by the Company or by the Acquiring Corporation or any Person who beneficially owned, directly or indirectly, 50% or more of the combined voting power of the Outstanding Company Voting Securities prior to the Business Combination) beneficially owns, directly or indirectly, 50% or more of the combined voting power of the then-outstanding securities of such corporation entitled to vote generally in the election of directors; provided, however, that for the avoidance of doubt, the consummation of any Business Combination that results in any of the effects described in paragraph (a)(3)(ii)(B) of Rule 13e-3 under the Exchange Act (or any successor provision) with respect to the Common Stock shall be deemed not to satisfy the condition set forth in clause (x).

(d) "Good Reason" shall mean the occurrence of an Adverse Event, in each case, after the Change in Control Event. Notwithstanding the foregoing, an Adverse Event shall not be deemed to constitute Good Reason unless (i) the Participant gives the Company or the Acquiring Corporation, as applicable, notice of termination of employment or other relationship as an Eligible Participant no more than 90 days after the initial occurrence of the Adverse Event, (ii) such Adverse Event has not been fully corrected and the Participant has not been reasonably compensated for any losses or damages resulting therefrom within 30 days of the Company's or the Acquiring Corporation's receipt of such notice and (iii) the Participant's termination of employment or other relationship as an Eligible Participant occurs within six (6) months following the Company's or the Acquiring Corporation's receipt of such notice.

3. Vesting.

(a) The RSUs shall vest in accordance with the Vesting Schedule set forth in the Notice of Grant (the "Vesting Schedule"). Any fractional shares resulting from the application of any percentages used in the Vesting Schedule shall be rounded down to the nearest whole number of RSUs. Upon each Vesting Date (or, if applicable, an earlier vesting date pursuant to Section 3(b) below, which, in such event, shall also be hereinafter referred to as the "Vesting Date"), the Company shall settle the vested portion of the RSUs and shall therefore, subject to the payment of any taxes pursuant to Section 8(b), (i) issue and deliver to the Participant one share of Common Stock for each RSU that vests on such Vesting Date (the "RSU Shares") and (ii) enter the Participant's name as a shareholder of record with respect to the RSU Shares on the books of the Company. Alternatively, the Board may, in its sole discretion, elect to pay cash or part cash and part RSU Shares in lieu of settling the RSUs that vest on such Vesting Date solely in RSU Shares (such discretion of the Board to settle in cash shall not apply to a Participant who is subject to Canadian tax, whose shares must be settled in previously unissued shares). If a cash payment is made in lieu of delivering RSU Shares, the amount of such payment shall be equal to the Fair Market Value (as defined in the Plan) of the RSU Shares as of the Vesting Date less an amount equal to any federal, state, local and other taxes of any kind required to be withheld with respect to the vesting of the RSUs. The RSU Shares or any cash payment in lieu of RSU Shares will be delivered to the Participant as soon as practicable following each Vesting Date, but in any event within 30 days of such date.

(b) Notwithstanding the provisions of Section 9(b) of the Plan or Section 3(a) above, in the event of a Change in Control Event:

(i) If the Change in Control Event also constitutes a Reorganization Event (as defined in the Plan) and the RSUs are not assumed, or substantially equivalent RSUs substituted, by the Acquiring Corporation, these RSUs shall automatically become vested in full immediately prior to such Change in Control Event; and

(ii) If otherwise, these RSUs shall continue to vest in accordance with the Vesting Schedule; provided, however, that these RSUs shall immediately become vested in full if, on or prior to the first anniversary of the date of the consummation of the Change in Control Event, the Participant's employment or other relationship as an Eligible Participant with the Company or the Acquiring Corporation is terminated for Good Reason by the Participant or is terminated without Cause by the Company or the Acquiring Corporation.

4. Forfeiture of Unvested RSUs Upon Cessation of Service. In the event that the Participant ceases to be an Eligible Participant (as defined below) for any reason or no reason, with or without Cause, all of the RSUs that are unvested as of the time of such cessation shall be forfeited immediately and automatically to the Company, without the payment of any consideration to the Participant, effective as of such cessation. The Participant shall have no further rights with respect to the unvested RSUs or any Common Stock that may have been issuable with respect thereto.

5. Restrictions on Transfer. The Participant shall not sell, assign, transfer, pledge, hypothecate, encumber or otherwise dispose of, by operation of law or otherwise (collectively "transfer") any RSUs, or any interest therein. The Company shall not be required to treat as the owner of any RSUs or issue any Common Stock or make any cash payment, to any transferee to whom such RSUs have been transferred in violation of any of the provisions of this Agreement.

