

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION**

Washington, D.C. 20549

FORM 10-K

(Mark One)

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

For the fiscal year ended December 31, 2021

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 001-38467



Ceridian HCM Holding Inc.

(Exact name of Registrant as specified in its Charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

46-3231686

(I.R.S. Employer
Identification No.)

**3311 East Old Shakopee Road
Minneapolis, Minnesota 55425**

(952) 853-8100

(Address, Including Zip Code, and Telephone Number, Including Area Code, of Registrant's Principal Executive Offices)

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

Title of each class
Common Stock, \$.01 par value

Trading Symbol(s)
CDAY

Name of each exchange on which registered
New York Stock Exchange

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the Registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. YES NO

Indicate by check mark if the Registrant is not required to file reports pursuant to Section 13 or 15(d) of the Act. YES NO

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

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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	<input checked="" type="checkbox"/>	Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Small reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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

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

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). YES NO

The aggregate market value of the voting and non-voting common equity held by non-affiliates of the Registrant, based on the \$95.92 closing price of the shares of common stock on the New York Stock Exchange on June 30, 2021, was \$13,342.1 million.

The number of shares of Registrant's Common Stock outstanding as of February 18, 2022 was 152,049,674.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the Registrant's Definitive Proxy Statement relating to the 2022 Annual Meeting of Stockholders, scheduled to be held on May 3, 2022, are incorporated by reference into Part III of this Form 10-K.

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Unless the context requires otherwise, references in this Annual Report on Form 10-K for the fiscal year ended December 31, 2021 of Ceridian HCM Holding Inc. and subsidiaries (“Form 10-K”) to “our company,” the “Company,” “we,” “us,” “our,” and “Ceridian” refer to Ceridian HCM Holding Inc. and its direct and indirect subsidiaries on a consolidated basis.

We and our subsidiaries own or have the rights to various trademarks, trade names and service marks, including the following: Ceridian®, Dayforce®, Makes Work Life Better™, Powerpay® and various logos used in association with these terms. Solely for convenience, the trademarks, trade names and service marks and copyrights referred to herein are listed without the ©, ®, and ™, symbols, but such references are not intended to indicate, in any way, that Ceridian, or the applicable owner, will not assert, to the fullest extent under applicable law, Ceridian’s or their, as applicable, rights to these trademarks, trade names, and service marks. Other trademarks, service marks, or trade names appearing in this Form 10-K are the property of their respective owners.

FORWARD-LOOKING STATEMENTS

This Form 10-K contains, or incorporates by reference, not only historical information, but also forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (“Securities Act”), and Section 21E of the Securities Exchange Act of 1934, as amended (“Exchange Act”) and that are subject to the safe harbor created by those sections. All statements other than statements of historical fact or relating to present facts or current conditions included in this Form 10-K are forward-looking statements. Forward-looking statements give our current expectations and projections relating to our financial condition, results of operations, plans, objectives, future performance and business. You can identify forward-looking statements by the fact that they do not relate strictly to historical or current facts. These statements may include words such as “anticipate,” “estimate,” “expect,” “project,” “seek,” “plan,” “intend,” “believe,” “will,” “may,” “could,” “continue,” “likely,” “should,” and other words and terms of similar meaning in connection with any discussion of the timing or nature of future operating or financial performance or other events but not all forward-looking statements contain these identifying words.

Forward-looking statements are based on our current expectations and assumptions regarding our business, the economy, and other future conditions. Because forward-looking statements relate to the future, by their nature, they are subject to inherent uncertainties, risks, and changes in circumstances that are difficult to predict. As a result, our actual results may differ materially from those contemplated by the forward-looking statements. Important factors that could cause actual results to differ materially from those in the forward-looking statements include regional, national, or global political, economic, business, competitive, market, and regulatory conditions and those risks described in [Part I, Item IA, “Risk Factors”](#) of this Form 10-K. Although we have attempted to identify important risk factors, there may be other risk factors not presently known to us or that we presently believe are not material that could cause actual results and developments to differ materially from those made in or suggested by the forward-looking statements contained in this Form 10-K. If any of these risks materialize, or if any of the above assumptions underlying forward-looking statements prove incorrect, actual results and developments may differ materially from those made in or suggested by the forward-looking statements contained in this Form 10-K. For the reasons described above, we caution you against relying on any forward-looking statements. Any forward-looking statement made by us in this Form 10-K speaks only as of the date on which we make it. Factors or events that could cause our actual results to differ may emerge from time to time, and it is not possible for us to predict all of them. We undertake no obligation to publicly update or to revise any forward-looking statement, whether as a result of new information, future developments, or otherwise, except as may be required by law. Comparisons of results for current and any prior periods are not intended to express any future trends or indications of future performance, unless specifically expressed as such, and should be viewed as historical data.

PART I

Item 1. Business.

Overview

Ceridian is a global human capital management (“HCM”) software company. Dayforce, our flagship cloud HCM platform, provides human resources (“HR”), payroll, benefits, workforce management, and talent management functionality. In addition to Dayforce, we sell Powerpay, a cloud HR and payroll solution for the Canadian small business market, through both direct sales and established partner channels. We also continue to support customers using our legacy North America Bureau solutions, which we generally stopped actively selling to new customers in 2012, following the acquisition of Dayforce, and customers using our acquired Bureau solutions which we also intend to stop actively selling to new customers on a stand-alone basis. We invest in maintenance and necessary updates to support our Bureau customers and continue to migrate them to Dayforce. Revenue from our Cloud and Bureau solutions include investment income generated from holding customer funds before funds are remitted to taxing authorities, also referred to as float revenue or float.

Our five strategic growth levers drive our long-term perspectives, near-term decision making and stockholder alignment:

- Acquiring new customers in the markets where we have seen success to date;
- Extending the Dayforce platform, thereby allowing us to deliver more value to our current and prospective customers;
- Expanding within the Enterprise segment;
- Accelerating our global expansion both by serving local customers in new geographies, and by extending our scope to service global multinational customers; and finally,
- Driving incremental value for our customers by innovating in adjacent markets around our core HCM suite, such as the Dayforce Wallet.

Products and Services

Dayforce

Dayforce, our principal cloud HCM platform, is a single application that provides continuous real-time calculations across all modules to enable, for example, payroll administrators access to data through the entire pay period, and managers access to real-time data to optimize work schedules. Dayforce offers a comprehensive range of functionality, including global HR, payroll, benefits, workforce management, and talent management on web and native iOS and Android platforms. Our Dayforce mobile app enables employees not only to request and to trade schedules, but also to see the real-time impact of schedule changes on their pay. Our Dayforce platform is used by organizations, regardless of industry or size, to optimize management of the entire employee lifecycle, including attracting, engaging, paying, deploying, and developing their people. Key functionality of our Dayforce platform includes HR, payroll and tax, Dayforce Wallet, benefits, workforce management, and talent management. In 2021, we received several accolades for our Dayforce solution, including Leader in the 2021 Gartner Magic Quadrant for Cloud HCM Suites for the second consecutive year, and CIPD People Management Awards: Best Human Resources/Learning & Development Supplier; Human Resources Director Asia - 5 Star HR Software; Aite-Novarica Digital Wallet Impact Innovation Award - Dayforce Wallet; Leader in the Nucleus Research 2021 Human Capital Management Value Matrix.

Human Resources

Dayforce Human Resources functionality provides customers with a single, complete record for all employees. Our HR functionality is centered on a comprehensive, flexible workflow engine that streamlines and automates administrative tasks.

Payroll and Tax

Our payroll capabilities provide customers with the tools needed to manage their payroll processes accurately and in compliance. Through our Dayforce platform, users with localized payroll functionality are able to make updates to time and pay in real-time. In countries where we do not currently offer localized payroll within Dayforce, Dayforce

ConnectedPay provides payroll aggregation features that allow an organization to have a centralized view of their global payroll. ConnectedPay automates the data exchange with in-country payroll providers, including our global Cloud solutions from acquired businesses, and provides a consistent self-service experience for employees to view earnings statements and associated payroll documentation. Dayforce calculates, withholds, and files payroll related taxes in the United States, Canada, the United Kingdom, Ireland, Australia, New Zealand, and Mauritius as part of our localized payroll offering. In 2021, we announced our plans to deliver Dayforce Payroll across new markets, including Germany, Hong Kong, Indonesia, Malaysia, Philippines, Singapore, South Korea, Taiwan, and Thailand.

Dayforce Wallet

Dayforce Wallet is a digital wallet for customers' employees on the Dayforce platform. The Dayforce Wallet offers the flexibility and convenience of processing and distributing customers' different payment needs, including off-cycle pay and on-demand pay requests. Since all employee payments are processed as a regular payroll, the appropriate deductions, remittances, and garnishments are accounted for, which means there's minimal impact to payroll administrators and our customers' cash flow.

The Dayforce Wallet gives our customers' employees greater control over their financial well-being by providing them with instant access to their earnings. The on-demand pay feature allows employees more choice over when they get paid by making any day payday. Dayforce Wallet enables workers to access their already-earned wages anytime during the pay period, net of taxes, withholdings and other payroll deductions. The on-demand wages are loaded onto a pay card, which customers' employees can use anywhere credit or debit cards are accepted. With pay cards, the Dayforce Wallet eliminates the need to distribute paper checks and reduces processing costs. The Dayforce Wallet mobile app makes it easy for customers' employees to check their pay deposits, account balance and transaction history. This provides the convenience of a traditional bank account, but without the balance minimums and monthly service fees.

The Dayforce Wallet was launched in the U.S. in 2020 and in Canada in 2021. We continue to introduce new features and enhancements to the Dayforce Wallet, such as two day early direct deposit, which allows users that have direct deposit set up not only to get paid when they want, but also the option to receive the remainder of their paycheck two days in advance of normal payroll dates. Additional features, such as Streaming Pay, Dayforce Wallet Rewards, referrals, additional pay card functionality, buy now pay later, and saving goals will be introduced in the upcoming quarters. Streaming Pay enables customers' employees the ability to request automatic delivery of earned wages to their Dayforce Wallet pay card, eliminating the need to request earnings on-demand. We believe these features will enhance our Dayforce Wallet consumer experience and help improve financial wellness over the long term.

Benefits

Dayforce Benefits assists users from benefits enrollment to ongoing benefits administration, including eligibility, open enrollment and Affordable Care Act ("ACA") management. Support and comparative tools can provide information to users about each of the available benefit plans and impact of their plan options to help employees choose the best option for their specific needs.

Talent Management

Dayforce Talent Management enables organizations to attract, to engage, to develop, and to motivate their workforce. Users can leverage tools for recruiting, onboarding, engagement, performance, succession planning, compensation management, and employee learning.

Workforce Management

Dayforce Workforce Management provides functionality to help organizations manage their workforces, improve operational efficiency, and enhance compliance by configuring the system to meet complex labor and employment rules and policies. Through Dayforce, users are offered absence management, time and attendance, schedule, and labor planning.

Powerpay

We offer Powerpay for Canadian organizations with fewer than 100 employees. Powerpay is a cloud platform that provides scalable and straightforward payroll and HR solutions. Specifically designed for small businesses, Powerpay enables clients to pay their employees accurately and on-time.

Bureau

Our Bureau solutions offer payroll and payroll-related services using legacy technology and Bureau technology from our acquired businesses. We invest in maintenance and necessary updates to support our Bureau customers. We generally stopped selling our legacy North America Bureau payroll solutions to new customers in the United States in 2012, and in Canada in 2015, and we also intend to stop actively selling our acquired Bureau payroll solutions to new customers on a stand-alone basis. In addition to customers who use our payroll services, certain customers use our legacy Bureau tax filing services on a stand-alone basis; and we started to sell stand-alone legacy Bureau tax services again in 2019.

Customers

Dayforce is designed to serve organizations with 100 to over 100,000 employees. The Dayforce customer base has increased from 482 as of December 31, 2012 to 5,434 customers* on the platform as of December 31, 2021. For 2021, our 5,434 Dayforce customers* represented approximately 5.1 million active global users*. We define a customer as a single organization, such as a company, a non-profit association, an educational institution, or government entity. We also have approximately 39,000 Powerpay customer accounts. No single customer accounted for more than 1% of our revenues during the year ended December 31, 2021.

Sales and Marketing

We sell our Cloud solutions through a direct sales force and a variety of third party channels, organized by customer size and geography. We market Dayforce to organizations with more than 100 employees. We market Powerpay to organizations with fewer than 100 employees in Canada. The majority of our revenue growth comes from new Cloud customers.

Services and Support

We offer a broad portfolio of services aimed to ensure customer success. We believe it's important to work closely with our customers to understand their needs and deliver technology solutions and support that address them. We continue to increase our global reach in supporting and serving our customers. As part of our international strategy, we work with partners to perform services in certain geographies where we do not currently have international operations or the particular service required by our customers.

Implementation and Professional Services

Our internal implementation team leverages proprietary onboarding technology for new customer activation and professional services work. Our internal team is supplemented by third party services partners and system integration partners ("SI"). Our implementation services include solution configuration and activation for new customers. Professional services include add-on implementation services for existing customers, ongoing product configuration changes when the customer does not have the resources to do it themselves, product usage consulting and a variety of additional services, such as report writing, usage audits, and process improvement.

Customer Support

Our global customer support organization provides 24/7 application support from locations across North America and in the United Kingdom, Mauritius, Australia, Singapore, Philippines, and India. Our support function is organized into teams of representatives with deep domain expertise across our platform. These teams are aligned to groups of customers based on geography, product type, and client vertical to provide a combination of deep product and industry knowledge, consistent relationships, and high availability.

* Excluding the 2021 acquisitions of Ascender and ADAM HCM

Technology, Hosting, and Research and Development (“R&D”)

Technology and innovation are at the core of Ceridian. Our innovation and development process is customer-driven. We work directly with customers to understand their needs and to deliver solutions that address their challenges, taking into consideration the entire user experience, without being constrained by individual modules or applications. We are committed to protecting our customer information, along with our employee and contractor information and other business data.

Our R&D team is responsible for the design, development, and testing of our applications. We believe that our modern cloud technology stack, agile design and development methodology, and efficient software deployment process enable us to innovate quickly in response to industry trends. We host cloud-based applications and serve all of our customers from data centers operated by third party providers, primarily Navisite, VMWare Cloud on AWS, Microsoft Azure, and AWS. While we control and have access to our servers and all of the components of our network that are located in our external data centers, we do not control the operation of these facilities. Additionally, we host our internal systems through data centers that we operate and lease in the United States and Asia Pacific Japan (“APJ”).

Intellectual Property

Our success depends, in part, on our ability to protect our proprietary technology and intellectual property. We rely on a combination of patents, copyrights, trade secrets, and trademarks, as well as confidentiality and nondisclosure agreements and other contractual protections, to establish and to safeguard our intellectual property rights.

Competition

The market for HCM technology solutions is highly competitive and subject to changing technology and shifting client needs. We compete with firms that provide both integrated and point solutions for HCM, as well as with local providers in each jurisdiction that we operate. Globally, we compete with legacy payroll service providers, as well as cloud-enabled client-server HCM providers. We also face competition from modern HCM providers, whose solutions have been specifically built as single application platforms in the cloud. In addition, we face competition from large, long-established enterprise application software vendors.

Competition in the global HCM market is primarily based on product and service quality, including ease of use and accessibility of technology, breadth of offerings, reputation, and price. We believe that we are competitive in each of these areas and that our single application always-on technology and product innovations, combined with our commitment to service and our geographic reach, distinguishes us from our competitors.

Seasonality

We have in the past and expect in the future to experience seasonal fluctuations in our revenues and new customer contracts with the fourth quarter historically being our strongest quarter for new customer contracts, renewals, and customer go-lives. Although the growth of our Cloud solutions and the ratable nature of our fees makes this seasonality less apparent in our overall results of operations, we expect our revenue to fluctuate quarterly and to be higher in the fourth and first quarters of each year. Fourth quarter revenue is driven by year-end processing fees and Dayforce customer go-lives; and first quarter revenue is driven by revenue earned for printing of year-end tax packages.

Environmental, Social, and Governance (“ESG”) and Human Capital

Our People

As of December 31, 2021, we had 7,462 employees, including 4,477 in North America, 1,846 in APJ, and 1,139 in Europe, the Middle East, and Africa (“EMEA”). We provide a wide range of compensation and benefits to our employees which enhance the workplace experience and drive our Makes Work Life Better™ brand. In addition to salaries, these benefits (which vary by country/region) include annual bonuses, equity awards, a global employee stock purchase program, retirement savings plans, healthcare and insurance benefits, health savings and flexible savings spending accounts, unlimited time away from work, employee assistance programs, and tuition reimbursement. In addition to our broad-based employee stock purchase program, we have targeted equity-based grants with vesting conditions to facilitate retention of our employees. Our ability to attract and retain top talent is critical to our continued success as a business, and we were very pleased that our employee Net Promoter Score (eNPS) in 2021 was 47.

Promoting diversity, equity and inclusion within our workforce is also a priority for Ceridian. In 2021, we established

a company-wide Global Diversity Advisory Council that is comprised of employees from around the world, and we expanded the number of our inclusive-building YOUunity groups from 6 to 9—adding the Native and Indigenous People’s Network, the Ceridian Parenting Network, and the Asia Pacific Network. As of December 31, 2021, women represent approximately 49% of our global workforce, including approximately 43% of employees in manager-level roles and above, and approximately 38% in vice president-level roles and above. Employees from recently acquired companies ADAM HCM, Ascender, and Excelity are not included in this data, but will be included next year. In the United States, approximately 14% of our workforce is Black or African American, 11% is Asian, 6% is Hispanic or Latino, 2% is multiracial, and less than 1% is Native Hawaiian or Pacific Islander, American Indian or Alaska Native and approximately 64% is White. In the United States, people of color represent approximately 24% of employees in manager-level roles and above, and approximately 22% of employees in vice president-level roles and above.

As we enter the third year of the pandemic, we continue to ensure that all necessary policies and procedures are in place at our facilities to protect employee health and safety. This includes those for vaccination, testing, masking, and physical distancing that conform to government requirements.

We are also committed to providing meaningful leadership and learning development opportunities to our workforce. Over 35,000 hours of in-person trainings, digital learning and webinars related to leadership and learning development topics were completed by nearly 93% of our employees as of December 31, 2021.

Responsible Innovation

We believe that tech for good and responsible innovation can have a positive impact on all stakeholders. Dayforce Wallet provides individuals with faster access to their earned pay, which enables them to cover both everyday expenses as well as urgent or unplanned costs.

Our Communities

Ceridian is committed to giving back to the communities in which we live and work. Through our charity, Ceridian Cares, we provide financial support to individuals and families struggling with basic needs and quality of life. In 2021, the organization donated over \$1.1 million to people in need in the United States and Canada. Last year, we launched a new giving and volunteering platform for our workforce through which employees donated to over 480 non-profits in 12 countries.

We encourage you to review our 2022 annual Ceridian ESG Report for more detailed information regarding our ESG, and Human Capital goals, programs, and initiatives, which we anticipate will be available on our website at <https://www.ceridian.com/company/corporate/corporateresponsibility> by no later than March 31, 2022. Our website and the information contained on, or that can be accessed through, the website is not deemed to be incorporated by reference into, and is not considered part of, this Form 10-K.

Available Information

Our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, proxy and information statements, Section 16 reports, and amendments to reports and any registration statements filed or furnished pursuant to Sections 13(a), 14 and 15(d) of the Exchange Act are available, free of charge at <http://investors.ceridian.com> as soon as reasonably practicable after we file such material with, or furnish it to, the Securities and Exchange Commission (“SEC”), and are also available on the SEC’s website at <http://www.sec.gov>.

Our fourth amended and restated certificate of incorporation, our amended and restated bylaws, charters of our Acquisition and Finance, Audit, Compensation, and Corporate Governance and Nominating Committees of our Board of Directors (our “Board”), our Corporate Governance Guidelines, and our Code of Conduct, as well as any waivers from and amendments to our Code of Conduct are available on our website at <https://investors.ceridian.com/corporate-governance/governance-documents>. Our website and the information contained on, or that can be accessed through, the website is not deemed to be incorporated by reference into, and is not considered part of, this Form 10-K.

Executive Officers

Our executive officers as of February 25, 2022 are as follows:

Name	Age	Position
David D. Ossip	55	Chair and Co-Chief Executive Officer
Leagh E. Turner	50	Co-Chief Executive Officer
Christopher R. Armstrong	53	Executive Vice President and Chief Operating Officer
Noémie C. Heuland	44	Executive Vice President and Chief Financial Officer
Stephen H. Holdridge	61	Executive Vice President and Chief Customer Officer
Jeffrey S. Jacobs	46	Head of Accounting and Financial Reporting
Joseph B. Korngiebel	51	Executive Vice President, Chief Product and Technology Officer
William E. McDonald	57	Executive Vice President, General Counsel and Corporate Secretary
Rakesh Subramanian	49	Executive Vice President and Chief Revenue Officer

David D. Ossip

Mr. Ossip is our Chair and Co-Chief Executive Officer. Mr. Ossip has held the position of Chair since August 2015 and Co-Chief Executive Officer since February 2022. Mr. Ossip has served as Chief Executive Officer from July 2013 until February 2022. Mr. Ossip joined the Company following the Company's acquisition of Dayforce Corporation in 2012, where he held the position of chief executive officer. Mr. Ossip serves as a director of Dragoneer Growth Opportunities Corp. III, a NASDAQ listed special acquisition company. Mr. Ossip previously served as a director for Dragoneer Growth Opportunities Corp, a NYSE listed company, and Dragoneer Growth Opportunities Corp II, a NASDAQ listed company.

Leagh E. Turner

Ms. Turner is our Co-Chief Executive Officer since February 2022 and has been a member of our Board of Directors since February 2022. Ms. Turner joined Ceridian in 2018, serving as President from August 2018 until February 2022 and Chief Operating Officer from February 2020 until February 2022. Prior to joining Ceridian, Ms. Turner held the position of global chief operating officer, strategic customer program of SAP, an enterprise software and programming company, from October 2016 to August 2018. Ms. Turner is a member of the board of directors for Manulife Financial Corporation, a NYSE listed company.

Noémie C. Heuland

Ms. Heuland is our Executive Vice President and Chief Financial Officer, positions she has held since October 2020. Prior to joining the Company, Ms. Heuland held the position of Senior Vice President, Chief Financial Officer of SAP Latin America and Caribbean region since April 2018. In addition, Ms. Heuland held the positions of Vice President, Chief Financial Officer of SAP Latin America and Caribbean North and South from April 2015 to March 2018. Ms. Heuland is a certified public accountant (inactive).

Stephen H. Holdridge

Mr. Holdridge is our Executive Vice President, Chief Customer Officer since February 2022. Mr. Holdridge joined Ceridian in January 2020, serving as Global Head of Services until February 2022. Prior to joining the Company, Mr. Holdridge held the position of Senior Executive Vice President, Worldwide Services at MicroStrategy, Inc. from November 2017 until July 2019. In addition, Mr. Holdridge held the position of Senior Vice President, Global Consulting Services at Infor (US), Inc., from June 2012 until October 2017.

Christopher R. Armstrong

Mr. Armstrong is our Executive Vice President, Chief Customer Officer, a position he has held since February 2020. Mr. Armstrong joined Ceridian in 2004, and since then has held several commercial and operational leadership roles, including Executive Vice President, Chief Operating Officer from May 2019 until February 2020, Executive Vice President, Operations from March 2018 until May 2019, and Executive Vice President, Customer Support from April 2016 until March 2018.

Jeffrey S. Jacobs

Mr. Jacobs is our Head of Accounting and Financial Reporting and serves as the principal accounting officer, positions he has held since May 2020. Mr. Jacobs has served as our Vice President, Finance since December 2016. Mr. Jacobs is a certified public accountant (inactive).

Joseph B. Korngiebel

Mr. Korngiebel is our Executive Vice President, Chief Product and Technology Officer, positions he has held since August 2020. Prior to joining the Company, Mr. Korngiebel held various positions at Workday, Inc. since March 2006, including Chief Technology Officer from May 2017 until July 2020 and Senior Vice President, Technology and Innovation from January 2014 until May 2017.

William E. McDonald

Mr. McDonald is our Executive Vice President and General Counsel, positions he has held since July 2021, and Corporate Secretary, a position he has held since February 2016. Mr. McDonald served as Deputy General Counsel from February 2016 until July 2021.

Rakesh Subramanian

Mr. Subramanian is our Executive Vice President and Chief Revenue Officer, a position he has held since April 2021. Prior to joining the Company, Mr. Subramanian held various positions at SAP America, Inc., beginning in 2005, most recently as Senior Vice President and Managing Director from July 2017 until April 2021, and Regional Vice President from January 2014 until June 2017.

Item 1A. Risk Factors.

Risks Related to Our Business and Industry

Our business ordinarily encounters and addresses risks, some of which can cause our future results to be different than we currently anticipate. The risk factors described below represent our current view of some of the most important risks facing our business and are important to its understanding. The following information should be read in conjunction with Management's Discussion and Analysis of Financial Condition and Results of Operations, Quantitative and Qualitative Disclosures About Market Risk and the consolidated financial statements and related notes included in this Annual Report on Form 10-K. This discussion includes a number of forward-looking statements. In addressing these risks, you should also refer to the information contained in this Annual Report on Form 10-K, including the consolidated financial statements and related notes.

Our quarterly results of operations have and may continue to fluctuate significantly and may not fully reflect the underlying performance of our business.

Our quarterly results of operations, including the levels of our revenues, gross margin, profitability, cash flow, and deferred revenue, has varied and may vary significantly in the future, and period-to-period comparisons of our results of operations may not be meaningful. Accordingly, the results of any one quarter should not be relied upon as an indication of future performance. Our quarterly financial results may fluctuate as a result of a variety of factors, many of which are outside of our control, and as a result, may not fully reflect the underlying performance of our business. These factors include: our ability to attract and retain new and current Cloud customers, as well as Dayforce Wallet customers; changes on services or pricing impacting our customer contracts; seasonal variations in sales of and revenue from our applications, changes on our operating expenses related to the maintenance and expansion of our business including new acquired businesses, operations, and infrastructure; and general economic, industry, and market conditions, including the addition or loss of employees by our Cloud customers who generally pay on a "per employee per month" basis, interest rates and accounting rules.

Our business plan is focused on an aggressive growth strategy. If we fail to manage our growth effectively or if our strategy is not successful, we may be unable to execute our business plan, to maintain high levels of service, or to adequately address competitive challenges.

We have and we believe we will continue to experience a period of rapid growth in our operations and Cloud solutions. The growth of our operations and Cloud solutions has and may continue to place a strain on our management, administrative, operational, technological and financial infrastructure. In order to manage our growth effectively, we will need to continuously improve our operational, financial, technological and management systems, and our internal controls, reporting systems and procedures to scaled global capabilities which may require investment as we grow and could result in disruption as we transform. Failure to effectively manage growth or to achieve our growth strategy could result in problems or delays in implementing customers, declines in quality or customer satisfaction, increases in costs, complications in introducing new features, or other operational challenges; and any of these difficulties could have a material adverse effect on our business, financial condition, and results of operations.

Revenues from our Cloud solutions have grown substantially over the last few years. Our efforts to continue increasing use of our Cloud solutions and our other applications, including the Dayforce Wallet, may not succeed and may reduce our revenue growth rate.

Our ability to continue to grow the revenues from our Cloud solutions through execution against our growth levers depends on the quality of our platform and solutions, and our ability to design our Cloud solutions to meet consumer demand; and our ability to increase sales from existing customers depends on our customers' satisfaction with our product and need for additional solutions. Our participation in new markets for native payroll, and application expansion in various modules and features, including the Dayforce Wallet, is relatively new, and it is uncertain whether these areas will ever result in significant revenues for us. Further, the entry into new markets or the introduction of new features, functionality, or applications beyond our current markets and functionality may not be successful. If we are unable to sell our Cloud solutions, including the Dayforce Wallet, into new markets or to further penetrate existing markets, or to increase sales from existing customers, our revenue may not grow as expected, which could have a material adverse effect on our business, financial condition, and results of operations. Any factor adversely affecting sales of our Cloud solutions, including application release cycles, delays, or failures in new product functionality, market acceptance, product competition, performance and reliability, reputation, price competition, and economic and market conditions, could have a material adverse effect on our business, financial condition, and results of operations.

If we are not able to provide new or enhanced functionality and features or keep pace with rapid technological changes and evolving industry standards, we may not be able to satisfy our aggressive growth strategy and the demand for our services may decline.

Our ability to increase revenue will depend, in large part, on our ability to develop our existing Cloud solutions to drive sales into new markets around the world, to further penetrate our existing markets, and to increase sales from existing customers who do not utilize the full Dayforce suite. Our future success, and the success of our growth strategy, will depend upon our ability to anticipate and to adapt to changes in technology and industry standards, and to effectively develop, to introduce, to market, and to gain broad acceptance of new service offerings and enhancements incorporating the latest technological advancements. We may not be able to successfully provide new or enhanced functionality and features for our existing solutions that achieve market acceptance or that keep pace with rapid technological developments. Our attempts to develop new or enhanced functionality may be expensive and impact our profitability. Failure in this regard may have a material adverse effect on our business, growth strategy, financial condition, and results of operations.

Our international growth strategy has and will expose us to risks inherent in international sales and operations.

One of our growth levers is international sales growth into new markets and we anticipate that customers and potential customers may increasingly require and demand that a single vendor provide HCM solutions and services for their employees in a number of countries. Our global recent expansion, and any future expansion into new markets, has and will require commensurate ongoing expansion of our monitoring of local laws and regulations, which increases our costs as well as the risk of the product not incorporating in a timely fashion or at all the necessary changes to enable a customer to be compliant with such laws. Additionally, our international operations are subject to risks that could adversely affect those operations or our business as a whole, including but not limited to the costs of establishing a market presence, localizing product and service offerings for foreign customers, difficulties in managing and staffing international operations, and increased expenses related to introducing corporate policies and controls in our international operations and increased reliance on partners to provide services in additional geographies. As part of our international strategy, we work with partners to perform services in certain geographies where we do not currently have international operations or the particular service required by our customers, as a result we may experience business impact if our partners do not carry out the services as committed, including potential for reduced margin from additional expense or impact to customer relationships.

Our international growth strategy has and may continue to include growth via acquisition, in which case our growth may also be dependent on our ability to transition acquired customers from current products to Dayforce or to increase sales by addressing broader HCM needs with additional modules of Dayforce.

If we are unable to provide the required services on a multinational basis, or if we are unable to effectively manage our international expansion, we could be subject to negative customer experiences, harm to our reputation or loss of customers, claims for any fines, penalties or other damages suffered by our customer, and other financial harm, including fines, penalties, or other damages suffered by us directly, which would negatively impact revenue and earnings. Although we have a multinational strategy, additional investment and efforts may be necessary to implement such strategy. Some of our business partners also have international operations and are subject to the risks described above.

The markets in which we participate are highly competitive, and if we do not compete effectively, it could have a material adverse effect on our business, financial condition, and results of operations.

The markets in which we participate are highly competitive, and competition could intensify in the future. We believe the principal competitive factors in our market include: breadth and depth of product functionality, scalability and reliability of applications, robust workforce management, comprehensive tax services, modern and innovative cloud technology platforms combined with an intuitive user experience, multi-country and jurisdiction domain expertise in payroll and HCM, quality of implementation and customer service, integration with a wide variety of third party applications and systems, total cost of ownership and return on investment, brand awareness, and reputation, pricing and distribution.

We face a variety of competitors, some of which are long-established providers of HCM solutions. Many of our current and potential competitors are larger, have greater name recognition, longer operating histories, larger marketing budgets, and significantly greater resources than we do, and are able to devote greater resources to the development, promotion, and sale of their products and services. Some of our competitors do or could offer HCM solutions bundled as part of a larger product offering. Furthermore, our current or potential competitors may be acquired by third parties with greater available resources and the ability to initiate or to withstand substantial price competition. In addition, many of our competitors have established marketing relationships, access to larger customer bases, and major distribution

agreements with consultants, system integrators, and resellers. Our competitors may also establish cooperative relationships among themselves or with third parties that may further enhance their product offerings or resources. Although we have a global partnership strategy, additional investment and efforts will be necessary to implement such a strategy.

If our competitors' products, services, or technologies become more accepted than our applications are today, if they are successful in bringing their products or services to market earlier than ours, or if their products or services are more technologically capable than ours, it could have a material adverse effect on our business, financial condition, and results of operations. In addition, some of our competitors may offer their products and services at a lower price compared to our products or their current pricing impacting our ability to achieve our target pricing. If we are unable to achieve our target pricing levels or if we experience significant pricing pressures, it could have a material adverse effect on our business, financial condition, and results of operations.

Our aging software infrastructure, technology, and sophistication of these systems may lead to increased costs, vulnerability to cyber-attack, or disruptions in operations that could have a material adverse effect on our business, market brand, financial condition, and results of operations.

Our business continues to demand the use of sophisticated systems and technology, including technology infrastructure assets. These systems and technologies must be refined, updated and/or replaced with more advanced systems on a regular basis in order for us to meet both our customers' and employees' demands and expectations. Some of the crucial platforms on which we host our back office and bureau systems are aged and need to be replaced or are in the process of being replaced. If we are unable to replace our aged, crucial platforms, if some or all these platforms fail to operate due to a software error or infrastructure failure, if we fail to continue to refine and update our systems and technologies on a timely basis or within reasonable cost parameters, if we do not appropriately and timely train our employees to operate any of these new systems, or we are unable to appropriately protect any of these systems, we could suffer the loss of data, vulnerabilities to cyber-attack, system outages or other performance problems, which could have a material adverse effect on our business, financial condition and results of operations.

An information security breach of our systems or the loss of, or unauthorized access to, customer information or sensitive company information; the failure to comply with the U.S. Federal Trade Commission's ("FTC") ongoing consent order regarding data protection; or a system disruption could have a material adverse effect on our business, market brand, financial condition, and results of operations.

Our business is dependent on our payroll, transaction, financial, accounting, and other data processing systems. We rely on these systems, which are maintained both internally and externally at third parties, to process, on a daily and time sensitive basis, a large number of complicated transactions. We, both through our internal systems and systems maintained by third parties, electronically receive, process, store, and transmit data and personal information about our customers and their employees, as well as our vendors and other business partners. We keep this information confidential. However, both our internal and third party partners' websites, networks, applications and technologies, and other information systems may be targeted for sabotage, disruption, or data misappropriation. Further, as we grow by acquisition, these risks become acute in the period following the acquisition, as we set about integrating the acquisition target's systems into ours. Additionally, as we retire our legacy products like our bureau payroll services, we are decreasing investments in maintaining those systems which creates the potential for a potential security breach of one of those systems. The uninterrupted operation of our information systems and our ability to maintain the confidentiality of personal information and other customer and individual and company information that resides on our systems are critical to the successful operation of our business. We, and our third party providers, maintain systems and processes designed to protect this data and maintain business continuity, but notwithstanding such protective measures, there is a risk of intrusion, cyber-attacks or tampering that could compromise the integrity and privacy of this data. Any information security breach in our business processes or of our processing systems (whether they are maintained internally or externally at third parties) has the potential to impact our customer information and sensitive company information, including our financial reporting capabilities, which could result in the potential loss of business and our ability to accurately report financial results. If any of these systems fail to operate properly or become disabled even for a brief period of time, we could potentially miss a critical filing period, resulting in potential fees and penalties, or lose control of customer data, all of which could result in financial loss, a disruption of our business, liability to customers, regulatory intervention, or damage to our reputation.

We are subject to a twenty-year consent order with the FTC that became final in June 2011 stemming from a December 2009 criminal hack into our discontinued U.S. payroll application. We conceded no wrongdoing in the order and we were not subject to any monetary fines or penalties. However, in connection with the order, we are required to,

among other things, maintain a comprehensive information security program that is reasonable and appropriate for our size and complexity, and for the type of personal information we collect. We are also required to have portions of our security program, which apply to certain segments of our U.S. business, reviewed by an independent third party on a biennial basis. Maintaining, updating, monitoring, and revising an information security program in an effort to ensure that it remains reasonable and appropriate in light of changes in security threats, changes in technology, and security vulnerabilities that arise from legacy systems is time-consuming and complex, and is an ongoing effort.

While we have taken and continue to take steps to ensure compliance with the consent order, if we are determined not to be in compliance with the consent order, or if any new breaches of security occur, the FTC may take enforcement actions or other parties may initiate a lawsuit. Any such resulting fines and penalties could have a material adverse effect on our liquidity and financial results, and any reputational damage therefrom could adversely affect our relationships with our existing customers and our ability to attain new customers. Insurance may be inadequate or may not be available in the future on acceptable terms, or at all. In addition, our insurance policies may not cover all claims made against us, and defending a lawsuit, regardless of its merit, could be costly, divert management's attention, or damage our reputation.

Our solutions and our business are subject to a variety of U.S. and other countries' laws and regulations, including those regarding privacy, data protection, and information security. Any failure by us or our third party service providers, as well as the failure of our services, to comply with these laws could have a material adverse effect on our business, financial condition, and results of operations.

Failure to comply with privacy, data protection and information security laws and regulations could have a material adverse effect on our business, results of operations or financial condition, or have other adverse consequences. These laws, which are not uniform, govern the collection, storage, hosting, transfer (including in some cases, the transfer outside the country of collection), use, disclosure, security, retention and destruction of personal information; they require us to give notice to individuals of privacy practices; give individuals certain access and correction rights with respect to their personal information; and regulate the use or disclosure of personal information for secondary purposes such as marketing. Under certain circumstances, some of these laws require us to provide notification to affected individuals, clients, data protection authorities and/or other regulators in the event of a data breach. In many cases, these laws apply not only to third-party transactions, but also to transfers of information among the Company and its subsidiaries. The European Union (the "EU") General Data Protection Regulation (the "GDPR"), and the California Consumer Protection Act (the "CCPA"), are among the most comprehensive of these laws. The number of related laws and regulations we are subject to continue to increase as we enter new markets in Europe, Asia Pacific, and Latin America, and as we continue our entry into the consumer space through our Wallet offering. Restrictions on transfers of personal information from one geography to another continue to consolidate. Complying with these laws and requirements, including the enhanced obligations imposed by the GDPR and the CCPA, has resulted in significant costs to our business and may continue to require us to amend certain of our business practices. Further, enforcement actions and investigations by regulatory authorities related to data security incidents and privacy violations continue to increase. The future enactment of more restrictive laws, rules or regulations and/or future enforcement actions or investigations could have a material adverse impact on us through increased costs or restrictions on our businesses and noncompliance could result in significant regulatory penalties and legal liability and damage our reputation. Restrictions on cross border data flows and data residency requirements may negatively impact our clients' and our own ability to transfer personal information to the United States and other countries as part of our provision of services, and in support of our own operations, potentially impacting revenues. In addition, data security events and concerns about privacy abuses by other companies are changing consumer and social expectations for enhanced privacy and data protection. As a result, even the perception of noncompliance, whether or not valid, may damage our reputation.

