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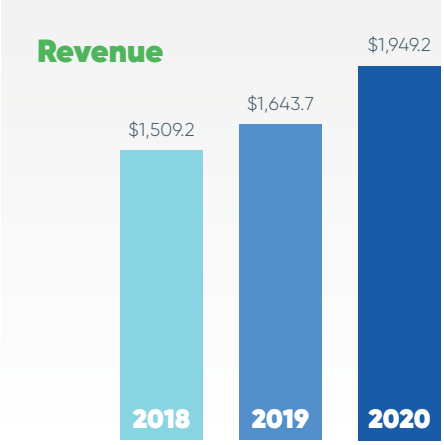
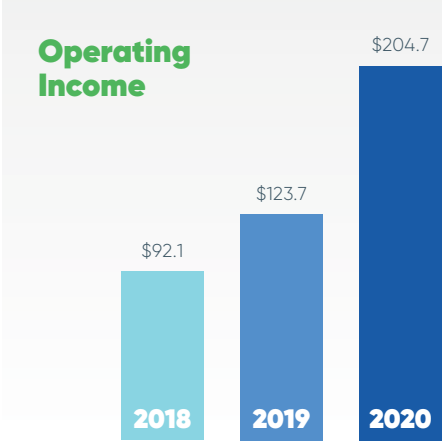
HUMANIZING THE EXPERIENCE ECONOMY

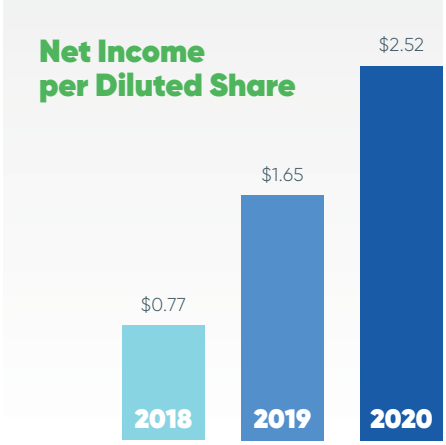
2020 ANNUAL REPORT

2020 FINANCIAL HIGHLIGHTS

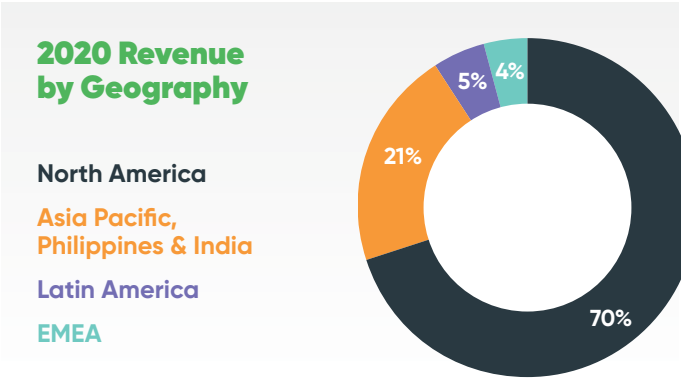
($ in millions, except per share data)

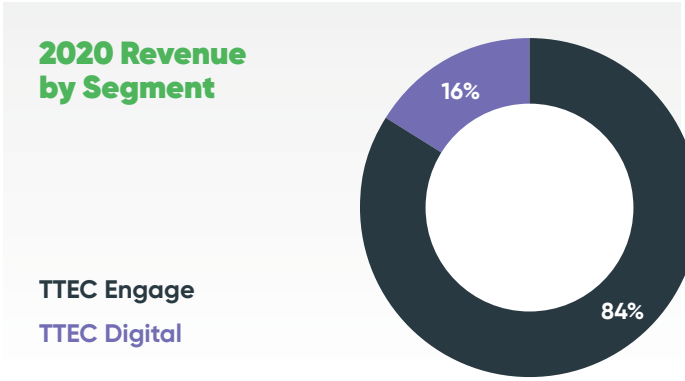






	2018	2019	2020
Revenue	$ 1,509.2	$ 1,643.7	$ 1,949.2
Operating Income	$ 92.1	$ 123.7	$ 204.7
Operating Margin	6.1%	7.5%	10.5%
Adjusted EBITDA	$ 188.7	$ 209.1	$ 304.0
EBIT	$ 80.4	$ 127.6	$ 186.1
Net income	$ 39.8	$ 84.7	$ 129.3
Net income attributable to TTEC stockholders	$ 35.8	$ 77.2	$ 118.6
Average diluted shares outstanding	46.4	46.8	47.0
Net income attributable to TTEC shockholders per diluted share	$ 0.77	$ 1.65	$ 2.52
Cash and cash equivalents	$ 78.2	$ 82.4	$ 132.9
Debt	$ 304.5	$ 307.5	$ 396.3
Capital expenditures	$ 43.5	$ 60.8	$ 59.8





Kenneth D. Tuchman
Founder, Chairman and
Chief Executive Officer

Dear Shareholders,

2020 was a breakthrough year for TTEC. We set aggressive operational and financial objectives and dramatically exceeded them all.