6. Rights as a Stockholder. The Participant shall have no rights as a stockholder of the Company with respect to any shares of Common Stock that may be issuable with respect to the RSUs until the issuance of the shares of Common Stock to the Participant following the vesting of the RSUs.

7. Provisions of the Plan. This Agreement is subject to the provisions of the Sub-Plan and the Plan, copies of which are furnished to the Participant with this Agreement. Capitalized terms used herein and not otherwise defined shall have the meanings ascribed to them in the Plan.

8. Tax Matters.

(a) Acknowledgments; No Section 83(b) Election. The Participant acknowledges that he or she is responsible for obtaining the advice of the Participant's own tax advisors with respect to the award of RSUs and the Participant is relying solely on such advisors and not on any statements or representations of the Company or any of its agents with respect to the tax consequences relating to the RSUs. The Participant understands that the Participant (and not the Company) shall be responsible for the Participant's tax liability that may arise in connection with the acquisition, vesting and/or disposition of the RSUs. The Participant acknowledges that no election under Section 83(b) of the Internal Revenue Code of 1986, as amended, (the "Code") is available with respect to RSUs.

(b) Withholding. The Participant acknowledges and agrees that the Company has the right to deduct from payments of any kind otherwise due to the Participant any federal, state, local or other taxes or social security contributions of any kind required by law to be withheld with respect to the vesting of the RSUs or otherwise in connection with the RSUs. On each Vesting Date (or other date or time at which the Company is required to withhold taxes or social security contributions associated with the RSUs), the Company will retain from the RSU Shares otherwise issuable on such date a number of shares of Common Stock having a Fair Market Value equal to the Company's minimum statutory withholding obligation with respect to such taxable event. If the Company is unable to retain sufficient shares of Common Stock to satisfy such tax withholding obligation, the Participant acknowledges and agrees that the Company or an affiliate of the Company shall be entitled to immediate payment from the Participant of the amount of any tax required to be withheld by the Company. The Company shall not deliver any RSU Shares to the Participant until it is satisfied that all required withholdings have been made.

9. Miscellaneous.

(a) Section 409A. The RSUs awarded pursuant to this Agreement are intended to be exempt from or comply with the requirements of Section 409A of the Code and the Treasury Regulations issued thereunder ("Section 409A"). The delivery of RSU Shares on the vesting of the RSUs may not be accelerated or deferred to dates or events other than those set forth herein, unless permitted or required by Section 409A.

(b) Participant's Acknowledgements. The Participant acknowledges that he or she: (i) has read this Agreement; (ii) has been represented in the preparation, negotiation and execution of this Agreement by legal counsel of the Participant's own choice or has voluntarily declined to seek such counsel; (iii) understands the terms and consequences of this Agreement; (iv) is fully aware of the legal and binding effect of this Agreement; and (v) agrees that in accepting this award, he or she will be bound by any clawback policy that the Company may adopt in the future. Neither the Company nor any employee of the MicroStrategy group can advise the Participant on whether the Participant should participate in the Plan and Sub-Plan or accept the grant of the RSUs, or provide the Participant with any legal, tax or financial advice with respect to the grant of RSUs. To accept this award, the Participant acknowledges that they must accept this Agreement within six (6) months of the Grant Date. If this Agreement is not accepted within six (6) months of the Grant Date, the Company's offer to grant RSUs under this Agreement will be withdrawn and cease to be in effect and the Participant shall have no rights to any RSUs under this Agreement.

(c) No Compensation. In no circumstances shall the Participant, on ceasing to hold employment or office with his or her employer, be entitled to any compensation for any loss of any right or benefit or prospective right or benefit under the Plan, Sub-Plan, or this Agreement which he or she might otherwise have enjoyed, whether such compensation is claimed by way of damages for wrongful dismissal or other breach of contract, or by way of compensation for loss of office or otherwise.

(d) Severance Pay. The grant of the RSUs and the Plan and Sub-Plan shall be disregarded for the purposes of calculating any end of service severance or other termination payment, to the extent such end-of-service severance or termination payment is due to the Participant.

10. Data Privacy.

(a) Personal Information. In connection with this Agreement and the grant of RSUs, the Company may collect, process and use personal information about the Participant. Any such information will be collected and processed in accordance with the Privacy Policy provided to the Participant and available from the Company's Legal Department. The processing of personal information in order to implement, administer, and manage the Plan and Sub-Plan is justified by reasons other than consent, as explained in the Privacy Policy.