Customers depend on our solutions to assist them to comply with applicable laws, which requires us and our third party providers to constantly monitor applicable laws and to make applicable changes to our solutions. If our solutions have not been updated to enable the customer to comply with applicable laws or we fail to update our solutions on a timely basis, it could have a material adverse effect on our business, financial condition, and results of operations.

Customers use our solutions to assist them to comply with payroll, HR, and other applicable laws for which the solutions are intended for use. We and our third party providers must monitor all applicable laws and as such laws expand, evolve, or are amended in any way, and when new regulations or laws are implemented, we may be required to modify our solutions to assist our customers to comply with such new regulations or laws, which requires an investment of our time and resources. We are also reliant on our third party providers to modify the solutions that they provide to our customers as part of our solutions to comply with changes to such laws and regulations. The number of laws and

regulations that we are required to monitor has and will continue to increase as we expand both the geographic regions in which the solutions are offered and the types of products we offer to customers. These risks have become exacerbated as we expand by acquisition and are most acute in the period following the acquisition as we integrate the acquired business and its systems. In the event our solutions fail to enable a customer to comply with applicable laws, we are subject to negative customer experiences, harm to our reputation or loss of customers, claims for any fines, penalties or other damages suffered by our customer, and other financial harm, including fines, penalties or other damages suffered by us directly.

If our current or future applications fail to perform properly, our reputation could be adversely affected, our market share could decline, and we could be subject to liability claims, which could have a material adverse effect on our business, financial condition, and results of operations.

Our applications are inherently complex and may contain material defects or errors that we are not yet aware of. Because of the large amount of data that we collect and manage, it is possible that failures or errors in our systems could result in data loss or corruption or cause the information that we collect to be incomplete or to contain inaccuracies that our customers regard as significant. Any defects in functionality or that cause interruptions in the availability of our applications could result in reputational, competitive, operational or other business harm as well as financial costs and regulatory action, any of which could have a material adverse effect on our business, financial condition, and results of operations. In addition, the costs incurred in correcting any material defects or errors might be substantial. While we conduct standard due diligence during our acquisition process, these risks are heightened as we grow by acquisition and dedicate resources to integrating the acquisition target's systems into ours and take on the vulnerabilities that may exist at the acquisition target.

Regulatory requirements placed on our software and services could impose increased costs on us, delay or prevent our introduction of new products and services, and impair the function or value of our existing products and services.

Our products and services are subject to increasing regulatory requirements, and as these requirements proliferate, we are required to change or adapt to comply. Changing regulatory requirements might render our services obsolete or might block us from developing new products and services. This might in turn impose additional costs upon us to comply or to further develop our products and services. Changing regulatory requirements can make introduction of new services more costly or more time-consuming than we currently anticipate and could even prevent introduction by us of new services or cause the continuation of our existing services to become more costly.

Federal, state or foreign government bodies or agencies have in the past adopted, and may in the future adopt, laws or regulations affecting the use of the Internet as a commercial medium. Future changes in these laws or regulations could require us to modify our applications in order to comply with these changes. In addition, government agencies or private organizations may begin to impose taxes, fees, or other charges for accessing the Internet or commerce conducted via the Internet. These laws or charges could limit the growth of Internet-related commerce or communications generally, resulting in reductions in the demand for Internet-based applications such as ours, any of which could have a material adverse effect on our business, financial condition, and results of operations.

If we fail to manage our technical operations infrastructure, our existing customers may experience service outages, and our new customers may experience delays in the implementation of our applications, which could have a material adverse effect on our business, financial condition, and results of operations.

We have experienced and will continue to experience significant growth in the number of users, transactions, and data that our operations infrastructure supports, including the acquisition of new systems via strategic transactions. We seek to maintain sufficient excess capacity in our operations infrastructure to meet the needs of all of our customers and to facilitate the rapid provision of new customer activations and the expansion of existing customer activations. In addition, we need to continue to properly manage our technological operations infrastructure to support version control, changes in hardware and software parameters, and the evolution of our applications. We have experienced, and may in the future experience, website disruptions, outages, and other performance problems. These problems may be caused by a variety of factors, including infrastructure changes, human or software errors, viruses, security attacks, fraud, increased resource consumption from expansion or modification to our Dayforce code, spikes in customer usage, and denial of service issues. The risks of these problems occurring may be exacerbated by our strategic acquisitions, especially in the period following the acquisition as we integrate the acquisition target's systems into ours, as well as our aging technology infrastructure which in some cases is supported by older platforms. In some instances, we may not be able to identify the

cause or causes of these performance problems within an acceptable period of time. If we do not accurately predict our infrastructure requirements, our existing customers may experience service outages that may subject them to financial penalties, causing us to incur financial liabilities and customer losses; and our operations infrastructure may fail to keep pace with increased sales, causing new customers to experience delays as we seek to obtain additional capacity, which could have a material adverse effect on our business, financial condition, and results of operations.

Our growth depends in part on the success of our strategic relationships with third parties who provide us with services and license us software for use in or with both our applications and our internal operations.

In order to maintain and grow our business, we do, and we anticipate that we will continue to, depend on the continuation and expansion of relationships with third parties who provide us with services. These service provider partners include connected payroll partners, implementation partners, systems integrators, third party sales channel partners, the operators of data centers, and the providers who execute wire transfers and other money movement services to support our customer payroll and tax services. Our agreements with these third party service providers are typically non-exclusive and do not prohibit them from working with our competitors. If any third-party service providers on which we rely to provide us with services experience a disruption, go out of business, are acquired by our competitors, experience a decline in quality, or terminate their relationship with us, we could experience a material adverse effect on our business, financial condition, and results of operation.

In addition, we license software from third parties for use in or with both our applications and our internal operations, and the inability to maintain these licenses could result in increased costs, or reduced service levels, which could have a material adverse effect on our business, financial condition, and results of operations. To the extent that our applications depend upon the successful operation of third party software in conjunction with our software, any undetected errors or defects in this third party software could prevent the deployment or impair the functionality of our applications, delay new application introductions, and result in a failure of our applications, which could have a material adverse effect on our business, financial condition, and results of operations.

Any failure to offer high-quality technical support services may adversely affect our relationships with our customers and could have a material adverse effect on our business, financial condition, and results of operations.

Once our applications are deployed, our customers depend on our support organization and the support capabilities of our partners to resolve technical issues relating to our applications, as well as our partner's applications. We or our partners may be unable to respond quickly enough to accommodate short-term increases in customer demand for support services, and we may be limited in our ability to resolve the technical issues our customers have with our technology, or our partner's technology. We or our partners also may be unable to modify the format of our or our partners' support services to compete with changes in support services provided by our competitors. Increased customer demand for these services, without corresponding revenues, could increase costs and have an adverse effect on our results of operations. Ultimately, a client could elect to terminate their agreement due to dissatisfaction with support, resulting in lost recurring revenue. In addition, our sales process is highly dependent on our applications and business reputation and on positive recommendations from our existing customers. Any failure to maintain high-quality technical support, or a market perception that we do not maintain high-quality support, could adversely affect our reputation and our ability to sell our applications to existing and prospective customers, which could have a material adverse effect on our business, financial condition, and results of operations.

If our customers are not satisfied with the implementation and professional services provided by us or our partners, it could have a material adverse effect on our business, financial condition, and results of operations.

Our business depends on the ability to implement our solutions on a timely, accurate, and cost-efficient basis and to provide professional services at the high level demanded by our customers. Implementation and other professional services may be performed by our own staff, by a third party, or by a combination of the two. If a customer is not satisfied with the quality of work performed, or there are inaccuracies or errors in the work delivered, then we could incur additional costs to address the situation, the customer's dissatisfaction with such services could damage our ability to expand the number of applications subscribed to by that customer or we could be liable for loss or damage suffered as a result, any of which could have a material adverse effect on our business, financial condition, and results of operations. If a new customer is dissatisfied with implementation, the customer could refuse to go-live, which could result in a delay in our collection of revenue or could result in a customer seeking repayment of its implementation fees or suing us for damages, or could force us to enforce the termination provisions in our customer contracts in order to collect revenue. In addition,

negative publicity related to our customer relationships, regardless of its accuracy, may affect our ability to compete for new business with current and prospective customers, which could also have a material adverse effect on our business, financial condition, and results of operations.

We depend on our senior management team, and the loss of one or more key employees or an inability to attract and to retain highly skilled employees could have a material adverse effect on our business, financial condition, and results of operations.

Our success depends largely upon the continued services of our senior management team. Our executive officers, senior management or other key personnel have limited or no notice period applicable to their employment. Therefore, they could terminate their employment with us at any time. Additionally, we do not maintain key employee insurance on any of our executive officers, senior management or key employees. The loss of one or more of our executive officers, senior management or key employees could have a material adverse effect on our business, financial condition, and results of operations.

To execute our growth plan, we must attract and retain highly qualified personnel. Competition for talent is intense, and has become more intense following the onset of the coronavirus disease 2019 ("COVID-19") pandemic, including without limitation for individuals with high levels of experience in designing and developing software and Internet-related services and senior sales executives. We have, from time to time, experienced, and we expect to continue to experience, difficulty in hiring and retaining employees with appropriate qualifications.

If our vendors or affiliates initiate payroll-related transactions on behalf of our customers and do not receive funds from the customer sufficient to cover the amounts paid on their behalf, we may suffer significant losses which could have a material adverse effect on our business, financial condition, and results of operations.

Our payroll and tax processing services involve the movement of significant funds from the account of a customer to its employees and to relevant taxing authorities. Typically, we rely upon third party vendors to initiate payments on behalf of our customers. In certain jurisdictions, where permitted, our affiliates may also initiate payments on behalf of our customers. Under certain circumstances, funds may not be received to cover the transactions that our affiliates and third party vendors have initiated on our customers' behalf. Additionally, there is a risk that an erroneous payment instruction may trigger inaccurate payments. There is, therefore, a risk that the customer's funds will be insufficient to cover the amounts already paid on its behalf. Should customers default on their payment obligations in the future, should our affiliates or vendors make erroneous payments on behalf of a customer, should erroneous or defaulted payment recovery be unsuccessful, or should our affiliates or vendors suffer losses from similar issues, we may be required to advance substantial amounts of funds to cover such obligations, or to make our partners whole for any losses they suffer. In such an event, we may be required to seek additional sources of short-term liquidity, which may not be available on reasonable terms, which could have a material adverse effect on our business, financial condition, and results of operations. Further, should a customer on whose behalf our affiliate or vendor has initiated a transaction subsequently have financial difficulty or refuse to pay, collection of any funds advanced on its behalf may be difficult and we may suffer losses that could have a material adverse effect on our business, financial condition and results of operation.

For our Dayforce Wallet service, we advance earned net wages and associated tax amounts on behalf of customers in connection with the "on demand pay" payroll feature of the service in order to provide their employees access to earned wages in advance of their standard payroll cycles. A customer may fail to satisfy its obligation to repay us for those advanced monies which could have a material adverse effect on our business, financial condition, and results of operations.

In the case of our "on demand pay" service (a service that is offered as part of the Dayforce Wallet), credit is provided to our customers and funds are advanced on the customers' behalf in order to fund the customers' employees' interim earned net wage payroll demands (including associated source and other deductions) with the requirement that the customers will repay the advance on the date of their next ordinary payroll run. These advances may or may not have priority over other creditors of our customers, and our security interest and/or other credit protection measures, if implemented, may be inadequate to make us whole. There is, therefore, a risk that our customers do not pay back the amounts we have already paid on their behalf, and in that event, we may possess limited legal recourse to recoup those funds from our customers. In the event of a customer's failure to repay us, we may be required to seek additional sources of short-term liquidity, which may not be available on reasonable terms, or suffer credit losses, which could have a material adverse effect on our business, financial condition, and results of operations.

Customer funds and wage funds of their employees that our trustees and third-party financial institution partners hold are subject to market, interest rate, credit, and liquidity risks. The loss of these funds could have a material adverse effect on our business, financial condition, and results of operations.

Our trustees (in the case of customer funds held in our U.S. Ceridian Clients' Funds Trust and our Ceridian Canada Payroll Trust) and our third party financial institution partners (in the case of employee wage funds held on their behalf as part of the U.S. Dayforce Wallet program and certain of our non-U.S. operations) may invest funds in one or more high-quality bank deposits, money market mutual funds, commercial paper, collateralized short-term investments, government securities, as well as highly rated asset-backed, mortgage-backed, municipal, corporate, and bank securities. These assets are subject to varying degrees of general market, interest rate, credit, and liquidity risks. These risks may be exacerbated, individually or in unison, during periods of unusual financial market volatility. We are required to fund the payroll and wage funds of our customers and their employees regardless of any loss realized on those investments affecting the principal funds held. In the event of a global financial crisis, such as that experienced in 2008, we could be faced with a severe constriction of the availability of liquidity, which could impact our ability to fund payrolls. Any loss of principal, or inability to access customer funds could have an adverse impact on our cash position and results of operations and could require us to obtain additional sources of liquidity, and could have a material adverse effect on our business, financial condition, and results of operations.

We may acquire other companies or technologies, which could divert our management's attention, result in additional indebtedness or dilution to our stockholders, and otherwise disrupt our operations, which could have a material adverse effect on our business, financial condition, and results of operations.

We have, and we may in the future seek to acquire or to invest in businesses, applications or technologies that we believe could complement or expand our applications, enhance our technical capabilities, or otherwise offer growth opportunities. The pursuit of potential acquisitions may divert the attention of management and cause us to incur various expenses in identifying, investigating, and pursuing suitable acquisitions, whether or not they are consummated. In addition, we have limited experience in acquiring other businesses. If we acquire additional businesses, we may incur significant costs to integrate such businesses. Further, we may not be able to integrate the acquired personnel, operations, and technologies successfully or profitably, or to effectively manage the combined business following the acquisition. If an acquired business fails to meet our expectations, it could have a material adverse effect on our business, financial condition, and results of operations. In order to fund acquisitions, we may issue dilutive equity securities or incur additional debt, resulting in an increase our interest payments.

A significant portion of the purchase price of companies we acquire may be allocated to goodwill and other intangible assets, which must be assessed for impairment at least annually. In the future, if our acquisitions do not yield expected returns, we may be required to record charges based on this impairment assessment, which could have a material adverse effect on our financial condition and results of operations.

Failure to comply with anti-corruption laws and regulations, economic and trade sanctions, anti-money laundering laws and regulations, and similar laws could have a materially adverse effect on our reputation, results of operations or financial condition, or have other adverse consequences.

Regulators worldwide are exercising heightened scrutiny with respect to anti-corruption, economic and trade sanctions, and anti-money laundering laws and regulations. Such heightened scrutiny has resulted in more aggressive investigations and enforcement of such laws and more burdensome regulations, any of which could have a material adverse impact on our business. We are growing our business throughout the world, including in numerous developing economies where companies and government officials are more likely to engage in business practices that are prohibited by domestic and foreign laws and regulations, including the United States Foreign Corrupt Practices Act, the Canadian Corruption of Foreign Public Officials Act, the anti-corruption provisions of the Australian criminal code, and the U.K. Bribery Act. Such laws generally prohibit improper payments or offers of payments to foreign government officials and leaders of political parties, and in some cases, to other persons, for the purpose of obtaining or retaining business. We are also subject to economic and trade sanctions programs, including those administered by the U.S. Treasury Department's Office of Foreign Assets Control, which prohibit or restrict transactions or dealings with specified countries, their governments and, in certain circumstances, their nationals, and with individuals and entities that are specially designated, including narcotics traffickers and terrorists or terrorist organizations, among others. In addition, some of our businesses and entities in the U.S. and a number of other countries in which we operate are and will continue to be subject to anti-money laundering laws and regulations. These laws require us to develop and implement risk-based anti-money laundering programs, report large cash transactions and suspicious activity, and maintain transaction records.

We have implemented policies and procedures to monitor and address compliance with applicable anti-corruption, economic and trade sanctions and anti-money laundering laws and regulations, and we are continuously in the process of reviewing, upgrading and enhancing certain of our policies and procedures. However, there can be no assurance that our employees, consultants or agents will not take actions in violation of our policies for which we may be ultimately responsible, or that our policies and procedures will be adequate or will be determined to be adequate by regulators. Any violations of applicable anti-corruption, economic and trade sanctions or anti-money laundering laws or regulations could limit certain of our business activities until they are satisfactorily remediated and could result in civil and criminal penalties, including fines, which could damage our reputation and have a material adverse effect on our results of operation or financial condition. Further, banks are increasingly viewing money services businesses, as a class, to be higher risk customers for money laundering. As a result, our banking partners that assist in processing our money movement transactions may limit the scope of services they provide to us or may impose additional material requirements on us. These regulatory restrictions on banks and changes to banks' internal risk-based policies and procedures may result in a decrease in the number of banks that may do business with us, may require us to materially change the manner in which we conduct some aspects of our business, may decrease our revenues and earnings and could have a material adverse effect on our results or financial condition.

We may not be able to utilize a significant portion of our net operating loss, which could have a material adverse effect on our financial condition and results of operations.

As of December 31, 2021, we had federal and state net operating loss carryforwards due to prior period losses, which, if not utilized, will begin to expire in 2034 and 2022 for federal and state purposes, respectively. These net operating loss carryforwards could expire unused and be unavailable to offset future income tax liabilities, which could have a material adverse effect on our financial condition and results of operations.

In addition, under Section 382 of the Internal Revenue Code of 1986, as amended (the "Code"), our ability to utilize net operating loss carryforwards or other tax attributes in any taxable year may be limited if we experience an "ownership change." A Section 382 "ownership change" generally occurs if one or more stockholders or groups of stockholders who own at least 5% of our stock increase their ownership by more than 50 percentage points over their lowest ownership percentage within a rolling three-year period. Similar rules may apply under state tax laws. Future issuances of our stock could cause an "ownership change." It is possible that an ownership change could have a material effect on our ability to utilize our net operating loss carryforwards, which could have a material adverse effect on our financial condition and results of operations.

Our failure to maintain effective internal control over financial reporting in accordance with Section 404 of the Sarbanes-Oxley Act could have a material adverse effect on our business, financial condition, and results of operations.

As a public company, we are required to design and maintain proper and effective internal controls over financial reporting and to report any material weaknesses in such internal controls. Section 404 of the Sarbanes-Oxley Act of 2002 requires that we evaluate and determine the effectiveness of our internal controls over financial reporting and provide a management report on the internal controls over financial reporting, which must be attested to by our independent registered public accounting firm. We have previously identified and reported material weaknesses, and we may identify additional material weaknesses in internal controls in future periods. If we were to have another material weakness in our internal controls over financial reporting, we may not detect errors on a timely basis and our financial statements may be materially misstated. There could also be a negative reaction in the financial markets due to a loss of investor confidence in us and the reliability of our consolidated financial statements, which could have a material adverse effect on our business, financial condition, and results of operations.

Litigation and regulatory investigations aimed at us or resulting from actions of our predecessor may result in significant financial losses and harm to our reputation.

We face risk of litigation, regulatory investigations, and similar actions in the ordinary course of our business, including the risk of lawsuits and other legal actions relating to breaches of contractual obligations, tortious claims, employment and labor law matters, securities law claims, or claims related to erroneous transactions or breach of data privacy laws from customers, stockholders, employees or other third parties which could result in fines, penalties, interest, or other damages. Litigation might result in substantial costs and may divert management's attention and resources, which might materially harm our business, overall financial condition, and operating results. We may also be subject to various regulatory inquiries, such as information requests, subpoenas and book and records examinations, from

regulators and other authorities in the geographic markets in which we operate. A substantial liability arising from a lawsuit judgment or settlement or a significant regulatory action against us or a disruption in our business arising from adverse adjudications in proceedings against our directors, officers, or employees could have a material adverse effect on our business, financial condition, and results or operations. Insurance might not cover such claims, might not provide sufficient payments to cover all the costs to resolve one or more such claims and might not continue to be available on terms acceptable to us. A claim brought against us that is uninsured or underinsured could result in unanticipated costs, thereby harming our operating results and leading analysts or potential investors to lower their expectations of our performance, which could reduce the trading price of our stock or potentially result in a lawsuit related to the reduced trading price of our stock.

Additionally, we are subject to claims and investigations as a result of our predecessor, Control Data Corporation (“CDC”), Ceridian Corporation, and other former entities for whom we are successor-in-interest with respect to assumed liabilities. For example, in September 1989, CDC became party to an environmental matters agreement with Seagate Technology plc (“Seagate”) related to groundwater contamination on a parcel of real estate in Omaha, Nebraska sold by CDC to Seagate. In February 1988, CDC entered into an arrangement with Northern Engraving Corporation and the Minnesota Pollution Control Agency in relation to groundwater contamination at a site in Spring Grove, Minnesota. Although we are fully reserved for these groundwater contamination liabilities, we cannot be certain if additional claims, investigations or liabilities related to such predecessor companies will surface.

Any failure to protect our intellectual property rights could impair our ability to protect our proprietary technology and our brand.

Our success and ability to compete depend in part upon our intellectual property. We primarily rely on copyright, trade secret, and trademark laws; trade secret protection; and confidentiality or license agreements with our employees, customers, partners and others to protect our intellectual property rights. However, the steps we take to protect our intellectual property rights may be ineffective or inadequate.

In order to protect our intellectual property rights, we have and will likely be required to continue to spend significant resources to monitor and to protect these rights. Litigation brought to protect and to enforce our intellectual property rights could be costly, time-consuming, and distracting to management, with no guarantee of success, and could result in the impairment or loss of portions of our intellectual property. Furthermore, our efforts to enforce our intellectual property rights may be met with defenses, counterclaims, and countersuits attacking the validity and enforceability of our intellectual property rights. Our failure to secure, to protect, and to enforce our intellectual property rights could have a material adverse effect on our business, financial condition, and results of operations.

We may be sued by third parties for alleged infringement of their proprietary rights which could have a material adverse effect on our business.

There is considerable intellectual property development activity in our industry. Third parties, including our competitors, may own or claim to own intellectual property relating to our service offerings and may claim that we are infringing their intellectual property rights. We may be found to be infringing upon such rights, even if we are unaware of their intellectual property rights. Any claims or litigation could cause us to incur significant expenses and, if successfully asserted against us or if we decide to settle, could require that we pay substantial damages or ongoing royalty payments, obtain licenses, modify applications, prevent us from offering our services, or require that we comply with other unfavorable terms. We may also be obligated to indemnify our customers, vendors or partners in connection with any such claim or litigation. Even if we were to prevail in such a dispute, any litigation regarding our intellectual property could be costly and time consuming.

The use of open source software in our applications may expose us to additional risks and harm our intellectual property rights.

Some of our applications include software covered by open source licenses. From time to time, there have been claims challenging the ownership of open source software against companies that incorporate such software into their products or applications. The terms of various open source licenses have not been interpreted by U.S. courts, and there is a risk that such licenses could be construed in a manner that imposes unanticipated conditions or restrictions on our ability to market our applications. By the terms of certain open source licenses, we could be required to release the source code of our proprietary software and to make our proprietary software available under open source licenses if we combine our proprietary software with open source software in a certain manner. In the event that portions of our proprietary software are determined to be subject to an open source license, we could be required to publicly release the affected

portions of our source code, to re-engineer all or a portion of our technologies, or otherwise to be limited in the licensing of our technologies, each of which could reduce or eliminate the value of our technologies and services. In addition to risks related to license requirements, usage of open source software can lead to greater risks than use of third party commercial software, as open source licensors generally do not provide warranties or controls on the origin of the software. Many of the risks associated with usage of open source software cannot be eliminated and could have a material adverse effect on our business, financial condition, and results of operations.

The implementation of new accounting systems or applications could interfere with our business and operations.

The implementation of new systems and enhancements may be disruptive to our business and can be time-consuming and divert management's attention. Any disruptions relating to our systems or any problems with implementation, particularly any disruptions impacting our operations or our ability to accurately report our financial performance on a timely basis, could materially and adversely affect our business and operations.

Risks Related to Our Indebtedness

Our outstanding indebtedness under our Senior Secured Credit Facility could have a material adverse effect on our financial condition and our ability to operate our business, and we may not be able to generate sufficient cash flows to meet our debt service obligations.

Pursuant to our credit agreement, we are a borrower of (i) a \$680.0 million term loan debt facility (the "Term Debt") and (ii) a \$300.0 million revolving credit facility (the "Revolving Credit Facility") (collectively, the "Senior Secured Credit Facility"). Our Senior Secured Credit Facility is secured substantially by all of our assets. Our outstanding indebtedness and any additional indebtedness we incur may have important consequences for us, including, without limitation, that:

- we may be required to use a substantial portion of our cash flow to pay the principal of and interest on our indebtedness;
- our indebtedness and leverage may increase our vulnerability to adverse changes in general economic and industry conditions, as well as to competitive pressures;
- our ability to obtain additional financing for working capital, capital expenditures, acquisitions and for general corporate and other purposes may be limited;
- our indebtedness may expose us to the risk of increased interest rates because certain of our borrowings, including and most significantly our borrowings under our Senior Secured Credit Facility, are at variable rates of interest; and
- our indebtedness may prevent us from taking advantage of business opportunities as they arise or successfully carrying out our plans to expand our business.

Under the terms of the agreements governing our debt facilities, we are required to comply with specified operating covenants and, under certain circumstances, a financial covenant applicable to the Revolving Credit Facility, which may limit our ability to operate our business as we otherwise might operate it. If not cured, an event of default under our Senior Secured Credit Facility could result in any amounts outstanding, including any accrued interest and unpaid fees, becoming immediately due and payable, which would require us, among other things, to seek additional financing in the debt or equity markets, to refinance or restructure all or a portion of our indebtedness, to sell selected assets, and/or to reduce or to delay planned capital or operating expenditures. Such measures might not be sufficient to enable us to service our debt, and any such financing or refinancing might not be available on economically favorable terms or at all. If we are not able to generate sufficient cash flows to meet our debt service obligations or are forced to take additional measures to be able to service our indebtedness, it could have a material adverse effect on our business, financial condition, and results of operations.

Aspects of the Capped Calls may not operate as planned and may affect the value of the Convertible Senior Notes and our common stock, and we are subject to counterparty credit risk with respect to the Capped Calls.

In March 2021, we issued \$575.0 million in aggregate principal amount of 0.25% Convertible Senior Notes due 2026 ("Convertible Senior Notes"). In connection with the pricing of the Convertible Senior Notes, we entered into capped call transactions with the option counterparties ("the Capped Calls"). Please refer to [Note 9, "Debt,"](#) for additional information. The Capped Calls are expected generally to reduce the potential dilution to our common stock upon any conversion of the Convertible Senior Notes and/or offset any potential cash payments we are required to make in excess of the principal

amount of converted Convertible Senior Notes, as the case may be, with such reduction and/or offset subject to a cap. The Capped Calls are complex transactions that are not part of the terms of the Convertible Senior Notes, and may not operate as planned. If the Capped Calls do not operate as we intend, it may have an effect on the price of the Convertible Senior Notes or our common stock.

The option counterparties or their respective affiliates may modify their hedge positions by entering into or unwinding various derivatives with respect to our common stock and/or purchasing or selling our common stock or other securities of ours in secondary market transactions following any conversion of the Convertible Senior Notes, any repurchase of the Convertible Senior Notes by us on any fundamental change repurchase date, any redemption date, or any other date on which the Convertible Senior Notes are retired by us, in each case if we exercise our option to terminate the relevant portion of the Capped Calls. This activity could cause or avoid an increase or a decrease in the market price of our common stock or the Convertible Senior Notes, which could affect the ability of a noteholder to convert the Convertible Senior Notes and, to the extent the activity occurs during any observation period related to a conversion of Convertible Senior Notes, could affect the number of shares of common stock, if any, and value of the consideration that a noteholder will receive upon conversion of the Convertible Senior Notes. If any such Capped Call fails to become effective, the option counterparties or their respective affiliates may unwind their hedge positions with respect to our common stock, which could adversely affect the value of our common stock and the value of the Convertible Senior Notes. The option counterparties are financial institutions, and we are subject to the risk that they might default under the Capped Calls. Our exposure to the credit risk of the option counterparties is not secured by any collateral. If an option counterparty becomes subject to insolvency proceedings, we will become an unsecured creditor in those proceedings with a claim equal to our exposure at that time under our transactions with that option counterparty. Our exposure will depend on many factors, but, generally, the increase in our exposure will be correlated with increases in the market price or the volatility of our common stock. In addition, upon a default by an option counterparty, we may suffer adverse tax consequences and more dilution than we currently anticipate with respect to our common stock. We can provide no assurances as to the financial stability or viability of any option counterparty.

Risks associated with the conversion of our Convertible Senior Notes may adversely affect our financial condition and results of operations.

Under certain circumstances, noteholders may convert their Convertible Senior Notes at their option prior to the scheduled maturities. Upon conversion of the Convertible Senior Notes, we will be obligated to make cash payments in an amount no less than the principal amount being converted, and any excess of the conversion value over the principal amount will be settled, at the Company's election, in cash or shares of the Company's common stock. In addition, noteholders will have the right to require us to repurchase their Convertible Senior Notes upon the occurrence of a fundamental change at a repurchase price equal to 100% of the principal amount of the Convertible Senior Notes to be repurchased, plus accrued and unpaid interest, if any, to, but not including, the fundamental change repurchase date (as defined in the Indenture under which the Convertible Senior Notes were issued ("Indenture")). There is a risk that we may not have enough available cash or be able to obtain financing at the time we are required to make repurchases of Convertible Senior Notes surrendered therefor or Convertible Senior Notes being converted. Our failure to repurchase Convertible Senior Notes when the Indenture requires the repurchase or to pay any cash payable on future conversions of the Convertible Senior Notes as required by the Indenture would constitute a default under the Indenture. A default under the Indenture or the fundamental change itself could also lead to a default under agreements governing our 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 and repurchase the Convertible Senior Notes or make cash payments upon conversions thereof. In addition, even if noteholders do not elect to convert their Convertible Senior Notes, we could be required under applicable accounting rules to reclassify all or a portion of the outstanding principal of the Convertible Senior Notes as a current, rather than long-term, liability, which would result in a material reduction of our net working capital.

Risks Related to Ownership of Our Common Stock

The price of our common stock may be volatile and investors may lose all or part of their investment.

The market price and volume of our common stock trading has experienced, and may continue to experience, wide fluctuations and volatility. Factors that may impact our performance and market price include those discussed elsewhere in this "Risk Factors" section of this Annual Report on Form 10-K and others such as: announcements, including filing with the SEC by us or our competitors of acquisitions, business plans or commercial relationships as well as new services; any major change in our senior management or board of director; sales, or anticipated sales, of our stock, including sales by our officers, directors, and significant stockholders; issuance of new, negative, or changed securities analysts' reports or

recommendations or estimates; investor perceptions of us and the industries in which we or our customers operate; and threatened or actual litigation and governmental investigations.

These and other factors may cause the market price and demand for shares of our common stock to fluctuate substantially, which may limit or prevent investors from readily selling their shares of common stock and may otherwise negatively affect the liquidity of our common stock. In addition, securities class action litigation has often been instituted against companies following periods of volatility in the overall market and in the market price of a company's securities. Securities litigation against us, regardless of the merits or outcome, could result in substantial costs, damage to our reputation, and divert the time and attention of our management from our business, which could have a material adverse effect on our business, financial condition, and results of operations.

The issuance of additional stock, including common stock issued upon conversion of our Convertible Senior Notes, will dilute all other stockholders.

The issuance of additional stock in connection with acquisitions, financings, our equity incentive plans, our Convertible Senior Notes or otherwise will dilute all other stockholders. Our fourth amended and restated certificate of incorporation authorizes us to issue up to five hundred million shares of common stock and up to ten million shares of preferred stock with such rights and preferences as may be determined by our board of directors. Subject to compliance with applicable rules and regulations, we may issue all of these shares that are not already outstanding without any action or approval by our stockholders. We intend to continue to evaluate strategic acquisitions or opportunities in the future. We may pay for such acquisitions or opportunities, in part or in full, through the issuance of additional equity securities. Further, the conversion of some or all of the Convertible Senior Notes will dilute the ownership interests of existing stockholders to the extent we deliver shares of our common stock upon conversion of any of the Convertible Senior Notes.

Because we do not intend to pay cash dividends in the foreseeable future, investors may not receive any return on investment unless they are able to sell common stock for a price greater than the purchase price.

We have never declared nor paid cash dividends on our capital stock. We currently intend to retain any future earnings to finance the operation and expansion of our business, and we do not expect to declare or to pay any dividends in the foreseeable future. Consequently, stockholders must rely on sales of their common stock after price appreciation, which may never occur, as the only way to realize any future gains on their investment. There is no guarantee that shares of our common stock will appreciate in value or even maintain the price at which investors have purchased their shares.

Anti-takeover protections in our fourth amended and restated certificate of incorporation, our amended and restated bylaws or our contractual obligations may discourage or prevent a takeover of our company, even if an acquisition would be beneficial to our stockholders.

Provisions contained in our fourth amended and restated certificate of incorporation and amended and restated bylaws as well as provisions of Delaware law could delay or make it more difficult to remove incumbent directors or could impede a merger, takeover or other business combination involving us or the replacement of our management, or discourage a potential investor from making a tender offer for our common stock, which, under certain circumstances, could reduce the market value of our common stock, even if it would benefit our stockholders.

In addition, under the agreements governing our credit facilities, a change of control would cause us to be in default or could trigger dilutive or additional expenses. For example, in the event of a change of control default, the administrative agent under our credit facilities would have the right (or, at the direction of lenders holding a majority of the loans and commitments under our credit facilities, the obligation) to accelerate the outstanding loans and to terminate the commitments under our credit facilities, and if so accelerated, we would be required to repay all of our outstanding obligations under our credit facilities.

Further, certain provisions in the Convertible Senior Notes and the Indenture could increase the cost of acquiring us or otherwise discourage a third party from acquiring us or removing incumbent management, including in a transaction that noteholders or holders of our common stock may view as favorable.

General Risk Factors

Our business has been adversely affected and will likely continue to be adversely affected by the COVID-19 pandemic

The global spread of the COVID-19 pandemic has created significant global volatility, uncertainty, and economic disruption. The extent to which the COVID-19 pandemic will continue to adversely affect our business, operations, and financial results will depend on numerous evolving factors. During 2021, COVID-19 outbreak continued to create significant volatility and uncertainty and economic and financial market disruption. The extent of any impact to our business depends on developments which are highly uncertain and cannot be predicted, including the COVID-19 pandemic's, our ability to sell and to provide our services to our current and future customers, and the ability of our customers to pay for our services or to make us whole for advances of earned net wages and associated tax amounts made on their behalf by us.

As we cannot predict the duration or scope of the COVID-19 pandemic, the anticipated negative financial impact to our business, financial condition, results of operations and/or stock price cannot be reasonably estimated, but could be material and could last for an extended period of time. Nevertheless, given the global nature of our business we may experience variation in the impact of COVID-19 across geographies in terms of the degree, timing or duration of impact.

Catastrophic events may disrupt our business which could have a material adverse effect on our business, financial condition, and results of operations.

Our business, financial condition, results of operations, access to capital markets and borrowing costs may be adversely affected by a major natural disaster or catastrophic event, including civil unrest, geopolitical instability, war, terrorist attack, the effects of climate change, or pandemics or other public health emergencies such as the recent COVID-19 outbreak, and measures taken in response thereto. In the event of a major disaster or event impacting any of our locations, we may be unable to continue our operations and may endure system interruptions, reputational harm, delays in our application development, lengthy interruptions in our services, breaches of data security and loss of critical data, all of which could have a material adverse effect on our business, financial condition, and results of operations.

We operate and are subject to tax in multiple jurisdictions. Audits, investigations, and tax proceedings could have a material adverse effect on our business, results of operations, and financial condition.

We are subject to income and non-income taxes in multiple jurisdictions. Income tax accounting often involves complex issues, and significant judgment is often required in determining our worldwide provision for income taxes. We are regularly subject to tax examinations in these jurisdictions during which the tax authorities may challenge our tax positions. We regularly assess the likely outcomes of these examinations to determine the appropriateness of our tax reserves as well as our future tax liabilities. In addition, the application of withholding tax, value added tax, goods and services tax, sales tax, and other non-income taxes is not always certain and we may be subject to examinations relating to such withholding or non-income taxes. We believe that our tax positions are reasonable and our tax reserves are adequate to cover any potential liability. However, if any of these tax authorities successfully challenge our positions, we may be liable for additional tax, penalties, and interest in excess of any reserves established, which may have a significant impact on our results and operations and future cash flow.

Changes in generally accepted accounting principles in the United States could have a material adverse effect on our previously reported results of operations.

Generally accepted accounting principles in the United States are subject to interpretation by the Financial Accounting Standards Board (the "FASB"), the SEC, and various bodies formed to promulgate and to interpret appropriate accounting principles. A change in these principles or interpretations could have a significant effect on our previously reported results of operations and could affect the reporting of transactions completed before the announcement of a change. Please refer to [Part II, Item 8, Note 2, "Summary of Significant Accounting Policies"](#), of this report for our assessment of recently issued and adopted accounting pronouncements.

Our debt may be downgraded, which could have a material adverse effect on our business, financial condition, and results of operations.

A reduction in the ratings that rating agencies assign to our debt may negatively impact our access to the debt capital markets and increase our cost of borrowing, which could have a material adverse effect on our business, financial condition, and results of operations.

Volatility and weakness in bank and capital markets may adversely affect credit availability and related financing costs for us.

Disruptions in the financial markets can also adversely affect our lenders, insurers, customers, and other counterparties. During periods of volatile credit markets, there is risk that lenders, even those with strong balance sheets and sound lending practices, could fail, no longer participate in credit offerings, or refuse to honor their existing legal commitments and obligations to us, including but not limited to, extending credit up to the maximum amount permitted by the Revolving Credit Facility. If our lenders are unable to fund borrowings under their revolving credit commitments or we are unable to borrow or refinance our debt in the financial markets, it could be difficult to obtain sufficient funding to execute our business strategy or to meet our liquidity needs, which could have a material adverse effect on our business, financial condition, and results of operations.

Item 1B. Unresolved Staff Comments.

None.

Item 2. Properties.

Our corporate headquarters is located in Minneapolis, Minnesota and we also have a major office location in Toronto, Ontario, Canada, both in leased facilities. In addition, as of December 31, 2021, we lease office space in various other locations across North America, APJ, and EMEA. During the year ended December 31, 2021, we sold our St. Petersburg, Florida facility, and continue to lease office space at that location. We believe that our current facilities meet our needs, and we are confident that we will be able to obtain additional space on commercially reasonable terms to accommodate future growth.

Item 3. Legal Proceedings.

From time to time, we may become involved in legal proceedings arising in the ordinary course of our business. We are not presently a party to any legal proceedings that, if determined adversely to us, we believe would individually or taken together have a material adverse effect on our business, financial condition or liquidity. Discussion of Legal Matters is incorporated by reference from [Part II, Item 8, Note 17, "Commitments and Contingencies,"](#) of this Form 10-K and should be considered an integral part of Part I, Item 3, "Legal Proceedings".