Like every business around the world, we faced a once-in-a-century challenge. As the world lost mobility, consumers shifted to virtual interactions and workers shifted to virtual productivity. Across the globe, people quickly accepted "virtual" as their new "reality" and embraced a new way of life – most of which is here to stay.

In the midst of this massive digital migration, our clients depended on us for the technology and digitally enabled services they needed to meet rising customer demands. We digested what felt like 10 years of digital transformation in 10 months. Our systems and operations were tested and succeeded. Our teams worked around the clock and went above and beyond. We responded from a solid foundation, weathered the 100-year storm, and emerged stronger than ever.

A NEW ERA OF VIRTUALIZATION IS HERE TO STAY

We are at the dawn of a second wave of digital transformation and virtualization that is sweeping the world, and we perform a mission critical role in powering it for our clients. This new digital era will demand increased virtual capabilities for years to come and we are ready.

Over the past several years consumers have become accustomed to using digital tools to acquire anything they want online. They shop for shoes, clothes, food, cars, vacations, and so much more. Everything is available at their fingertips, without compromise. The past 12 months have added new conveniences to that list. "Work from home", "learn from home", "eat out from home", "bank from home", "exercise from home", "stream entertainment from home" and "see a doctor from home" have gone from "nice to haves" to "must-haves". These digitally enabled experiences have become a new cultural standard, many of which will become permanently woven into the fabric of everyday life.

Across the globe, people quickly accepted "virtual" as their new "reality" and embraced a new way of life – most of which is here to stay.

Consumers expect every one of these virtual micro-interactions to be simple, seamless and personalized. If they experience any friction along their digital journey, the competition is just a click away. Orchestrating these effortless experiences isn't easy and requires a highly complex, interconnected network of cloud-based technologies, including omnichannel, artificial intelligence, machine learning, RPA, and advanced analytics. TTEC's proprietary technology solutions, coupled with our deep industry expertise across all major verticals, is fueled by the billions of customer interactions we have delivered for the world's most iconic and disruptive brands. This ability to seamlessly integrate complex CX technology with flawless last-mile execution is what truly distinguishes us from the competition.

Our business is thriving because consumers' expectations for next-generation digital experiences are overwhelming client CX technologies, processes and systems. Many of their communication channels are limited and lack the scale and agility to meet the rising demand. They need the digital horsepower and operational expertise that TTEC provides.

For decades we have been at the forefront, fueling the CX technology and services for our clients who drive the digital economy. We have become the connective tissue between iconic brands and their customers' experiences. Our people and our technology provide the digital glue that enables frictionless interactions across every channel.

GROWTH WITH NEW AND EXISTING CLIENTS

We have achieved accelerated growth during the past several years by serving two kinds of clients – multinational giants in high growth verticals like technology, healthcare, financial services, auto and the public sector; and new economy players in thriving e-commerce and direct-to-consumer channels. Despite this distinction, all of these clients share a common goal: Grow customer value and citizen engagement by delivering exceptional experiences across every channel. This year, we've helped these clients significantly improve their customer experiences and reduce costs by 20-40% by shifting their interaction volumes from pure voice to an optimized blend of voice and digital channels.

This year, we began to shift to broader, longer-term relationships with our existing clients. We penetrated additional areas of those businesses not previously outsourced and have established ourselves as the incumbent going forward. Surge volumes are converting to long-term recurring revenue contracts, especially for clients who recognized the challenges of virtualizing their operations. These clients had reached their tipping point and needed to advance their customer experience delivery capabilities. We supported them as they launched omnichannel, implemented @ home and migrated their infrastructure to our cloud. By digitizing their systems, they were able to meet the increase in demand, improve their CSAT scores, and build operating efficiencies. As a result, we gained additional volume commitments not just for the next 6-12 months, but for the next 3-5 years.

Our business is thriving because consumers' expectations for next-generation digital experiences are overwhelming client CX technologies, processes and systems.

ONE TTEC IS UNIQUE

Our value proposition is unique. We are focused exclusively on the design, implementation and optimization of seamless customer experiences across every interaction channel available. This singular obsession with customer excellence drives every decision we make and puts us in a class of our own. With an all-time record client Net Promoter Score of +75, the results speak for themselves. The most well-respected brands who want to compete and win on customer centricity are trusting TTEC to deliver premium quality digital experiences for their most valuable asset, their customers.