(b) Transfer of Personal Information. In connection with this Agreement and the grant of RSUs, the Company may transfer any personal information referred to in Section 10(a) above outside, or within the country in which the Participant, works or is employed, including to the United States of America, to transferees as described in the Privacy Policy. The transfer of personal information in order to implement, administer, and manage the Plan and Sub-Plan is justified by reasons other than consent, as explained in the Privacy Policy.

*****

The terms and conditions of this Agreement have been accepted by:

###PARTICIPANT_NAME###
Dated: ###ACCEPTANCE_DATE###

Exhibit 10.12

MICROSTRATEGY INCORPORATED

Restricted Stock Unit Agreement
Granted Under 2013 Stock Incentive Plan

MicroStrategy Incorporated, a Delaware corporation (the "Company"), hereby grants the following restricted stock units pursuant to its 2013 Stock Incentive Plan. The terms and conditions attached hereto are also a part hereof.

Notice of Grant

Name of recipient (the "Participant"):	
Grant Date:	
Number of restricted stock units ("RSUs") granted:	
Number, if any, of RSUs that vest immediately on the Grant Date:	
RSUs that are subject to vesting schedule:	
Vesting Start Date:	

Vesting Schedule:

Vesting Date:	Number of RSUs that Vest:
25% of the RSUs	One-year anniversary of the Vesting Start Date
25% of the RSUs	Two-year anniversary of the Vesting Start Date
25% of the RSUs	Three-year anniversary of the Vesting Start Date
25% of the RSUs	Four-year anniversary of the Vesting Start Date

All vesting is dependent on the Participant remaining an Eligible Participant, as provided herein, and is subject to Section 3(b) below. The Participant shall be an "Eligible Participant" if he or she is an employee, director or officer of, or consultant or advisor to, any entity included in the definition of the Company in the Plan (each, a "Specified Company").

This grant of RSUs satisfies in full all commitments that the Company has to the Participant with respect to the issuance of stock, stock options or other equity securities.

MICROSTRATEGY INCORPORATED

By: ______________________________________
Name:
Title:

MICROSTRATEGY INCORPORATED

Restricted Stock Unit Agreement
Incorporated Terms and Conditions

1. Award of Restricted Stock Units. In order to incentivize and retain the Participant, the Company has granted to the Participant, subject to the terms and conditions set forth in this Restricted Stock Unit Agreement (this "Agreement") and in the Company's 2013 Stock Incentive Plan, as amended (the "Plan"), an award with respect to the number of RSUs set forth in the Notice of Grant that forms part of this Agreement (the "Notice of Grant"). Each RSU represents the right to receive one share of class A common stock, $0.001 par value per share, of the Company (the "Common Stock") upon vesting of the RSU, subject to the terms and conditions set forth herein. To accept this award, the Participant must accept this Agreement within six (6) months of the Grant Date. If this Agreement is not accepted within six (6) months of the Grant Date, the Company's offer to grant RSUs under this Agreement will be withdrawn and cease to be in effect and the Participant shall have no rights to any RSUs under this Agreement.

2. Definitions.

(a) "Adverse Event" shall mean the occurrence of (x) any material diminution in the Participant's authority, duties, responsibility, or base compensation, or (y) the requirement by the Company that the Participant be principally located at a place of business that is more than 50 miles from the place of business where the Participant was principally located immediately prior to the Change in Control Event (as defined in paragraph 2(c) below).

(b) "Cause" shall mean cause under applicable law, willful misconduct by the Participant or willful failure by the Participant to perform his or her responsibilities to any Specified Company (including, without limitation, breach by the Participant of any provision of any employment, consulting, advisory, nondisclosure, non-competition or other similar agreement between the Participant and any Specified Company), as determined by the Company, which determination shall be conclusive. Notwithstanding the foregoing, if the Participant is party to an employment, consulting or severance agreement with a Specified Company that contains a definition of "cause" for termination of employment or other relationship as an Eligible Participant, "Cause" shall have the meaning ascribed to such term in such agreement. The Participant's employment or other relationship as an Eligible Participant shall be considered to have been terminated for "Cause" if the Company determines no later than 30 days after the Participant's termination of employment or other relationship as an Eligible Participant, that termination for Cause was warranted.