On October 21, 2021, a claim was issued by purported stockholder, Bluemoon Capital Ltd., in the Superior Court of Justice of Ontario, Canada. The claim is against the Company, together with David Ossip, Chair and Co-Chief Executive Officer of the Company, Arthur Gitajn, former EVP and Chief Financial Officer of the Company, Gnaneshwar Rao, director of the Company and Brent Bickett, director of the Company, as well as certain third parties. The action, which is a proposed class action, alleges misrepresentations and negligence in connection with the disclosure made by the Company in its April 25, 2018 Prospectuses (which were later incorporated by reference into the Company's May 24, 2018 Interim Financial Statements and MD&A) regarding matters surrounding the Company's distribution to its pre-IPO stockholders of its 50% interest in LifeWorks Corporation Ltd. On January 19, 2022, the Ontario court rejected the Norwich Application for discovery by plaintiff (equitable or discretionary remedy in Canada for disclosure of documentation to form an action), which had been filed prior to filing the class action on the basis that it did not meet the key criteria for pre-action discovery. Plaintiff has appealed this decision.

The action seeks unspecified monetary damages under the Ontario Securities Act and at common law.

At this early stage of the proceeding, the ultimate disposition is not yet determinable, but the Company believes that the likelihood of a material loss arising out of this claim is remote.

Item 4. Mine Safety Disclosures.

Not applicable.

PART II

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

Market Information for Common Stock

Our common stock has traded on the New York Stock Exchange ("NYSE") and the Toronto Stock Exchange under the symbol "CDAY" since April 26, 2018, the date of our initial public offering.

Dividend Policy

We do not currently intend to pay cash dividends on our common stock in the foreseeable future. However, in the future, subject to factors described below and our future liquidity and capitalization, we may change this policy and choose to pay dividends.

Stockholders

As of December 31, 2021, there were 64 stockholders of record of our common stock. The actual number of stockholders is considerably greater than this number of record holders, and includes stockholders who are beneficial owners but whose shares are held in street name by brokers and other nominees.

Recent Sales of Unregistered Securities

None.

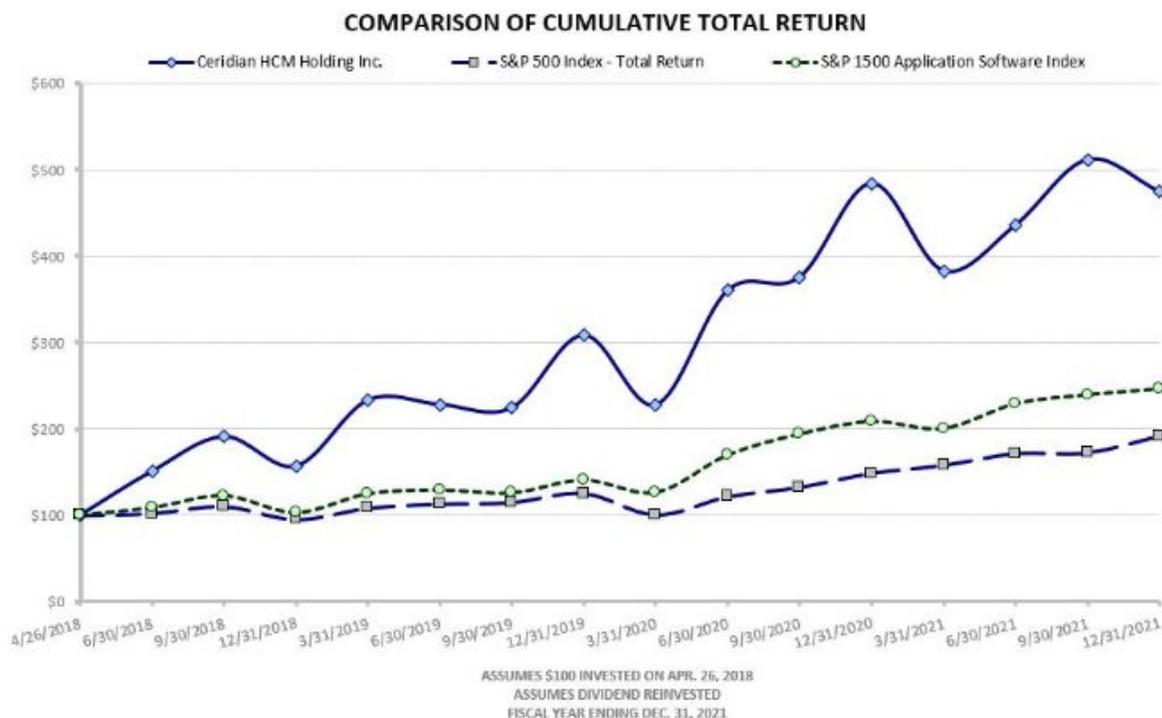
Issuer Purchases of Equity Securities

None.

Stock Performance Graph

The following shall not be deemed "filed" for purposes of Section 18 of the Exchange Act, or incorporated by reference into any of our other filings under the Exchange Act or the Securities Act, except to the extent we specifically incorporate it by reference into such filing.

The following graph compares the cumulative total shareholder returns on our common stock with the cumulative total return on the S&P 500 Index and the S&P 1500 Application Software Index. The graph assumes \$100 was invested in each, based on closing prices, from our initial public offering to the last trading day of each quarter for the period April 26, 2018 (the date our common stock began trading on the NYSE) through December 31, 2021. Stock price performance shown in the Stock Performance Graph for our common stock is historical and not necessarily indicative of future performance.



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Item 6. [Reserved]

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

You should read the following discussion and analysis of our financial condition and results of operations together with our consolidated financial statements and the related notes thereto included elsewhere in this report. This discussion and analysis contains forward-looking statements, including statements regarding industry outlook, our expectations for the future of our business, and our liquidity and capital resources as well as other non-historical statements. These statements are based on current expectations and are subject to numerous risks and uncertainties, including but not limited to the risks and uncertainties described in "Risk Factors" and "Forward-Looking Statements." Our actual results may differ materially from those contained in or implied by these forward-looking statements.

The following discussion and analysis of our financial condition and results of operations covers fiscal 2021 and fiscal 2020 items and year-over-year comparisons between fiscal 2021 and fiscal 2020. Discussions of fiscal 2019 items and year-over-year comparisons between fiscal 2020 and 2019 that are not included in this Form 10-K can be found in ["Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II, Item 7 of our Annual Report on Form 10-K for the fiscal year ended December 31, 2020](#), that was filed with the SEC on February 26, 2021.

Overview

Ceridian is a global HCM software company. We categorize our solutions into two categories: Cloud and Bureau solutions. Cloud revenue is generated from HCM solutions that are delivered via two cloud offerings: Dayforce, our flagship cloud HCM platform, and Powerpay, a cloud HR and payroll solution for the Canadian small business market. We also continue to support customers using our legacy North America Bureau solutions, which we generally stopped actively selling to new customers following the acquisition of Dayforce, and customers using our acquired Bureau solutions which we also intend to stop actively selling to new customers on a stand-alone basis. We invest in maintenance and necessary updates to support our Bureau customers and continue to migrate them to Dayforce.

Dayforce provides HR, payroll, benefits, workforce management, and talent management functionality. Our platform is used by organizations, regardless of industry or size, to optimize management of the entire employee lifecycle, including attracting, engaging, paying, deploying, and developing their people. Dayforce was built as a single application from the ground up that combines a modern, consumer-grade user experience with proprietary application architecture, including a single employee record and a rules engine spanning all areas of HCM. Dayforce provides continuous real-time calculations across all modules to enable, for example, payroll administrators access to data through the entire pay period, and managers access to real-time data to optimize work schedules. Our platform is designed to make work life better for our customers and their employees by improving HCM decision-making processes, streamlining workflows, revealing strategic organizational insights, and simplifying legislative compliance. The platform is designed to ease administrative work for both employees and managers, creating opportunities for companies to increase employee engagement. We are a founder-led organization, and our culture combines the agility and innovation of a start-up with a history of deep domain and operational expertise.

Dayforce Wallet is a digital wallet for customers' employees on the Dayforce platform, which was launched in the U.S. in 2020 and Canada in 2021. The Dayforce Wallet gives our customers' employees greater control over their financial well-being by providing them with instant access to their earnings. This on-demand pay feature allows employees more choice over when they get paid by making any day payday. Dayforce Wallet enables workers to access their already-earned wages anytime during the pay period, net of taxes, withholdings and other payroll deductions. Leveraging Dayforce's continuous pay calculations, Dayforce Wallet processes a same-day payroll each time a worker requests their pay. The solution is compliant with federal, state, and local remittances and requires no changes to payroll processing including the funding, timing, and close-out of pay. The on-demand wages are loaded onto a paycard, which customers' employees can use anywhere credit or debit cards are accepted, generating interchange fee revenue. The Dayforce Wallet mobile app makes it easy for customers' employees to check their pay deposits, account balance and transaction history.

As of December 31, 2021, we had more than 950 customers signed onto Dayforce Wallet with over 400 customers live on the product. As of December 31, 2021, the average registration rate increased to 33% of all eligible employees.

We sell Dayforce through our direct sales force on a subscription per-employee, per-month (“PEPM”) basis. Our subscriptions are typically structured with an initial fixed term of between three and five years, with evergreen renewal thereafter. Dayforce can serve customers of all sizes, ranging from 100 to over 100,000 employees. We have rapidly grown the Dayforce platform to 5,434 live Dayforce customers*, representing approximately 5.1 million active global users* as of December 31, 2021. In 2021, we added 528 net new live Dayforce customers. Our customers vary across industries, and no single customer constituted more than 1% of our revenues for the year ended December 31, 2021. Our annual Cloud revenue retention rate continues to exceed 95% due to our focus on solving complex problems and our superior customer experience. Please see below under ["How We Assess Our Performance"](#) for further explanation of our Cloud retention rate.

Our Business Model

Our business model focuses on supporting the rapid growth of Dayforce and maximizing the lifetime value of our Dayforce customer relationships. Due to our subscription model, where we recognize subscription revenues ratably over the term of the subscription period, and our high customer retention rates, we have a high level of visibility into our future revenues. The profitability of a customer to our business depends, in large part, on how long they have been a customer. We estimate that it takes approximately two years before we are able to recover our implementation, customer acquisition, and other direct costs on a new Dayforce customer contract.

Over the lifetime of the customer relationship, we have the opportunity to realize additional PEPM revenue, both as the customer grows or rolls out the Dayforce solution to additional employees, and also by selling additional functionality to existing customers that do not currently utilize our full platform. We also incur costs to manage the account, to retain customers, and to sell additional functionality. These costs, however, are significantly less than the costs initially incurred to acquire and to take customers live.

Revenues

We generate recurring revenues primarily from recurring fees charged for the use of our Cloud solutions, Dayforce and Powerpay, as well as from our Bureau solutions. We also generate professional services and other revenue associated primarily with the work performed to assist customers with the planning, design, and implementation of their cloud-based solution. Our solutions are typically provided through long-term customer relationships that result in a high level of recurring revenue. We also generate recurring revenue from investment income on our Cloud and Bureau customer funds before such funds are remitted to taxing authorities, customer employees, or other third parties. We refer to this investment income as float revenue.

For Dayforce, we primarily charge monthly recurring fees on a PEPM basis, generally one-month in advance of service, based on the number and type of solutions provided to the customer and the number of employees and other users at the customer. Our standard Dayforce contracts are generally for a three to five-year period. The average time it takes to implement Dayforce typically ranges from three months for smaller customers to twelve months for larger customers. We begin to generate recurring revenue when we provide a production instance to the customer, generally when they are ready to go live. We also provide outsourced human resource solutions to certain of our Dayforce customers, which are tailored to meet their individual needs, and entail performing the duties of a customer’s human resources department, including payroll processing, time and labor management, performance management, and recruiting, as needed.

The Powerpay offering serves our small market Canadian customers. The typical Powerpay customer has fewer than 20 employees, and the majority of the revenue is generated from recurring fees charged on a per-employee, per-process basis. Typical processes include the customer’s payroll runs, year-end tax packages, and delivery of customers’ remittance advices or checks. Powerpay can typically be implemented on a remote basis within one to three days, at which point we start receiving recurring fees.

For our Bureau solutions, we typically charge recurring fees on a per-process basis. Typical processes include the customer’s payroll runs, year-end tax packages, and delivery of customers’ remittance advices or checks. In addition to customers who use our payroll services, certain customers use our tax filing services on a stand-alone basis. Our outsourced human resource solutions are tailored to meet the needs of individual customers, and entail our contracting to perform many of the duties of a customer’s human resources department, including payroll processing, time and labor management, performance management, and recruiting. We also perform individual services for customers, such as check printing, wage attachment and disbursement, and ACA management.

*Excluding the 2021 acquisitions of Ascender and ADAM HCM

COVID-19 Pandemic

In March 2020, the World Health Organization declared the outbreak of COVID-19 to be a pandemic. The global spread of the COVID-19 pandemic has continued to create significant global volatility, uncertainty, and economic disruption. We have experienced and may continue to experience curtailed customer demand, primarily as a result of declining employment levels at our customers in certain sectors, such as retail and hospitality, as well as lower customer utilization of professional services, due to the effects of the COVID-19 pandemic. Additionally, the federal funds rate cuts by the U.S. Federal Reserve and the overnight rate target by the Bank of Canada have had negative effects on our float revenue. The broader implications of the pandemic on our results of operations and overall financial performance continue to generate uncertainty. Please refer to the [“Results of Operations”](#) section below for further discussion of the financial impacts of the COVID-19 pandemic during the years ended December 31, 2021 and 2020, and to [Part II, Item 1A “Risk Factors”](#) for further discussion of the potential impact of the pandemic on our business.

How We Assess Our Performance

In assessing our performance, we consider a variety of performance indicators in addition to revenue and net income (loss). Set forth below is a description of our key performance measures.

	Year Ended December 31,		
	2021	2020	2019
Live Dayforce customers (a)	5,434	4,906	4,363
Cloud annualized recurring revenue (ARR) (a,b,d) (in millions)	\$ 779.8	\$ 617.9	\$ 582.0
Annual Cloud revenue retention rate (a,b,d)	96.8 %	95.8 %	96.3 %
Dayforce recurring revenue per customer (c,d)	\$ 108,631	\$ 98,655	\$ 86,615
Adjusted EBITDA (d) (in millions)	\$ 162.5	\$ 159.0	\$ 184.6
Adjusted EBITDA margin (d)	15.9 %	18.9 %	22.4 %

(a)Excluding the 2021 acquisitions of Ascender and ADAM HCM.

(b)Annual Cloud revenue retention rate and Cloud ARR are calculated on an annual basis, and the disclosure reflects data as of the most recent fiscal year end. Please see below for further explanation.

(c)Excluding float revenue, the impact of lower employment levels due to the COVID-19 pandemic, Ascender and ADAM HCM revenue, and on a constant currency basis.

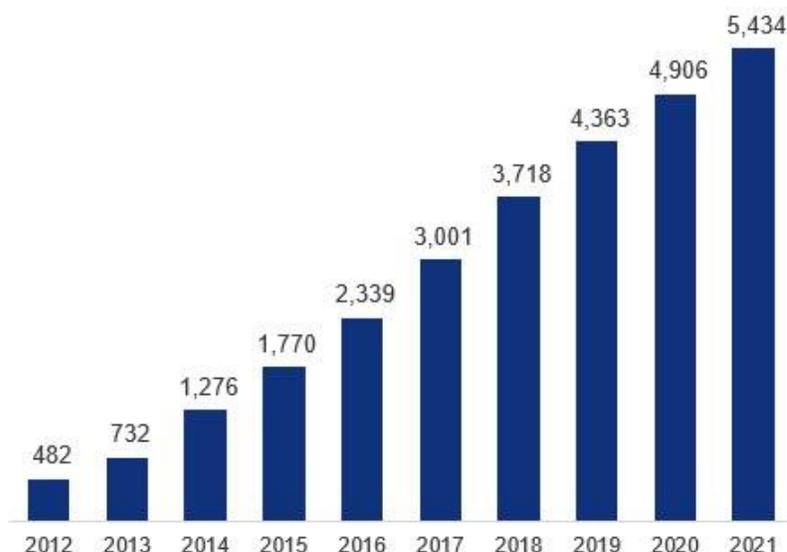
(d)This is a Non-GAAP financial measure. For Non-GAAP financial measures with a directly comparable financial measure, a reconciliation of the GAAP to non-GAAP financial measure has been provided in the [“Non-GAAP Measures”](#) section. An explanation of these measures is included below.

Live Dayforce Customers

We use the number of live Dayforce customers as an indicator of future revenue and the overall performance of the business and to assess the performance of our implementation services. As shown in the table below, the number of customers live on Dayforce has increased from 482 as of December 31, 2012 to 5,434 as of December 31, 2021*. For 2021, our 5,434 live Dayforce customers represented approximately 5.1 million active global users*.

We market Dayforce to customers of all sizes, including small (under 500 employees), major (500 to 5,999 employees), and enterprise (6,000 or more employees). For 2021, small businesses accounted for 10% of the total number of active global users, major businesses accounted for 49% of the total number of active global users, and enterprise businesses accounted for 41% of the total number of active global users*. In 2021, we continued to grow our global customer base, particularly in the Enterprise market, which aligns with our strategic growth lever to expand within this segment. In addition to the increase in the number of Enterprise customers, we are successfully selling the broader HCM suite.

The following table sets forth the number of live Dayforce customers* at the end of the years presented:



Cloud Annualized Recurring Revenue (“ARR”)

We derive the majority of our Cloud revenues from recurring fees, primarily PEPM subscription charges. We also derive recurring revenue from fees related to the rental and maintenance of clocks, charges for once-a-year services, such as year-end tax statements, and investment income on our customer funds before such funds are remitted to taxing authorities, customer employees, or other third parties (often referred to as “float revenue”). To calculate Cloud ARR, we start with recurring revenue at year end, excluding revenue from Ascender and ADAM HCM, subtract the once-a-year charges, annualize the revenue for customers live for less than a full year to reflect the revenue that would have been realized if the customer had been live for a full year, and add back the once-a-year charges. We set annual targets for Cloud ARR and monitor progress toward those targets on a quarterly basis.

*Excluding the 2021 acquisitions of Ascender and ADAM HCM.

Annual Cloud Revenue Retention Rate

Our annual Cloud revenue retention rate measures the percentage of revenues that we retain from our existing Cloud customers. We use this retention rate as an indicator of customer satisfaction and future revenues. We calculate the annual Cloud revenue retention rate as a percentage, excluding Ascender and ADAM HCM, where the numerator is the Cloud ARR for the prior year, less the Cloud ARR from lost Cloud customers during that year; and the denominator is the Cloud ARR for the prior year. Our annual Cloud revenue retention rate has been 95% or above for the years ended December 31, 2021, 2020, and 2019. We set annual targets for Cloud revenue retention rate and monitor progress toward those targets on a quarterly basis by reviewing known and anticipated customer losses. Our Cloud revenue retention rate may fluctuate as a result of a number of factors, including the mix of Cloud solutions used by customers, the level of customer satisfaction, and changes in the number of users live on our Cloud solutions.

Dayforce Recurring Revenue Per Customer

Our Dayforce recurring revenue per customer is an indicator of the average size of our Dayforce recurring customer. To calculate Dayforce recurring revenue per customer, we start with Dayforce recurring revenue on a constant currency basis by applying the same exchange rate to all comparable periods for the trailing twelve months and exclude float revenue, the impact of lower employment levels due to the COVID-19 pandemic, and Ascender and ADAM HCM revenue. This amount is divided by the number of live Dayforce customers at the end of the trailing twelve month period, excluding Ascender and ADAM HCM. We set quarterly targets for Dayforce recurring revenue per customer and monitor progress toward those targets on a quarterly basis. Our Dayforce recurring revenue per customer may fluctuate as a result of a number of factors, including the number of live Dayforce customers and the number of customers purchasing the full HCM suite. We have not reconciled the Dayforce recurring revenue per customer because there is no directly comparable GAAP financial measure.

Constant Currency Revenue

We present revenue on a constant currency basis to assess how our underlying business performed, excluding the effect of foreign currency rate fluctuations. We believe this non-GAAP financial measure is useful to management and investors. We have calculated revenue on a constant currency basis by applying the average foreign exchange rate in effect during the comparable prior period. Please refer to the [“Non-GAAP Measures”](#) section for a reconciliation of this Non-GAAP financial measure.

The average U.S. dollar to Canadian dollar foreign exchange rate was \$1.25, with a daily range of \$1.20 to \$1.29 for the twelve months ended December 31, 2021, compared to \$1.34, with a daily range of \$1.27 to \$1.45 for the twelve months ended December 31, 2020. As of December 31, 2021, the U.S. dollar to Canadian dollar foreign exchange rate was \$1.27.

EBITDA, Adjusted EBITDA and Adjusted EBITDA margin

We believe that EBITDA, Adjusted EBITDA and Adjusted EBITDA margin, non-GAAP financial measures, are useful to management and investors as supplemental measures to evaluate our overall operating performance. EBITDA, Adjusted EBITDA and Adjusted EBITDA margin are components of our management incentive plan and are used by management to assess performance and to compare our operating performance to our competitors. We define EBITDA as net income or loss before interest, taxes, depreciation, and amortization, and Adjusted EBITDA as net income or loss before interest, taxes, depreciation, and amortization, as adjusted to exclude foreign exchange gain (loss), share-based compensation expense and related employer taxes, severance charges, restructuring consulting fees, and certain other non-recurring items. Adjusted EBITDA margin is determined by calculating the percentage that Adjusted EBITDA is of total revenue. Management believes that EBITDA, Adjusted EBITDA and Adjusted EBITDA margin are helpful in highlighting management performance trends because EBITDA, Adjusted EBITDA and Adjusted EBITDA margin exclude the results of decisions that are outside the normal course of our business operations. Please refer to the [“Results of Operations”](#) section below for a discussion of EBITDA, Adjusted EBITDA and Adjusted EBITDA margin.

Recent Events

Acquisitions

On September 13, 2019, we completed the purchase of 100% of the issued and outstanding shares of Lusworth Holding Pty Ltd. ("RITEQ") for \$20.1 million. RITEQ is an Australian-based workforce management solutions provider, with operations within Australia, New Zealand, and the United Kingdom.

On May 29, 2020, we completed the purchase of 100% of the outstanding shares of Excelity Global Solutions Pte. Ltd. ("Excelity") for \$77.2 million. Excelity is a human capital management service provider in the APJ region.

On March 1, 2021, we completed the purchase of 100% of the outstanding shares of Ascender HCM Pty Limited ("Ascender") for \$359.6 million. Ascender is a payroll and HR solutions provider in the APJ region.

On April 30, 2021, we acquired 100% of the outstanding shares of O5 Systems, Inc. dba Ideal ("Ideal") for \$41.4 million. Ideal is a talent intelligence software provider based in Toronto, Ontario, Canada.

On October 4, 2021, we completed the acquisition of certain assets and liabilities of DataFuzion HCM, Inc. ("DataFuzion"), for \$12.5 million in cash consideration and future contingent consideration payments. DataFuzion designs, implements, and supports customer specific data solutions that integrate HCM and ERP systems on their FUZE platform.

On December 3, 2021, we completed the acquisition of 100% of the outstanding interests in ATI ROW, LLC and ADAM HCM MEXICO, S. de R.L. de C.V. (collectively, "ADAM HCM") for \$34.3 million. ADAM HCM is a payroll and HCM company in Latin America.

Financing and Other

In March 2021, we issued \$575.0 million in aggregate principal amount of 0.25% Convertible Senior Notes due 2026. In connection with the pricing of the Convertible Senior Notes, we entered into capped call transactions with the option counterparties.

On December 15, 2021, we sold our St. Petersburg, Florida facility for \$40 million, resulting in a gain on the sale of \$19.1 million, which was recognized in the consolidated statements of operations within selling, general, and administrative expense.

Results of Operations

Year Ended December 31, 2021 Compared with Year Ended December 31, 2020

The following table sets forth our results of operations for the periods presented:

	Year Ended December 31,		Amount	Increase/ (Decrease) %	% of Revenue	
	2021	2020 (Dollars in millions)			2021	2020
Revenue:						
Recurring						
Cloud	\$ 712.9	\$ 579.7	\$ 133.2	23.0 %	69.6 %	68.8 %
Bureau	137.8	110.5	27.3	24.7 %	13.5 %	13.1 %
Total recurring	850.7	690.2	160.5	23.3 %	83.1 %	81.9 %
Professional services and other	173.5	152.3	21.2	13.9 %	16.9 %	18.1 %
Total revenue	1,024.2	842.5	181.7	21.6 %	100.0 %	100.0 %
Cost of revenue:						
Recurring						
Cloud	197.7	166.9	30.8	18.5 %	19.3 %	19.8 %
Bureau	64.7	46.4	18.3	39.4 %	6.3 %	5.5 %
Total recurring	262.4	213.3	49.1	23.0 %	25.6 %	25.3 %
Professional services and other	194.6	163.7	30.9	18.9 %	19.0 %	19.4 %
Product development and management	134.0	83.7	50.3	60.1 %	13.1 %	9.9 %
Depreciation and amortization	50.9	40.5	10.4	25.7 %	5.0 %	4.8 %
Total cost of revenue	641.9	501.2	140.7	28.1 %	62.7 %	59.5 %
Gross profit	382.3	341.3	41.0	12.0 %	37.3 %	40.5 %
Selling, general, and administrative	417.8	333.5	84.3	25.3 %	40.8 %	39.6 %
Operating profit	(35.5)	7.8	(43.3)	(555.1)%	(3.5)%	0.9%
Interest expense, net	35.9	25.1	10.8	43.0 %	3.5 %	3.0 %
Other expense, net	18.9	2.7	16.2	600.0 %	1.8 %	0.3 %
Loss before income taxes	(90.3)	(20.0)	(70.3)	(351.5)%	(8.8)%	(2.4)%
Income tax benefit	(14.9)	(16.0)	1.1	6.9 %	(1.4)%	(1.9)%
Net loss	(75.4)	(4.0)	(71.4)	(1785.0)%	(7.4)%	(0.5)%
Net profit margin (a)	(7.4)%	(0.5)%	(6.9)%	(1450.6)%		
Adjusted EBITDA (b)	\$ 162.5	\$ 159.0	\$ 3.5	2.2 %	15.9 %	18.9 %
Adjusted EBITDA margin (b)	15.9%	18.9%	(3.0)%	(15.9)%		

(a) Net profit margin is determined by calculating the percentage that net (loss) income is of total revenue.

(b) For a reconciliation of Adjusted EBITDA to net income, please refer to the [“Non-GAAP Measures”](#) section.

Revenue. The following table sets forth certain information regarding our consolidated revenues for periods presented:

	Year Ended December 31,		Percentage change in revenue as reported 2021 vs. 2020	Impact of changes in foreign currency (a)	Percentage change in revenue on a constant currency basis (a) 2021 vs. 2020
	2021	2020			
(Dollars in millions)					
Revenue:					
Dayforce recurring, excluding float	\$ 596.9	\$ 463.1	28.9%	1.8%	27.1%
Dayforce float	29.7	37.1	(19.9)%	1.7%	(21.6)%
Total Dayforce recurring	626.6	500.2	25.3%	1.8%	23.5%
Powerpay recurring, excluding float	78.2	70.8	10.5%	7.0%	3.5%
Powerpay float	8.1	8.7	(6.9)%	6.9%	(13.8)%
Total Powerpay recurring	86.3	79.5	8.6%	7.0%	1.6%
Total Cloud recurring	712.9	579.7	23.0%	2.5%	20.5%
Dayforce professional services and other	159.3	148.6	7.2%	2.1%	5.1%
Powerpay professional services and other	0.9	1.1	(18.2)%	(—)%	(18.2)%
Total Cloud professional services and other	160.2	149.7	7.0%	2.1%	4.9%
Total Cloud revenue	873.1	729.4	19.7%	2.4%	17.3%
Bureau recurring, excluding float	134.5	104.0	29.3%	1.4%	27.9%
Bureau float	3.3	6.5	(49.2)%	(—)%	(49.2)%
Total Bureau recurring	137.8	110.5	24.7%	1.4%	23.3%
Bureau professional services and other	13.3	2.6	411.5%	(11.6)%	423.1%
Total Bureau revenue	151.1	113.1	33.6%	1.1%	32.5%
Total revenue	\$ 1,024.2	\$ 842.5	21.6%	2.2%	19.4%
Total Cloud revenue					
Dayforce	\$ 785.9	\$ 648.8	21.1%	1.8%	19.3%
Powerpay	87.2	80.6	8.2%	6.8%	1.4%
Total Cloud revenue	\$ 873.1	\$ 729.4	19.7%	2.4%	17.3%
Total Cloud revenue, excluding float					
Dayforce, excluding float	\$ 756.2	\$ 611.7	23.6%	1.8%	21.8%
Powerpay, excluding float	79.1	71.9	10.0%	6.8%	3.2%
Cloud float	37.8	45.8	(17.5)%	2.6%	(20.1)%
Total Cloud revenue, excluding float	\$ 873.1	\$ 729.4	19.7%	2.4%	17.3%
Total recurring, excluding float					
Cloud recurring, excluding float	\$ 675.1	\$ 533.9	26.4%	2.4%	24.0%
Bureau recurring, excluding float	134.5	104.0	29.3%	1.4%	27.9%
Total recurring, excluding float	809.6	637.9	26.9%	2.3%	24.6%
Total revenue, excluding float	\$ 983.1	\$ 790.2	24.4%	2.2%	22.2%

(a) Please refer to “[Non-GAAP Measures](#)” section for additional information on our constant currency revenue, a non-GAAP financial measure.

The COVID-19 pandemic has had an adverse impact on our revenue streams during the year ended December 31, 2021, primarily in the form of lower employment levels at our customers, lower float revenue resulting from reductions in the U.S. Federal Reserve federal funds rate and the Bank of Canada overnight rate target, lower average float balances for our customer funds, and lower demand for professional services, among other effects. For the year ended December 31, 2021, we estimate the impact of lower employment levels at our customers was an approximately \$21 million reduction in our revenue, of which approximately \$17 million was related to Dayforce and approximately \$4 million was related to Powerpay.

Total revenue increased \$181.7 million, or 21.6%, to \$1,024.2 million for the year ended December 31, 2021, compared to \$842.5 million for the year ended December 31, 2020. This increase was primarily driven by an increase in Cloud revenue of \$143.7 million, or 19.7%, from \$729.4 million for the year ended December 31, 2020, to \$873.1 million for the year ended December 31, 2021. The Cloud revenue increase was primarily due to an increase of \$133.2 million, or 23.0%, in Cloud recurring revenue, and \$10.5 million, or 7.0%, in Cloud professional services and other revenue. Cloud revenue growth was driven by both an increase in customers live on the Dayforce platform and an increase in recurring revenue per customer, as well as the Cloud revenue generated from acquired businesses during 2021.

Excluding float revenue and on a constant currency basis, total revenue grew 22.2% reflecting a 19.8% increase in Cloud revenue and a 37.5% increase in Bureau revenue. Excluding float revenue and on a constant currency basis, Cloud revenue growth reflected a 24.0% increase in Cloud recurring revenue and a 4.9% increase in Cloud professional services and other revenue. Excluding float revenue and on a constant currency basis, Dayforce revenue increased 21.8%, reflecting a 27.1% increase in Dayforce recurring revenue and a 5.1% increase in Dayforce professional services and other revenue. Excluding float revenue and on a constant currency basis, Powerpay revenue increased 3.2%.

Dayforce revenue grew 21.1%, and Powerpay revenue increased 8.2% in 2021 as compared to 2020. On a constant currency basis, Dayforce revenue increased 19.3%, and Powerpay revenue increased 1.4% for the year-ended December 31, 2021, compared to the year ended December 31, 2020. Powerpay is designed primarily for small market Canadian customers, which typically have fewer than 20 employees, and we believe those customers have been more adversely affected by the COVID-19 pandemic than larger Dayforce customers.

In addition to the increase in Cloud revenue, Bureau revenue increased by \$38.0 million, or 33.6%. The increase is primarily due to Bureau revenue associated with our recent Ascender and Excelity acquisitions. The increase was partially offset by a reduction in Bureau revenue associated with our legacy technology of the North American platforms as we continue to sunset the technology. For the year ended December 31, 2021, recurring revenue from Bureau payroll customers accounted for \$103.4 million, including \$70.3 million from our two recent acquisitions in APJ, and Bureau stand-alone tax recurring revenue accounted for \$34.4 million, compared to \$73.0 million and \$37.5 million in the prior year for payroll and stand-alone tax customers, respectively.

Float revenue included in recurring revenue was \$41.1 million and \$52.3 million for the years ended December 31, 2021 and 2020, respectively. Float revenue allocated to Cloud revenue was \$37.8 million and \$45.8 million for the years ended December 31, 2021 and 2020, respectively. The average float balance for our customer funds for the year ended December 31, 2021, was \$3,889.5 million, compared to \$3,240.8 million for the year ended December 31, 2020. On a constant currency basis, the average float balance for our customer funds increased 17.4% for the year ended December 31, 2021, compared to year ended December 31, 2020. The average yield was 1.07% during the year ended December 31, 2021, a decline of 54 basis points compared to the average yield for the year ended December 31, 2020. For the years ended December 31, 2021 and 2020, approximately 35% of our average float balance consisted of customer funds outside of the US., primarily our Canadian customers.

Cost of revenue. Total cost of revenue for the year ended December 31, 2021, was \$641.9 million, an increase of \$140.7 million, or 28.1%, compared to the year ended December 31, 2020. Recurring cost of revenue increased by \$49.1 million for the year ended December 31, 2021, compared to the year ended December 31, 2020, primarily due to additional costs related to global expansion, including Ascender and Excelity costs, which are primarily classified as Bureau. Additionally, the increase is due to costs to support the growing Dayforce customer base. The increase in cost of revenue for professional services and other of \$30.9 million for the year ended December 31, 2021, compared to the year ended December 31, 2020, was primarily due to costs incurred to take new customers live.

Product development and management expense increased \$50.3 million for the year ended December 31, 2021, compared to the year ended December 31, 2020. The increase reflects increases in personnel costs as well as share-based compensation. Excluding the impact of share-based compensation and related employer taxes, and severance expense, product development and management expense would have increased by \$41.9 million. This increase reflects additional personnel costs as we work to build out the Dayforce Wallet and our international offerings. For the years ended December 31, 2021, and 2020, our investment in software development was \$131.7 million and \$78.3 million,

respectively, consisting of \$81.1 million and \$39.6 million of research and development expense, which is included within product development and management expense, and \$50.6 million and \$38.7 million of capitalized software development, respectively. Please refer to [Note 2, "Summary of Significant Accounting Policies,"](#) for further discussion of our accounting policy for capitalizing internally developed software costs.

Depreciation and amortization expense associated with cost of revenue increased by \$10.4 million for the year ended December 31, 2021, compared to the year ended December 31, 2020, as we continue to capitalize Dayforce related and other development costs and subsequently amortize those costs.

Gross profit and gross margin. Total gross profit for the year ended December 31, 2021, increased by \$41.0 million, or 12.0%, compared to the year ended December 31, 2020. The \$41.0 million increase in gross profit was primarily attributable to the \$133.2 million increase in Cloud recurring revenue for the year ended December 31, 2021, compared to the year ended December 31, 2020.

The following table presents total gross margin and solution gross margins for the periods presented:

	Year Ended December 31,	
	2021	2020
Total gross margin	37.3 %	40.5 %
Gross margin by solution:		
Cloud recurring	72.3 %	71.2 %
Bureau recurring	53.0 %	58.0 %
Professional services and other	(12.2)%	(7.5)%

Total gross margin is defined as total gross profit as a percentage of total revenue, inclusive of product development and management costs as well as depreciation and amortization associated with cost of revenue. Gross margin for each solution in the table above is defined as total revenue less cost of revenue for the applicable solution as a percentage of total revenue for that related solution, exclusive of any product development and management or depreciation and amortization cost allocations.

Cloud recurring gross margin was 72.3% for the year ended December 31, 2021, compared to 71.2% for the year ended December 31, 2020. Excluding float revenue, Cloud recurring gross margin was 70.7% for the year ended December 31, 2021, compared to 68.7% for the year ended December 31, 2020. The increase in Cloud recurring gross margin reflects an increase in the proportion of Dayforce customers live for more than two years, which increased from 76% as of December 31, 2020 to 80% as of December 31, 2021, and was also attributable to consistent configuration that has enabled us to realize economies of scale in hosting and customer support. Bureau recurring gross margin declined from 58.0% for the year ended December 31, 2020, to 53.0% for the year ended December 31, 2021 reflecting lower associated float revenue and a higher proportion of customer support costs to support the end-of-life process of our legacy Bureau payroll services, as well as lower margins on acquired Bureau services for Excelity and Ascender. Professional services and other gross margin was (12.2)% for the year ended December 31, 2021, declining from (7.5)% for the year ended December 31, 2020, reflecting additional costs incurred to take new customers live as well as expansion of our capabilities to serve international customers.

Selling, general, and administrative expense. Selling, general, and administrative expense increased \$84.3 million for the year ended December 31, 2021, compared to the year ended December 31, 2020. Excluding the impact of share-based compensation and related employer taxes, severance expense, and certain other non-recurring items, selling, general, and administrative expenses would have increased \$85.6 million. This adjusted increase of \$85.6 million was due to a \$48.5 million increase in sales and marketing expenses and a \$37.1 million increase in general and administrative expense, both of which are primarily driven by employee-related costs. The increase in sales and marketing expense aligns with our growth initiatives. The increase in general and administrative expense is also driven by an increase in amortization expense associated with the intangible assets recognized in relation to our recent acquisitions, partially offset by the gain on sale of our office facility in St. Peterburg, Florida. Please refer to the ["Non-GAAP Measures"](#) section for additional information on the excluded items.

Interest expense, net. Interest expense, net for the year ended December 31, 2021, was \$35.9 million, compared to \$25.1 million for the year ended December 31, 2020. This \$10.8 million increase in interest expense, net was primarily due to interest on our Convertible Senior Notes that were issued in March 2021.

Other expense, net. For the years ended December 31, 2021 and 2020, other expense, net of \$18.9 million and \$2.7 million, respectively, was comprised of net periodic pension expense, as well as foreign currency translation expense in 2021 compared to foreign currency translation income in 2020.

Income tax benefit. For the years ended December 31, 2021 and 2020, we had income tax benefit of \$14.9 million and \$16.0 million, respectively. The \$1.1 million reduction in tax benefit was primarily due to a tax increase of \$8.2 million attributed to the base erosion anti-abuse tax (BEAT) in the U.S., a \$4.0 million increase attributed to share-based compensation, a \$4.0 million increase attributed to international tax rate differences, and other increases of \$4.6 million, partially offset by a \$14.8 million tax benefit from current operations, and a \$4.9 million tax benefit attributable to U.S. state tax. We record a valuation allowance to reduce our deferred tax assets to reflect the net deferred tax assets that we believe will be realized. As of December 31, 2021, we will continue to record a valuation allowance against certain deferred tax assets including some state net operating loss carryovers and tax basis intangibles.