Today, industry analysts estimate that companies are spending over $640 billion in CX tech and services. It is split with $525 billion in CX services and $115 billion in CX technology. We are focused exclusively on the market segments that are experiencing double digit growth.

On the technology front, we estimate that only 15 percent of the contact center market has migrated to the cloud. The mid-sized and mega institutions that we target are recognizing the need to modernize and automate their systems. Our set of capabilities is perfectly positioned to capitalize on this mass migration in motion and creates significant opportunity for our growth.

We see several compelling trends on the operational side as well. As CX delivery becomes more complex, companies are shifting their in-house operations to outsourced partners. They are also consolidating their CX spend with fewer trusted leaders who have a solid balance sheet, innovative capabilities, stellar credentials and deep experience to meet their needs today and position them for ongoing success tomorrow. Our client base of highly-respected, customer-centric global brands are increasingly choosing TTEC.

WELL-POSITIONED FOR THE FUTURE

In 2020 we were tested and we thrived. For our clients in their time of need, we became an engine of the virtual economy. We broke records for bookings, revenue and profits. Today, we are better positioned than ever to continue capitalizing on our strong position and market demand.

We could not have done it without our incredible employees. We've invested heavily in creating an environment where our people feel engaged, empowered, and inspired by their work. Our philosophy is simple. Happy employees make happy customers. And happy customers translate into increased shareholder value. Just this past month, we were thrilled and honored to learn that Forbes magazine named TTEC to its America's Best Large Employers 2021 List.

Meeting the needs of the present without compromising the future continues to be a core value at TTEC. We believe that proactively managing environmental, social, and governance issues as part of our business strategy is critical to our sustainable growth. Our ESG program is built on four pillars including sustainable operations, diversity and inclusion, philanthropy and responsible data management. These programs are well-resourced, active and vital to our future. We live and breathe these values every day and, as a result, it was a privilege to be named one of the Best Companies for Diversity in 2020 by Comparably.

I, along with our incredible management team, am excited about the path ahead. We have powerful market forces at our back, a long-standing reputation for flawless delivery, a history of innovation, and an unrivaled customer experience SaaS technology and services platform. Today, we have all of the necessary ingredients to continue to accelerate our growth and margin potential beyond 2021.

On behalf of our executive team, Board of Directors, and our global employee base, thank you for your continued support.

Kenneth D. Tuchman
Founder, Chairman and Chief Executive Officer

Reconciliation of Non-GAAP Income from Operations and Operating Margin

(in millions)

	2018	2019	2020
GAAP Income from Operations	**$ 92.1**	**$ 123.7**	**$ 204.7**
Restructuring and integration charges, net	$ 6.1	$ 1.7	$ 3.3
Impairment losses	$ 1.5	$ 3.7	$ 5.8
Equity-based compensation expenses	$ 12.1	$ 12.8	$ 12.5
Amortization of purchased intangibles	$ 10.7	$ 11.6	$ 16.2
Allowance for doubtful accounts receivable from customer in bankruptcy	$ 2.7	-	-
Writeoff of contract acquisition costs	$ 1.4	-	-
Writeoff of value added tax due to change in foreign tax law	$ 1.0	-	-
Non-GAAP Operating Income	**$ 127.6**	**$ 153.6**	**$ 242.4**
Non-GAAP Operating Margin	**8.5%**	**9.3%**	**12.4%**

Reconciliation of Non-GAAP Income and Net Income per Diluted Share

(in millions except per share data)

	2018	2019	2020
Net Income	$ 39.8	$ 84.7	$ 129.3
Add: Equity-based compensation expenses	$ 12.1	$ 12.8	$ 12.5
Add: Amortization of purchased intangibles	$ 10.7	$ 11.6	$ 16.2
Add: Loss on asset held for sale reclassified to asset held and used	$ 1.6	-	-
Add: Asset restructuring and impairment charges	$ 7.6	$ 5.5	$ 9.1
Add: Interest charge related to future purchase of remaining 30% for Motif acquisition	$ 9.9	$ 4.7	$ 6.3
Add: Impairment of equity investment	$ 15.6	-	-
Add: Loss on dissolution of foreign subsidiary	-	-	$ 19.9
Less: Changes in acquisition contingent consideration	($ 0.3)	($ 2.4)	($ 1.8)
Less: Gain on sale of business units	($ 2.0)	($ 1.4)	($ 0.6)
Less: Gain on sale of trademarks	-	($ 0.7)	-
Less: Gain on recovery of receivable held by division in winddown	-	($ 1.4)	-
Less: Gain on bargain purchase of acquisition	($ 0.7)	-	-
Add: Allowance for doubtful accounts receivable from customer in bankruptcy	$ 2.7	-	-
Add: Writeoff of contract acquisition costs	$ 1.4	-	-
Add: Writeoff of value added tax due to change in foreign tax law	$ 1.0	-	-
Add: Changes in valuation allowance, return to provision adjustments and other, and tax effects of items separately disclosed above	($ 14.2)	($ 8.2)	($ 11.1)
Non-GAAP Net Income	**$ 85.3**	**$ 105.2**	**$ 179.7**
Average diluted shares outstanding	46.4	46.8	47.0
Non-GAAP Net Income per Diluted Share	**$ 1.84**	**$ 2.25**	**$ 3.82**