(c) A "Change in Control Event" shall mean any of the following, provided that such event constitutes a "change in control event" within the meaning of Section 409A of the Code:

(i) the acquisition by an individual, entity or group (within the meaning of Section 13(d)(3) or 14(d)(2) of the Securities Exchange Act of 1934, as amended (the "Exchange Act")) (a "Person") of beneficial ownership of any capital stock of the Company after the date hereof if, after such acquisition, such Person beneficially owns (within the meaning of Rule 13d-3 under the Exchange Act) 50% or more of the combined voting power of the then-outstanding securities of the Company entitled to vote generally in the election of directors (the "Outstanding Company Voting Securities"); provided, however, that for purposes of this subsection (i), the following acquisitions shall not constitute a Change in Control Event: (I) any acquisition directly from the Company (excluding an acquisition pursuant to the exercise, conversion or exchange of any security exercisable for, convertible into or exchangeable for Common Stock, class B common stock, par value $0.001 per share of the Company ("Class B Common Stock") or other voting securities of the Company, unless the Person exercising, converting or exchanging such security acquired such security directly from the Company or an underwriter or agent of the Company), (II) any acquisition by any corporation pursuant to a Business Combination (as defined in paragraph 2(b)(iii) below) which complies with clauses (x) and (y) of subsection (iii) of this definition, (III) any transfer by Michael J. Saylor or any of his affiliates (within the meaning of Rule 12b-2 of the Exchange Act) (the "MS Affiliates") to Michael J. Saylor or any MS Affiliate or (IV) any acquisition by Michael J. Saylor or any MS Affiliate not pursuant to a Business Combination, except for an acquisition that results in any of the effects described in paragraph (a)(3)(ii)(B) of Rule 13e-3 under the Exchange Act (or any successor provision) with respect to the Common Stock; or

(ii) on any date after Michael J. Saylor and the MS Affiliates cease to own in the aggregate more than 50% of the combined voting power of the Outstanding Company Voting Securities (the "Applicable Date"), there is a change in the composition of the board of the Company (the "Board") that results in the Continuing Directors (as defined below) no longer constituting a majority of the Board (or, if applicable, the board of directors of a successor corporation to the Company), where the term "Continuing Director" means at any date a member of the Board (x) who was a member of the Board on the date immediately prior to the Applicable Date or (y) who was nominated or elected subsequent to the Applicable Date by at least a majority of the directors who were Continuing Directors at the time of such nomination or election or whose election to the Board was recommended or endorsed by at least a majority of the directors who were Continuing Directors at the time of such nomination or election; provided, however, that there shall be excluded from this clause (y) any individual whose initial assumption of office occurred as a result of an actual or threatened election contest with respect to the election or removal of directors or other actual or threatened solicitation of proxies or consents, by or on behalf of a person other than the Board; or

(iii) the consummation of a merger, consolidation, reorganization, recapitalization or share exchange involving the Company or a sale or other disposition of all or substantially all of the assets of the Company (a "Business Combination"), unless, immediately following such Business Combination, each of the following two conditions is satisfied: (x) all or substantially all of the individuals and entities who were the beneficial owners of the outstanding shares of the Common Stock and Class B Common Stock and any other Outstanding Company Voting Securities immediately prior to such Business Combination beneficially own, directly or indirectly, more than 50% of the combined voting power of the then-outstanding securities entitled to vote generally in the election of directors, respectively, of the resulting or acquiring corporation in such Business Combination (which shall include, without limitation, a corporation which as a result of such transaction owns the Company or substantially all of the Company's assets either directly or through one or more subsidiaries) (such resulting or acquiring corporation is referred to herein as the "Acquiring Corporation") in substantially the same proportions as their ownership of the Common Stock, Class B Common Stock and such other Outstanding Company Voting Securities, respectively, immediately prior to such Business Combination and (y) no Person (excluding Michael J. Saylor or any MS Affiliate, any employee benefit plan (or related trust) maintained or sponsored by the Company or by the Acquiring Corporation or any Person who beneficially owned, directly or indirectly, 50% or more of the combined voting power of the Outstanding Company Voting Securities prior to the Business Combination) beneficially owns, directly or indirectly, 50% or more of the combined voting power of the then-outstanding securities of such corporation entitled to vote generally in the election of directors; provided, however, that for the avoidance of doubt, the consummation of any Business Combination that results in any of the effects described in paragraph (a)(3)(ii)(B) of Rule 13e-3 under the Exchange Act (or any successor provision) with respect to the Common Stock shall be deemed not to satisfy the condition set forth in clause (x).