Net loss. Net loss was \$75.4 million for the year ended December 31, 2021, compared to \$4.0 million for the year ended December 31, 2020. The increase in net loss is primarily due to higher share-based compensation, lower employment levels at our customers and lower float revenue income due to the COVID-19 pandemic, investments in product development, selling capabilities, and business acquisitions to support our growth initiatives in 2021, partially offset by the gain of \$19.1 million on the sale of our St. Petersburg, Florida facility. For the years ended December 31, 2021 and 2020, net profit margin was (7.4)% and (0.5)%, respectively.

Adjusted EBITDA. Adjusted EBITDA increased by \$3.5 million to \$162.5 million, for the year ended December 31, 2021, compared to the year ended December 31, 2020, primarily due to the increase in cloud recurring margin, partially offset by the increase in sales and marketing and product development and management expense as well as the reduction in float revenue. Adjusted EBITDA margin declined to 15.9% in 2021 from 18.9% in 2020. Adjusted EBITDA, excluding float revenue, increased \$14.7 million to \$121.4 million, for the year ended December 31, 2021, compared to the year ended December 31, 2020. Please refer to the ["Non-GAAP Measures"](#) section for a discussion and reconciliation of Adjusted EBITDA and Adjusted EBITDA margin and additional information on the excluded items.

Liquidity and Capital Resources

Our primary sources of liquidity are our existing cash and equivalents, cash provided by operating activities, availability under our Revolving Credit Facility, and proceeds from debt issuance and equity offerings. As of December 31, 2021, we had cash and equivalents of \$367.5 million and there was no amount drawn on our Revolving Credit Facility of \$300 million.

Our primary liquidity needs are related to funding of general business requirements, including the payment of interest and principal on our debt, capital expenditures, product development, and funding Dayforce Wallet on demand pay requests. We have made investments in businesses or acquisitions of companies, which are also liquidity needs. Our total debt balance was \$1,242.5 million as of December 31, 2021. Please refer to [Note 9, "Debt,"](#) to our consolidated financial statements and ["Our Indebtedness"](#) section below for further information on our debt.

On February 26, 2021, we elected to borrow \$295.0 million under the Revolving Credit Facility to fund our acquisition of Ascender on March 1, 2021. We repaid the \$295.0 million draw on March 5, 2021 with proceeds from the issuance of our Convertible Senior Notes. On April 2, 2020, we elected to borrow \$295.0 million under the Revolving Credit Facility as a precautionary measure to increase our cash position and to preserve financial flexibility, given the uncertainty in the global capital markets resulting from the initial onset of the COVID-19 pandemic. We repaid the \$295.0 million draw on December 8, 2020.

In March 2021, we issued \$575.0 million in aggregate principal amount of 0.25% Convertible Senior Notes due 2026. The total net proceeds from the offering, after deducting initial purchase discounts and issuance costs, were \$561.8 million. In connection with the Convertible Senior Notes, we entered into capped call transactions which are expected to reduce the potential dilution of our common stock upon any conversion of the Convertible Senior Notes and/or offset any cash payments we could be required to make in excess of the principal amount of converted Convertible Senior Notes. We used an aggregate amount of \$45.0 million of the net proceeds of the Convertible Senior Notes to purchase the Capped Calls. We used the remainder of the net proceeds from the offering (i) to repay \$295.0 million principal amount under the Revolving Credit Facility and pay related accrued interest and (ii) for general corporate purposes.

On February 19, 2020, we completed the first amendment to the Senior Secured Credit Facility, in which the Term Debt interest rate was reduced from LIBOR plus 3.00% to LIBOR plus 2.50%. Further, the interest rate trigger under the applicable rating by Moody's Investor Service was removed by the first amendment.

On December 15, 2021, we completed the second amendment to the Senior Secured Credit Facility, in which the maturity date of the Revolving Credit Facility was extended from April 30, 2023 to January 29, 2025.

We believe that our cash flow from operations, availability under our Revolving Credit Facility, and available cash and equivalents will be sufficient to meet our liquidity needs for the foreseeable future. Dayforce Wallet on demand pay requests are currently funded from our operating cash balances, until it is reimbursed by the customers through their normal payroll funding cycles. We evaluate the creditworthiness of each customer for the Dayforce Wallet feature. We anticipate that to the extent that we require additional liquidity, it will be funded through the issuance of equity, the incurrence of additional indebtedness, or a combination thereof. We cannot provide assurance that we will be able to obtain this additional liquidity on reasonable terms, or at all. Additionally, our liquidity and our ability to meet our obligations and to fund our capital requirements and Dayforce Wallet on demand pay requests are also dependent on our future financial performance, which is subject to general economic, financial, and other factors that are beyond our control. Accordingly, we cannot provide assurance that our business will generate sufficient cash flow from operations or that future borrowings will be available from additional indebtedness or otherwise to meet our liquidity needs. If we decide to pursue one or more significant acquisitions, we may incur additional debt or sell additional equity to finance such acquisitions, which would result in additional expenses or dilution.

Our customer funds are held and invested with the primary objectives being to protect the principal balance and to ensure adequate liquidity to meet cash flow requirements. Please refer to [Note 5, "Customer Funds,"](#) for further discussion of these funds.

Statements of Cash Flows

Changes in cash flows due to purchases of customer fund marketable securities and proceeds from the sale or maturity of customer fund marketable securities, as well as the carrying value of customer fund accounts as of period end dates can vary significantly due to several factors, including the specific day of the week the period ends, which impacts the timing of funds collected from customers and payments made to satisfy customer obligations to employees, taxing authorities, and others. The customer funds are fully segregated from our operating cash accounts and are evaluated and tracked separately by management. The table below summarizes the activity within the consolidated statements of cash flows:

	Year Ended December 31,	
	2021	2020
	(Dollars in millions)	
Net cash provided by (used in) operating activities	\$ 48.8	\$ (30.2)
Net cash (used in) provided by investing activities	(711.1)	38.8
Net cash provided by financing activities	407.5	565.3
Effect of exchange rate on cash and equivalents	(20.9)	(4.0)
Net (decrease) increase in cash, restricted cash, and equivalents	(275.7)	569.9
Cash, restricted cash, and equivalents at beginning of period	2,228.5	1,658.6
Cash, restricted cash, and equivalents at end of period	1,952.8	2,228.5
Cash and equivalents	367.5	\$ 188.2
Restricted cash and equivalents in customer funds	1,585.3	2,040.3
Total cash, restricted cash, and equivalents	<u>\$ 1,952.8</u>	<u>\$ 2,228.5</u>

Operating Activities

Net cash provided by operating activities was \$48.8 million during the year ended December 31, 2021, primarily attributed to a net loss of \$75.4 million offset by the net impact of adjustments for certain non-cash items of \$165.2 million, including \$113.4 million of non-cash share-based compensation expense, and \$77.5 million of depreciation and amortization. Additionally, there were net working capital reductions of \$41.0 million. The net working capital reductions included a \$34.8 million increase in trade and other receivables, a \$12.3 million increase in prepaid expenses and other current assets, a \$11.8 million decrease in working capital related to other assets and liabilities, and a \$9.3 million decrease in accounts payable and other accrued expenses.

Net cash used in operating activities was \$30.2 million during the year ended December 31, 2020, primarily attributed to net changes in working capital that resulted in a \$161.1 million reduction in cash and a net loss of \$4.0 million, partially offset by the net impact of adjustments for certain non-cash items of \$134.9 million, including \$65.8 million

of non-cash share-based compensation expense, \$51.8 million of depreciation and amortization, and \$16.8 million of lease abandonment costs. Net changes in working capital were primarily attributable to a \$104.0 million reduction in liabilities for employee compensation and benefits, primarily due to \$106.9 million in pension contributions, \$32.0 million decrease in working capital related to other assets and liabilities, a \$12.0 million increase in trade and other receivables, and a \$6.8 million increase in prepaid expenses and other current assets.

Investing Activities

During the year ended December 31, 2021, net cash used in investing activities was \$711.1 million, related to acquisition costs, net of cash acquired, of \$409.5 million, net purchases of customer funds marketable securities of \$275.8 million, and capital expenditures of \$63.7 million. Our capital expenditures included \$52.2 million for software and technology and \$11.5 million for property and equipment.

During the year ended December 31, 2020, net cash provided by investing activities was \$38.8 million, related to net proceeds from customer funds marketable securities of \$156.9 million, partially offset by capital expenditures of \$59.8 million and acquisition costs, net of cash acquired, of \$58.3 million. Our capital expenditures included \$41.7 million for software and technology and \$18.1 million for property and equipment.

Financing Activities

Net cash provided by financing activities was \$407.5 million during the year ended December 31, 2021. This cash inflow was primarily attributable to proceeds from the issuance of our Convertible Senior Notes of \$561.8 million, and proceeds from the issuance of common stock under share-based compensation plans of \$95.4 million, partially offset by the net decrease in our customer funds obligations of \$195.7 million, and payments on our long-term debt obligations of \$7.8 million.

Net cash provided by financing activities was \$565.3 million during the year ended December 31, 2020. This cash inflow was primarily attributable to the net increase in our customer funds obligations of \$483.6 million, and proceeds from the issuance of common stock under share-based compensation plans of \$91.7 million, partially offset by payments on our long-term debt obligations of \$10.0 million.

Backlog and Seasonality

Backlog is equivalent to our remaining performance obligations, which represents contracted revenue for recurring and fixed price professional services, primarily implementation services, that has not yet been recognized, including deferred revenue and unbilled amounts that will be recognized as revenue in future periods. As of December 31, 2021, approximately \$1,118.5 million of revenue is expected to be recognized over the next three years from remaining performance obligations.

For a discussion of seasonality, please refer to [Part 1, Item 1, "Business"](#) of this Form 10-K.

Our Indebtedness

Our primary liquidity needs are related to funding of general business requirements, including the payment of interest and principal on our debt, capital expenditures, product development, and funding Dayforce Wallet. From time to time, we have made investments in businesses or acquisitions of companies, which are also liquidity needs. We believe our current sources of liquidity will be sufficient to meet our liquidity needs for the foreseeable future. We anticipate that to the extent that we require additional liquidity, it will be funded through the issuance of equity, the incurrence of additional indebtedness, or a combination thereof. During 2021 and 2020, we incurred additional debt in the form of draws on our Revolving Credit Facility, which was subsequently repaid, and issuance of our Convertible Senior Notes for purposes of either (i) conserving our liquidity position during the uncertainty created by the COVID-19 pandemic, and (ii) general corporate purposes, including acquisitions of companies.

Senior Secured Credit Facility

On April 30, 2018, we entered into a credit agreement pursuant to which the lenders agreed to provide Senior Secured Credit Facility, consisting of the Term Debt in the original principal amount of \$680.0 million and a \$300.0 million Revolving Credit Facility. The Revolving Credit Facility may, at our option, be made available in United States Dollars, Canadian Dollars, Euros and/or Pounds Sterling; up to \$70.0 million may, at our option, be made available for letters of

credit and \$100.0 million may, at our option, be made available for swingline loans (denominated in Canadian Dollars and/or United States Dollars).

The Term Debt will mature on April 30, 2025. We are required to make annual amortization payments in respect of the Term Debt in an amount equal to 1.00% of the original principal amount thereof, payable in equal quarterly installments of 0.25% of the original principal amount of the first lien term debt. On December 15, 2021, we completed the second amendment to our Senior Secured Credit Facility, which extended the maturity of the Revolving Credit Facility from April 30, 2023 to January 29, 2025. The Revolving Credit Facility does not require amortization payments.

Convertible Senior Notes

In March 2021, we issued \$575.0 million in aggregate principal amount of 0.25% Convertible Senior Notes due 2026. The total net proceeds from the offering, after deducting initial purchase discounts and issuance costs, were \$561.8 million. In connection with the Convertible Senior Notes, we entered into capped call transactions which are expected to reduce the potential dilution of our common stock upon any conversion of the Convertible Senior Notes and/or offset any cash payments we could be required to make in excess of the principal amount of converted Notes. We used an aggregate amount of \$45.0 million of the net proceeds of the Convertible Senior Notes to purchase the Capped Calls. We used the remainder of the net proceeds from the offering (i) to repay \$295.0 million principal amount under the Revolving Credit Facility and pay related accrued interest and (ii) for general corporate purposes.

For an additional description of the Senior Secured Credit Facility and the Senior Convertible Notes, please refer to [Note 9, "Debt,"](#) to our consolidated financial statements.

Contractual Obligations

Our future contractual obligations generally consist of long-term debt, leases, retirement plans, and vendor payments. Our long-term debt obligations are described in [Note 9, "Debt,"](#) to our consolidated financial statements, and the ["Our Indebtedness"](#) section above.

As of December 31, 2021, all of our facilities are leased. Most of these leases contain renewal options and require payments for taxes, insurance, and maintenance. We also lease equipment for use in our business. We ceased use of certain leased facilities during 2021 and 2020 and recognized lease abandonment charges within our consolidated statements of operations; however, we are still required to make future payments under the existing lease terms. Refer to [Note 15, "Leases,"](#) to our consolidated financial statements for additional discussion of our leases.

Payments of retirement plan obligations include employer commitments to fund our defined benefit and postretirement plans and do not include estimated future benefit payments to participants expected to be made from liquidation of the assets in our defined benefit plan trusts. During the year ended December 31, 2020, we contributed \$105.0 million to our largest U.S. pension plan, satisfying all expected contributions for the foreseeable future for this defined benefit plan. As of December 31, 2021, our defined benefit pension plans had a fair value of the plans' assets that exceeded the projected benefit obligation by \$1.6 million and our postretirement benefit plan had a projected benefit obligation that exceeded the fair value of the plans' assets by \$12.6 million. We expect to satisfy these remaining obligations through investment income from and appreciation in the fair value of plan assets and from future employer contributions. Refer to [Note 10, "Employee Benefit Plans,"](#) to our consolidated financial statements for additional discussion of our employee benefit plans.

The amount of our future contractual obligation to vendors as of December 31, 2021 was not material.

Critical Accounting Policies and Estimates

Our discussion and analysis of our financial condition and results of operations is based upon our consolidated financial statements and related notes, which have been prepared in accordance with GAAP. The preparation of these financial statements and related notes requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue, and expenses. Certain of our accounting policies require the application of significant judgment by management in selecting the appropriate assumptions for calculating financial estimates. By their nature, these judgments are subject to an inherent degree of uncertainty. These judgments are based on our historical experience, terms of existing contracts, our evaluation of trends in the industry, information provided by our customers, and information available from other outside sources, as appropriate. We evaluate our estimates and judgments on an on-going basis. Our actual results may differ from these estimates. We believe the following are our critical accounting estimates:

Revenue Recognition

Description: We recognize revenue for professional services and cloud subscription services performance obligations based on an allocation of the total transaction price to each performance obligation using the respective stand-alone selling prices ("SSP"). This can result in revenue being recognized in an amount that exceeds the amount we are contractually allowed to bill our customer as of a certain point in time, resulting in the recognition of a contract asset up until the period at which billings are equal to or exceed revenue recognition. We recognized \$160.2 million of cloud professional services revenue for the year ended December 31, 2021, and the related contract assets were \$62.7 million as of December 31, 2021.

Judgments and Uncertainties: The determination of our stand-alone selling price for the performance obligations requires us to make assumptions based on market conditions and observable inputs, as well as an estimate of the total professional service hours expected to be incurred in connection with each customer implementation.

Sensitivity of Estimate to Change: The consideration allocated to professional services performed to activate a new customer is recognized as professional services revenues based on the proportion of total work performed to date compared to an estimation of total work expected to complete the implementation project for that customer account. To the extent this consideration exceeds the customer billings, a contract asset would be recognized. An increase or decrease in the estimation of total work expected to complete the implementation would impact the amount of consideration allocated to each of the performance obligations as well as the timing of revenue recognition, as professional services revenue related to implementation activities is generally recognized at the beginning of the contract.

Business Combinations

Description: We account for business combinations using the acquisition method of accounting. We allocate the purchase price of an acquired business to the assets acquired and liabilities assumed based upon their estimated fair values at the acquisition date with the excess recorded as goodwill.

Judgments and Uncertainties: The acquisition method of accounting requires us to make significant estimates and assumptions regarding the fair value of the acquired assets and liabilities. Fair value of the assets and liabilities acquired is determined through established valuation techniques, such as the income, cost or market approach. Generally, we use third-party valuation experts to assist in certain fair value determinations. The fair value measurements of identifiable intangibles are based on available historical information and expectations and assumptions about the future. Significant assumptions used to value identifiable intangible assets may include projected revenue growth, discount rates, royalty rates, customer attrition rates, and other factors.

Determining the useful life of an intangible asset also requires judgment. All acquired assets were determined to have useful lives.

Sensitivity of Estimate to Change: In 2021, we acquired Ascender, Ideal, DataFuzion, and ADAM HCM for \$359.6 million, \$41.4 million, \$17.9 million, and \$34.3 million, respectively, which included the acquisition of \$7.1 million of trade names, \$84.1 million of customer relationships, and \$78.2 million in developed technology. We utilized third-party valuation specialists to perform the valuation of certain assets and liabilities acquired for each acquisition.

Trade Names: From the Ascender, Ideal, and ADAM HCM acquisitions, we acquired trade names, which were determined to have a total fair value of \$7.1 million using the relief from royalty method. Key assumptions used to calculate the fair value of the trade names using this method included revenue projections, royalty rates, and discount rates.

Customer Relationships: From the Ascender, Ideal, and ADAM HCM acquisitions, we acquired customer relationships, which were determined to have a total fair value of \$84.1 million using the Multi-Period Excess Earnings Method ("MPEEM") a form of the income approach, or variations of the MPEEM, such as the distributor method. Assumptions used in valuing these assets included future earnings projections, customer attrition rates, and discount rates, among others.

Developed Technology: From the Ascender, Ideal, DataFuzion, and ADAM HCM acquisitions, we acquired developed technology, which were determined to have a total fair value of \$78.2 million using various methods, such as the relief from royalty method and the MPEEM, including the distributor method. Assumptions used in valuing these assets included future earnings projections, technology migration factors, royalty rates, tax rates, and discount rates, among others.

Contingent Consideration: From the DataFuzion acquisition, we recognized contingent consideration, which was determined to have a total fair value of \$5.4 million, using two methods, a scenario-based method ("SBM") and an option

pricing model ("OPM"), specifically the Black Scholes Merton model. Key assumptions used in the SMB include possible outcomes, probability of occurrence, and discount factor. Key assumptions used in the OPM include expected present value of certain ARR, and volatility.

We believe the estimates applied to the valuations are based on reasonable assumptions, but are inherently uncertain. As a result, actual results may differ from the assumptions and judgments used to determine the fair value of the assets acquired, which could result in impairment losses in the future.

Please refer to [Note 2, "Summary of Significant Accounting Policies,"](#) for a description of our revenue recognition and business combination policy and our significant accounting policies.

Recently Issued Accounting Pronouncements

Please refer to [Note 2, "Summary of Significant Accounting Policies,"](#) for a full discussion of recent accounting pronouncements.

Non-GAAP Measures

EBITDA, Adjusted EBITDA and Adjusted EBITDA Margin

We believe that EBITDA, Adjusted EBITDA and Adjusted EBITDA margin, non-GAAP financial measures, are useful to management and investors as supplemental measures to evaluate our overall operating performance. Adjusted EBITDA and Adjusted EBITDA margin are components of our management incentive plan and are used by management to assess performance and to compare our operating performance to our competitors.

We define EBITDA as net income (loss) before interest, taxes, depreciation, and amortization, and Adjusted EBITDA as EBITDA, as adjusted to exclude foreign exchange gains (losses), share-based compensation expense and related employer taxes, severance charges, restructuring consulting fees, and certain other non-recurring items. Adjusted EBITDA margin is determined by calculating the percentage that Adjusted EBITDA is of total revenue. Management believes that EBITDA, Adjusted EBITDA and Adjusted EBITDA margin are helpful in highlighting management performance trends because EBITDA, Adjusted EBITDA and Adjusted EBITDA margin exclude the results of decisions that are outside the control of operating management.

Our presentation of EBITDA, Adjusted EBITDA and Adjusted EBITDA margin are intended as supplemental measures of our performance that are not required by, or presented in accordance with, GAAP. EBITDA, Adjusted EBITDA and Adjusted EBITDA margin should not be considered as alternatives to net income (loss), earnings per share, or any other performance measures derived in accordance with GAAP, or as measures of operating cash flows or liquidity. Our presentation of EBITDA, Adjusted EBITDA and Adjusted EBITDA margin should not be construed to imply that our future results will be unaffected by similar items to those eliminated in this presentation. EBITDA, Adjusted EBITDA and Adjusted EBITDA margin are included in this discussion because they are key metrics used by management to assess our operating performance.

EBITDA, Adjusted EBITDA and Adjusted EBITDA margin are not defined under GAAP, are not measures of net income or any other performance measures derived in accordance with GAAP, and are subject to important limitations. Our use of the terms EBITDA, Adjusted EBITDA and Adjusted EBITDA margin may not be comparable to similarly titled measures of other companies in our industry and are not measures of performance calculated in accordance with GAAP.

EBITDA, Adjusted EBITDA and Adjusted EBITDA margin have important limitations as analytical tools, and you should not consider them in isolation or as substitutes for analysis of our results as reported under GAAP. Some of these limitations are that Adjusted EBITDA and Adjusted EBITDA margin do not reflect the following:

- our cash expenditures or future requirements for capital expenditures or contractual commitments;
- changes in, or cash requirements for, our working capital needs;
- any charges for the assets being depreciated and amortized that may need to be replaced in the future;
- the impact of share-based compensation upon our results of operations;
- the significant interest expense or the cash requirements necessary to service interest or principal payments on our debt;
- our income tax expense or the cash requirements to pay our income taxes; and

•certain other non-recurring items.

In evaluating EBITDA, Adjusted EBITDA and Adjusted EBITDA margin, you should be aware that in the future we may incur expenses similar to those eliminated in this presentation.

The following table reconciles net loss to EBITDA and Adjusted EBITDA for the periods presented:

	Year Ended December 31,	
	2021	2020
	(Dollars in millions)	
Net loss	\$ (75.4)	\$ (4.0)
Interest expense, net	35.9	25.1
Income tax benefit	(14.9)	(16.0)
Depreciation and amortization	77.5	51.8
EBITDA	23.1	56.9
Foreign exchange loss (gain)	9.5	(1.0)
Share-based compensation (a)	116.8	68.9
Severance charges (b)	7.4	9.7
Restructuring consulting fees (c)	16.7	8.1
Other non-recurring items (d)	(11.0)	16.4
Adjusted EBITDA	<u>\$ 162.5</u>	<u>\$ 159.0</u>
Net profit margin (e)	(7.4)%	(0.5)%
Adjusted EBITDA margin	15.9%	18.9%

(a)Represents share-based compensation expense and related employer taxes.

(b)Represents costs for severance compensation paid to employees whose positions have been eliminated or who have been terminated not for cause.

(c)Represents consulting fees and expenses incurred during the periods presented in connection with any acquisition, investment, disposition, recapitalization, equity offering, issuance or repayment of debt, issuance of equity interests, or refinancing.

(d)Represents (1) impacts of changes to our facilities, resulting in a net gain of \$19.1 million during 2021 primarily as a result of the sale of our St. Petersburg, Florida facility and charges of \$16.8 million during 2020 related to the abandonment of certain leased facilities, (2) in 2021 the difference between the historical five-year average pension expense and the current period actuarially determined pension expense associated with the planned termination of the frozen U.S. pension plan and related changes in investment strategy associated with protecting the now fully funded status, (3) the impact of the fair value adjustment for the DataFuzion contingent consideration during 2021, and (4) recovery in 2020 of duplicate payments associated with the 2019 isolated service incident. Please refer to [Note 15, "Leases"](#), [Note 3, "Business Combinations"](#), and [Note 16, "Commitments and Contingencies"](#) for further discussion of these items.

(e)Net profit margin is determined by calculating the percentage that net (loss) income is of total revenue.

The following tables present a reconciliation of our reported results to our non-GAAP EBITDA and Adjusted EBITDA basis for all periods presented:

	Year Ended December 31, 2021				
	As reported	Share-based compensation	Severance charges (Dollars in millions)	Other operating expenses (a)	Adjusted (b)
Cost of revenue:					
Recurring	\$ 262.4	\$ 12.9	\$ 2.0	\$ —	\$ 247.5
Professional services and other	194.6	9.5	0.2	—	184.9
Product development and management	134.0	18.0	0.6	—	115.4
Depreciation and amortization	50.9	—	—	—	50.9
Total cost of revenue	641.9	40.4	2.8	—	598.7
Sales and marketing	218.5	13.8	1.9	—	202.8
General and administrative	199.3	62.6	2.7	(2.0)	136.0
Operating (loss) profit	(35.5)	116.8	7.4	(2.0)	86.7
Other expense, net	18.9	—	—	17.2	1.7
Depreciation and amortization	77.5	—	—	—	77.5
EBITDA	\$ 23.1	\$ 116.8	\$ 7.4	\$ 15.2	\$ 162.5
Interest expense, net	35.9	—	—	—	35.9
Income tax (benefit) expense (c)	(14.9)	—	—	(23.6)	8.7
Depreciation and amortization	77.5	—	—	—	77.5
Net (loss) income	\$ (75.4)	\$ 116.8	\$ 7.4	\$ (8.4)	\$ 40.4

(a) Other operating expenses includes net gain of \$19.1 million during 2021 primarily as a result of the sale of our St. Petersburg, Florida facility, intercompany foreign exchange loss, restructuring consulting fees, the difference between the historical five-year average pension expense and the current period actuarially determined pension expense associated with the planned termination of the frozen U.S. pension plan and related changes in investment strategy associated with protecting the now fully funded status, and the impact of the fair value adjustment for the DataFuzion contingent consideration.

(b) The Adjusted amount is a non-GAAP financial measure.

(c) Income tax effects have been calculated based on the statutory tax rates in effect in the U.S. and foreign jurisdictions during the period.

	Year Ended December 31, 2020				
	As reported	Share-based compensation	Severance charges	Other operating expenses (a)	Adjusted (b)
	(Dollars in millions)				
Cost of revenue:					
Recurring	\$ 213.3	\$ 6.1	\$ 1.8	\$ —	\$ 205.4
Professional services and other	163.7	3.8	0.9	—	159.0
Product development and management	83.7	8.7	1.5	—	73.5
Depreciation and amortization	40.5	—	—	—	40.5
Total cost of revenue	501.2	18.6	4.2	—	478.4
Sales and marketing	165.6	8.0	3.3	—	154.3
General and administrative	167.9	42.3	2.2	24.5	98.9
Operating profit	7.8	68.9	9.7	24.5	110.9
Other expense (income), net	2.7	—	—	(1.0)	3.7
Depreciation and amortization	51.8	—	—	—	51.8
EBITDA	\$ 56.9	\$ 68.9	\$ 9.7	\$ 23.5	\$ 159.0
Interest expense, net	25.1	—	—	—	25.1
Income tax (benefit) expense (c)	(16.0)	—	—	(25.0)	9.0
Depreciation and amortization	51.8	—	—	—	51.8
Net (loss) income	\$ (4.0)	\$ 68.9	\$ 9.7	\$ (1.5)	\$ 73.1

(a) Other operating expenses includes lease abandonment charges, intercompany foreign exchange loss, restructuring consulting fees, and recovery of duplicate payments associated with the 2019 isolated service incident.

(b) The Adjusted amount is a non-GAAP financial measure.

(c) Income tax effects have been calculated based on the statutory tax rates in effect in the U.S. and foreign jurisdictions during the period.

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

We are exposed to market risks related to foreign currency exchange rates, interest rates, and pension obligations. We seek to minimize or manage these market risks through normal operating and financing activities. These market risks may be amplified by events and factors surrounding the COVID-19 pandemic. We do not trade or use instruments with the objective of earning financial gains on the market fluctuations, nor do we use instruments where there are not underlying exposures.

Foreign Currency Risk. Our results of operations and cash flows are subject to fluctuations due to changes in foreign currency exchange rates, particularly changes in the Canadian Dollar. Our exposure to foreign currency exchange rates has historically been partially hedged as our foreign currency denominated inflows create a natural hedge against our foreign currency denominated expenses. Accordingly, our results of operations and cash flows were not materially affected by fluctuation in foreign currency exchange rates, and we believe that a hypothetical 10% change in foreign currency exchange rates or an inability to access foreign funds would not materially affect our ability to meet our operational needs or result in a material foreign currency loss in the future. Due to the relative size of our international operations to date, we have not instituted an active hedging program. We expect our international operations to continue to grow in the near term, and we are monitoring the foreign currency exposure to determine if we should begin a hedging program.

Interest Rate Risk. In certain jurisdictions, we collect funds for payment of payroll and taxes; temporarily hold such funds in segregated accounts until payment is due; remit the funds to the customers' employees and appropriate taxing authority; file federal, state and local tax returns; and handle related regulatory correspondence and amendments. We invest the customer funds in high-quality bank deposits, money market mutual funds, commercial paper or collateralized short-term investments. We may also invest these funds in government securities, as well as highly rated asset-backed, mortgage-backed, corporate, and bank securities

Based on current market conditions, portfolio composition, and investment practices, a 100 basis point increase in market investment rates would result in approximately \$23 million of increase in float revenue over the ensuing twelve month period. In addition, we also have exposure to risks associated with changes in laws and regulations that may affect customer fund balances. For example, a change in regulations, either reducing the amount of taxes to be withheld or allowing less time to remit taxes to government authorities, would reduce our average customer fund balances and float revenue. There are no incremental costs of revenue associated with changes in float revenue.

We do not enter into investments for trading or speculative purposes. Our cash equivalents and our portfolio of marketable securities are subject to market risk due to changes in interest rates. Fixed rate securities may have their market value adversely affected due to a rise in interest rates, while floating rate securities may produce less income than expected if interest rates fall. Due in part to these factors, our future investment income may fall short of expectation due to changes in interest rates or we may suffer losses in principal if we are forced to sell securities that decline in market value due to changes in interest rates. However, because we classify our securities as "available for sale," no gains or losses are recognized due to changes in interest rates unless such securities are sold prior to maturity or declines in fair value are determined to be unrecoverable.

We do not believe that an increase or decrease in interest rates of 100 basis points would have a material effect on our operating results or financial condition. Fluctuations in the value of our investment securities caused by a change in interest rates (gains or losses on the carrying value) are recorded in other comprehensive income and are realized only if we sell the underlying securities.

A 100 basis point increase in the LIBOR rates would result in an approximately \$7 million increase in our interest expense, net over the ensuing twelve-month period. Please refer to [Note 9, "Debt,"](#) for additional information.

Pension Obligation Risk. We provide a pension plan for certain current and former U.S. employees that closed to new participants on January 2, 1995. In 2007, the U.S. pension plan was amended (1) to exclude from further participation any participant or former participant who was not employed by the company or another participating employer on January 1, 2008, (2) to discontinue participant contributions, and (3) to freeze the accrual of additional benefits as of December 31, 2007. In applying relevant accounting policies, we have made critical estimates related to actuarial assumptions, including assumptions of expected returns on plan assets, discount rates, and health care cost trends. The cost of pension benefits in future periods will depend on actual returns on plan assets, assumptions for future periods, contributions, and benefit experience. As of December 31, 2021, the fair value of plan assets exceeded the projected benefit obligation ("PBO") by \$1.6 million and therefore was fully funded. Please refer to [Note 10, "Employee Benefit Plans,"](#) for additional information.

The effective discount rate used in accounting for pension and other benefit obligations in 2021 ranged from 2.00% to 2.36%. The expected rate of return on plan assets for qualified pension benefits in 2021 was 2.70%. The following table reflects the estimated sensitivity associated with a change in certain significant actuarial assumptions (each assumption change is presented mutually exclusive of other assumption changes):

	Change in Assumption	Impact on 2022 Pension Expense Increase (Decrease)		
		Pension Benefits	Post Retirement	
(Dollars in millions)				
Increase in discount rate	50 basis points	\$ 0.6	\$	—
Decrease in discount rate	50 basis points	\$ (0.6)	\$	—
Increase in return on plan asset	50 basis points	\$ (2.4)		N/A
Decrease in return on plan asset	50 basis points	\$ 2.4		N/A

Item 8. Financial Statements and Supplementary Data.

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Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors
Ceridian HCM Holding Inc.:

Opinions on the Consolidated Financial Statements and Internal Control Over Financial Reporting

We have audited the accompanying consolidated balance sheets of Ceridian HCM Holding Inc. and subsidiaries (the Company) as of December 31, 2021 and 2020, the related consolidated statements of operations, comprehensive income (loss), stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2021, and the related notes (collectively, the consolidated financial statements). We also have audited 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.

In our opinion, the consolidated financial statements referred to above 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. Also 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.

The Company acquired Ascender HCM Pty Limited during 2021, and management excluded from its assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2021, Ascender HCM Pty Limited's internal control over financial reporting associated with consolidated total assets of 5% and consolidated total revenue of 7% included in the consolidated financial statements of the Company as of and for the year ended December 31, 2021. Our audit of internal control over financial reporting of the Company also excluded an evaluation of the internal control over financial reporting of Ascender HCM Pty Limited.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, 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 consolidated financial statements and an opinion on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements 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. 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 audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

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.

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.

Stand-alone selling price of cloud professional services

The Company recognized \$160.2 million of cloud professional services revenue for the year ended December 31, 2021, and the related contract assets were \$62.7 million as of December 31, 2021. As discussed in Note 2 to the consolidated financial statements, the Company's cloud service arrangements include professional services revenue for the implementation of new customers or customer migrations, followed by access to the Company's hosted payroll processing solution. Revenue recognized for the professional services and payroll processing performance obligations is based on an allocation of the total transaction price to each performance obligation using their respective stand-alone selling prices. This results in revenue being recognized in an amount that exceeds the amount the Company is contractually allowed to bill their customer, resulting in the recognition of a contract asset. The determination of the stand-alone selling price for the performance obligations requires the Company to make assumptions based on market conditions and observable inputs, as well as an estimate of the total professional service hours expected to be incurred in connection with the implementation.

We identified the assessment of the Company's total estimated professional services hours expected to be incurred when determining the stand-alone selling price of the cloud professional services performance obligation for implementation as a critical audit matter. The testing of the professional services hours assumption required a higher degree of auditor subjectivity as the assumption is internally-developed and there is no observable market information.

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 related to the critical audit matter. This included a control related to the Company's process for estimating the total professional services hours expected to be incurred in determining the estimated selling price of the cloud professional services performance obligation, as well as internal controls related to the ongoing monitoring and accounting for changes to the total estimated professional services hours during the implementation phase. For a sample of contracts, we evaluated the Company's ability to accurately estimate the total hours expected to be incurred for the professional services performance obligation by comparing the estimated hours to the actual hours incurred. For a sample of contracts, we inquired of the project manager regarding the estimation of the total hours to be incurred and compared the project manager's estimate to the Company's revenue model used to determine the estimated selling price of the cloud professional services performance obligation for implementation.

Acquisition-date fair value of customer relationships intangible asset

As discussed in Note 3 to the consolidated financial statements, on March 1, 2021, the Company completed the purchase of 100% of the outstanding shares of Ascender HCM Pty Limited for a purchase price of \$359.6 million (the "Transaction"). The Company records all assets and liabilities, including intangible assets, acquired in a

business combination at fair value. The Company acquired various intangible assets in the Transaction, including a customer relationships intangible asset associated with the generation of future income from existing customers. The acquisition-date fair value for this asset was \$76.5 million.

We identified the evaluation of the acquisition-date fair value of the customer relationships intangible asset as a critical audit matter. There was a higher degree of subjective auditor judgment in evaluating forecasted EBITDA margins used in the fair value measurement of the customer relationships intangible asset.

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 related to the Company's acquisition-date valuation process, including a control related to management's assessment of the forecasted EBITDA margins. To assess the forecasted EBITDA margins used in the valuation, we compared the forecasted EBITDA margins to Ascender HCM Pty Limited's historical results and EBITDA margins of comparable companies. In addition, we performed sensitivity analyses over the acquisition-date fair value of the customer relationships intangible asset by considering reasonably possible changes to forecasted EBITDA margins and comparing the results to the Company's fair value estimate.

/s/ KPMG LLP

We have served as the Company's auditor since 1958.

Minneapolis, Minnesota
February 25, 2022

**Ceridian HCM Holding Inc.
Consolidated Balance Sheets**

	December 31,	
	2021	2020
	(Dollars in millions, except share data)	
ASSETS		
Current assets:		
Cash and equivalents	\$ 367.5	\$ 188.2
Restricted cash	1.9	—
Trade and other receivables, net	146.3	101.1
Prepaid expenses and other current assets	92.6	73.9
Total current assets before customer funds	608.3	363.2
Customer funds	3,535.8	3,759.4
Total current assets	4,144.1	4,122.6
Right of use lease asset	29.4	27.9
Property, plant, and equipment, net	128.2	136.4
Goodwill	2,323.6	2,031.8
Other intangible assets, net	332.5	195.0
Other assets	208.4	187.6
Total assets	<u>\$ 7,166.2</u>	<u>\$ 6,701.3</u>
LIABILITIES AND EQUITY		
Current liabilities:		
Current portion of long-term debt	\$ 8.3	\$ 7.2
Current portion of long-term lease liabilities	11.3	10.5
Accounts payable	51.7	38.9
Deferred revenue	48.7	24.4
Employee compensation and benefits	77.3	64.6
Other accrued expenses	24.7	20.5
Total current liabilities before customer funds obligations	222.0	166.1
Customer funds obligations	3,519.9	3,697.8
Total current liabilities	3,741.9	3,863.9
Long-term debt, less current portion	1,124.4	660.6
Employee benefit plans	20.7	24.4
Long-term lease liabilities, less current portion	32.7	33.6
Other liabilities	19.0	20.6
Total liabilities	4,938.7	4,603.1
Commitments and contingencies (Note 16)		
Stockholders' equity:		
Common stock, \$0.01 par, 500,000,000 shares authorized, 151,995,031 and 148,571,412 shares issued and outstanding, respectively	1.5	1.5
Additional paid in capital	2,860.0	2,606.5
Accumulated deficit	(309.2)	(233.8)
Accumulated other comprehensive loss	(324.8)	(276.0)
Total stockholders' equity	2,227.5	2,098.2
Total liabilities and equity	<u>\$ 7,166.2</u>	<u>\$ 6,701.3</u>

See accompanying notes to consolidated financial statements.

Ceridian HCM Holding Inc.
Consolidated Statements of Operations

	Year Ended December 31,		
	2021	2020	2019
	(Dollars in millions, except share and per share data)		
Revenue:			
Recurring	\$ 850.7	\$ 690.2	\$ 680.1
Professional services and other	173.5	152.3	144.0
Total revenue	1,024.2	842.5	824.1
Cost of revenue:			
Recurring	262.4	213.3	201.8
Professional services and other	194.6	163.7	149.8
Product development and management	134.0	83.7	67.9
Depreciation and amortization	50.9	40.5	36.4
Total cost of revenue	641.9	501.2	455.9
Gross profit	382.3	341.3	368.2
Selling, general and administrative	417.8	333.5	295.9
Operating (loss) profit	(35.5)	7.8	72.3
Interest expense, net	35.9	25.1	32.4
Other expense, net	18.9	2.7	5.6
(Loss) income before income taxes	(90.3)	(20.0)	34.3
Income tax benefit	(14.9)	(16.0)	(44.4)
Net (loss) income	<u>\$ (75.4)</u>	<u>\$ (4.0)</u>	<u>\$ 78.7</u>
Net (loss) income per share:			
Basic	\$ (0.50)	\$ (0.03)	\$ 0.55
Diluted	\$ (0.50)	\$ (0.03)	\$ 0.53
Weighted-average shares outstanding:			
Basic	150,402,321	146,774,471	142,049,112
Diluted	150,402,321	146,774,471	148,756,592

See accompanying notes to consolidated financial statements.