(d) "Good Reason" shall mean the occurrence of an Adverse Event, in each case, after the Change in Control Event. Notwithstanding the foregoing, an Adverse Event shall not be deemed to constitute Good Reason unless (i) the Participant gives the Company or the Acquiring Corporation, as applicable, notice of termination of employment or other relationship as an Eligible Participant no more than 90 days after the initial occurrence of the Adverse Event, (ii) such Adverse Event has not been fully corrected and the Participant has not been reasonably compensated for any losses or damages resulting therefrom within 30 days of the Company's or the Acquiring Corporation's receipt of such notice and (iii) the Participant's termination of employment or other relationship as an Eligible Participant occurs within six (6) months following the Company's or the Acquiring Corporation's receipt of such notice.

(e) "Date of Termination" shall mean:

(i) in the case of an Eligible Participant who dies, the date of death;

(ii) in the case of an Eligible Participant who resigns or voluntarily terminates employment for any reason other than Good Reason, the date the Eligible Participant first provides notice of resignation/voluntary termination to the Company;

(iii) in all other cases, the date designated by the Company in a written notice to an Eligible Participant, as the day on which that Eligible Participant's employment relationship with the Company, engagement, office with or provision of services to the Company ceases for any reason whatsoever (whether or not that cessation of employment or service is lawful); and

(iv) in all cases, "Date of Termination" specifically does not mean the date on which any period of notice, which the Company may be required to provide to (or that may be claimed by) that Eligible Participant, expires. For greater clarity, the Date of Termination will be determined without regard to any applicable notice of termination, severance or termination pay, compensation or indemnity in lieu of notice, wrongful or constructive dismissal damages for the failure to provide reasonable notice, period of salary continuation or of deemed employment or of deemed service, or any claim whatsoever by the Eligible Participant to any of the foregoing (whether express or implied and whether arising under contract or statute or otherwise at law in any manner).

By accepting the RSUs and entering into this Agreement, I acknowledge that I have read and I understand Section 2(e) of this Agreement.

3. Vesting.

(a) The RSUs shall vest in accordance with the Vesting Schedule set forth in the Notice of Grant (the "Vesting Schedule"). Any fractional shares resulting from the application of any percentages used in the Vesting Schedule shall be rounded down to the nearest whole number of RSUs. Upon each Vesting Date (or, if applicable, an earlier vesting date pursuant to Section 3(b) below, which, in such event, shall also be hereinafter referred to as the "Vesting Date"), the Company shall settle the vested portion of the RSUs and shall therefore, subject to the payment of any taxes pursuant to Section 8(b), (i) issue and deliver to the Participant one share of Common Stock for each RSU that vests on such Vesting Date (the "RSU Shares") and (ii) enter the Participant's name as a shareholder of record with respect to the RSU Shares on the books of the Company. Alternatively, the Board may, in its sole discretion, elect to pay cash or part cash and part RSU Shares in lieu of settling the RSUs that vest on such Vesting Date solely in RSU Shares (such discretion of the Board to settle in cash shall not apply to a Participant who is subject to Canadian tax, whose shares must be settled in previously unissued shares). If a cash payment is made in lieu of delivering RSU Shares, the amount of such payment shall be equal to the Fair Market Value (as defined in the Plan) of the RSU Shares as of the Vesting Date less an amount equal to any federal, state, local and other taxes of any kind required to be withheld with respect to the vesting of the RSUs. The RSU Shares or any cash payment in lieu of RSU Shares will be delivered to the Participant as soon as practicable following each Vesting Date, but in any event within 30 days of such date.

(b) Notwithstanding the provisions of Section 9(b) of the Plan or Section 3(a) above, in the event of a Change in Control Event:

(i) If the Change in Control Event also constitutes a Reorganization Event (as defined in the Plan) and the RSUs are not assumed, or substantially equivalent RSUs substituted, by the Acquiring Corporation, these RSUs shall automatically become vested in full immediately prior to such Change in Control Event; and

(ii) If otherwise, these RSUs shall continue to vest in accordance with the Vesting Schedule; provided, however, that these RSUs shall immediately become vested in full if, on or prior to the first anniversary of the date of the consummation of the Change in Control Event, the Participant's employment or other relationship as an Eligible Participant with the Company or the Acquiring Corporation is terminated for Good Reason by the Participant or is terminated without Cause by the Company or the Acquiring Corporation.

4. No Future Grants/Forfeiture of Unvested RSUs Upon Cessation of Service. An Eligible Participant ceases to be eligible to receive further grants of RSUs as of the Date of Termination, and any unvested RSUs held by an Eligible Participant will expire and be forfeited immediately and automatically to the Company as of the Date of Termination, without the payment of any consideration or damages resulting from such forfeiture to the Participant. The Participant shall have no further rights with respect to the unvested RSUs or any Common Stock that may have been issuable with respect thereto.

By accepting the RSUs and entering into this Agreement, I acknowledge that I have read and I understand Section 4 of this Agreement.

5. Restrictions on Transfer. The Participant shall not sell, assign, transfer, pledge, hypothecate, encumber or otherwise dispose of, by operation of law or otherwise (collectively "transfer") any RSUs, or any interest therein. The Company shall not be required to treat as the owner of any RSUs or issue any Common Stock or make any cash payment, to any transferee to whom such RSUs have been transferred in violation of any of the provisions of this Agreement.

6. Rights as a Stockholder. The Participant shall have no rights as a stockholder of the Company with respect to any shares of Common Stock that may be issuable with respect to the RSUs until the issuance of the shares of Common Stock to the Participant following the vesting of the RSUs.

7. Provisions of the Plan. This Agreement is subject to the provisions of the Plan, a copy of which is furnished to the Participant with this Agreement. Capitalized terms used herein and not otherwise defined shall have the meanings ascribed to them in the Plan.

8. Tax Matters.

(a) Acknowledgments; No Section 83(b) Election. The Participant acknowledges that he or she is responsible for obtaining the advice of the Participant's own tax advisors with respect to the award of RSUs and the Participant is relying solely on such advisors and not on any statements or representations of the Company or any of its agents with respect to the tax consequences relating to the RSUs. The Participant understands that the Participant (and not the Company) shall be responsible for the Participant's tax liability that may arise in connection with the acquisition, vesting and/or disposition of the RSUs. The Participant acknowledges that no election under Section 83(b) of the Internal Revenue Code of 1986, as amended, (the "Code") is available with respect to RSUs.

(b) Withholding. The Participant acknowledges and agrees that the Company has the right to deduct from payments of any kind otherwise due to the Participant any federal, state, local or other taxes or social security contributions of any kind required by law to be withheld with respect to the vesting of the RSUs or otherwise in connection with the RSUs. On each Vesting Date (or other date or time at which the Company is required to withhold taxes or social security contributions associated with the RSUs), the Company will retain from the RSU Shares otherwise issuable on such date a number of shares of Common Stock having a Fair Market Value equal to the Company's minimum statutory withholding obligation with respect to such taxable event. If the Company is unable to retain sufficient shares of Common Stock to satisfy such tax withholding obligation, the Participant acknowledges and agrees that the Company or an affiliate of the Company shall be entitled to immediate payment from the Participant of the amount of any tax required to be withheld by the Company. The Company shall not deliver any RSU Shares to the Participant until it is satisfied that all required withholdings have been made.

By accepting the RSUs and entering into this Agreement, I acknowledge that I have read and I understand Sections 8(a) and (b) of this Agreement.

9. Miscellaneous.

(a) Section 409A. The RSUs awarded pursuant to this Agreement are intended to be exempt from or comply with the requirements of Section 409A of the Code and the Treasury Regulations issued thereunder ("Section 409A"). The delivery of RSU Shares on the vesting of the RSUs may not be accelerated or deferred to dates or events other than those set forth herein, unless permitted or required by Section 409A.

(b) No Compensation. In no circumstances shall the Participant, on ceasing to hold employment or office with his or her employer, be entitled to any compensation for any loss of any right or benefit or prospective right or benefit under the Plan or this Agreement which he or she might otherwise have enjoyed, whether such compensation is claimed by way of damages for wrongful dismissal or other breach of contract or by way of compensation for loss of office or otherwise.

By accepting the RSUs and entering into this Agreement, I acknowledge that I have read and I understand Section 9(b) of this Agreement.

(c) Severance Pay. The grant of the RSUs and the Plan shall be disregarded for the purposes of calculating any end of service severance or other termination payment, to the extent such end-of-service severance or termination payment is due to the Participant. To be clear, no value will be attributed to any RSUs or any potential grants of RSUs as part of any calculation of a Participant's notice of termination, severance or termination pay, compensation or indemnity in lieu of notice, wrongful or constructive dismissal damages, damages for the failure to provide reasonable notice, or any claim whatsoever by the Participant to any of the foregoing (whether express or implied and whether arising under contract or statute or otherwise at law in any manner).