Ceridian HCM Holding Inc.
Consolidated Statements of Comprehensive Income (Loss)

	2021	Year Ended December 31, 2020		2019
		(Dollars in millions)		
Net (loss) income	\$ (75.4)	\$ (4.0)	\$	78.7
Items of other comprehensive (loss) income before income taxes:				
Change in foreign currency translation adjustment	(17.6)	18.7		29.1
Change in unrealized (loss) gain from invested customer funds	(48.4)	38.4		37.7
Change in pension liability adjustment (1)	6.0	21.2		9.8
Other comprehensive (loss) income before income taxes	(60.0)	78.3		76.6
Income tax (benefit) expense, net	(11.2)	15.9		12.0
Other comprehensive (loss) income after income taxes	(48.8)	62.4		64.6
Comprehensive (loss) income	<u>\$ (124.2)</u>	<u>\$ 58.4</u>	<u>\$</u>	<u>143.3</u>

(1) The amount of the pension liability adjustment recognized in the consolidated statements of operations within other expense, net was \$15.1 million, \$13.2 million, and \$10.1 million during the years ended December 31, 2021, 2020, and 2019, respectively.

See accompanying notes to consolidated financial statements.

Ceridian HCM Holding Inc.
Consolidated Statements of Stockholders' Equity

	Common Stock Shares	\$	Additional Paid In Capital	Accumulate d Deficit	Accumulated Other Comprehensive Loss	Total Stockholder s' Equity
	(Dollars in millions, except share data)					
Balance as of December 31, 2018	139,453,710	\$ 1.4	\$ 2,325.6	\$ (335.6)	\$ (375.9)	\$ 1,615.5
Cumulative-effect adjustments to accumulated deficit related to the adoption of ASU 2018-02	—	—	—	27.1	(27.1)	—
Net income	—	—	—	78.7	—	78.7
Issuance of common stock under share-based compensation plans	4,932,908	—	87.0	—	—	87.0
Share-based compensation	—	—	36.5	—	—	36.5
Foreign currency translation	—	—	—	—	29.1	29.1
Change in unrealized gain, net of tax \$9.6	—	—	—	—	28.1	28.1
Change in minimum pension & postretirement liability, net of tax of \$2.4	—	—	—	—	7.4	7.4
Balance as of December 31, 2019	144,386,618	\$ 1.4	\$ 2,449.1	\$ (229.8)	\$ (338.4)	\$ 1,882.3
Net loss	—	—	—	(4.0)	—	(4.0)
Issuance of common stock under share-based compensation plans	4,184,794	0.1	91.6	—	—	91.7
Share-based compensation	—	—	65.8	—	—	65.8
Foreign currency translation	—	—	—	—	18.7	18.7
Change in unrealized gain, net of tax \$10.2	—	—	—	—	28.2	28.2
Change in minimum pension & postretirement liability, net of tax of \$5.7	—	—	—	—	15.5	15.5
Balance as of December 31, 2020	148,571,412	\$ 1.5	\$ 2,606.5	\$ (233.8)	\$ (276.0)	\$ 2,098.2
Net loss	—	—	—	(75.4)	—	(75.4)
Issuance of common stock under share-based compensation plans	3,423,619	—	95.4	—	—	95.4
Share-based compensation	—	—	113.4	—	—	113.4
Foreign currency translation	—	—	—	—	(17.6)	(17.6)
Change in unrealized loss, net of tax (\$12.8)	—	—	—	—	(35.6)	(35.6)
Change in minimum pension & postretirement liability, net of tax of \$1.6	—	—	—	—	4.4	4.4
Equity component of convertible senior notes	—	—	77.7	—	—	77.7
Purchase of capped calls related to convertible senior notes	—	—	(33.0)	—	—	(33.0)
Balance as of December 31, 2021	<u>151,995,031</u>	<u>\$ 1.5</u>	<u>\$ 2,860.0</u>	<u>\$ (309.2)</u>	<u>\$ (324.8)</u>	<u>\$ 2,227.5</u>

See accompanying notes to consolidated financial statements.

Ceridian HCM Holding Inc.
Consolidated Statements of Cash Flows

	2021	Year Ended December 31, 2020		2019
		(Dollars in millions)		
	\$	\$	\$	\$
Net (loss) income	(75.4)	(4.0)	78.7	
Adjustments to reconcile net (loss) income to net cash provided by (used in) operating activities:				
Deferred income tax benefit	(38.5)	(7.0)	(69.4)	
Depreciation and amortization	77.5	51.8	57.1	
Amortization of debt issuance costs and debt discount	16.9	1.2	1.2	
Lease abandonment costs	2.9	16.8	—	
Net periodic pension and postretirement cost	8.8	3.3	5.2	
Provision for doubtful accounts	1.8	2.0	3.2	
Share-based compensation	113.4	65.8	36.5	
Gain on sale of assets	(19.1)	—	—	
Change in fair value of contingent consideration	0.6	—	—	
Other	0.9	1.0	(0.4)	
Changes in operating assets and liabilities excluding effects of acquisitions and divestitures:				
Trade and other receivables	(34.8)	(12.0)	(16.4)	
Prepaid expenses and other current assets	(12.3)	(6.8)	(8.0)	
Accounts payable and other accrued expenses	9.3	(1.4)	3.8	
Deferred revenue	5.5	(1.2)	0.8	
Employee compensation and benefits	2.3	(104.0)	(11.1)	
Accrued interest	0.4	—	—	
Accrued taxes	0.4	(3.7)	(11.1)	
Other assets and liabilities	(11.8)	(32.0)	(19.5)	
Net cash provided by (used in) operating activities	48.8	(30.2)	50.6	
Cash Flows from Investing Activities				
Purchase of customer funds marketable securities	(763.8)	(212.4)	(408.4)	
Proceeds from sale and maturity of customer funds marketable securities	488.0	369.3	374.5	
Expenditures for property, plant, and equipment	(11.5)	(18.1)	(16.3)	
Expenditures for software and technology	(52.2)	(41.7)	(38.9)	
Net proceeds from sale of assets	37.9	—	—	
Acquisition costs, net of cash and restricted cash acquired	(409.5)	(58.3)	(30.2)	
Net cash (used in) provided by investing activities	(711.1)	38.8	(119.3)	
Cash Flows from Financing Activities				
(Decrease) increase in customer funds obligations, net	(195.7)	483.6	529.9	
Repayment of long-term debt obligations	(7.8)	(10.0)	(7.2)	
Proceeds from revolving credit facility	295.0	295.0	—	
Repayment of revolving credit facility	(295.0)	(295.0)	—	
Proceeds from issuance of common stock under share-based compensation plans	95.4	91.7	87.0	
Proceeds from issuance of convertible senior notes, net of issuance costs	561.8	—	—	
Purchases of capped calls related to convertible senior notes	(45.0)	—	—	
Payment of debt refinancing costs	(1.2)	—	—	
Net cash provided by financing activities	407.5	565.3	609.7	
Effect of exchange rate changes on cash, restricted cash, and equivalents	(20.9)	(4.0)	11.3	
Net (decrease) increase in cash and equivalents	(275.7)	569.9	552.3	
Cash, restricted cash, and equivalents at beginning of year	2,228.5	1,658.6	1,106.3	
Cash, restricted cash, and equivalents at end of year	<u>1,952.8</u>	<u>2,228.5</u>	<u>1,658.6</u>	
Reconciliation of cash, restricted cash, and equivalents to the consolidated balance sheets				
Cash and equivalents	\$ 367.5	\$ 188.2	\$ 281.3	
Restricted cash	1.9	—	—	
Restricted cash and equivalents included in customer funds	1,583.4	2,040.3	1,377.3	
Total cash, restricted cash, and equivalents	<u>\$ 1,952.8</u>	<u>\$ 2,228.5</u>	<u>\$ 1,658.6</u>	
Supplemental Cash Flow Information:				
Cash paid for interest	\$ 19.1	\$ 26.7	\$ 37.4	
Cash paid for income taxes	33.4	4.2	36.2	
Cash received from income tax refunds	3.3	9.6	0.3	

See accompanying notes to consolidated financial statements.

Ceridian HCM Holding Inc.
Notes to Consolidated Financial Statements

1. Organization

Ceridian HCM Holding Inc. and its subsidiaries (also referred to in this report as “Ceridian,” “we,” “our,” and “us”) offer a broad range of services and software designed to help employers more effectively manage employment processes, such as payroll, payroll-related tax filing, human resource information systems, employee self-service, time and labor management, and recruitment and applicant screening. Our technology-based services are typically provided through long-term customer relationships that result in a high level of recurring revenue. While we operate in 18 countries globally, our operations are primarily located in the United States and Canada.

2. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States (“GAAP”). The accompanying consolidated financial statements include the operations and accounts of Ceridian and all subsidiaries, as well as any variable interest entity (“VIE”) in which we have controlling financial interest. All intercompany balances and transactions have been eliminated from our consolidated financial statements.

We consolidate the grantor trusts that hold funds provided by our payroll and tax filing customers pending remittance to employees of those customers or tax authorities in the United States and Canada, although Ceridian does not own the grantor trusts. Under consolidation accounting, the enterprise with a controlling financial interest consolidates a VIE. A controlling financial interest in an entity is determined through analysis that identifies the primary beneficiary which has (1) the power to direct the activities of a VIE that most significantly impact the entity’s economic performance and (2) the obligation to absorb losses of the entity that could potentially be significant to the VIE or the right to receive benefits from the entity that could potentially be significant to the VIE. In addition, ongoing reassessments must be performed to confirm whether an enterprise is the primary beneficiary of a VIE. The grantor trusts are VIEs, and we are deemed to have a controlling financial interest as the primary beneficiary. Please refer to [Note 5, “Customer Funds,”](#) for further information on our accounting for these funds.

Use of Estimates

The preparation of consolidated financial statements in conformity with GAAP requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of our financial statements and our reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Estimates that could significantly affect our results of operations or financial condition include the assignment of fair values to goodwill and other intangible assets and testing for impairment; the testing of impairment of long-lived assets; the determination of our liability for pensions and postretirement benefits; the determination of fair value of equity awards granted; and the resolution of tax matters and legal contingencies. Further discussion on these estimates can be found in related disclosures elsewhere in our notes to the consolidated financial statements.

Cash and Equivalents

As of December 31, 2021 and 2020, cash and equivalents were comprised of cash held in bank accounts and investments with an original maturity of three months or less.

Concentrations

Cash deposits of client and corporate funds are maintained primarily in large credit-worthy financial institutions in the countries in which we operate. These deposits may exceed the amount of any deposit insurance that may be available through government agencies. All deliverable securities are held in custody with large credit-worthy financial institutions, which bear the risk of custodial loss. Non-deliverable securities, primarily money market securities, are held in custody by large, credit-worthy broker-dealers and financial institutions.

Trade and Other Receivables, Net

Trade and other receivables balances are presented on the consolidated balance sheets net of the allowance for doubtful accounts of \$3.9 million and \$3.1 million and the reserve for sales adjustments of \$4.0 million and \$4.4 million as of December 31, 2021, and 2020, respectively. We experience credit losses on accounts receivable and, accordingly, must make estimates related to the ultimate collection of the receivables. Specifically, management analyzes accounts receivable, historical bad debt experience, customer concentrations, customer creditworthiness, and current economic trends when evaluating the adequacy of the allowance for doubtful accounts. We estimate the reserve for sales adjustment based on historical sales adjustment experience. We write off accounts receivable when we determine that the accounts are uncollectible, generally upon customer bankruptcy or the customer’s nonresponse to continued collection efforts.

Property, Plant, and Equipment, Net

Our property, plant, and equipment assets are stated at cost less accumulated depreciation. Depreciation is calculated on a straight-line basis over the shorter of the remaining lease term or estimated useful life of the related assets, which are generally as follows:

Buildings	40 years
Building improvements	5 years
Machinery and equipment	4-6 years
Computer equipment	3-4 years

Repairs and maintenance costs are expensed as incurred. We capitalized interest of \$0.4 million and \$0.5 million in property, plant, and equipment, net during the years ended December 31, 2021 and 2020, respectively. Property, plant, and equipment assets are assessed for impairment as described under the heading “[Impairment of Long-Lived Assets](#)” below.

Business Combinations

In accordance with Accounting Standards Codification (“ASC”) Topic 805, *Business Combinations*, we use the acquisition method of accounting and allocate the fair value of purchase consideration to the assets acquired and liabilities assumed based on their respective estimated fair values as of the acquisition date. Goodwill represents the excess of purchase consideration transferred over the estimated fair value of the identifiable net assets acquired in a business combination.

Assigning estimated fair values to the net assets acquired requires the use of significant estimates, judgments, inputs, and assumptions regarding the fair value of the assets acquired and liabilities assumed. Estimated fair values of assets acquired and liabilities assumed are generally based on available historical information, independent valuations or appraisals, future expectations, and assumptions determined to be reasonable but are inherently uncertain with respect to future events, including economic conditions, competition, the useful life of the acquired assets, and other factors. We may refine the estimated fair values of assets acquired and liabilities assumed, if necessary, over a period not to exceed one year from the date of acquisition. The judgments made in determining the estimated fair value assigned to assets acquired and liabilities assumed, as well as the estimated useful life and depreciation or amortization method of each asset, can materially impact the net earnings of the periods subsequent to the acquisition through depreciation and amortization, and in certain instances through impairment charges, if the asset becomes impaired in the future. During the measurement period, any purchase price allocation changes that impact the carrying value of goodwill affects any measurement of goodwill impairment taken during the measurement period, if applicable. If necessary, purchase price allocation

revisions that occur outside of the measurement period are recorded within our consolidated statement of operations depending on the nature of the adjustment.

Refer to [Note 3, "Business Combinations"](#), for additional information regarding our accounting for recent business combinations.

Goodwill and Intangible Assets

Goodwill, which represents the excess purchase price over the fair value of net assets of businesses acquired, is assigned to reporting units based on the benefits derived from the acquisition. Goodwill and indefinite-lived intangibles are not amortized against earnings, but instead are subject to impairment review on at least an annual basis. We perform our annual assessment of goodwill and indefinite-lived intangible balances as of October 1 of each year.

We assess goodwill impairment risk by comparing the fair value of the net assets with the carrying amount of the reporting unit. We determine the fair value of the reporting unit based on our market capitalization at the testing date. If the carrying amount of the goodwill exceeds the fair value of the reporting unit, goodwill may be impaired. To the extent that the carrying amount of the reporting unit exceeds the fair value of the reporting unit, an impairment loss is recognized.

Intangible assets represent amounts assigned to specifically identifiable intangible assets at the time of an acquisition. Definite-lived assets are amortized on a straight-line basis generally over the following periods:

Customer lists and relationships	4-12 years
Trade name	3-5 years
Technology	3-5 years

Indefinite-lived intangible assets, which consist of trade names, are tested for impairment on an annual basis, or more frequently if certain events or circumstances occur that could indicate impairment. When evaluating whether the indefinite-lived intangible assets are impaired, we first perform a qualitative review. If the qualitative assessment indicates it is more likely than not the fair value of an indefinite-lived intangible asset is less than the carrying amount, a quantitative test is applied and the carrying amount is compared to its estimated fair value. The estimate of fair value is based on a relief from royalty method which calculates the cost savings associated with owning rather than licensing the trade name. An estimated royalty rate is applied to forecasted revenue and the resulting cash flows are discounted. Definite-lived assets are assessed for impairment as described under the heading "[Impairment of Long-Lived Assets](#)" below.

Internally Developed Software Costs

In accordance with ASC Topic 350, we capitalize costs associated with software developed or obtained for internal use when both the preliminary project stage is completed and our management has authorized further funding for the project, which it deems probable of completion. Capitalized software costs include only: (1) external direct costs of materials and services consumed in developing or obtaining the software; (2) payroll and payroll-related costs for employees who are directly associated with and who devote time to the project; and (3) interest costs incurred while developing the software. Capitalization of these costs ceases no later than the point at which the project is substantially complete and ready for its intended purpose. We do not include general and administrative costs and overhead costs in capitalizable costs. Research and development costs, product management, and other software maintenance costs related to software development are expensed as incurred.

We had capitalized software costs, net of accumulated amortization, of \$92.8 million and \$78.7 million as of December 31, 2021, and 2020, respectively, included in property, plant, and equipment, net in the accompanying consolidated balance sheets. We amortize software costs on a straight-line basis over the expected life of the software, generally a range of two to seven years. Amortization of software costs totaled \$37.0 million, \$30.6 million, and \$28.3 million for the years ended December 31, 2021, 2020, and 2019, respectively.

Impairment of Long-Lived Assets

Long-lived assets, such as property, plant, and equipment, capitalized software, and definite-lived intangible assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying

amount of an asset group may not be recoverable. Recoverability of asset groups to be held and used is measured by a comparison of the carrying amount of an asset group to the estimated undiscounted future cash flows expected to be generated by the asset group. If the carrying amount of an asset group exceeds its estimated future cash flows, an impairment charge is recognized for the amount by which the carrying amount of the asset group exceeds the fair value of the asset group.

Deferred Costs

Deferred costs primarily consist of deferred sales commissions. Sales commissions paid based on the annual contract value of a signed customer contract are considered incremental and recoverable costs of obtaining a contract with a customer. Sales commissions paid based on the annual contract value are deferred and then amortized on a straight-line basis over a period of benefit that we have determined to be five years.

Deferred costs included within Other assets on our consolidated balance sheets were \$144.5 million and \$132.9 million as of December 31, 2021 and 2020, respectively. Amortization expense for the deferred costs was \$46.4 million, \$38.8 million, and \$32.2 million for the years ended December 31, 2021, 2020, and 2019, respectively.

Revenue Recognition

The core principle of ASC Topic 606 is that revenue is recognized upon transfer of control of promised products or services to customers in an amount that reflects the consideration we expect to receive in exchange for those products or services. In accordance with ASC Topic 606, we perform the following steps to determine revenue to be recognized:

- 1) Identify the contract(s) with a customer;
- 2) Identify the performance obligations in the contract;
- 3) Determine the transaction price;
- 4) Allocate the transaction price to the performance obligations in the contract; and
- 5) Recognize revenue when (or as) we satisfy a performance obligation.

The significant majority of our two major revenue sources (recurring and professional services and other) are derived from contracts with customers. Recurring revenues are primarily related to our cloud subscription performance obligations. Professional services and other revenues are primarily related to professional services for our cloud customers (including implementation services to activate new accounts, as well as post go-live professional services typically billed on a time and materials basis) and, to a much lesser extent, fees for other non-recurring services, including sales of time clocks and certain client reimbursable out-of-pocket expenses. Fees charged to cloud subscription performance obligations are generally priced either on a per-employee, per-month ("PEPM") basis for a given month or on a per-employee, per-process basis for a given process; and fees charged for professional services are typically priced on a fixed fee basis for activating new accounts and on a time and materials basis for post go-live professional services. There is typically no variable consideration related to our recurring cloud subscriptions or our activation services, nor do they include a significant financing component, non-cash consideration, or consideration payable to a customer. Our recurring cloud subscriptions are typically billed one month in advance while our professional services are billed over the implementation period for activation of new accounts and as work is performed for post go-live professional services.

Our cloud services arrangements include multiple performance obligations, and transaction price allocations are based on the stand-alone selling price ("SSP") for each performance obligation. Our contract renewal rates serve as an observable input to establish SSP for our recurring cloud subscription performance obligations. The SSP for professional services performance obligations is estimated based on market conditions and observable inputs, including rates charged by third parties to perform implementation services.

For our performance obligations, the consideration allocated to cloud subscription revenues is recognized as recurring revenues, typically commencing when an instance is provisioned to the customer. The consideration allocated to professional services to activate a new account is recognized as professional services revenues based on the proportion of total work performed, using reasonably dependable estimates (in relation to progression through the implementation phase), by solution.

Recurring Revenues

For our Dayforce solutions, we primarily charge monthly recurring fees on a per employee, per month (“PEPM”) basis, generally one-month in advance of service, based on the number and type of solutions provided to the customer and the number of employees at the customer. We charge Powerpay customers monthly recurring fees on a per-employee, per-process basis. For our Bureau solutions, we typically charge monthly recurring fees on a per-process basis. The typical recurring customer contract has an initial term between three and five years. Any credits related to service level commitments are recognized as incurred, as service level failures are not anticipated at contract signing. Should a customer cancel the initial contract, an early termination fee may be applicable, and revenue is recognized upon collection. We also generate recurring revenue from investment income on our Cloud and Bureau customer funds before such funds are remitted to taxing authorities, customer employees, or other third parties. We refer to this investment income as float revenue. Please refer to [Note 12, “Revenue,”](#) for a full description of our sources of revenue.

Professional Services and Other Revenues

Professional services and other revenues consist primarily of charges relating to the work performed to assist customers with the planning, design, and implementation of their solutions. Also included in professional services are any related training services, post-implementation professional services, and shipment of time clocks purchased by customers. We also generate professional services and other revenues from custom professional services and consulting services that we provide and for certain third-party services that we arrange for our Bureau customers. Professional services revenue is primarily recognized as hours are incurred.

Costs and Expenses

Cost of Revenue

Cost of revenue consists of costs to deliver our revenue-producing services. Most of these costs are recognized as incurred, that is, as we become obligated to pay for them. Some costs of revenue are recognized in the period that a service is sold and delivered. Other costs of revenue are recognized over the period of use or in proportion to the related revenue.

The costs recognized as incurred consist primarily of customer service staff costs, customer technical support costs, implementation personnel costs, costs of hosting applications, consulting and purchased services, delivery services, and royalties. The costs of revenue recognized over the period of use are depreciation and amortization, rentals of facilities and equipment, and direct and incremental costs associated with deferred implementation service revenue.

Cost of recurring revenues primarily consists of costs to provide maintenance and technical support to our customers, and the costs of hosting our applications. The cost of recurring revenues includes compensation and other employee-related expenses for data center staff, payments to outside service providers, data center, and networking expenses.

Cost of professional services and other revenues primarily consists of costs to provide implementation consulting services and training to our customers, as well as the cost of time clocks. Costs to provide implementation consulting services include compensation and other employee-related expenses for professional services staff, costs of subcontractors, and travel.

Product development and management expense includes costs related to software development activities that do not qualify for capitalization, such as development, quality assurance, testing of new technologies, and enhancements to our existing solutions that do not result in additional functionality. Product development and management expense also includes costs related to the management of our solutions. Research and development expense, which is included within product development and management expense, was \$81.1 million, \$39.6 million, and \$34.1 million for the years ended December 31, 2021, 2020, and 2019, respectively.

Depreciation and amortization related to cost of revenue primarily consists of amortization of capitalized software.

Selling, General, and Administrative Expense

Selling expense includes costs related to maintaining a direct marketing infrastructure and sales force and other direct marketing efforts, such as marketing events, advertising, telemarketing, direct mail, and trade shows. Advertising costs are expensed as incurred. Advertising expense was \$7.5 million, \$5.5 million, and \$5.4 million for the years ended December 31, 2021, 2020, and 2019, respectively.

General and administrative expense includes costs that are not directly related to delivery of services, selling efforts, or product development, primarily consisting of corporate-level costs, such as administration, finance, legal, and human resources. Also included in this category are depreciation, and amortization of other intangible assets not reflected in cost of revenue, and the provision for doubtful accounts receivable.

Other Expense (Income), Net

Other expense (income), net includes the results of transactions that are not appropriately classified in another category. These items are primarily foreign currency translation gains and losses resulting from transactions denominated in foreign currencies and net periodic pension costs.

Income Taxes

Income taxes have been provided for using the asset and liability method. Deferred tax assets and liabilities are recorded for temporary differences between the financial reporting basis and the tax basis of assets and liabilities as adjusted for the expected benefits of utilizing net operating loss carryforwards. The impact on deferred taxes of changes in tax rates and laws, if any, applied to the years during which temporary differences are expected to be settled, is reflected in the consolidated financial statements in the period of enactment.

We classify interest and penalties related to income taxes as a component of income tax expense (benefit).

Fair Value of Financial Instruments

The carrying amounts of cash and equivalents, trade and other receivables, net, customer funds obligations, customer advance payments, and accounts payable approximate fair value because of the short-term nature of these items.

Share-Based Compensation

Our employees participate in share-based compensation plans. Under the fair value recognition provisions of share-based compensation accounting, we measure share-based compensation cost at the grant date based on the fair value of the award and recognize the compensation expense over the requisite service period, which is the period during which an employee is required to provide services in exchange for the award.

We use the Black-Scholes standard option pricing model ("Black-Scholes model") to determine the fair value of stock awards with term-based vesting conditions. The determination of the fair value of the awards on the date of grant using the Black-Scholes model is affected by the value of our common stock as well as other inputs and assumptions described below.

If factors change and we employ different assumptions for estimating share-based compensation expense in future periods or if we adopt a different valuation model, future periods may differ significantly from what we have recorded in the current period and could materially affect our operating results.

To determine the fair value of both term- and certain performance-based stock awards, the risk-free interest rate used was based on the implied yield currently available on U.S. Treasury zero coupon issues with remaining term equal to the contractual term of the performance-based options and the expected term of the term-based awards. Given our limited history as a public company, the estimated volatility of our common stock is based on volatility data for selected comparable public companies over the expected term of our stock awards. Because we do not anticipate paying any cash dividends in the foreseeable future, we use an expected dividend yield of zero. The amount of share-based compensation expense we recognize during a period is based on the portion of the awards that are ultimately expected to vest.

For performance-based stock options with a market condition, a Monte Carlo simulation model is used to determine the fair value. The Monte Carlo model utilizes multiple input variables that determine the probability of satisfying the market conditions stipulated in the award.

We estimate option forfeitures at the time of grant and revise those estimates in subsequent periods if actual forfeitures differ from those estimates. We analyze historical data to estimate pre-vesting forfeitures and record share-based compensation expense for those awards expected to vest. We recognize term-based stock compensation expense using the straight-line method.

Pension and Other Postretirement Benefits Liability

We present information about our pension and postretirement benefit plans in [Note 10, "Employee Benefit Plans"](#) to our consolidated financial statements. Liabilities and expenses for pensions and other postretirement benefits are determined with the assistance of third-party actuaries, using actuarial methodologies and incorporating significant assumptions, including the rate used to discount the future estimated liability, the long-term rate of return on plan assets, and several assumptions relating to the employee workforce (medical costs, retirement age, and mortality). The discount rate assumption utilizes a full yield curve approach by applying the specific spot rates along the yield curve used in the determination of the benefit obligation to the relevant projected cash flows. The impact of a change in the discount rate of 25 basis points would be approximately \$11 million on the liabilities and \$0.2 million on pre-tax earnings in the following year. The long-term rate of return is estimated by considering historical returns and expected returns on current and projected asset allocations and is generally applied to a five-year average market value of assets. A change in the assumption for the long-term rate of return on plan assets of 25 basis points would impact pre-tax earnings by approximately \$1 million.

Foreign Currency Translation

We have international operations whereby the local currencies serve as functional currencies. We translate foreign currency denominated assets and liabilities at the end-of-period exchange rates and foreign currency denominated statements of operations at the average exchange rates for each period. We report the effect of changes in the U.S. dollar carrying values of assets and liabilities of our international subsidiaries that are due to changes in exchange rates between the U.S. dollar and the subsidiaries' functional currency as foreign currency translation within accumulated other comprehensive income (loss) in the accompanying consolidated statements of stockholders' equity and comprehensive income (loss). Gains and losses from transactions and translation of assets and liabilities denominated in currencies other than the functional currency of the subsidiaries are recorded in the consolidated statements of operations within other expense (income), net.

Recently Issued and Adopted Accounting Pronouncements

Standard	Issuance Date	Description	Adoption Date	Effect on the Financial Statements
Accounting Standards Update ("ASU") 2019-12, Income Taxes (Topic 740)	December 2019	These amendments simplify the accounting for income taxes, eliminates certain exceptions to the general principles in Topic 740 and clarifies certain aspects of the current guidance to improve consistent application among reporting entities.	January 2021	The adoption of this standard did not have a significant impact on our financial statements.
ASU 2021-08, Business Combinations (Topic 805): Accounting for Contract Assets and Contract Liabilities from Contracts with Customers	October 2021	This amendment requires an acquirer to account for revenue contracts acquired in a business combination in accordance with Topic 606, Revenue From Contracts with Customers, as if it had originated the contracts.	October 2021	The adoption of this standard resulted in an increase to deferred revenue on Ascender's opening balance sheet of \$2.7 million and Ideal's opening balance sheet of \$0.2 million. Additionally, the adoption resulted in the recognition of \$2.8 million of revenue in the consolidated statements of operations for the twelve months ended December 31, 2021.
ASU 2018-14, Compensation - Retirement Benefits - Defined Benefit Plans - General (Subtopic 715-20), Disclosure Framework - Changes to the Disclosure Requirements for Defined Benefit Plans	August 2018	This amendment modifies the disclosure requirements for employers that sponsor defined benefit pension or other postretirement plans. Additionally, it removes disclosures that are no longer considered cost beneficial, adds disclosures identified as relevant, and clarifies certain specific requirements of disclosures to improve the effectiveness of disclosures in the notes to the financial statements.	January 2020	The adoption of this standard did not have a significant impact on our annual defined benefit plan and other postretirement plan disclosures.
ASU 2016-13, Financial Instruments - Credit Losses (Topic 326), Measurement of Credit Losses on Financial Statements	June 2016	This amendment replaces the incurred loss impairment methodology in current GAAP with a methodology that reflects expected credit losses on instruments within its scope, including trade receivables. This is intended to provide financial statement users with more decision-useful information about the expected credit losses.	January 2020	The adoption of this standard did not have a significant impact on our financial statements.
ASU 2020-06, Debt - Debt with Conversion and Other Options (Subtopic 470-20) and Derivatives and Hedging - Contracts in Entity's Own Equity (Subtopic 815-40)	August 2020	This amendment simplifies the accounting for convertible instruments by removing certain separation models required under current GAAP for (1) convertible debt with cash conversion feature and (2) convertible instruments with a beneficial conversion feature. As a result, a convertible debt instrument will be accounted for as a single liability measured at its amortized cost.	January 2022	We plan to adopt the guidance as of January 1, 2022, using the modified retrospective method of transition. The adoption will result in the elimination of the debt discount (and related deferred tax liability) that was recorded within equity related to our Convertible Senior Notes. The net impact of the adjustments will be recorded to the opening balance of retained earnings and additional paid in capital. Preliminarily, we expect the impact to the consolidated balance sheet as follows: (1) increase of \$92.9 million to long-term debt, (2) decrease of \$77.7 million to additional paid-in capital, net of allocated issuance costs of \$2.7 million and deferred tax impact of \$28.2 million, and (3) increase to retained earnings of \$13.6 million.
ASU 2020-04, Reference Rate Reform (Topic 848): Facilitation of the Effects of Reference Rate Reform on Financial Reporting	March 2020	This amendment provides optional expedients and exceptions for applying GAAP to contracts, hedging relationships, and other transactions affected by reference rate reform if certain criteria are met. The amendments apply only to contracts, hedging relationships, and other transactions that reference LIBOR or another reference rate expected to be discontinued because of reference rate reform.	Not yet adopted	This amendment may be elected over time through December 31, 2022 as reference rate reform activities occur. We do not expect the adoption of this guidance to have a significant impact on our financial statements.

3. Business Combinations

Ascender

On March 1, 2021, we completed the purchase of 100% of the outstanding shares of Ascender HCM Pty Limited ("Ascender") for \$359.6 million. Ascender is a payroll and human resources solutions provider in the Asia Pacific Japan ("APJ") region. We entered into a forward foreign currency contract to hedge the purchase price for the Ascender acquisition which was denominated in Australian dollars, resulting in the recognition of a realized gain of \$4.2 million included as a component of other expense, net in our consolidated statement of operations.

The financial results of Ascender have been included within our consolidated financial statements from the acquisition date forward and are classified among both Cloud and Bureau solutions. For the twelve months ended December 31, 2021, Ascender revenue included within our consolidated statement of operations was \$73.3 million. The purchase accounting was considered complete as of December 31, 2021. The intangible assets consist of \$76.5 million of customer relationships, \$55.0 million of developed technology, and \$6.5 million of trade name. Of the goodwill associated with this acquisition, no amount is deductible for income tax purposes. The goodwill of \$242.8 million arising from the Ascender acquisition is primarily attributable to the synergies to enable both multi-national customers and customers within the APJ region to leverage one global HCM platform, Dayforce, as well as the assembled workforce of Ascender.

The major classes of assets and liabilities to which we have allocated the purchase price were as follows:

	(Dollars in millions)
Cash and equivalents	\$ 5.1
Restricted cash	2.0
Trade receivables, prepaid expenses, and other current assets	16.0
Customer funds	18.9
Property, plant, and equipment	13.1
Goodwill	242.8
Other intangible assets	138.0
Other assets	18.8
Accounts payable and other current liabilities	(33.4)
Customer funds obligations	(18.8)
Other non-current liabilities	(42.9)
Total purchase price	<u>\$ 359.6</u>

Ideal

On April 30, 2021, we completed the purchase of 100% of the outstanding shares of O5 Systems, Inc. dba Ideal ("Ideal") for \$41.4 million. Ideal is a talent intelligence software provider based in Toronto, Ontario, Canada.

The financial results of Ideal have been included within our consolidated financial statements from the acquisition date forward and are classified as a Cloud solution. For the twelve months ended December 31, 2021, Ideal revenue included within our consolidated statement of operations was \$2.9 million. The purchase accounting was considered complete as of December 31, 2021. The intangible assets consist of \$18.0 million of

developed technology, \$0.2 million of trade name, and \$0.1 million of customer relationships. Of the goodwill associated with this acquisition, no amount is deductible for income tax purposes.

The major classes of assets and liabilities to which we have allocated the purchase price were as follows:

	(Dollars in millions)	
Cash and equivalents	\$	2.6
Trade receivables, prepaid expenses, and other current assets		1.0
Property, plant, and equipment		0.1
Goodwill		26.3
Other intangible assets		18.3
Accounts payable and other current liabilities		(3.8)
Other non-current liabilities		(3.1)
Total purchase price	\$	<u>41.4</u>

DataFuzion

On October 4, 2021, we completed the acquisition of certain assets and liabilities of DataFuzion HCM, Inc. ("DataFuzion") for \$12.5 million in cash consideration and future contingent consideration payments. The asset purchase agreement allows the sellers to receive additional payments based on 1) the go live of DataFuzion's payroll processing solution for a certain customer ("Milestone Payment") and 2) qualifying annualized recurring revenue ("ARR") performance generated from DataFuzion's solution at each measurement date ("Earn-out Payments", collectively with the Milestone Payment, the "Contingent Consideration Payments"). The Milestone Payment will not exceed a payout of \$2.5 million whereas the Earn-out Payments are performance based and do not have an established maximum payout. The earn-out will be measured and subsequently paid annually as of June 30, with the first measurement in 2023 and the final measurement in 2026. The fair value of the Contingent Consideration Payments was \$5.4 million at the date of acquisition and \$6.0 million at December 31, 2021. Due to the remeasurement of the Contingent Consideration Payments, we recognized \$0.6 million of expense for the three months ended December 31, 2021 within selling, general, and administrative expense in our consolidated statements of operations.

The purchase accounting has been finalized as of December 31, 2021 and we have allocated the purchase price of \$17.9 million as follows: \$15.6 million to goodwill and \$2.3 million to developed technology. Of the goodwill associated with this acquisition, \$10.2 million is deductible for income tax purposes.

ADAM HCM

On December 3, 2021, we completed the acquisition of 100% of the outstanding interests in ATI ROW, LLC and ADAM HCM MEXICO, S. de R.L. de C.V. (collectively, "ADAM HCM") for \$34.3 million. ADAM HCM is a payroll and HCM company in Latin America.

The purchase accounting has not been finalized as of December 31, 2021. Provisional amounts relate to final purchase price adjustments, specifically the net working capital, and tax positions. We expect to finalize the allocation of the purchase price within the one-year measurement period following the acquisition. Intangible assets recorded for this acquisition consist of \$7.5 million of customer relationships, \$2.9 million of developed technology, and \$0.4 million of trade name. Of the goodwill associated with this acquisition, \$23.5 million is deductible for income tax purposes.

The major classes of assets and liabilities to which we have preliminarily allocated the purchase price were as follows:

	(Dollars in millions)	
Cash and equivalents	\$	0.2
Trade receivables, prepaid expenses, and other current assets		1.1
Goodwill		23.5
Other intangible assets		10.8
Other assets		0.2
Accounts payable and other current liabilities		(1.5)
Total purchase price	\$	<u>34.3</u>

Excelity

On May 29, 2020, we completed the purchase of 100% of the outstanding shares of Excelity Global Solutions Pte. Ltd. (“Excelity”) for \$77.2 million in cash consideration. Excelity is a human capital management service provider in the APJ region.

The financial results of Excelity have been included within our consolidated financial statements from the acquisition date forward and are classified as a Bureau solution. Intangible assets recorded for this acquisition consist of \$14.8 million of customer relationships, \$3.5 million of trade name, and \$2.4 million of developed technology. The purchase accounting was complete as of December 31, 2020. Of the goodwill associated with this acquisition, \$5.1 million is deductible for income tax purposes.

The major classes of assets and liabilities to which we allocated the purchase price were as follows:

	(Dollars in millions)	
Cash and equivalents	\$	6.6
Trade receivables, prepaid expenses, and other current assets		13.0
Customer trust funds		12.3
Property, plant, and equipment and other assets		4.2
Goodwill		42.7
Other intangible assets, net		20.7
Accounts payable and other current liabilities		(2.2)
Customer trust funds obligations		(13.1)
Other non-current liabilities		(7.0)
Total purchase price	\$	<u>77.2</u>

The acquisition of Ascender, Ideal, DataFuzion, ADAM HCM, and Excelity were recorded using the acquisition method of accounting, in which the assets and liabilities assumed are recognized at their fair value. Additionally, after consideration of these acquisitions, management has concluded that we continue to have one operating and reportable segment. This conclusion aligns with how management monitors operating performance, allocates resources, and deploys capital. Pro forma financial information is not presented as none of the acquisitions qualified as a significant business combination individually or in aggregate.

4. Fair Value Measurements

Fair value is defined as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date (an exit price). GAAP outlines a valuation framework and creates a fair value hierarchy intended to increase the consistency and comparability of fair value measurements and the related disclosures. Certain assets and liabilities must be measured at fair value, and disclosures are required for items measured at fair value.