By accepting the RSUs and entering into this Agreement, I acknowledge that I have read and I understand Section 9(c) of this Agreement.

(d) Participant's Acknowledgements. By accepting the grant of RSUs and entering into this Agreement, the Participant acknowledges that he or she: (i) has read the entirety of this Agreement, and in particular has read Sections 2(e), 4, 8(a), 8(b), 9(b), 9(c), 10(a), 10(b) and 10(c) of this Agreement; (ii) has been represented in the preparation, negotiation and execution of this Agreement by legal counsel of the Participant's own choice or has voluntarily declined to seek such counsel; (iii) understands the terms and consequences of this Agreement, and in particular those identified in Sections 2(e), 4, 8(a), 8(b), 9(b) and 9(c) of this Agreement; (iv) can read and understand English and does not require this Agreement, the Plan or any related documentation to be translated into any other language; (v) is fully aware of the legal and binding effect of this Agreement; (vi) agrees that in accepting this award, he or she will be bound by any clawback policy that the Company may adopt in the future. Neither the Company nor any employee of the MicroStrategy group can advise the Participant on whether the Participant should participate in the Plan or accept the grant of the RSUs, or provide the Participant with any legal, tax or financial advice with respect to the grant of RSUs; and (vii) the Participant waives irrevocably any right to assert that the terms of the Plan and/or the Agreement should not be binding because they were not brought to the Participant's attention, were not read by the Participant, or were not understood by the Participant, even if before executing the Agreement and/or accepting the RSUs the Participant did not in fact fully read or understand the Plan and/or the Agreement. To accept this award, the Participant acknowledges that they must accept this Agreement within six (6) months of the Grant Date. If this Agreement is not accepted within six (6) months of the Grant Date, the Company's offer to grant RSUs under this Agreement will be withdrawn and cease to be in effect and the Participant shall have no rights to any RSUs under this Agreement.

10. Data Privacy.

(a) Personal Information. In connection with this Agreement and the grant of RSUs, the Company may collect, process, use and/or disclose personal information about the Participant. Any such information will be collected, processed, used and/or disclosed in accordance with the Privacy Policy provided to the Participant and available from the Company's legal department. The processing of personal information in order to implement, administer, and manage the Plan is justified by reasons other than consent, as explained in the Privacy Policy.

By accepting the RSUs and entering into this Agreement, I acknowledge that I have read and I understand Section 10(a) of this Agreement.

(b) Transfer of Personal Information. In connection with this Agreement and the grant of RSUs, the Company may transfer any personal information referred to in Section 10(a) above outside or within the country in which the Participant works or is employed, including, with respect to non-U.S. resident Participants, to the United States of America, to transferees as described in the Privacy Policy. The transfer of personal information in order to implement, administer, and manage the Plan is justified by reasons other than consent, as explained in the Privacy Policy.

By accepting the RSUs and entering into this Agreement, I acknowledge that I have read and I understand Section 10(b) of this Agreement.

(c) Participants who reside in Alberta and Quebec hereby give explicit consent to the transfer of personal information to the United States of America in order to implement, administer, and manage the Plan.

By accepting the RSUs and entering into this Agreement, I acknowledge that I have read and I understand Section 10(c) of this Agreement.

11. Language. The participant has expressly requested that this Agreement and related documents be drawn up in English. *Le Participant a expressément requis que le présent Contrat et les documents y reliés soient rédigés en anglais.*

By accepting the RSUs and entering into this Agreement, I acknowledge that I have read and I understand Section 11 of this Agreement.

*****

The terms and conditions of this Agreement have been accepted by:

###PARTICIPANT_NAME###
Dated: ###ACCEPTANCE_DATE###

Exhibit 21.1

SUBSIDIARIES OF THE REGISTRANT

MicroStrategy Incorporated's subsidiaries as of February 15, 2022 are listed below.

821,393 LLC (Delaware)	MicroStrategy Holdings (Hong Kong) Co. Ltd. (Hong Kong)
MacroStrategy LLC (Delaware)	MicroStrategy Ibérica, S.L.U. (Spain)
Macro1 LLC (Delaware)	MicroStrategy India Private Limited (India)
MicroStrategy Administration Corporation (Delaware)	MicroStrategy International Limited (Bermuda)
MicroStrategy Enterprises, Inc. (Delaware)	MicroStrategy International II Limited (Bermuda)
MicroStrategy GS Corporation (Delaware)	MicroStrategy Israel Ltd. (Israel)
MicroStrategy Management Corporation (Delaware)	MicroStrategy Italy S.r.l. (Italy)
MicroStrategy Services Corporation (Delaware)	MicroStrategy Japan Kabushiki Kaisha (MicroStrategy Japan Inc.) (Japan)
Reporting Technologies, Inc. (Delaware)	MicroStrategy Korea Co., Ltd. (Korea)
SMCR Corp. (Delaware)	MicroStrategy Limited (United Kingdom)
Strategy.com Incorporated (Delaware)	MicroStrategy México, S. de R.L. de C.V. (Mexico)
Strategy Inc. (Delaware)	MicroStrategy Middle East FZ-LLC (UAE – Dubai Free Zone)
Usher Incorporated (Delaware)	MicroStrategy Poland sp. z. o. o. (Poland)
MicroStrategy Austria GmbH (Austria)	MicroStrategy Portugal, Sociedade Unipessoal, Lda. (Portugal)
MicroStrategy Belgium BVBA (Belgium)	MicroStrategy Pty. Ltd. (Australia)
MicroStrategy Benelux B.V. (Netherlands)	MicroStrategy Singapore Pte. Ltd. (Singapore)

MicroStrategy Brasil Ltda. (Brazil)	MicroStrategy South Africa (Proprietary) Limited (South Africa)
MicroStrategy Canada Incorporated (Canada)	MicroStrategy Sweden AB (Sweden)
MicroStrategy China Technology Center Limited (China)	MicroStrategy Switzerland GmbH (Switzerland)
MicroStrategy Denmark ApS (Denmark)	MicroStrategy Yazilim Hizmetleri Ve Ürünleri Limited Şirketi (Turkey)
MicroStrategy Deutschland GmbH (Germany)	Strategy.com International Limited (Bermuda)
MicroStrategy France SARL (France)	

Exhibit 23.1

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

The Board of Directors
MicroStrategy Incorporated:

We consent to the incorporation by reference in the registration statements (No. 333-197645, No. 333-228431 and No. 333-252608) on Forms S-8 and registration statement (No. 333-257087) on Form S-3, of MicroStrategy Incorporated of our reports dated February 15, 2022, with respect to the consolidated balance sheets of MicroStrategy Incorporated as of December 31, 2021 and 2020, the related consolidated statements of operations, comprehensive (loss) income, stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2021, and the related notes, and the financial statement schedule, Schedule II, Valuation and Qualifying Accounts, (collectively, the consolidated financial statements), and the effectiveness of internal control over financial reporting as of December 31, 2021, which reports appear in the December 31, 2021 annual report on Form 10-K of MicroStrategy Incorporated.

Our report dated February 15, 2022, on the consolidated financial statements refers to a change in the method of accounting for convertible instruments effective January 1, 2021 due to the adoption of Accounting Standards Update No. 2020-06.

/s/ KPMG LLP

McLean, Virginia
February 15, 2022

Exhibit 31.1

CERTIFICATION

I, Michael J. Saylor, certify that:

1. I have reviewed this Annual Report on Form 10-K of MicroStrategy Incorporated;
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)) 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.

Dated: February 15, 2022

/s/ Michael J. Saylor
Michael J. Saylor
Chairman of the Board of Directors & Chief Executive Officer

Exhibit 31.2

CERTIFICATION

I, Phong Le, certify that:

1. I have reviewed this Annual Report on Form 10-K of MicroStrategy Incorporated;
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)) 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.

Dated: February 15, 2022

/s/ Phong Le
Phong Le
President & Chief Financial Officer

Exhibit 32.1

CERTIFICATION PURSUANT TO 18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Annual Report on Form 10-K of MicroStrategy Incorporated (the "Company") for the year ended December 31, 2021, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), the undersigned, the Chief Executive Officer of the Company and the Chief Financial Officer of the Company, each hereby certifies, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to his/her knowledge on the date hereof:

(1) the Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(2) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: February 15, 2022	/s/ Michael J. Saylor
	Michael J. Saylor
	Chairman of the Board of Directors & Chief Executive Officer
Dated: February 15, 2022	/s/ Phong Le
	Phong Le
	President & Chief Financial Officer