We measure our financial instruments using inputs from the following three levels of the fair value hierarchy. The three levels are as follows:

- Level 1 inputs are unadjusted quoted prices in active markets for identical assets or liabilities.
- Level 2 inputs include quoted prices for similar assets and liabilities in active markets, quoted prices for identical or similar assets or liabilities in markets that are not active, inputs other than quoted prices that are observable for the asset or liability (that is, interest rates, yield curves, etc.), and inputs that are derived principally from or corroborated by observable market data by correlation or other means (market corroborated inputs).
- Level 3 inputs include unobservable inputs that reflect our assumptions about the assumptions that market participants would use in pricing the asset or liability. These inputs are developed based on the best information available, including internal data.

For the contingent consideration related to the DataFuzion acquisition, we utilized an option pricing model, specifically a Black-Scholes-Merton model, to estimate the fair value of the contingent liability as of the reporting dates. This model uses certain assumptions related to risk-free rates and volatility as well as certain judgments in forecasting ARR. The contingent consideration has been measured as Level 3 given the unobservable inputs that are significant to the measurement of the liability.

Financial Assets and Liabilities Measured at Fair Value on a Recurring Basis

Our financial assets and liabilities measured at fair value on a recurring basis were categorized as follows:

	December 31, 2021			Total
	Level 1	Level 2	Level 3	
	(Dollars in millions)			
Assets				
Available for sale customer funds assets	\$ —	\$ 1,952.4 (a)	\$ —	\$ 1,952.4
Total assets measured at fair value	<u>\$ —</u>	<u>\$ 1,952.4</u>	<u>\$ —</u>	<u>\$ 1,952.4</u>
Liabilities				
DataFuzion contingent consideration	\$ —	\$ —	\$ 6.0	\$ 6.0
Total liabilities measured at fair value	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 6.0</u>	<u>\$ 6.0</u>

	December 31, 2020			Total
	Level 1	Level 2	Level 3	
	(Dollars in millions)			
Assets				
Available for sale customer funds assets	\$ —	\$ 1,719.1 (a)	\$ —	\$ 1,719.1
Total assets measured at fair value	<u>\$ —</u>	<u>\$ 1,719.1</u>	<u>\$ —</u>	<u>\$ 1,719.1</u>

(a)Fair value is based on inputs that are observable for the asset or liability, other than quoted prices.

The contingent consideration is included within other liabilities in our consolidated balance sheets. During the twelve months ended December 31, 2021, we recognized expense of \$0.6 million within selling, general, and administrative expense in our consolidated statements of operations due to the remeasurement of the DataFuzion contingent consideration.

Assets and Liabilities Measured at Fair Value on a Nonrecurring Basis

Assets acquired and liabilities assumed as part of a business combination are measured at fair value. Please refer to [Note 3, "Business Combinations,"](#) for additional information on our business combinations. During the years ended December 31, 2021 and 2020, we did not measure any financial assets or liabilities at fair value on a nonrecurring basis.

5. Customer Funds

Overview

In connection with our U.S., Canada, India, Singapore, China, and Malaysia payroll and tax filing services, we collect funds for payment of payroll and taxes; temporarily hold such funds, in trust for the U.S. and Canadian funds, until payment is due; remit the funds to the clients' employees and appropriate taxing authorities; file federal, state, and local tax returns; and handle related regulatory correspondence and amendments. The assets held are intended for the specific purpose of satisfying client fund obligations and therefore are not freely available for our general business use.

Our customer funds are held and invested with the primary objectives being to protect the principal balance and to ensure adequate liquidity to meet cash flow requirements. Accordingly, we maintain on average approximately 56% of customer funds in liquidity portfolios with maturities ranging from one to 120 days, consisting of high-quality bank deposits, money market mutual funds, commercial paper, or collateralized short-term investments; and we maintain on average approximately 44% of customer funds in fixed income portfolios with maturities ranging from 120 days to 10 years, consisting of U.S. Treasury and agency securities, Canada government and provincial securities, as well as highly rated asset-backed, mortgage-backed, municipal, corporate, and bank securities. To maintain sufficient liquidity to meet payment obligations, we also have financing arrangements and may pledge fixed income securities for short-term financing.

Financial Statement Presentation

Investment income from invested customer funds, also referred to as float revenue or float, is a component of our compensation for providing services under agreements with our customers. Investment income from invested customer funds included in revenue amounted to \$41.1 million, \$52.3 million, and \$80.2 million for the years ended December 31, 2021, 2020, and 2019, respectively. Investment income includes interest income, realized gains and losses from sales of customer funds' investments, and unrealized credit losses determined to be unrecoverable.

The amortized cost of customer funds as of December 31, 2021, and 2020, is comprised of the original cost of assets acquired. The amortized cost and fair values of investments of customer funds available for sale were as follows:

	Amortized Cost	December 31, 2021 Gross Unrealized		Fair Value
		Gain	Loss	
Money market securities, investments carried at cost and other cash equivalents	\$ 1,562.4	\$ —	\$ —	\$ 1,562.4
Available for sale investments:				
U.S. government and agency securities	697.8	9.5	(5.8)	701.5
Canadian and provincial government securities	399.9	5.3	(1.3)	403.9
Corporate debt securities	551.4	8.3	(3.1)	556.6
Asset-backed securities	174.2	1.5	(0.3)	175.4
Mortgage-backed securities	2.7	—	—	2.7
Other short-term investments	41.4	—	—	41.4
Other securities	71.7	—	(0.8)	70.9
Total available for sale investments	1,939.1	24.6	(11.3)	1,952.4
Invested customer funds	3,501.5	\$ 24.6	\$ (11.3)	3,514.8
Receivables	18.4			21.0
Total customer funds	\$ 3,519.9			\$ 3,535.8

	Amortized Cost	December 31, 2020 Gross Unrealized		Fair Value
		Gain	Loss	
Money market securities, investments carried at cost and other cash equivalents	\$ 2,027.1	\$ —	\$ —	\$ 2,027.1
Available for sale investments:				
U.S. government and agency securities	494.0	21.6	(0.1)	515.5
Canadian and provincial government securities	396.4	15.5	—	411.9
Corporate debt securities	548.5	19.4	—	567.9
Asset-backed securities	192.2	4.9	—	197.1
Mortgage-backed securities	9.9	0.2	—	10.1
Other securities	16.5	0.1	—	16.6
Total available for sale investments	1,657.5	61.7	(0.1)	1,719.1
Invested customer funds	3,684.6	\$ 61.7	\$ (0.1)	3,746.2
Receivables	13.2			13.2
Total customer funds	\$ 3,697.8			\$ 3,759.4

The following represents the gross unrealized losses and the related fair value of the investments of customer funds available for sale, aggregated by investment category and length of time that individual securities have been in a continuous unrealized loss position.

	Less than 12 months		December 31, 2021 12 months or more		Total	
	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value	Unrealized Losses	Fair Value
			(Dollars in millions)			
U.S. government and agency securities	\$ (4.9)	\$ 316.8	\$ (0.9)	\$ 40.8	\$ (5.8)	\$ 357.6
Canadian and provincial government securities	(1.3)	75.4	—	—	(1.3)	75.4
Corporate debt securities	(3.1)	209.7	—	—	(3.1)	209.7
Asset-backed securities	(0.3)	47.7	—	—	(0.3)	47.7
Other securities	(0.8)	69.3	—	—	(0.8)	69.3
Total available for sale investments	\$ (10.4)	\$ 718.9	\$ (0.9)	\$ 40.8	\$ (11.3)	\$ 759.7

Management does not believe that any individual unrealized loss was unrecoverable as of December 31, 2021. The unrealized losses are primarily attributable to changes in interest rates and not to credit deterioration. We currently do not intend to sell or expect to be required to sell the securities before the time required to recover the amortized cost.

The amortized cost and fair value of investment securities available for sale at December 31, 2021, by contractual maturity are shown below. Expected maturities will differ from contractual maturities because borrowers may have the right to call or to prepay obligations with or without call or prepayment penalties.

	December 31, 2021	
	Cost	Fair Value
	(Dollars in millions)	
Due in one year or less	\$ 1,946.6	\$ 1,949.6
Due in one to three years	697.7	710.2
Due in three to five years	651.5	645.8
Due after five years	205.7	209.2
Invested customer funds	<u>\$ 3,501.5</u>	<u>\$ 3,514.8</u>

6. Trade and Other Receivables, Net

Trade and other receivables, net, consist of the following:

	December 31,	
	2021	2020
	(Dollars in millions)	
Trade receivables from customers	\$ 130.3	\$ 95.1
Interest receivable from invested customer funds	3.2	1.8
Other	20.7	11.7
Total gross receivables	154.2	108.6
Less: reserve for sales adjustments	(4.0)	(4.4)
Less: allowance for doubtful accounts	(3.9)	(3.1)
Trade and other receivables, net	<u>\$ 146.3</u>	<u>\$ 101.1</u>

The activity related to the allowance for doubtful accounts was as follows:

	Year Ended December 31,		
	2021	2020	2019
	(Dollars in millions)		
Balance at beginning of year	\$ 3.1	\$ 2.4	\$ 1.3
Provision for doubtful accounts	1.8	2.0	3.2
Charge-offs, net of recoveries	(1.0)	(1.3)	(2.1)
Balance at end of year	<u>\$ 3.9</u>	<u>\$ 3.1</u>	<u>\$ 2.4</u>

7. Property, Plant, and Equipment, Net

Property, plant, and equipment, net consist of the following:

	December 31,	
	2021	2020
	(Dollars in millions)	
Land	\$ —	\$ 7.5
Software	357.2	306.3
Machinery and equipment	121.7	120.2
Buildings and improvements	31.9	48.9
Total property, plant, and equipment	510.8	482.9
Accumulated depreciation	(382.6)	(346.5)
Property, plant, and equipment, net	<u>\$ 128.2</u>	<u>\$ 136.4</u>

Depreciation expense related to property, plant, and equipment, net was \$53.6 million, \$48.0 million, and \$40.9 million for the years ended December 31, 2021, 2020, and 2019, respectively.

8. Goodwill and Intangible Assets

Goodwill

Goodwill and changes therein were as follows:

	(Dollars in millions)	
Balance at December 31, 2019	\$	1,973.5
Acquisitions		42.7
Translation		15.6
Balance at December 31, 2020		2,031.8
Acquisitions		308.2
Translation		(16.4)
Balance at December 31, 2021	\$	2,323.6
Tax-deductible goodwill at December 31, 2021	\$	53.9

Please refer to [Note 3, "Business Combinations,"](#) for further discussion of our acquisitions.

We perform an impairment assessment of our goodwill balances as of October 1 of each year. Goodwill impairment testing is performed at the reporting unit level, which is the operating segment level or one level below. We performed a qualitative assessment as of October 1, 2021 and concluded that it is more likely than not that the fair value of our reporting unit is more than its carrying amount.

Intangible Assets

Other intangible assets, net consist of the following:

	Gross Carrying Amount	Accumulated Amortization	December 31, 2021		Estimated Life Range (Years)
			Net		
		(Dollars in millions)			
Customer lists and relationships	\$ 308.4	\$ (220.4)	\$ 88.0		4-12
Trade name	184.4	(3.2)	181.2		3-5 and Indefinite
Technology	233.9	(170.6)	63.3		3-5
Total other intangible assets	\$ 726.7	\$ (394.2)	\$ 332.5		

	Gross Carrying Amount	Accumulated Amortization	December 31, 2020		Estimated Life Range (Years)
			Net		
		(Dollars in millions)			
Customer lists and relationships	\$ 229.0	\$ (212.1)	\$ 16.9		5-15
Trade name	177.7	(2.5)	175.2		3-5 and Indefinite
Technology	159.5	(156.6)	2.9		3-4
Total other intangible assets	\$ 566.2	\$ (371.2)	\$ 195.0		

As of October 1 each year, we perform an impairment assessment of our indefinite-lived intangible assets, which includes our Ceridian and Dayforce trade names, which have a carrying value of \$167.2 million and \$4.7 million, respectively as of December 31, 2021. We performed a qualitative assessment as of October 1, 2021 and concluded that it is more likely than not that the fair value of our Ceridian and Dayforce trade names exceeded their respective carrying amounts. We continue to evaluate the use of our trade names and branding in our sales and marketing efforts. If there is a fundamental shift in the method of our branding in the future, we will assess the impact on the carrying amount of our trade name intangible assets to determine whether an impairment exists. If it is determined that an impairment has occurred, it would be recognized during the period in which the decision was made to make the fundamental shift.

Amortization expense related to definite-lived intangible assets was \$23.9 million, \$3.8 million, and \$16.2 million for the years ended December 31, 2021, 2020, and 2019, respectively. We estimate the future amortization of other intangible assets is as follows:

Years Ending December 31,	Amount (Dollars in millions)
2022	\$ 30.0
2023	29.6
2024	28.8
2025	26.4
2026	12.0
Thereafter	33.8

Long-Lived Assets by Geographic Area

Long-lived assets consist of right of use lease asset, property, plant and equipment, net, goodwill, and other intangible assets, net. Long-lived assets by country consist of the following:

	2021	December 31, (Dollars in millions)	2020
United States	\$	1,795.6	\$ 1,796.9
Canada		530.9	488.6
Australia		370.0	23.2
Other		117.2	82.4
Total long-lived assets	\$	2,813.7	\$ 2,391.1

9. Debt

Overview

Our debt obligations consist of the following:

	December 31,	
	2021	2020
	(Dollars in millions)	
Term Debt, interest rate of 2.6%, respectively	\$ 657.9	\$ 664.7
Revolving Credit Facility (\$300.0 million available capacity less amounts reserved for letters of credit, which were \$2.1 million and \$0.4 million, respectively)	—	—
Convertible Senior Notes, interest rate of 0.25%	575.0	—
Australia Line of Credit (AUD \$2.9 million letter of credit capacity as of December 31, 2021, which was fully utilized; USD \$2.1 million as of December 31, 2021)	—	—
Canada Line of Credit (CDN \$7.0 million letter of credit capacity as of December 31, 2020, which was fully utilized; USD \$5.4 million as of December 31, 2020)	—	—
Financing lease liabilities (Please refer to Note 15)	9.6	8.8
Total debt	1,242.5	673.5
Less unamortized discount on Term Debt and Convertible Senior Notes	95.5	1.2
Less unamortized debt issuance costs on Term Debt and Convertible Senior Notes	14.3	4.5
Less current portion of long-term debt	8.3	7.2
Long-term debt, less current portion	\$ 1,124.4	\$ 660.6

Accrued interest and fees related to our debt obligations was \$0.5 million and \$0.1 million as of December 31, 2021, and December 31, 2020, respectively, and is included within Other accrued expenses in our consolidated balance sheets.

Senior Secured Credit Facility

Principal Amounts and Maturity Dates

On April 30, 2018, we completed the refinancing of our debt by entering into a new credit agreement. Pursuant to the new credit agreement, we became borrower of (i) a \$680.0 million term loan debt facility (the "Term Debt") and (ii) a \$300.0 million revolving credit facility (the "Revolving Credit Facility") (collectively, the "Senior Secured Credit Facility"). Our obligations under the Senior Secured Credit Facility are secured by first priority security interests in substantially all of our assets and the domestic subsidiary guarantors, subject to permitted liens and certain exceptions.

The Term Debt will mature on April 30, 2025. We are required to make annual amortization payments in respect of the Term Debt in an amount equal to 1.00% of the original principal amount thereof, payable in equal quarterly installments of 0.25% of the original principal amount of the first lien term debt. On December 15, 2021, we completed the second amendment to our Senior Secured Credit Facility, which extended the maturity date of the Revolving Credit Facility from April 30, 2023 to January 29, 2025. The Revolving Credit Facility does not require amortization payments.

Interest

The effective interest rate on the Term Debt at December 31, 2021, and 2020, was 2.6%. The Term Debt was initially subject to an interest rate of LIBOR plus 3.25%. As a result of a ratings upgrade on March 26, 2019, of our Senior Secured Credit Facility by Moody's Investor Service, from B3 to B2, the Company's floating rate Term Debt interest rate was reduced from LIBOR plus 3.25% to LIBOR plus 3.00%, so long as the rating is maintained. On February 19, 2020, we completed the first amendment to the Senior Secured Credit Facility in

which the interest rate was reduced from LIBOR plus 3.00% to LIBOR plus 2.5%. Further, the interest rate trigger under the applicable rating by Moody's Investor Service was removed by the first amendment.

Financing Costs and Issuance Discounts

In connection with our debt refinancing in 2018, we capitalized \$3.6 million of additional financing costs and wrote off \$0.5 million of existing unamortized deferred financing costs, which was included in the loss on extinguishment of debt. The Term Debt had associated unamortized deferred financing costs of \$5.2 million and \$5.7 million at December 31, 2021, and 2020, respectively, which are being amortized at an effective interest rate of 5.3%. In connection with the second amendment in 2021, we capitalized \$0.8 million of additional financing costs.

Collateral and Guarantees

The Senior Secured Credit Facility names us as the sole borrower and is unconditionally guaranteed by our domestic, wholly-owned financially material restricted subsidiaries, subject to certain customary exceptions. The Senior Secured Credit Facility is secured by a perfected first priority security interest, subject to certain exceptions (including customer funds), in substantially all of our and the subsidiary guarantors' tangible and intangible assets. The security interest includes a pledge of the capital stock of certain of our direct and indirect material restricted subsidiaries.

Representations, Warranties and Covenants

The documents governing the Senior Secured Credit Facility contain certain customary representations and warranties. In addition, those documents contain customary covenants restricting our ability and certain of our subsidiaries' ability to, among other things: incur additional indebtedness, issue disqualified stock and preferred stock; create liens; declare dividends; redeem capital stock; make investments; engage in a materially different line of business; engage in certain mergers, consolidations, acquisitions, asset sales, or other fundamental changes; engage in certain transactions with affiliates; enter into certain restrictive agreements; make prepayments on any subordinated indebtedness; modify junior financing documentation; and make changes to our fiscal year.

The Senior Secured Credit Facility documents contain a requirement that we maintain a ratio of adjusted first lien debt to Credit Facility EBITDA below specified levels on a quarterly basis; however, such requirement is applicable only if more than 35% of the Revolving Credit Facility is drawn. As of December 31, 2021, no portion of the Revolving Credit Facility was drawn.

Events of Default

Events of default under the Senior Secured Credit Facility documents include, but are not limited to: failure to pay interest, principal and fees, or other amounts when due; material breach of any representation or warranty; covenant defaults; cross defaults to other material indebtedness; events of bankruptcy, invalidity of security interests; a change of control; material judgments for payment of money; involuntary acceleration of any debt; and other customary events of default. There were no events of default as of December 31, 2021.

Convertible Senior Notes

In March 2021, we issued \$575.0 million in aggregate principal amount of 0.25% Convertible Senior Notes due 2026 in a private offering to qualified institutional buyers pursuant to Rule 144A promulgated under the Securities Act of 1933, as amended, and pursuant to exemptions from the prospectus requirements of applicable Canadian securities laws, including the exercise in full by the initial purchasers of their option to purchase an additional \$75.0 million in aggregate principal amount of 0.25% Convertible Senior Notes due 2026 (collectively, the "Convertible Senior Notes"). The Convertible Senior Notes bear interest at a rate of 0.25% per year and interest is payable semiannually in arrears on March 15 and September 15 of each year, beginning on September 15, 2021. The Convertible Senior Notes mature on March 15, 2026, unless earlier converted, redeemed or repurchased. The total net proceeds from the offering, after deducting initial purchase discounts and other debt issuance costs, were \$561.8 million.

The Convertible Senior Notes are unsecured obligations and do not contain any financial covenants or restrictions on the payments of dividends, the incurrence of indebtedness or the issuance or repurchase of securities by us or any of our subsidiaries.

The following table presents details of the Convertible Senior Notes:

	Initial Conversion Rate per \$1,000 Principal	Initial Conversion Price per Share
Convertible Senior Notes	7.5641 shares	\$ 132.20

The Convertible Senior Notes will be convertible at the option of the holders at any time only under the following circumstances:

- During any calendar quarter commencing after the calendar quarter ending on June 30, 2021, if the last reported sale price per share of our common stock exceeds 130% of the conversion price for each of at least 20 trading days during the 30 consecutive trading days ending on, and including, the last trading day of the immediately preceding calendar quarter;
- During the five consecutive business days immediately after any 10 consecutive trading day period (such 10 consecutive trading day period, the “measurement period”) in which the trading price per \$1,000 principal amount of Convertible Senior Notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price per share of our common stock on such trading day and the conversion rate on such trading day;
- Upon the occurrence of certain corporate events or distributions on our common stock, as described in the Indenture under which the Convertible Senior Notes were issued;
- If we call such Convertible Senior Notes for redemption; or
- At any time from, and including, September 15, 2025 until the close of business on the second scheduled trading day immediately before the maturity date.

Upon conversion, we may satisfy the conversion obligation by paying or delivering, as applicable, cash, shares of our common stock or a combination of cash and shares of our common stock, at our election, in the manner and subject to the terms and conditions provided in the Indenture under which the Convertible Senior Notes were issued. On December 30, 2021, we notified the holders of the Convertible Senior Notes of our irrevocable election to settle the conversion obligations in connection with the Convertible Senior Notes submitted for conversion on or after January 1, 2022, or at maturity with a combination of cash and shares of our common stock. Generally, under this settlement method, the conversion value will be settled in cash in an amount no less than the principal amount being converted, and any excess of the conversion value over the principal amount will be settled, at the Company's election, in cash or shares of our common stock. During the quarter ended December 31, 2021, the conditions allowing holders of the Convertible Senior Notes to convert have not been met. The Convertible Senior Notes were therefore not convertible during the fourth quarter of 2021 and are classified as a noncurrent liability in our consolidated balance sheet as of December 31, 2021.

We may not redeem the Convertible Senior Notes prior to March 20, 2024. On or after March 20, 2024, and on or before the 30th scheduled trading day immediately preceding the maturity date, we may redeem the Convertible Senior Notes at a cash purchase price equal to the principal amount of the Convertible Senior Notes to be redeemed, plus accrued and unpaid interest, if any, but only if the last reported sale price per share of our common stock exceeds 130% of the conversion price on (1) each of at least 20 trading days, whether or not consecutive, during the 30 consecutive trading days ending on, and including, the trading day immediately before the date we send the related redemption notice; and (2) the trading day immediately before the date we send such notice. In addition, calling any Convertible Senior Note for redemption will constitute a make-whole fundamental change with respect to that Convertible Senior Note, in which case the conversion rate applicable to the conversion of that Convertible Senior Note will be increased in certain circumstances if it is converted after it is called for redemption.

If a “fundamental change” (as defined in the Indenture under which the Convertible Senior Notes were issued) occurs, then noteholders may require us to repurchase their Convertible Senior Notes at a cash repurchase price equal to the principal amount of the Convertible Senior Notes to be repurchased, plus accrued and unpaid interest, if any.

In accounting for the issuance of the Convertible Senior Notes and the related transaction costs, we separated the Convertible Senior Notes into liability and equity components. The carrying amount of the liability component was initially calculated by measuring the fair value of similar liabilities that do not have associated convertible features utilizing an interest rate of 4.5%. The carrying amount of the equity component representing the conversion option was \$108.6 million and was determined by deducting the fair value of the liability component from the par value of the Convertible Senior Notes. This difference represents a debt discount that is amortized to interest expense over the term of the Convertible Senior Notes using the effective interest rate method. The equity component was recorded in additional paid-in capital and is not remeasured as long as it continues to meet the conditions for equity classification.

Total issuance costs of \$14.4 million related to the Convertible Senior Notes were allocated between liability, totaling \$11.7 million, and equity, totaling \$2.7 million, in the same proportion as the allocation of the total proceeds to the liability and equity components. Issuance costs attributable to the liability component are being amortized to interest expense over the term of the Convertible Senior Notes. The excess of the principal amount of the liability component over its carrying amount is amortized to interest expense over the contractual term of the Convertible Senior Notes at an effective interest rate of 5.1%. The issuance costs attributable to the equity component were netted against additional paid-in capital. The amount recorded for the equity component of the Convertible Senior Notes was \$77.7 million, net of allocated issuance costs of \$2.7 million and deferred tax impact of \$28.2 million.

The following table sets forth total interest expense recognized related to the Convertible Senior Notes for the period:

	Twelve Months Ended December 31, 2021	
	(Dollars in millions)	
Contractual interest expense	\$	1.2
Amortization of debt discount		14.0
Amortization of debt issuance costs		1.7
Total	\$	<u>16.9</u>

Capped Calls

In March 2021, in connection with the pricing of the Convertible Senior Notes, we entered into capped call transactions with the option counterparties (the "Capped Calls"). The Capped Calls each have an initial strike price of \$132.20 per share, and an initial cap price of \$179.26 per share, both subject to certain adjustments. The capped call transactions are generally expected to reduce potential dilution to our common stock upon any conversion of the Convertible Senior Notes and/or offset any potential cash payments we would be required to make in excess of the principal amount of converted Convertible Senior Notes, as the case may be, with such reduction and/or offset subject to a cap based on the cap price. For accounting purposes, the Capped Calls are separate transactions, and not part of the terms of the Convertible Senior Notes. As the Capped Calls qualify for a scope exception from derivative accounting for instruments that are both indexed to the issuer's own stock and classified in stockholder's equity in our consolidated balance sheet, we have recorded an amount of \$33.0 million as a reduction to additional paid-in capital, which will not be remeasured. This represents the premium of \$45.0 million paid for the purchase of the Capped Calls, net of the deferred tax impact of \$12.0 million.

Other Information Relating to Indebtedness

Future Payments and Maturities of Debt

The future principal payments and maturities of our indebtedness, excluding financing lease obligations, are as follows:

Years Ending December 31,	Amount (Dollars in millions)
2022	\$ 6.8
2023	6.8
2024	6.8
2025	637.5
2026	575.0
	<u>\$ 1,232.9</u>

We may be required to make additional payments on the Term Debt from various sources, including proceeds of certain indebtedness which may be incurred from time to time, certain asset sales, and a certain percentage of cash flow. There is an excess cash flow calculation associated with the Term Debt, and based on this calculation, we are not required to make a prepayment on the Term Debt in 2022.

Fair Value of Debt

Our debt does not trade in active markets. Based on the borrowing rates currently available to us for bank loans with similar terms and average maturities and the limited trades of our debt, the fair value of our indebtedness was estimated to be \$1,248.9 million and \$657.6 million as of December 31, 2021, and 2020, respectively. The fair value of the Convertible Senior Notes was determined based on the closing trading price per \$1,000 of the Convertible Senior Notes as of the last day of trading for the period. We consider the fair value of the Convertible Senior Notes at December 31, 2021 to be Level 2 measurements as they are not actively traded. The fair value of the Convertible Senior Notes is primarily affected by the trading price of our common stock and market interest rates.

Other Debt Financing

Ceridian Australia had available a committed bank credit facility that provides up to AUD \$2.9 million, for issuance of letters of credit as of December 31, 2021. The credit facility is a discretionary line at the option of the bank. The amount of letters of credit outstanding under this facility were AUD \$2.9 million (USD \$2.1 million) at December 31, 2021.

Ceridian Canada had available a committed bank credit facility that provides up to CDN \$7.0 million, for issuance of letters of credit as of December 31, 2020. The credit facility is a discretionary line at the option of the bank. The amount of letters of credit outstanding under this facility were CDN \$7.0 million (USD \$5.4 million) at December 31, 2020.

10. Employee Benefit Plans

Ceridian maintain numerous benefit plans for current and former employees. As of December 31, 2021, our current active benefit plans include defined contribution plans for the majority of our employees. All of our defined benefit plans have been frozen.

Defined Contribution Plans

We maintain defined contribution plans that provide retirement benefits to the majority of our employees. Contributions are based upon the contractual obligations of each respective plan. We recognized expense of \$15.4 million, \$11.1 million, and \$9.8 million for the years ended December 31, 2021, 2020, and 2019, respectively, related to employer contributions to these plans.

Defined Benefit Plans

We maintain defined benefit pension plans covering certain of our current and former U.S. employees (the U.S. pension plan and nonqualified defined benefit plan, collectively referred to as our “defined benefit plans”), as well as other postretirement benefit plans for certain U.S. retired employees that include health care and life insurance benefits.

Pension Benefits

The largest defined benefit pension plan (the “U.S. pension plan”) is a defined benefit plan for certain current and former U.S. employees that closed to new participants on January 2, 1995. In 2007, the U.S. pension plan was amended (1) to exclude from further participation any participant or former participant who was not employed by Ceridian or another participating employer on January 1, 2008, (2) to discontinue participant contributions, and (3) to freeze the accrual of additional benefits as of December 31, 2007. The measurement date for pension benefit plans is December 31.

Assets of the U.S. pension plan are held in an irrevocable trust and do not include any Ceridian securities. Benefits under this plan are generally calculated on final or career average earnings and years of participation in the plan. Most participating employees were required to permit salary reduction contributions to the plan on their behalf by the employer as a condition of active participation. Retirees and other former employees are inactive participants in this plan and constitute approximately 99% of the plan participants. This plan is funded in accordance with funding requirements under the Employee Retirement Income Security Act of 1974, based on determinations of a third-party consulting actuary. Investment of the U.S. pension plan assets in Ceridian securities is prohibited by the investment policy. As of December 31, 2021, the U.S. defined benefit plan is fully funded.

We also sponsor a nonqualified supplemental defined benefit plan (the “nonqualified defined benefit plan”), which is unfunded and provides benefits to selected U.S. employees in addition to the U.S. defined benefit plan. We made contributions to the nonqualified defined benefit plan amounting to \$1.6 million in 2021 and expect to make contributions of \$1.4 million during 2022.

We account for our defined benefit plans using actuarial models. These models use an attribution approach that generally spreads the effect of individual events over the estimated life expectancy of the employees in such plans. These events include plan amendments and changes in actuarial assumptions such as the expected long-term rate of return on plan assets, discount rate related to the benefit obligation, and mortality rates.

One of the principal components of the net periodic pension calculation is the expected long-term rate of return on plan assets. The required use of expected long-term rate of return on plan assets may result in recognized pension income that is greater or less than the actual returns of those plan assets in any given year. Over time, however, the expected long-term returns are designed to approximate the actual long-term returns that contribute to the settlement of the liability. Differences between actual and expected returns are recognized in the net periodic pension calculation over three years. We use long-term historical actual return information, the mix of investments that comprise plan assets, and future estimates of long-term investment returns by reference to external sources to develop our expected return on plan assets.

The discount rate assumption is used to determine the benefit obligation and the interest portion of the net periodic pension cost (credit) for the following year. We utilize a full yield curve approach for our discount rate assumption by applying the specific spot rates along the yield curve used in the determination of the benefit obligation to the relevant projected cash flows. As of December 31, 2021, a 25 basis point decrease in the discount rate would result in a \$0.2 million decrease to expense for all pension plans.

At December 31, 2021, we updated our mortality assumptions utilizing a new improvement scale issued by the Society of Actuaries in October 2021, which resulted in a \$2 million increase in the projected benefit obligation. At December 31, 2020, we updated our mortality assumptions utilizing an improvement scale issued by the Society of Actuaries in October 2020, which resulted in a \$6.0 million reduction in the projected benefit obligation.

The funded status of defined benefit plans represents the difference between the projected benefit obligation (“PBO”) and the plan assets at fair value. The fair value of plan assets exceeded the PBO of defined benefit plans by \$1.6 million and \$3.5 million at December 31, 2021 and 2020, respectively. We are required to record the funded status as an asset or liability in our consolidated balance sheets and recognize the change in the funded status in comprehensive income, net of deferred income taxes.

The projected future payments to participants from defined benefit plans are as follows:

Years Ending December 31,	Amount (Dollars in millions)	
2022	\$	44.6
2023		43.1
2024		41.6
2025		39.2
2026		37.1
Next five years	\$	159.1

The accompanying tables reflect the combined funded status and net periodic pension cost and combined supporting assumptions for the defined benefit elements of our defined benefit plans.

	Year Ended December 31,	
	2021	2020
	(Dollars in millions)	
Funded Status of Defined Benefit Retirement Plans at Measurement Date		
Change in Projected Benefit Obligation During the Year:		
Projected benefit obligation at beginning of year	\$ 555.2	\$ 547.2
Interest cost	6.7	12.7
Actuarial (gain) loss	(10.5)	42.4
Benefits paid and plan expenses	(48.0)	(47.1)
Projected benefit obligation at end of year	\$ 503.4	\$ 555.2
Change in Fair Value of Plan Assets During the Year:		
Plan assets at fair value at beginning of year	558.7	425.6
Actual return on plan assets	(7.2)	73.3
Employer contributions	1.6	106.9
Benefits paid and plan expenses	(48.1)	(47.1)
Plan assets at fair value at end of year	505.0	558.7
Funded status of plans	<u>\$ 1.6</u>	<u>\$ 3.5</u>

	December 31,	
	2021	2020
(Dollars in millions)		
Amounts recognized in Consolidated Balance Sheets		
Noncurrent asset	\$ 12.1	\$ 15.8
Current liability	1.4	1.5
Noncurrent liability	9.1	10.8
Amounts recognized in Accumulated Other Comprehensive Loss		
Accumulated other comprehensive loss, net of tax of \$49.4 million and \$51.4 million, respectively	\$ 157.9	\$ 163.3

The overall decrease in our benefit obligation for the year ended December 31, 2021 was primarily driven by benefit payments paid, plan expenses, and actuarial gains.

The other comprehensive (income) loss related to pension benefit plans was as follows:

	Year Ended December 31,		
	2021	2020	2019
(Dollars in millions)			
Net actuarial loss (gain)	\$ 9.9	\$ (8.0)	\$ 1.0
Amortization of net actuarial loss	(17.3)	(15.7)	(12.7)
Tax expense	2.0	6.4	2.9
Other comprehensive income, net of tax	<u>\$ (5.4)</u>	<u>\$ (17.3)</u>	<u>\$ (8.8)</u>

	Year Ended December 31,		
	2021	2020	2019
Assumptions Used in Calculations			
Discount rate used to determine net benefit cost	1.87 %	2.81 %	3.92 %
Expected return on plan assets	2.70 %	5.70 %	6.00 %
Discount rate used to determine benefit obligations	2.36 %	1.87 %	2.81 %

	Year Ended December 31,		
	2021	2020	2019
(Dollars in millions)			
Net Periodic Pension Cost			
Interest cost	\$ 6.7	\$ 12.7	\$ 18.2
Actuarial loss amortization	17.3	15.7	12.7
Less: Expected return on plan assets	(13.1)	(22.9)	(23.6)
Net periodic pension cost	<u>\$ 10.9</u>	<u>\$ 5.5</u>	<u>\$ 7.3</u>

The accumulated benefit obligation of defined benefit plans was \$503.4 million and \$555.2 million as of December 31, 2021, and 2020, respectively.

Our overall investment strategy for the U.S. pension plan is to achieve a mix of approximately 83% for liability hedging purposes, 15% of investments for long term growth, and 2% for near-term benefit payments. Target asset allocations are based upon actuarial and capital market studies performed by experienced outside consultants. The target allocations for the long term growth assets are 62.4% public equity, 24.9% fixed income, and 12.7% alternative investments. Specifically, the target allocation is managed through investments in fixed income securities, equity funds, collective investment funds, partnerships and other investment types. The underlying equity securities include exposure to large/mid-cap companies and small-cap companies. Fixed income securities include emerging market debt and high yield debt securities. The alternative investment strategy is allocated to investments in hedge funds. The liability hedging portfolio fair value is intended to move in a direction that substantially offsets the increase or decrease in the liabilities resulting from changes in interest rates. To achieve this objective, the portfolio will invest in corporate debt securities, U.S. Treasury strips and

various interest rate derivatives contracts. We hire outside managers to manage all assets of the U.S. defined benefit plan.

In determining the fair values of the defined benefit plan's assets, we calculate the fair value of certain investments using net asset value ("NAV") per share. Collective investment funds are valued at the NAV, which is based on the readily determinable fair value of the underlying securities owned by the fund. The NAV unit price is quoted on a private market or one that is not active. Partnerships consist primarily of a bond fund partnership valued at the NAV as reported by the fund manager and an investment in a venture capital fund valued by an independent appraisal. The NAV represents the value at which the defined benefit plan initiates a transaction. These investments do not have any significant unfunded commitments, conditions or restrictions on redemption, or any other significant restriction on their sale. The hedge fund of funds investment has a quarterly redemption restriction with a 65 day notice period.

The fair values of our defined benefit plan's assets by asset category were as follows:

	Level 1	December 31, 2021		Total
		Level 2	Level 3	
(Dollars in millions)				
Investments, at fair value:				
Short-term investments	\$ 26.7	\$ —	\$ —	\$ 26.7
Government securities	—	16.7	—	16.7
Corporate debt securities	—	384.2	—	384.2
Collective investment funds	—	77.4	—	77.4
Total investments, at fair value	<u>\$ 26.7</u>	<u>\$ 478.3</u>	<u>\$ —</u>	<u>\$ 505.0</u>

	Level 1	December 31, 2020		Total
		Level 2	Level 3	
(Dollars in millions)				
Investments, at fair value:				
Short-term investments	\$ 83.5	\$ —	\$ —	\$ 83.5
Government securities	—	46.7	—	46.7
Corporate debt securities	—	322.4	—	322.4
Collective investment funds	—	106.1	—	106.1
Total investments, at fair value	<u>\$ 83.5</u>	<u>\$ 475.2</u>	<u>\$ —</u>	<u>\$ 558.7</u>

Postretirement Benefits

We provide health care and life insurance benefits for eligible retired employees, including individuals who retired from operations we subsequently sold or discontinued. We sponsor several health care plans in the United States for both pre- and post-age 65 retirees. The contributions to these plans differ for various groups of retirees and future retirees. Most retirees outside of the United States are covered by governmental health care programs, and our cost is not significant. The measurement date for postretirement benefit plans is December 31.

The discount rate assumption is used to determine the benefit obligation and the interest portion of the net periodic postretirement cost (credit) for the following year. We utilize a full yield curve approach for our discount rate assumption by applying the specific spot rates along the yield curve used in the determination of the benefit obligation to the relevant projected cash flows. As of December 31, 2021, a 25 basis point decrease in the discount rate would result in an immaterial impact on expense for the postretirement plan.

The accompanying tables present the amounts and changes in the aggregate benefit obligation and the components of net periodic postretirement benefit cost for U.S. plans. We fund these costs as they become due.

	Year Ended December 31,	
	2021	2020
(Dollars in millions)		
Funded Status of Postretirement Health Care and Life Insurance Plans		
Change in Benefit Obligation:		
At beginning of year	\$ 14.1	\$ 15.4
Interest cost	0.1	0.3
Participant contributions	0.3	0.3
Actuarial gain	(0.8)	—
Benefits paid	(1.1)	(1.9)
At end of year	\$ 12.6	\$ 14.1
Change in Plan Assets:		
At beginning of year	\$ —	\$ —
Company contributions	0.8	1.6
Participant contributions	0.3	0.3
Benefits paid	(1.1)	(1.9)
At end of year	—	—
Funded Status	\$ (12.6)	\$ (14.1)

	December 31,	
	2021	2020
(Dollars in millions)		
Amounts recognized in Consolidated Balance Sheets		
Current liability	\$ 1.8	\$ 1.9
Noncurrent liability	10.8	12.2
Amounts recognized in Accumulated Other Comprehensive Loss		
Accumulated other comprehensive loss (income), net of tax of \$(5.0) million and \$(5.4) million, respectively	\$ (7.6)	\$ (8.6)

The other comprehensive (income) loss related to postretirement benefits was as follows:

	2021	Year Ended December 31,	
		2020	2019
(Dollars in millions)			
Net actuarial gain	\$ (0.8)	\$ —	\$ (0.7)
Amortization of net actuarial gain	2.2	2.5	2.6
Tax benefit	(0.4)	(0.7)	(0.5)
Other comprehensive loss, net of tax	\$ 1.0	\$ 1.8	\$ 1.4

	2021	Year Ended December 31,	
		2020	2019
(Dollars in millions)			
Net Periodic Postretirement Benefit			
Interest cost	\$ 0.1	\$ 0.3	\$ 0.5
Actuarial gain amortization	(2.0)	(2.2)	(2.3)
Prior service credit amortization	(0.2)	(0.3)	(0.3)
Net periodic postretirement benefit gain	\$ (2.1)	\$ (2.2)	\$ (2.1)

The assumed health care cost trend rate represents the rate at which health care costs are assumed to increase. The assumed health care cost trend rate used in measuring the benefit obligation in 2021 is 5.9% for pre-age 65 retirees and 6.7% for post-age 65 retirees. These rates are assumed to decrease gradually to the ultimate health care cost trend rate of 4.5% in 2029 for both groups.

Assumptions Used in Calculations	Year Ended December 31,		
	2021	2020	2019
Weighted average discount rate used to determine net periodic postretirement cost (credit)	1.42 %	2.52 %	3.70 %
Weighted average discount rate used to determine benefit obligation at measurement date	2.00 %	1.42 %	2.52 %

The projected future postretirement benefit payments and future receipts from the federal subsidy for each of the next five years and the five-year period following are as follows:

Years Ending December 31,	Payments		Receipts	
	(Dollars in millions)			
2022	\$	1.9	\$	—
2023		1.6		—
2024		1.5		—
2025		1.3		—
2026		1.2		—
Next five years	\$	4.0	\$	0.1

11. Share-Based Compensation

Our share-based compensation consists of performance-based stock options, term-based stock options, restricted stock units (“RSU”), and performance-based stock units (“PSU”). We also offer an employee stock purchase plan.

Prior to November 1, 2013, our employees participated in a share-based compensation plan of the former ultimate parent of Ceridian, the 2007 Stock Incentive Plan (“2007 SIP”). Effective November 1, 2013, although most participants who held stock options under the 2007 SIP converted their options to a newly created option plan, the 2013 Ceridian HCM Holding Inc. Stock Incentive Plan, as amended (“2013 SIP”), a small number of participants maintained their stock options in the 2007 SIP. Concurrent with the IPO and legal reorganization, all outstanding stock options under the 2007 SIP were converted into options to purchase common stock of Ceridian. During the twelve months ended December 31, 2021, all remaining outstanding awards under the 2007 SIP were exercised and as of December 31, 2021, there were no stock options outstanding under the 2007 SIP.

Stock options awarded under the 2013 SIP vest either annually on a pro rata basis over a four- or five-year period or on a specific date if certain performance criteria are satisfied and certain equity values are attained. In addition, upon termination of service, all vested options must be exercised generally within 90 days after termination, or these awards will be forfeited. The stock option awards have a 10-year contractual term and have an exercise price that is not less than the fair market value of the underlying stock on the date of grant. As of December 31, 2021, there were 1,001,245 stock options and RSUs outstanding under the 2013 SIP. We do not intend to grant any additional awards under the 2007 SIP or the 2013 SIP.

On April 24, 2018, in connection with the IPO, the Board of Directors approved the Ceridian HCM Holding Inc. 2018 Equity Incentive Plan (“2018 EIP”), which authorized the issuance of up to 13,500,000 shares of common stock to eligible participants through equity awards (the “Share Reserve”). The Share Reserve may be increased on March 31 of each of the first ten calendar years during the term of the 2018 EIP, by the lesser of (i) three percent of the number of shares of our common stock outstanding on each January 31 immediately prior to the date of increase or (ii) such number of shares of our common stock determined by the Board of Directors. In addition to prior year increases, as of March 31, 2021, the Share Reserve was increased by 4,397,296 shares, pursuant to the terms of the 2018 EIP.

Equity awards under the 2018 EIP vest either annually or quarterly on a pro rata basis, generally over a one-, three-, or four-year period. In addition, upon termination of service, all vested awards must be exercised within 90 days after termination, or these awards will be forfeited. The equity awards have a 10-year contractual term and an exercise price that is not less than the fair market value of the underlying stock on the date of the grant. As of December 31, 2021, there were 11,546,358 stock options, RSUs, and PSUs outstanding and 10,953,924 shares available for future grants of equity awards under the 2018 EIP.

Share-based compensation expense was \$113.4 million, \$65.8 million, and \$36.5 million for the years ended December 31, 2021, 2020, and 2019, respectively.

Performance-Based Stock Options

Performance-based option activity under the 2007 SIP, the 2013 SIP, and the 2018 EIP was as follows:

	Shares	Weighted Average Exercise Price (per share)	Weighted Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in millions)
Performance-based options outstanding at December 31, 2018	366,377	\$ 13.50	3.1	\$ 7.7
Exercised	(298,096)	(13.48)	—	—
Performance-based options outstanding at December 31, 2019	68,281	\$ 13.58	2.6	\$ 3.7
Granted	1,818,728	65.27	—	—
Exercised	(42,730)	(13.46)	—	—
Performance-based options outstanding at December 31, 2020	1,844,279	\$ 64.55	9.2	\$ 77.5
Exercised	(65,882)	(47.23)	—	—
Forfeited or expired	(1,347)	—	—	—
Performance-based options outstanding at December 31, 2021	1,777,050	\$ 64.72	8.3	\$ 70.6
Performance-based options exercisable at December 31, 2021	144,808	\$ 58.65	7.4	\$ 6.6

In 2020, 1,500,000 performance-based stock options (“Performance Option Award”) were granted under the 2018 EIP with an exercise price of \$65.26. The vesting conditions for the Performance Option Award are based on the Company’s performance on the New York Stock Exchange (“NYSE”) with (i) 750,000 shares available to vest when the Company’s per share closing price on the NYSE meets or exceeds \$110.94, or 1.7 times the exercise price, for ten consecutive trading days (“Performance Metric #1”) and (ii) the remaining 750,000 shares are available to vest when the Company’s per share closing price on the NYSE meets or exceeds \$130.52, or 2.0 times the exercise price, for ten consecutive trading days (“Performance Metric #2”, collectively with Performance Metric #1, the “Performance Metrics”). The vesting conditions of the Performance Metrics must be achieved prior to May 8, 2025, or any unvested portion of the Performance Option Award will terminate. Further, no portion of the Performance Option Award will vest and become exercisable until May 8, 2023, the third anniversary of the Grant Date (the “Time-Based Metric”). The shares underlying Performance Metric #1, which was achieved on October 6, 2021, will vest and become exercisable on May 8, 2023 provided that continuous employment is maintained through that date. If Performance Metric #2 is met prior to satisfying the Time-Based Metric, the shares underlying Performance Metric #2 will vest and become exercisable on May 8, 2023 provided that continuous employment is maintained through that date. If the Time-Based Metric is met and Performance Metric #2 has not been met on or prior to May 8, 2025, the Performance Option Award will be terminated. A Monte Carlo simulation model was used to determine the fair value of these performance-based stock options. The Monte Carlo model utilizes multiple input variables that determine the probability of satisfying the market conditions stipulated in the award. We have estimated an expected term of 5.3 years, based on the vesting period and contractual term.

The remaining performance-based stock options granted during the twelve months ended December 31, 2020, under the 2018 EIP primarily include vesting conditions based on migrations of customers to Dayforce.

There are two tranches of stock options, in which the vesting conditions must be met either prior to September 13, 2021, or September 13, 2022. The weighted average grant date fair value of these performance-based stock options granted in 2020 was \$16.03 per share.

As of December 31, 2021, there was \$7.5 million of share-based compensation expense related to unvested performance-based stock option awards not yet recognized, which is expected to be recognized over a weighted average period of 2.3 years.

Term-Based Stock Options

Term-based stock option activity under the 2007 SIP, the 2013 SIP, and the 2018 EIP, was as follows:

	Shares	Weighted Average Exercise Price (per share)	Weighted Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in millions)
Term-based options outstanding at December 31, 2018	13,549,769	\$ 19.28	7.5	\$ 206.8
Granted	4,297,472	49.74	—	—
Exercised	(4,358,867)	(17.37)	—	—
Forfeited or expired	(343,437)	(24.14)	—	—
Term-based options outstanding at December 31, 2019	13,144,937	\$ 29.74	7.8	\$ 501.3
Granted	2,282,334	66.06	—	—
Exercised	(3,889,096)	(20.42)	—	—
Forfeited or expired	(555,101)	(32.09)	—	—
Term-based options outstanding at December 31, 2020	10,983,074	\$ 40.47	7.8	\$ 725.9
Granted	759,126	84.07	—	—
Exercised	(2,942,465)	(26.71)	—	—
Forfeited or expired	(283,866)	(48.62)	—	—
Term-based options outstanding at December 31, 2021	8,515,869	\$ 48.87	7.3	\$ 473.4
Term-based options exercisable at December 31, 2021	3,236,026	\$ 40.48	6.7	\$ 207.0

Other information pertaining to term-based options was as follows:

	Year Ended December 31,		
	2021	2020	2019
Weighted average grant date fair value per share	\$ 33.09	\$ 21.15	\$ 16.12

The fair value of the term-based stock options was estimated at the date of grant using the Black-Scholes option pricing model with the following weighted-average assumptions:

	Year Ended December 31,		
	2021	2020	2019
Expected volatility	35.8%	29.8%	24.9%
Expected dividend rate	—	—	—
Risk-free interest rate	1.3%	0.6%	2.5%

For stock options granted under the 2013 SIP and 2018 EIP, we estimated an expected term of 7.0 years, based on the vesting period and contractual life. As of December 31, 2021, there was \$66.4 million of share-based compensation expense related to unvested term-based awards not yet recognized, which is expected to be recognized over a weighted average period of 1.4 years. As of December 31, 2021, there were 3,236,026 vested term-based stock options.

Restricted Stock Units

RSU activity under the 2013 SIP and the 2018 EIP, was as follows:

	Shares
RSUs outstanding at December 31, 2018	664,073
Granted	193,033
Shares issued upon vesting of RSUs	(17,288)
Forfeited or canceled	(20,000)
RSUs outstanding at December 31, 2019	819,818
Granted	685,997
Shares issued upon vesting of RSUs	(73,475)
Forfeited or canceled	(42,955)
RSUs outstanding at December 31, 2020	1,389,385
Granted	890,852
Shares issued upon vesting of RSUs	(262,239)
Forfeited or canceled	(82,059)
RSUs outstanding at December 31, 2021	1,935,939
RSUs releasable at December 31, 2021	597,936

Other information pertaining to RSUs was as follows:

	Year Ended December 31,		
	2021	2020	2019
Weighted average grant date fair value per share	\$ 85.08	\$ 69.57	\$ 50.00

During the year ended December 31, 2021, 436,696 RSUs vested, of which 262,239 shares of common stock were issued. As of December 31, 2021, there were 597,936 RSUs vested and releasable. RSUs generally vest quarterly or annually over a one-, three-, or four-year period. As of December 31, 2021, there was \$76.3 million of share-based compensation expense related to unvested RSUs not yet recognized, which is expected to be recognized over a weighted average period of 1.3 years.

Performance Stock Units

PSU activity under the 2018 EIP was as follows:

	Shares
PSUs outstanding at December 31, 2019	—
Granted	145,017
Forfeited or canceled	(9,797)
PSUs outstanding at December 31, 2020	135,220
Granted	348,483
Shares issued upon vesting of PSUs	(2,050)
Forfeited or canceled	(162,908)
PSUs outstanding at December 31, 2021	318,745
PSUs releasable at December 31, 2021	—

The vesting conditions for the PSUs granted in 2020 were based on the Company's performance against Cloud revenue and adjusted EBITDA margin goals under Ceridian HCM Holding Inc. 2020 Management Incentive Plan (the "2020 MIP") for the incentive period of January 1, 2020 through December 31, 2020. The vesting conditions for the PSUs were not met for the 2020 incentive period and as a result, the PSUs did not vest and no share-based compensation expense was recognized for these awards during the year ended December 31, 2020.

The vesting conditions for the PSUs granted in 2021 are based on the Company's performance criteria, including Cloud revenue and adjusted EBITDA margin goals under the Ceridian HCM Holding Inc. 2021 Management Incentive Plan (the "2021 MIP") for the incentive period of January 1, 2021 through December 31, 2021. The maximum incentive vesting of PSUs may not exceed 150% under the 2021 MIP. Both the Cloud

revenue and adjusted EBITDA margin goals are calculated based on the Company's operating results, adjusted for foreign currency and interest rate impacts plus other unique impacts as approved by the Compensation Committee of the Board of Directors. Upon vesting of a PSU, a participant will receive shares of common stock of the Company. Based on the performance criteria achieved, most of the PSUs are expected to vest in March 2022 and share-based compensation was recognized in accordance with the achievement level. As of December 31, 2021, there was \$7.6 million of share-based compensation expense related to unvested PSUs not recognized related to certain executives with PSUs that have a three-year vesting period.

Global Employee Stock Purchase Plan

On November 9, 2018, the Compensation Committee of the Board of Directors approved the Ceridian HCM Holding Inc. Global Employee Stock Purchase Plan (the "GESPP"), which authorizes the issuance of up to 2,500,000 shares of common stock to eligible participants through purchases via payroll deductions. The purchase price is the lower of (i) 85% of the fair market value of a share of common stock on the offering date (the first trading day of the offering period commencing on January 1 and concluding on December 31) or (ii) 85% of the fair market value of a share of common stock on the purchase date. The GESPP shall continue for ten years, unless terminated sooner as provided under the GESPP. In 2021, quarterly purchase periods commenced on January 1, April 1, July 1, and October 1. Shares were purchased on the last trading day of the respective purchase periods. During 2021, shares were purchased on March 31, June 30, September 30, and December 31.

Our GESPP activity was as follows:

	Year Ended December 31,	
	2021	2020
Shares issued	153,235	182,899
Weighted average purchase price (per share)	\$ 81.69	\$ 54.90

The fair value of the stock purchase rights granted under the GESPP was estimated using the following weighted-average assumptions:

	Year Ended December 31,	
	2021	2020
Expected volatility	33.7 %	46.4 %
Expected dividend rate	—	—
Risk-free interest rate	0.1 %	1.1 %
Expected term (in years)	0.3	0.3
Grant date fair value per share	\$ 22.07	\$ 17.11

12. Revenue

Our Solutions

We categorize our solutions into two categories: Cloud and Bureau offerings.

•Cloud revenue is generated from solutions that are delivered via two cloud offerings, Dayforce and Powerpay. The Dayforce offering is a single application with continuous calculation that offers a comprehensive range of functionality, including global HR, payroll, benefits, workforce management, and talent management on web and native iOS and Android platforms. Dayforce recurring revenue is primarily generated from monthly recurring fees charged on a per-employee, per-month (“PEPM”) basis and the allocation of investment income generated from holding Dayforce customer funds before funds are remitted to taxing authorities, Dayforce customer employees, or other third parties. Dayforce professional services and other revenue is primarily generated from implementation and post go-live professional services revenue. Other sources of Dayforce revenues include revenue from the sale, rental and maintenance of time clocks; revenue from the sale of third-party services; billable travel expenses for Dayforce customers, and Dayforce Wallet interchange fee revenue. The Powerpay offering is our solution designed primarily for small market Canadian customers, which typically have fewer than 20 employees. Powerpay recurring revenue is primarily generated from recurring fees charged on a per-employee, per-process basis and the allocation of investment income generated from holding Powerpay customer funds before funds are remitted to taxing authorities, Powerpay customer employees, or other third parties. Typical processes include the customer’s payroll runs, year-end tax packages, and delivery of customers’ remittance advices or checks. Powerpay professional services revenue is primarily generated from the setup of the Powerpay customer on their platform.

•Bureau revenue is generated primarily from solutions delivered via a service-bureau model. These solutions are delivered via three primary service lines: payroll, payroll-related tax filing services, and outsourced human resource solutions. Revenue from payroll services is generated from recurring fees charged on a per-process basis. Typical processes include the customer’s payroll runs, year-end tax packages, and delivery of customers’ remittance advices or checks. In addition to customers who use our payroll services, certain customers use our tax filing services on a stand-alone basis. Our outsourced human resource solutions are tailored to meet the needs of individual customers, and entail our contracting to perform many of the duties of a customer’s human resources department, including payroll processing, time and labor management, performance management, and recruiting. We also perform individual services for customers, such as check printing, wage attachment and disbursement, and Affordable Care Act (“ACA”) management. Additional items included in Bureau revenue are fees for custom professional services to Bureau customers; the allocation of investment income generated from holding Bureau customer funds before funds are remitted to taxing authorities, Bureau customer employees, or other third parties; consulting services related to Bureau offerings; revenue from the sale of third party services to Bureau customers; and Excelity revenue.

Customer Information

No single customer accounts for 1% or more of our consolidated revenue for any of the periods presented.

Disaggregation of Revenue

Revenue by solution and category was as follows:

	2021	Year Ended December 31, 2020		2019
		(Dollars in millions)		
Revenue:				
Cloud				
Dayforce				
Recurring	\$ 626.6	\$ 500.2	\$ 429.0	
Professional services and other	159.3	148.6	140.7	
Total Dayforce revenue	785.9	648.8	569.7	
Powerpay				
Recurring	86.3	79.5	89.0	
Professional services and other	0.9	1.1	1.3	
Total Powerpay revenue	87.2	80.6	90.3	
Total Cloud revenue	873.1	729.4	660.0	
Bureau				
Recurring	137.8	110.5	162.1	
Professional services and other	13.3	2.6	2.0	
Total Bureau revenue	151.1	113.1	164.1	
Total revenue	\$ 1,024.2	\$ 842.5	\$ 824.1	

Recurring revenue includes float revenue of \$41.1 million, \$52.3 million, and \$80.2 million for the year ended December 31, 2021, 2020, and 2019, respectively.

Revenue by Geographic Area

The country in which the revenue is recorded is determined by the legal entity with which the customer has contracted. Revenue by country was as follows:

	2021	Year Ended December 31, 2020		2019
		(Dollars in millions)		
United States	\$ 624.4	\$ 579.3	\$ 578.1	
Canada	254.2	223.5	237.0	
Other	145.6	39.7	9.0	
Total revenue	\$ 1,024.2	\$ 842.5	\$ 824.1	

Contract Balances

The Company records a contract asset when revenue recognized for professional services performance obligations exceed the contractual amount of billings for implementation related professional services. Contract assets were \$62.7 million and \$55.2 million as of December 31, 2021, and 2020, respectively. Contract assets expected to be recognized in revenue within twelve months are included within Prepaid expenses and other current assets, with the remaining contract assets included within Other assets on our consolidated balance sheets.

Deferred Revenue

Deferred revenue primarily consists of payments received in advance of revenue recognition. The changes in deferred revenue were as follows:

	2021	December 31, (Dollars in millions)	2020
Deferred revenue, beginning of period	\$	24.4	\$ 25.5
New billings		565.0	432.6
Acquired billings		16.6	—
Revenue recognized		(556.5)	(433.9)
Effect of exchange rate		(0.8)	0.2
Deferred revenue, end of period	\$	48.7	\$ 24.4

Transaction Price for Remaining Performance Obligations

In accordance with ASC Topic 606, the following represents the aggregate amount of transaction price allocated to the remaining performance obligations that are unsatisfied as of the end of the reporting period. As of December 31, 2021, approximately \$1,118.5 million of revenue is expected to be recognized over the next three years from remaining performance obligations, which represents contracted revenue for recurring services and fixed price professional services, primarily implementation services, that has not yet been recognized, including deferred revenue and unbilled amounts that will be recognized as revenue in future periods. In accordance with the practical expedient provided in ASC Topic 606, performance obligations that are billed and recognized as they are delivered, primarily professional services contracts that are on a time and materials basis, are excluded from the transaction price for remaining performance obligations disclosed above.

13. Accumulated Other Comprehensive Income (Loss)

The components of accumulated other comprehensive income (loss) were as follows:

	Foreign Currency Translation Adjustment	Unrealized Gain (Loss) from Invested Customer Funds (Dollars in millions)	Pension Liability Adjustment	Total
Balance as of December 31, 2019	\$ (178.4)	\$ 10.2	\$ (170.2)	\$ (338.4)
Other comprehensive income before income taxes and reclassifications	18.7	38.4	8.0	65.1
Income tax expense	—	(10.2)	(5.7)	(15.9)
Reclassifications to earnings	—	—	13.2	13.2
Other comprehensive income	18.7	28.2	15.5	62.4
Balance as of December 31, 2020	(159.7)	38.4	(154.7)	(276.0)
Other comprehensive (loss) income before income taxes and reclassifications	(17.6)	(48.4)	(9.1)	(75.1)
Income tax benefit (expense)	—	12.8	(1.6)	11.2
Reclassifications to earnings	—	—	15.1	15.1
Other comprehensive (loss) income	(17.6)	(35.6)	4.4	(48.8)
Balance as of December 31, 2021	<u>\$ (177.3)</u>	<u>\$ 2.8</u>	<u>\$ (150.3)</u>	<u>\$ (324.8)</u>

14. Income Taxes

	Year Ended December 31,		
	2021	2020	2019
(Dollars in millions)			
Components of Earnings and Taxes from Operations			
(Loss) income before income taxes:			
U.S.	\$ (73.6)	\$ 41.5	\$ 25.9
International	(16.7)	(61.6)	8.4
Total	<u>\$ (90.3)</u>	<u>\$ (20.0)</u>	<u>\$ 34.3</u>
Income tax expense (benefit):			
Current:			
U.S.	\$ 0.9	\$ (6.5)	\$ 7.1
State and local	0.4	0.1	0.4
International	22.3	(2.6)	17.5
Total current income tax expense (benefit)	23.6	(9.0)	25.0
Deferred:			
U.S.	(22.3)	(1.1)	(42.6)
State and local	(5.0)	0.1	(19.3)
International	(11.2)	(6.0)	(7.5)
Total deferred income tax benefit	(38.5)	(7.0)	(69.4)
Total income tax benefit	<u>\$ (14.9)</u>	<u>\$ (16.0)</u>	<u>\$ (44.4)</u>

	Year Ended December 31,		
	2021	2020	2019
Effective Rate Reconciliation			
U.S. statutory rate%	21.0 %	21.0 %	21.0 %
Change in valuation allowance	(0.7)	(0.3)	(176.1)
State income taxes, net of federal benefit	5.9	2.2	3.9
Share-based compensation	(3.5)	3.9	(5.8)
International tax rate differential	(2.4)	8.9	3.8
Foreign capital gain income	(1.3)	(7.5)	3.2
Unremitted foreign earnings	2.9	14.5	(2.0)
Acquisition costs	(2.3)	—	—
Base erosion tax	(1.6)	33.9	19.9
Reserve for tax contingencies	2.1	1.2	(0.3)
Change in tax rate	—	—	(1.0)
Unutilized tax benefits	(3.4)	—	—
Other	(0.2)	2.2	4.0
Income tax provision%	<u>16.5 %</u>	<u>80.0 %</u>	<u>(129.4) %</u>

Our income tax provision represents federal, state, and international taxes on our income recognized for financial statement purposes and includes the effects of temporary differences between financial statement income and income recognized for tax return purposes. Deferred tax assets and liabilities are recorded for temporary differences between the financial reporting basis and the tax basis of assets and liabilities. We record a valuation allowance to reduce our deferred tax assets to reflect the net deferred tax assets that we believe will be realized. In assessing the likelihood that we will be able to recover our deferred tax assets and the need for a valuation allowance, we consider all available evidence, both positive and negative, including historical levels of pre-tax book income, expiration of net operating losses, changes in our debt and equity structure, expectations and risks associated with estimates of future taxable income, ongoing prudent and feasible tax planning strategies, as well as current tax laws. As of December 31, 2021, we have a valuation allowance of \$46.8 million against certain deferred tax assets consisting primarily of \$14.0 million attributable to state net operating loss carryovers, and \$31.0 million attributable to deferred tax assets recorded as part of the Ascender acquisition.

	December 31,	
	2021	2020
(Dollars in millions)		
Tax Effect of Items That Comprise a Significant Portion of the Net Deferred Tax Asset and Deferred Tax Liability		
Deferred tax asset:		
Employment related accruals	\$ 16.9	\$ 9.8
Other	19.2	7.5
Foreign tax credit carryover and other credit carryovers	0.6	0.2
Net operating loss carryforwards	161.5	125.9
Total gross deferred tax asset	198.2	143.4
Valuation allowance	(46.8)	(16.3)
Total deferred tax asset	\$ 151.4	\$ 127.1
Deferred tax liability:		
Intangibles	\$ (64.8)	\$ (61.7)
Deferred contract costs	(29.4)	(27.7)
Other	(24.6)	(27.5)
Total deferred tax liability	(118.8)	(116.9)
Net deferred tax asset	\$ 32.6	\$ 10.2

	December 31,	
	2021	2020
(Dollars in millions)		
Net Deferred Tax by Geography		
U.S.	\$ 38.9	\$ 22.0
International	(6.3)	(11.8)
Total	\$ 32.6	\$ 10.2

As of December 31, 2021, we had federal, state, and foreign net operating loss carryovers, which will reduce future taxable income when utilized. Approximately \$105.1 million in net federal tax benefit is available from the loss carryovers and an additional \$0.6 million is available in tax credit carryovers. \$53.6 million of the federal net operating loss tax benefit will expire from 2031 to 2037. The remaining \$51.5 million has an indefinite carryover period. The state loss carryovers and foreign loss carryovers will result in a tax benefit of approximately \$38.7 million and \$17.8 million, respectively, when utilized. The state net operating loss carryovers will begin to expire in 2022. The majority of the foreign operating loss carryovers have an indefinite carryover period. The \$0.6 million tax credit carryover is composed of a variety of credits most of which expire between 2027 and 2038.

We file income tax returns in the U.S. federal jurisdiction, and various states and foreign jurisdictions. With a few exceptions, we are no longer subject to U.S. federal, state and local, or non-U.S. income tax examinations by tax authorities for years before 2017.

The following table summarizes the activity for unrecognized tax benefits:

	Year Ended December 31,	
	2021	2020
(Dollars in millions)		
Federal, State and Foreign Tax		
Beginning unrecognized tax balance	\$ 1.8	\$ 1.5
Increase prior period positions	—	0.1
Increase current period positions	—	0.2
Decrease prior period positions	(1.8)	—
Ending unrecognized tax benefits	\$ —	\$ 1.8

There were no unrecognized tax benefits as of December 31, 2021. The total amount of unrecognized tax benefits as of December 31, 2020, were \$1.8 million, including \$0.3 million of accrued interest. For the twelve months ended December 31, 2021, we released \$1.8 million of our reserve primarily attributable to the conclusion of foreign tax audits. We make adjustments to these reserves when facts and circumstances change, such as the closing of tax audits or the refinement of an estimate. To the extent that the final tax outcome of these matters is different than the amounts recorded, such differences will affect the provision for income taxes in the period in which such determination is made and could have a material impact on our financial condition and operating results.

As of December 31, 2021, we have \$322.9 million of unremitted foreign earnings. We consider all the unremitted earnings to be indefinitely reinvested. Because all unremitted earnings are considered to be indefinitely reinvested, no deferred tax liability has been recorded. In the event the unremitted earnings considered to be indefinitely reinvested were repatriated, we would incur a withholding tax expense of approximately \$15.0 million.

15. Leases

Our leases primarily consist of office space. Leases with an initial term of 12 months or less are not recorded on the balance sheet; we recognize lease expense for these leases on a straight-line basis over the lease term. For leases beginning 2019 and later, we account for lease components separately from the non-lease components.

Most leases include options to renew, and the lease renewal is at our sole discretion. Therefore, the depreciable life of assets and leasehold improvements is limited by the expected lease term unless there is a transfer of title or purchase option reasonably certain of exercise. Our lease agreements do not contain any material residual value guarantees or material restrictive covenants.

We rent or sublease certain real estate to third parties. Our sublease portfolio mainly consists of operating leases for space within our office facilities.

As a result of the coronavirus disease 2019 ("COVID-19") and our pivot to a virtual working environment, we evaluated our lease portfolio resulting in the decision to close certain office locations and transition the impacted employees to fully virtual work. During the year ended December 31, 2021, we recognized \$1.8 million of charges related to lease abandonment costs, and during the year end December 31, 2020, we recognized \$16.8 million of charges, which was comprised of \$14.7 million of accelerated amortization of the right of use assets and \$2.1 million of accelerated depreciation of leasehold improvements, related to the abandonment of the leases associated with these office locations. These charges were recognized within selling, general and administrative expense in the consolidated statements of operations.

On December 15, 2021, we sold the office building, land, and fixed assets of our St. Petersburg, Florida facility for \$40 million, less fees and expenses, resulting in a gain on the sale of \$19.1 million, which was recognized in the consolidated statements of operations within selling, general, and administrative expense. Upon the sale of the building, we entered into a two year agreement to lease a portion of the building as of the sale date.

Supplemental balance sheet information related to leases was as follows:

Lease Type	Balance Sheet Classification	December 31, 2021		December 31, 2020	
(Dollars in millions)					
ASSETS					
Operating lease assets	Trade and other receivables, net	\$	0.2	\$	5.4
Operating lease assets	Prepaid expenses and other current assets		3.4		2.2
Operating lease assets	Right of use lease asset		29.4		27.9
Financing lease assets	Property, plant, and equipment, net		8.3		8.0
Total lease assets		\$	41.3	\$	43.5
LIABILITIES					
Current					
Financing lease liabilities	Current portion of long-term debt	\$	1.5	\$	0.4
Operating lease liabilities	Current portion of long-term lease liabilities		11.3		10.5
Noncurrent					
Financing lease liabilities	Long-term debt, less current portion		8.1		8.4
Operating lease liabilities	Long-term lease liabilities, less current portion		32.7		33.6
Total lease liabilities		\$	53.6	\$	52.9

The components of lease expense were as follows:

Lease Cost	Year Ended December 31,		
	2021	2020	2019
(Dollars in millions)			
Operating lease cost	\$ 6.1	\$ 9.1	\$ 12.8
Financing lease cost:			
Depreciation of lease assets	1.3	0.8	0.1
Interest on lease liabilities (a)	0.3	0.4	—
Sublease income	(2.2)	(4.1)	(4.4)
Net lease cost	<u>\$ 5.5</u>	<u>\$ 6.2</u>	<u>\$ 8.5</u>

(a) Interest on lease liabilities was less than \$0.1 million for the year ended December 31, 2019.

Supplemental cash flow information related to leases was as follows:

	Year Ended December 31,	
	2021	2020
(Dollars in millions)		
Cash paid for amounts included in the measurement of lease liabilities:		
Operating cash flows from operating leases	\$ 11.6	\$ 1.5
Operating cash flows from finance leases	1.9	0.4
Financing cash flows from finance leases	1.0	3.3
Lease assets obtained in exchange for new lease liabilities:		
Operating leases	2.2	4.4

The future minimum lease payments under our operating and financing leases were as follows:

Years Ending December 31,	Amount	
	(Dollars in millions)	
2022	\$	17.0
2023		13.6
2024		9.8
2025		7.0
2026		3.8
Thereafter		7.6
Total lease payments (a)	\$	58.8
Less: Interest		5.2
Total	\$	<u>53.6</u>

(a) Future minimum lease payments have not been reduced by minimum sublease rentals of \$0.5 million due in the future under noncancellable subleases.

Weighted average remaining lease term and weighted average discount rate were as follows:

	December 31,	
	2021	2020
Weighted average remaining lease term (in years)		
Operating leases	5.8	9.0
Financing leases	8.9	10.6
Weighted average discount rate		
Operating leases	4.07 %	10.18 %
Financing leases	3.81 %	3.91 %

16. Commitments and Contingencies

Legal Matters

We are subject to claims and a number of judicial and administrative proceedings considered normal in the course of our current and past operations, including employment-related disputes, contract disputes, disputes with our competitors, intellectual property disputes, government audits and proceedings, customer disputes, and tort claims. In some proceedings, the claimant seeks damages as well as other relief, which, if granted, would require substantial expenditures on our part.

Our general terms and conditions in customer contracts frequently include a provision indicating we will indemnify and hold our customers harmless from and against any and all claims alleging that the services and materials furnished by us violate any third party's patent, trade secret, copyright or other intellectual property right. We are not aware of any material pending litigation concerning these indemnifications.

Some of these matters raise difficult and complex factual and legal issues and are subject to many uncertainties, including the facts and circumstances of each particular action, and the jurisdiction, forum, and law under which each action is proceeding. Because of these complexities, final disposition of some of these proceedings may not occur for several years. As such, we are not always able to estimate the amount of our possible future liabilities, if any.

There can be no certainty that we may not ultimately incur charges in excess of presently established or future financial accruals or insurance coverage. Although occasional adverse decisions or settlements may occur, it is management's opinion that the final disposition of these proceedings will not, considering the merits of the claims and available resources or reserves and insurance, and based upon the facts and circumstances currently known, have a material adverse effect on our financial position or results of operations.

2019 Unrecovered Duplicate Payments

We identified an isolated service incident on September 26, 2019, that resulted in duplicate payments for certain of our U.S. payroll customers totaling \$18.8 million. Through December 31, 2019, \$11.2 million remained unrecovered, and we recorded a loss for the amount unrecovered within selling, general, and administrative expense in our consolidated statement of operations for the period ended December 31, 2019. Our recovery efforts continued through the second quarter of 2020, resulting in collections of \$0.4 million during the year ended December 31, 2020, which was recognized as a reduction to selling, general, and administrative expense. As of December 31, 2020, we no longer pursued collection efforts of the remaining amount unrecovered.

Environmental Matters

We accrue for losses associated with environmental remediation obligations when such losses are probable and reasonably estimable. Accruals for estimated losses from environmental remediation obligations generally are recognized no later than completion of the remedial feasibility study. Such accruals are adjusted as further information develops or circumstances change. Costs of future expenditures for environmental remediation obligations are not discounted to their present value.

In February 1988, our predecessor entered into an arrangement with Northern Engraving Corporation ("NEC") and the Minnesota Pollution Control Agency ("MPCA") in relation to groundwater contamination on a parcel of real estate sold by our predecessor to NEC. Ceridian is now responsible for the arrangement with NEC.

and the MPCA. The arrangement requires expense sharing between Ceridian and NEC for the remediation of groundwater contamination.

In September 1989, our predecessor entered into an EMA with Seagate related to groundwater contamination on a parcel of real estate sold by our predecessor to Seagate. Ceridian is now responsible for the EMA. The EMA requires expense sharing between Ceridian and Seagate for the remediation of groundwater contamination up to a certain limit. We have recognized an environmental reserve liability equal to the EMA limit.

We have recognized an undiscounted liability of approximately \$4.5 million and \$4.8 million as of December 31, 2021 and 2020, respectively, in our consolidated balance sheets to comply with the NEC arrangement and EMA described above. The ultimate cost, however, will depend on the extent of continued monitoring activities as these projects progress.

17. Related Party Transactions

We provide Dayforce and related services to certain companies that are considered related parties. The revenue from these related parties was as follows:

Counter-Party	Related Persons Interest	2021	Year Ended December 31,		2019
			2020	(Dollars in millions)	
FleetCor Technologies, Inc.	Shared board members. One board member is also the chief executive officer and the chairman of the counter-party's board	\$ 0.6	\$ 0.9	\$	0.8
The Stronach Group	The brother of David D. Ossip, our Chair and Co-Chief Executive Officer, was formerly the chief executive officer, and is currently a minority shareholder	0.1	0.1		0.2
Verve Senior Living	David D. Ossip, our Chair and Co-Chief Executive Officer, and his brother are currently minority shareholders	0.4	0.5		—
Fidelity National Financial, Inc.	Shared board members	0.4	0.4		0.4
Black Knight Sports and Entertainment, LLC	Portfolio company of Thomas H. Lee Partners, L.P. ("THL"), of which certain members of our board are managing directors	—	—		0.2
Essex Technology Group, LLC	Portfolio company of THL, of which certain members of our board are managing directors	0.5	0.5		0.5
Guaranteed Rate, Inc.	Portfolio company of THL, of which certain members of our board are managing directors	1.7	0.9		0.8
HighTower Advisors, LLC	Portfolio company of THL, of which certain members of our board are managing directors. One board member also serves on the board of the counter-party	0.3	0.2		0.2
Ten-X, LLC	Portfolio company of THL, of which certain members of our board are managing directors	0.2	0.2		0.4
Philips Feed Services	Portfolio company of THL, of which certain members of our board are managing directors	0.3	0.3		0.3
The Dun and Bradstreet Corporation	Shared board members with Dun & Bradstreet Holdings, Inc., which owns the counter-party	*	—		—

*We have entered into a contract to provide Dayforce and related services to the Dun and Bradstreet Corporation.

We are party to service agreements with certain companies that are considered related parties. Payments made to related parties were as follows:

Counter-Party	Related Persons Interest	2021	Year Ended December 31,		2019
			2020	(Dollars in millions)	
The Dun and Bradstreet Corporation	Shared board members with Dun & Bradstreet Holdings, Inc., which owns the counter-party	\$ 0.4	\$ 0.4	\$ —	
Manulife Financial	Shared board members. Leigh E. Turner, our Co-Chief Executive Officer, also serves as a director	8.1	7.3	7.1	

18. Capital Stock and Net (Loss) Income per Share

As of December 31, 2021 and 2020, there were 151,995,031 and 148,571,412 shares of common stock issued and outstanding, respectively.

Holders of our common stock are entitled to the rights set forth as follows. Directors are elected by a plurality of the votes entitled to be cast except as set forth below with respect to directors to be elected by the holders of common stock. Our stockholders do not have cumulative voting rights. Except as otherwise provided in our fourth amended and restated certificate of incorporation or as required by law, all matters to be voted on by our stockholders other than matters relating to the elections and removal of directors must be approved by a majority of the shares present in person or by proxy at the meeting and entitled to vote on the subject matter or by a written resolution of the stockholders representing the number of affirmative votes required for such matter at a meeting.

Our stockholders have no preemptive or other rights to subscribe for additional shares. All holders of our common stock are entitled to share equally on a share-for-share basis in any assets available for distribution to common stockholders upon our liquidation, dissolution or winding up. All outstanding shares are validly issued, fully paid and nonassessable.

Basic net (loss) income per share is computed by dividing net (loss) income available to common stockholders by the weighted-average number of shares of common stock outstanding during the period.

For the calculation of diluted net (loss) income per share, net (loss) income per share is adjusted by the effect of dilutive securities, including awards under our share-based compensation plans. Diluted net (loss) income per share is computed by dividing the resulting net (loss) income by the weighted-average number of fully diluted common shares outstanding. In the years ended December 31, 2021 and 2020, our potential dilutive shares, such as term-based stock options, RSUs, and PSUs were not included in the computation of diluted net loss per share as the effect of including these shares in the calculation would have been anti-dilutive.

The basic and diluted net (loss) income per share computations were calculated as follows:

	2021	Year Ended December 31,		2019
		2020	(Dollars in millions, except share and per share data)	
Numerator:				
Net (loss) income	\$ (75.4)	\$ (4.0)	\$ 78.7	
Denominator:				
Weighted-average shares outstanding - basic	150,402,321	146,774,471	142,049,112	
Effect of dilutive equity instruments	—	—	6,707,480	
Weighted-average shares outstanding - diluted	150,402,321	146,774,471	148,756,592	
Net (loss) income per share - basic	\$ (0.50)	\$ (0.03)	\$ 0.55	
Net (loss) income per share - diluted	\$ (0.50)	\$ (0.03)	\$ 0.53	

The following potentially dilutive shares were excluded from the calculation of diluted net (loss) income per share because their effect would have been anti-dilutive:

	Year Ended December 31,		
	2021	2020	2019
Stock options	5,874,818	7,135,159	3,307,719
Restricted stock units	604,770	745,955	18,980
Performance stock units	549,583	229,433	—

The shares underlying the conversion option in the Convertible Senior Notes were not considered in the calculation of diluted net income (loss) per share as the effect would have been anti-dilutive. Based on the initial conversion price, the entire outstanding principal amount of the Convertible Senior Notes as of December 31, 2021, would have been convertible into approximately 4.3 million shares of our common stock. Since we expect to settle the principal amount of the Convertible Senior Notes in cash, we use the treasury stock method for calculating any potential dilutive effect on diluted net income per share, if applicable. As a result, only the amount by which the conversion value exceeds the aggregate principal amount of the Convertible Senior Notes (the “conversion spread”) is considered in the diluted earnings per share computation. The conversion spread has a dilutive impact on diluted net income per share when the average market price of our common stock for a given period exceeds the initial conversion price of \$132.20 per share for the Convertible Senior Notes. We excluded the potentially dilutive effect of the conversion spread of the Convertible Senior Notes as the average market price of our common stock during the twelve months ended December 31, 2021, was less than the conversion price of the Convertible Senior Notes. In connection with the issuance of the Convertible Senior Notes, we entered into Capped Calls, which were not included for purposes of calculating the number of diluted shares outstanding, as their effect would have been anti-dilutive.

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

None.

Item 9A. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

Disclosure controls and procedures, as defined in Rule 13a-15(e) and Rule 15d-15(e) under the Exchange Act, are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to our management, including our principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure.

Our management, with the participation of our Co-Chief Executive Officers and our Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures as of December 31, 2021. Based on the evaluation of our disclosure controls and procedures as of December 31, 2021, our Co-Chief Executive Officers 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 (as defined in Rule 13a-15(f) under the Exchange Act). Management conducted an assessment of the effectiveness of our internal control over financial reporting based on the criteria set forth in Internal Control—Integrated Framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 framework). Based on the assessment, management has concluded that its internal control over financial reporting was effective as of December 31, 2021, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with GAAP. Our independent

registered public accounting firm, KPMG LLP, has issued an audit report with respect to our internal control over financial reporting, which appears in Part II, Item 8 of this Annual Report on Form 10-K.

On March 1, 2021, we completed the acquisition of Ascender. Prior to this acquisition, Ascender was a privately-held company not subject to the Sarbanes-Oxley Act of 2002, the rules and regulations of the SEC, or other corporate governance requirements to which public companies may be subject. As of and for the fiscal year ended December 31, 2021, Ascender accounted for approximately 5% of our consolidated total assets and 7% of our consolidated total revenue.

As part of our ongoing integration activities, we are in the process of incorporating internal controls over significant processes specific to Ascender that we believe are appropriate and necessary to account for the acquisition and to consolidate and report our financial results. In accordance with guidance issued by the SEC, companies are permitted to exclude acquisitions from their final assessment of internal control over financial reporting during the year of acquisition. Accordingly, we have excluded Ascender from our assessment of internal control over financial reporting as of December 31, 2021 as our integration activities are ongoing and incomplete.

Changes in Internal Control Over Financial Reporting

With the exception of internal control-related integration activities related to our acquisition of Ascender, there were no changes in our internal control over financial reporting identified in connection with the evaluation required by Rule 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the fiscal quarter ended December 31, 2021, that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitations on Effectiveness of Controls

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

Item 9B. Other Information.

None.

PART III

Item 10. Directors, Executive Officers and Corporate Governance.

Directors

The information provided under the headings “Election of Directors” under Proposal One and “Board of Directors” in the Proxy Statement for Ceridian’s 2022 Annual Meeting of Stockholders (“Proxy Statement”), is incorporated herein by reference.

Executive Officers

Information regarding our executive officers is set forth in Item 1 in Part I of this Form 10-K captioned “[Executive Officers](#)”.

Certain Relationships and Related Party Transactions

The nature of certain relationships and related party transactions between any director, executive officer or person nominated to become a director is stated under the headings “Election of Directors” under Proposal One, “Board of Directors”, and “Certain Relationships and Related Party Transactions” in the Proxy Statement and is incorporated herein by reference.

Code of Ethics

We have adopted a code of ethics known as the “Code of Conduct” that applies to all employees, contractors, officers and directors of Ceridian. The Code of Conduct may be viewed online on Ceridian’s website <https://www.ceridian.com/Ceridian/media/Files/ceridian-code-of-conduct-2018.pdf>. We intend to satisfy the disclosure requirement under Item 5.05 of Form 8-K regarding an amendment to, or waiver from, a provision of our Code of Conduct that applies to our principal executive officer, principal financial officer or principal accounting officer by posting such information on our website within four business days following the date of such amendment or waiver.

Director Nomination Process

The information provided under the headings “Election of Directors” under Proposal One, “Committees of the Board of Directors” under the Board of Directors heading, and “Corporate Governance Guidelines” under the Corporate Governance heading in the Proxy Statement is incorporated herein by reference. There have been no material changes to the procedures by which shareholders may recommend nominees to our Board.

Audit Committee; Audit Committee Financial Expert

The information provided under the subheadings “Committees of the Board of Directors” under the Board of Directors heading and “Report of the Audit Committee of the Board of Directors” under Proposal Three in the Proxy Statement is incorporated herein by reference.

Item 11. Executive Compensation.

The information required by this item is incorporated herein by reference to the information set forth in Ceridian’s Proxy Statement under the headings “Director Compensation”, “Executive Compensation”, “Equity Compensation Plan Information”, and “Corporate Governance”.

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

Securities Authorized for Issuance Under Equity Compensation Plans

The information required by this item is incorporated herein by reference to the information set forth in the Proxy Statement under the heading “Equity Compensation Plan Information”.

Security Ownership of Certain Beneficial Owners and Management

The information required by this item is incorporated herein by reference to the information set forth in the Proxy Statement under the heading “Security Ownership of Certain Beneficial Owners and Management”.

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

The information required by this item is incorporated herein by reference to the information set forth in the Proxy Statement under the headings “Certain Relationships and Related Party Transactions”, “Election of Directors”, under Proposal One, “Board of Directors” and “Corporate Governance”.

Item 14. Principal Accounting Fees and Services.

Our independent registered public accounting firm is KPMG LLP, Minneapolis, MN, Auditor Firm ID: 185.

The information required by this item is incorporated herein by reference to the information set forth in the Proxy Statement under the heading “Ratification of the Appointment of KPMG LLP as our Independent Registered Public Accounting Firm for Fiscal Year 2022” under Proposal Three.

PART IV

Item 15. Exhibits, Financial Statement Schedules.**(1) Consolidated Financial Statements**

See Index to Consolidated Financial Statements at Item 8 herein.

(2) Financial Statement Schedules

All schedules are omitted because they are not applicable or the required information is shown in the consolidated financial statements or notes thereto.

(3) Exhibits

The following is a list of exhibits filed as part of this Annual Report on Form 10-K.

Exhibit Number	Description
3.1	Fourth Amended and Restated Certificate of Incorporation of Ceridian HCM Holding Inc. (incorporated by reference to Exhibit 3.1 to the Quarterly Report on Form 10-Q filed by the Company on May 5, 2021).
3.2	Second Amended and Restated Bylaws of Ceridian HCM Holding Inc. (incorporated by reference to Exhibit 3.1 to the Current Report on Form 8-K filed by the Company on February 9, 2022).
4.1	Certificate of Common Stock (incorporated by reference to Exhibit 4.1 to the Quarterly Report on Form 10-Q filed by the Company on May 24, 2018).
4.2	Registration Rights Agreement, dated April 30, 2018, by and among Ceridian HCM Holding Inc. and the other parties thereto (incorporated by reference to Exhibit 4.4 to the Quarterly Report on Form 10-Q filed by the Company on May 24, 2018).
4.3**	Description of the Registrant's Securities Registered Pursuant to Section 12 of the Securities Exchange Act of 1934.
4.4	Indenture, dated as of March 5, 2021, between Ceridian HCM Holding Inc. and Wells Fargo Bank, National Association (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K filed by the Company on March 5, 2021).
4.5	Form of 0.25% Convertible Senior Notes due 2026 (incorporated by reference to Exhibit 4.1 to the Current Report on Form 8-K filed by the Company on March 5, 2021).
10.1	Credit Agreement, dated April 30, 2018, between Ceridian HCM Holding Inc., as borrowers, the lenders party thereto, and Deutsche Bank AG New York Branch (as administrative agent and collateral agent) (incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q filed by the Company on August 9, 2018).
10.2	First Amendment to Credit Agreement, dated February 19, 2020, between Ceridian HCM Holding Inc., as borrowers, the lenders party thereto, Deutsche Bank AG New York Branch (as administrative agent and collateral agent) (incorporated by reference to Exhibit 10.4 to the Quarterly Report on Form 10-Q filed by the Company on May 6, 2020).
10.3	Second Amendment to Credit Agreement, dated as of December 15, 2021, between Ceridian HCM Holding, Inc., as borrowers, the lenders party thereto, Deutsche Bank AG New York Branch (as administrative agent and collateral agent) (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed by the Company on December 16, 2021).
10.4	Form of Capped Call Transaction Confirmation (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed by the Company on March 5, 2021).
10.5*	Employment Agreement, dated April 2, 2012, by and between Dayforce Corporation and David D. Ossip (incorporated by reference to Exhibit 10.2 to the Registration on Form S-1 filed by the Company on March 26, 2018).
10.6*	Performance-Based Stock Option Award Agreement dated May 8, 2020 by and between Ceridian HCM Holding Inc. and David Ossip (incorporated by reference to Exhibit 10.2 to the Quarterly Report on Form 10-Q filed by the Company on August 5, 2020).
10.7*	Amended and Restated Restrictive Covenant Agreement, effective as of March 20, 2017, by and among Ceridian Holding LLC, Ceridian LLC, Ceridian Canada Ltd., Ceridian Dayforce Corporation and David D. Ossip (incorporated by reference to Exhibit 10.3 to the Registration on Form S-1 filed by the Company on March 26, 2018).

- 10.8* [Amended and Restated Employment Agreement, effective February 9, 2022, between Leah E. Turner and Ceridian Canada Ltd. \(incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed by the Company on February 9, 2022\).](#)
- 10.9* [Employment Agreement, dated May 1, 2019, by and between Chris R. Armstrong and Ceridian HCM, Inc. \(incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q filed by the Company on July 30, 2019\).](#)
- 10.10* [Amendment to Employment Agreement, dated November 5, 2019, by and between Christopher R. Armstrong and Ceridian HCM, Inc. \(incorporated by reference to Exhibit 10.6 to the Annual Report on Form 10-K filed by the Company on February 26, 2020\).](#)
- 10.11* [Second Amendment to Employment Agreement, effective February 3, 2020, between Christopher R. Armstrong and Ceridian HCM, Inc. \(incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed by the Company on February 5, 2020\).](#)
- 10.12* [Employment Agreement, dated December 7, 2017, by and between Ceridian Canada Ltd. and Scott A. Kitching \(incorporated by reference to Exhibit 10.6 to the Registration on Form S-1 filed by the Company on March 26, 2018\).](#)
- 10.13* [Separation Agreement, Release, and Consulting Agreement, effective February 16, 2021, between Scott A. Kitching, Ceridian HCM Holding Inc., and Ceridian Canada Ltd. \(incorporated by reference to Exhibit 10.3 to the Quarterly Report on Form 10-Q filed by the Company on May 5, 2021\).](#)
- 10.14* [Employment Agreement, dated September 15, 2020, by and between Noémie C. Heuland and Ceridian HCM, Inc. \(incorporated by reference to Exhibit 10.2 to the Quarterly Report on Form 10-Q filed by the Company on November 5, 2020\).](#)
- 10.15* [Employment Agreement, effective July 30, 2020, between Joseph B. Kornqiebel and Ceridian HCM, Inc. \(incorporated by reference to Exhibit 10.2 to the Quarterly Report on Form 10-Q filed by the Company on May 5, 2021\).](#)
- 10.16* [Employment Agreement, effective February 26, 2021, between Rakesh Subramanian and Ceridian HCM, Inc. \(incorporated by reference to Exhibit 10.4 to the Quarterly Report on Form 10-Q filed by the Company on May 5, 2021\).](#)
- 10.17* [Amendment to Employment Agreement, effective March 15, 2021, between Rakesh Subramanian and Ceridian HCM, Inc. \(incorporated by reference to Exhibit 10.5 to the Quarterly Report on Form 10-Q filed by the Company on May 5, 2021\).](#)
- 10.18* [Employment Agreement, effective June 7, 2021, between William McDonald and Ceridian HCM, Inc. \(incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q filed by the Company on August 4, 2021\).](#)
- 10.19* [Ceridian Holding Corp. 2007 Stock Incentive Plan, dated November 9, 2007 \(incorporated by reference to Exhibit 4.3 to the Registration on Form S-8 filed by the Company on April 25, 2018\).](#)
- 10.20* [2013 Ceridian HCM Holding Inc. Stock Incentive Plan, dated October 1, 2013, and as amended on March 30, 2016, August 11, 2016, December 30, 2016, and March 20, 2017 \(incorporated by reference to Exhibit 10.10 to the Registration on Form S-1 filed by the Company on March 26, 2018\).](#)
- 10.21* [Form of Director Indemnification Agreement for Ceridian HCM Holding Inc. \(incorporated by reference to Exhibit 10.11 to the Registration on Form S-1 filed by the Company on April 12, 2018\).](#)
- 10.22* [Ceridian HCM Holding Inc. 2018 Equity Incentive Plan \(incorporated by reference to Exhibit 4.1 to the Registration Statement on Form S-8 filed by the Company on April 25, 2018\).](#)
- 10.23* [Form of Director Restricted Stock Unit Award Agreement \(incorporated by reference to Exhibit 10.13 to the Registration on Form S-1 filed by the Company on April 12, 2018\).](#)
- 10.24* [Form of Director Restricted Stock Unit Award Agreement \(for awards made after May 1, 2019\) \(incorporated by reference to Exhibit 10.2 to the Quarterly Report on Form 10-Q filed by the Company on July 30, 2019\).](#)
- 10.25* [Form of Director Restricted Stock Unit Award Agreement \(for annual compensation awards made after May 1, 2020\) \(incorporated by reference to Exhibit 10.3 to the Quarterly Report on Form 10-Q filed by the Company on August 5, 2020\).](#)
- 10.26* [Form of Restricted Stock Unit Award Agreement \(for Canadian executive awards made after February 25, 2021\) \(incorporated by reference to Exhibit 10.5 to the Current Report on Form 8-K filed by the Company on February 26, 2021\).](#)
- 10.27* [Form of Director Stock Option Award Agreement \(for annual compensation awards made after May 1, 2020\) \(incorporated by reference to Exhibit 10.4 to the Quarterly Report on Form 10-Q filed by the Company on August 5, 2020\).](#)

10.28*	Form of Performance Stock Unit Award Agreement (for Canadian executive awards made after February 25, 2021) (incorporated by reference to Exhibit 10.6 to the Current Report on Form 8-K filed by the Company on February 26, 2021).
10.29*	Form of Employee Restricted Stock Unit Award Agreement (incorporated by reference to Exhibit 10.14 to the Registration on Form S-1 filed by the Company on April 12, 2018).
10.30*	Form of Option to Purchase Common Stock of Ceridian HCM Holding Inc. (incorporated by reference to Exhibit 10.15 to the Registration on Form S-1 filed by the Company on April 12, 2018).
10.31*	Form of Stock Option Award Agreement (for awards made after February 25, 2021) (incorporated by reference to Exhibit 10.3 to the Current Report on Form 8-K filed by the Company on February 26, 2021).
10.32*	Form of Employee Performance-Based Stock Option Award Agreement (incorporated by reference to Exhibit 10.1 to the Quarterly Reported on Form 10-Q filed by the Company on August 5, 2020).
10.33*	Form of Restricted Stock Unit Award Agreement (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed by the Company on February 10, 2020).
10.34*	Form of Restricted Stock Unit Award Agreement (for awards made after February 25, 2021) (incorporated by reference to Exhibit 10.4 to the Current Report on Form 8-K filed by the Company on February 26, 2021).
10.35*	Form of Performance Stock Unit Award Agreement (incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K filed by the Company on March 2, 2020).
10.36*	Form of Performance Stock Unit Award Agreement (for awards made after February 25, 2021) (incorporated by reference to Exhibit 10.2 to the Current Report on Form 8-K filed by the Company on February 26, 2021).
10.37*	Ceridian HCM Holding Inc. Global Employee Stock Purchase Plan (incorporated by reference to Exhibit 99.1 to the Registration Statement on Form S-8 filed by the Company on November 28, 2018).
10.38*	Ceridian HCM Holding Inc. 2021 Management Incentive Plan (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K filed by the Company on February 26, 2021).
21.1**	List of subsidiaries of Ceridian HCM Holding Inc.
23.1**	Consent of KPMG LLP, Independent Registered Public Accounting Firm.
24.1	Power of Attorney (included on signature page).
31.1**	Certification of Co-Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2**	Certification of Co-Principal Executive Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.3**	Certification of Principal Financial Officer Pursuant to Rules 13a-14(a) and 15d-14(a) under the Securities Exchange Act of 1934, as Adopted Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1**	Certification of Co-Principal Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2**	Certification of Co-Principal Executive Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.3**	Certification of Principal Financial Officer Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS**	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 Document
101.CAL**	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF**	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.LAB**	Inline XBRL Taxonomy Extension Label Linkbase Document
101.PRE**	Inline XBRL Taxonomy Extension Presentation Linkbase Document
104**	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

* Management compensatory plan or arrangement.

** Filed herewith.

Item 16. Form 10-K Summary.

Not applicable.

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.

CERIDIAN HCM HOLDING INC.

Date: February 25, 2022

By: /s/ David D. Ossip
Name: David D. Ossip
Title: Co-Chief Executive Officer

Date: February 25, 2022

By: /s/ Leagh E. Turner
Name: Leagh E. Turner
Title: Co-Chief Executive Officer

KNOW ALL MEN BY THESE PRESENTS, that each of the undersigned constitutes and appoints each of Noémie C. Heuland and William E. McDonald, or any of them, each acting alone, his or her true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for such person and in his or her name, place and stead, in any and all capacities, to sign this Annual Report on Form 10-K, and to file the same, with all exhibits thereto, and other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorneys-in-fact and agents, each acting alone, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he or she might or could do in person, hereby ratifying and confirming that any such attorney-in-fact and agent, or his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

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 in the capacities and on the dates indicated.

Name	Title	Date
/s/ David D. Ossip David D. Ossip	Chair and Co-Chief Executive Officer (Co-Principal Executive Officer)	February 25, 2022
/s/ Leigh E. Turner Leigh E. Turner	Co-Chief Executive Officer and Director (Co-Principal Executive Officer)	February 25, 2022
/s/ Noémie C. Heuland Noémie C. Heuland	Executive Vice President and Chief Financial Officer (Principal Financial Officer)	February 25, 2022
/s/ Jeffrey S. Jacobs Jeffrey S. Jacobs	Head of Accounting and Financial Reporting (Principal Accounting Officer)	February 25, 2022
/s/ Brent B. Bickett Brent B. Bickett	Director	February 25, 2022
/s/ Ronald F. Clarke Ronald F. Clarke	Director	February 25, 2022
/s/ Deborah A. Farrington Deborah A. Farrington	Director	February 25, 2022
/s/ Thomas M. Hagerty Thomas M. Hagerty	Director	February 25, 2022
/s/ Linda P. Mantia Linda P. Mantia	Director	February 25, 2022
/s/ Ganesh B. Rao Ganesh B. Rao	Director	February 25, 2022
/s/ Andrea S. Rosen Andrea S. Rosen	Director	February 25, 2022
/s/ Gerald C. Throop Gerald C. Throop	Director	February 25, 2022

**Description of the Registrant's Securities
Registered Pursuant to Section 12 of the
Securities Exchange Act of 1934**

As of December 31, 2021, Ceridian HCM Holding Inc. (the "Company") had one class of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"): Common Stock.

Description of Common Stock

The following description of the Company's Common Stock is a summary and does not purport to be complete. It is subject to and qualified in its entirety by reference to the Company's fourth amended and restated certificate of incorporation (the "Certificate of Incorporation") and second amended and restated bylaws (the "Bylaws"), each of which are incorporated by reference as an exhibit to the Annual Report on Form 10-K to which this description is also an exhibit.

Authorized Capitalization

The Company's authorized capital stock consists of (i) 500,000,000 shares of common stock, par value \$0.01 per share (the "Common Stock") and (ii) 10,000,000 shares of preferred stock, par value \$0.01 per share.

Voting Rights

Directors are elected by a plurality of the votes entitled to be cast except as set forth below with respect to directors to be elected by the holders of Common Stock. The Company's stockholders do not have cumulative voting rights. Except as otherwise provided in the Company's Certificate of Incorporation or as required by law, all matters to be voted on by the Company's stockholders other than matters relating to the election and removal of directors must be approved by a majority of the shares present in person or by proxy at the meeting and entitled to vote on the subject matter or by a written resolution of the stockholders representing the number of affirmative votes required for such matter at a meeting.

Dividend Rights

Holders of Common Stock share equally in any dividend declared by the Company's board of directors (the "Board"), subject to the rights of the holders of any outstanding preferred stock.

Liquidation Rights

In the event of any voluntary or involuntary liquidation, dissolution, distribution of assets, or winding up of the Company's affairs, holders of Common Stock would be entitled to share ratably in the Company's assets that are legally available for distribution to stockholders after payment of liabilities. If the Company has any preferred stock outstanding at such time, holders of the preferred stock may be entitled to distribution and/or liquidation preferences. In either such case, the Company must pay the applicable distribution to the holders of preferred stock before the Company may pay distributions to the holders of Common Stock.

Other Rights

The Company's stockholders have no preemptive or other rights to subscribe for additional shares. The Common Stock has no sinking fund or redemption provisions or conversion or exchange rights. All holders of Common Stock are entitled to share equally on a share-for-share basis in any assets available for distribution to holders of the Common Stock upon liquidation, dissolution, or winding up. All outstanding shares are validly issued, fully paid and nonassessable.

Listing

The Common Stock is listed on the New York Stock Exchange ("NYSE") and the Toronto Stock Exchange ("TSX") under the symbol "CDAY." The shares of Common Stock trade in U.S. dollars on the NYSE and in Canadian dollars on the TSX.

Transfer Agent and Registrar

The transfer agent and registrar for the Common Stock is American Stock Transfer & Trust Company, LLC.

Other Information

Registration Rights Agreement

In connection with the Company's initial public offering ("IPO"), the Company entered into a registration rights agreement with the affiliates and co-investors of Thomas H. Lee Partners, L.P. and Cannae Holdings, Inc. (together with Thomas H. Lee Partners, L.P., the "Sponsors"), David D. Ossip, Alon Ossip, the brother of David D. Ossip, and entities controlled by each of David D. Ossip and Alon Ossip in respect of the shares of Common Stock and exchangeable shares of the Company's subsidiary, Ceridian AcquisitionCo ULC (the "Exchangeable Shares") held by such holder immediately following the IPO. This agreement provides these holders (and their permitted transferees) with the right to require the Company, at its expense, to register shares of Common Stock that they hold. The agreement also provides that the Company will pay certain expenses of these electing holders relating to such registrations and indemnify them against certain liabilities that may arise under the Securities Act of 1933, as amended.

Preferred Stock

The Board is authorized to provide for the issuance of preferred stock in one or more series and to fix the preferences, powers, and relative, participating, optional, or other special rights and qualifications, limitations, or restrictions thereof, including the dividend rate, conversion rights, voting rights, redemption rights, and liquidation preference and to fix the number of shares to be included in any such series without any further vote or action by the Company's stockholders. Any preferred stock so issued may rank senior to the Common Stock with respect to the payment of dividends or amounts upon liquidation, dissolution or winding up, or both. In addition, any such shares of preferred stock may have class or series voting rights. The issuance of preferred stock may have the effect of delaying, deferring, or preventing a change in control of the company without further action by the stockholders and may adversely affect the voting and other rights of the holders of the Common Stock. The Board has not authorized the issuance of any shares of preferred stock, and the Company has no agreements or plans for the issuance of any shares of preferred stock.

The Board has authorized the issuance of one share of special voting preferred stock, par value \$0.01 per share (the "Special Voting Share"), in the Certificate of Incorporation. The holder of the Special Voting Share is entitled to vote on all matters that a holder of the Common Stock is entitled to vote on and is generally entitled to cast a number of votes equal to the number of shares of Common Stock issuable upon exchange of the Exchangeable Shares then outstanding. The holder of the Special Voting Share is not entitled to receive dividends.

Anti-takeover Provisions

The Certificate of Incorporation and Bylaws contain provisions that delay, defer, or discourage transactions involving an actual or potential change in control of the Company or change in the Company's management. The Company expects that these provisions, which are summarized below, will discourage coercive takeover practices or inadequate takeover bids. These provisions are designed to

encourage persons seeking to acquire control of the Company to first negotiate with the Board, which may result in an improvement of the terms of any such acquisition in favor of the Company's stockholders. However, they also give the Board the power to discourage transactions that some stockholders may favor, including transactions in which stockholders might otherwise receive a premium for their shares or transactions that the Company's stockholders might otherwise deem to be in their best interests. Accordingly, these provisions could adversely affect the price of the Common Stock.

Classified Board of Directors

The Certificate of Incorporation provides that the Board be divided into three classes of directors, designated Class I, Class II, and Class III. At the 2022 annual meeting of stockholders, successors to the directors whose terms expire at that annual meeting shall be elected to hold office for a one-year term expiring at the 2023 annual meeting of stockholders; at the 2023 annual meeting of stockholders, successors to the directors whose terms expire at that annual meeting shall be elected to hold office for a one-year term expiring at the 2024 annual meeting of the stockholders; and at the 2024 annual meeting of stockholders and at each annual meeting of stockholders thereafter, all directors shall be elected to hold office for a one-year term expiring at the next annual meeting of stockholders. A director shall hold office until such director's term expires and until such director's successor is elected and qualified for office, subject, however, to such director's prior death, resignation, retirement, disqualification or removal from office.

Removal of Directors

The Certificate of Incorporation provides that, (a) any director who prior to the 2022 annual meeting of stockholders was elected to a three-year term (a "Classified Term") that continues beyond the date of the 2022 annual meeting (a "Classified Director") may be removed from office at any time, but only for cause and only by the affirmative vote of the holders of a majority of the outstanding capital stock of the Corporation then entitled to vote generally in the election of directors, considered for purposes of Article VII of the Certificate of Incorporation as one class; and (b) any director that is not a Classified Director may be removed from office by the stockholders of the Company, with or without cause, by the affirmative vote of the holders of a majority of the outstanding capital stock of the Company then entitled to vote generally in the election of directors, considered for the purposes of Article VII of the Certificate of Incorporation as one class. "Cause" means, with respect to any director, (x) the willful failure by such director to perform, or the gross negligence by such director in performing, the duties of a director, (y) the engaging by such director in willful or serious misconduct that is injurious to the Corporation or (z) the conviction of such director of, or the entering by such director of a plea of nolo contendere to, a crime that constitutes a felony.

Requirements for Advance Notification of Stockholder Meetings, Nominations, and Proposals

The Bylaws provide that special meetings of the stockholders may be called only upon the request of a majority of the Board or upon the request of the Chief Executive Officer. The Bylaws prohibit the conduct of any business at a special meeting other than as specified in the notice for such meeting. These provisions may have the effect of deferring, delaying, or discouraging hostile takeovers or changes in control or management of the Company.

The Bylaws establish advance notice procedures with respect to stockholder proposals and the nomination of candidates for election as directors, other than nominations made by or at the direction of the Board or a committee of the Board. In order for any matter to be "properly brought" before a meeting, a stockholder must comply with the advance notice requirements of directors, which may be filled only by a vote of a majority of directors then in office, even though less than a quorum, and not by the stockholders. The Bylaws allow the presiding officer at a meeting of the stockholders to adopt rules and regulations for the conduct of meetings, which may have the effect of precluding the conduct of certain business at a meeting if the rules and regulations are not followed. These provisions may also defer, delay, or discourage a potential acquirer from conducting a solicitation of proxies to elect the acquirer's own slate of directors or otherwise attempting to obtain control of the Company.

Stockholder Action by Written Consent

The Certificate of Incorporation provides that, at any time when the Sponsors beneficially own, in the aggregate, more than 50% of the voting power of the Company's stock entitled to vote generally in the election of directors, any action required or permitted to be taken by the stockholders of the Company at any meeting of stockholders may be taken without a meeting if a consent in writing, setting forth the action so taken, is signed by stockholders holding not less than the minimum number of votes that would be necessary to authorize or take such action at a meeting at which all shares entitled to vote thereon were present and voted. At any time when the Sponsors beneficially own, in the aggregate, less than 50% of the voting power of the Company's stock entitled to vote generally in the election of directors, the Certificate of Incorporation provides that, subject to the rights of any holders of preferred stock to act by written consent instead of a meeting, stockholder action may be taken only at an annual meeting or special meeting of stockholders and may not be taken by written consent instead of a meeting. Failure to satisfy any of the requirements for a stockholder meeting could delay, prevent, or invalidate stockholder action.

Section 203 of the Delaware General Corporation Law ("DGCL")

The Certificate of Incorporation provides that the provisions of Section 203 of the DGCL, which relate to business combinations with interested stockholders, do not apply to the Company. Section 203 of the DGCL prohibits a publicly held Delaware corporation from engaging in a business combination transaction with an interested stockholder (a stockholder who owns more than 15% of the Common Stock) for a period of three years after the interested stockholder became such unless the transaction fits within an applicable exemption, such as board approval of the business combination or the transaction that resulted in such stockholder becoming an interested stockholder. These provisions will apply even if the business combination could be considered beneficial by some stockholders. The Certificate of Incorporation contains provisions that have the same effect as Section 203 of the DGCL. Although the Company has elected to opt out of the statute's provisions, the Company could elect to be subject to Section 203 in the future.

Amendment to Bylaws and Certificate of Incorporation

The Certificate of Incorporation and the Bylaws provide that, subject to the affirmative vote of the holders of any series of preferred stock required by law, the provisions (i) of the Bylaws may be adopted, amended, or repealed if approved by a majority of the Board then in office or approved by holders of the Common Stock and (ii) of the Certificate of Incorporation may be adopted, amended, or repealed as provided by the DGCL.

Ceridian HCM Holding Inc. – Subsidiaries

<u>Subsidiary</u>	<u>State or other Jurisdiction of formation</u>
Ceridian Global Holding Company Inc.	Delaware
Ceridian HCM, Inc.	Delaware
Ceridian Tax Service, Inc.	Delaware
Ceridian Services LLC	Delaware
Dayforce Talent LLC	Delaware
Ceridian Dayforce Licensing LLC	Delaware
Dayforce Receivables LLC	Delaware
ABR Properties LLC	Florida
Ceridian Cares U.S.	Minnesota
ATI ROW, LLC	Texas
Ceridian Canada Ltd.	Canada
O5 Systems, Inc.	Canada
Ceridian Canada Services Ltd.	Canada
Ceridian Cares	Canada
Ceridian AcquisitionCo ULC	British Columbia
Ceridian Dayforce Corporation	Ontario
Ceridian Dayforce Inc.	Ontario
Ceridian Global UK Holding Company Limited	UK
Ceridian Europe Limited	UK
Ceridian Holdings UK Limited	UK
RITEQ Limited	UK
Ceridian Dayforce México, S. de R.L. de C.V.	Mexico
ADAM HCM MEXICO, S. de R.L. de C.V.	Mexico
Ceridian Dayforce Germany GmbH	Germany
Ceridian Australia Pty Ltd	Australia
Lusworth Pty Limited	Australia
RITEQ Pty Ltd	Australia
Vedelem Pty. Ltd.	Australia
Ceridian APJ Pty Ltd	Australia
Ceridian APJ ACQ Pty Ltd	Australia
Excelity Australia Pty Ltd	Australia
Ascender HCM Pty Limited	Australia

Pacific Payroll Holdings Pty Ltd	Australia
Pacific Payroll Holdings Trust	Australia
Ascender HCM Holdings Pty Ltd	Australia
Pacific Payroll Australia Holdings Pty Ltd	Australia
Pacific Payroll Finance Pty Ltd	Australia
Pacific Payroll Partners Pty Ltd	Australia
Ascender Pay Pty Ltd	Australia
Ascender HCM Australia Pty Ltd	Australia
NIS Holdings Australia Pty Ltd	Australia
The Association for Payroll Specialists Pty Ltd	Australia
Australian Payroll Services Pty Ltd	Australia
NIS Operations Australia Pty Ltd	Australia
Preceda Holdings Pty Ltd	Australia
Ascender Cloud Services Pty Ltd	Australia
Neller Employer Services Pty Ltd	Australia
Ascender Pay ANZ Pty Ltd	Australia
Ascender HCM PS Pty Ltd	Australia
Ascender PST Pty Ltd	Australia
Ascender PeopleStreme Australia Pty Ltd	Australia
Ascender PeopleStreme Software Pty Ltd	Australia
Ascender PeopleStreme Pty Ltd	Australia
Pacific Payroll International Holdings Pty Ltd	Australia
Pacific Payroll International Holdings Trust	Australia
Pacific Payroll International Pty Ltd	Australia
Pacific Payroll International Trust	Australia
Ascender Pay Pty Ltd - PNG Branch	Australian company registered in Papua New Guinea as a branch
Ceridian New Zealand Limited	New Zealand
Ascender HCM New Zealand Limited	New Zealand
Ceridian (Mauritius) Ltd	Mauritius
Ceridian (Mauritius) Learning Centre Ltd	Mauritius
Ceridian Dayforce Ireland Limited	Ireland
Excelity Global Solutions Pte Ltd	Singapore
Excelity Singapore Pte Ltd	Singapore
Pacific Payroll Partners Singapore Pte Ltd	Singapore
Ceridian Dayforce Singapore Pte. Ltd.	Singapore
Ascender HCM Asia Pte Ltd - Philippines ROHQ	Singapore company registered in the Philippines as a branch
Ceridian Dayforce Singapore Pte Ltd - Taiwan Branch	Singapore company registered in Taiwan as a branch
Excelity Philippines, Inc.	Philippines

i-Zapp Cebu Corporation	Philippines
Talent2 HRBPO Corporation	Philippines
Zapper Philippines BPO Inc.	Philippines
Ascender Capital (Thailand) Co., Ltd.	Thailand
Ascender (Thailand) Co Ltd	Thailand
Payfront Technologies India Private Limited	India
Ascender India Private Limited	India
Excelity HCM Solutions SDN. BHD.	Malaysia
iZapper Sdn Bhd	Malaysia
Ascender HCM Malaysia Sdn. Bhd.	Malaysia
Pinfeng (Shanghai) Information Technology Co. Ltd.	China
YI Sai (Shanghai) Human Resources Management Co., Ltd.	China
Zapper Services Consultancy (Shanghai) Limited	China
Ascender Japan KK	Japan
Ascender Korea Limited	Korea
Ascender HK Limited	Hong Kong
Zapper (Vietnam) Co Ltd	Vietnam
Ceridian National Trust Bank (in organization)	The Office of the Comptroller of the Currency

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in the registration statements (No. 333-231639) on Form S-3 and (Nos. 333-224438, 333-228578, 333-231632, 333-248624, 333-255827) on Form S-8 of our report dated February 25, 2022, with respect to the consolidated financial statements of Ceridian HCM Holding Inc. and the effectiveness of internal control over financial reporting.

/s/ KPMG LLP

Minneapolis, Minnesota
February 25, 2022

**CERTIFICATION PURSUANT TO
RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, David D. Ossip, certify that:

1. I have reviewed this Annual Report on Form 10-K of Ceridian HCM Holding Inc. (the "registrant") for the year ended December 31, 2021;
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(s) 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(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 25, 2022

By: /s/ David D. Ossip
David D. Ossip
Co-Chief Executive Officer

**CERTIFICATION PURSUANT TO
RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Leigh E. Turner, certify that:

1. I have reviewed this Annual Report on Form 10-K of Ceridian HCM Holding Inc. (the "registrant") for the year ended December 31, 2021;
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(s) 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(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 25, 2022

By: /s/ Leigh E. Turner
Leigh E. Turner
Co-Chief Executive Officer

**CERTIFICATION PURSUANT TO
RULES 13a-14(a) AND 15d-14(a) UNDER THE SECURITIES EXCHANGE ACT OF 1934,
AS ADOPTED PURSUANT TO SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Noémie C. Heuland, certify that:

1. I have reviewed this Annual Report on Form 10-K of Ceridian HCM Holding Inc. (the "registrant") for the year ended December 31, 2021;
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(s) 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(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: February 25, 2022

By: /s/ Noémie C. Heuland
Noémie C. Heuland
Executive Vice President and
Chief Financial Officer

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of Ceridian HCM Holding Inc. (the "Company") on Form 10-K for the year ended December 31, 2021 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

(1)The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2)The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: February 25, 2022

By: /s/ David D. Ossip
David D. Ossip
Co-Chief Executive Officer

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of Ceridian HCM Holding Inc. (the "Company") on Form 10-K for the year ended December 31, 2021 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

(1)The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2)The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: February 25, 2022

By: /s/ Leagh E. Turner
Leagh E. Turner
Co-Chief Executive Officer

**CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Annual Report of Ceridian HCM Holding Inc. (the "Company") on Form 10-K for the year ended December 31, 2021 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that:

(1)The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2)The information contained in the Report fairly presents, in all material respects, the financial condition and result of operations of the Company.

Date: February 25, 2022

By: /s/ Noémie C. Heuland
Noémie C. Heuland
Executive Vice President and
Chief Financial Officer