Reconciliation of Free Cash Flow

(in millions)

	2018	2019	2020
Net Income	$ 39.8	$ 84.7	$ 129.3
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	$ 69.2	$ 69.1	$ 78.9
Other	$ 59.4	$ 84.2	$ 63.7
Net cash provided by operating activites	**$ 168.3**	**$ 238.0**	**$ 271.9**
Less: Total Capital Expenditures	($ 43.5)	($ 60.8)	($ 59.8)
Free Cash Flow	**$ 124.9**	**$ 177.2**	**$ 212.1**

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, 2020
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: 001-11919

TTEC Holdings, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**84-1291044**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

9197 South Peoria Street
Englewood, Colorado 80112
(Address of principal executive offices)
Registrant's telephone number, including area code:
(303) 397-8100

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

Title of each class	Trading Symbol	Name of each exchange on which registered
Common stock of TTEC Holdings, Inc., $0.01 par value per share	TTEC	NASDAQ

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

Indicate by checkmark 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 Securities Exchange Act of 1934. Yes ☐ No ☒

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

Yes☒ No ☐

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

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

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

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

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

As of June 30, 2020, the last business day of the registrant's most recently completed second fiscal quarter, there were 46,682,482 shares of the registrant's common stock outstanding. The aggregate market value of the registrant's voting and non-voting common stock that was held by non-affiliates on such date was $842,455,243 based on the closing sale price of the registrant's common stock on such date as reported on the NASDAQ Global Select Market.

As of February 24, 2021, there were 46,739,315 shares of the registrant's common stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Certain information required for Part III of this report is incorporated by reference to the proxy statement for the registrant's 2021 annual meeting of stockholders.

TTEC HOLDINGS, INC. AND SUBSIDIARIES
DECEMBER 31, 2020 FORM 10-K

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CAUTIONARY NOTE ABOUT FORWARD-LOOKING STATEMENTS

This Annual Report on Form 10-K contains "forward-looking statements" within the meaning of Section 27A of the Securities Act of 1933, Section 21E of the Securities Exchange Act of 1934, and the Private Securities Litigation Reform Act of 1995, relating to our operations, expected financial position, results of operation, and other business matters that are based on our current expectations, assumptions, and projections with respect to the future, and are not a guarantee of performance. In this report, when we use words such as "may," "believe," "plan," "will," "anticipate," "estimate," "expect," "intend," "project," "would," "could," "target," or similar expressions, or when we discuss our strategy, plans, goals, initiatives, or objectives, we are making forward-looking statements.

We caution you not to rely unduly on any forward-looking statements. Actual results may differ materially from those expressed in the forward-looking statements, and you should review and consider carefully the risks, uncertainties and other factors that affect our business and may cause such differences as outlined in the section of this report entitled "Risk Factors". Important factors that could cause our actual results to differ materially from those indicated in the forward looking statements include, among others, are the risks related to our business operations and strategy, including the risks related to our strategy execution in a competitive market; our ability to innovate and introduce technologies that are sufficiently disruptive to allow us to maintain and grow our market share; our dependance on 3rd parties for our cloud solutions, the impact of COVID-19 on our business and our clients' business, risks inherent in our rapid transition to a work from home environment, the risk of accurately forecasting demand and the impact of such forecasts on our capacity utilization; our ability to attract and retain qualified and skilled personnel at a price point that we can afford and our clients are willing to pay; our M&A activity, including our ability to identify, acquire and properly integrate acquired businesses in accordance with our strategy; the risks related to our technology, including cybersecurity, the reliability of our information technology infrastructure and our ability to consistently deliver uninterrupted service to our clients; the risk related to our international operations; the risks related to legal impact on our operations, including rapidly changing laws that regulate our and our clients' business, such as data privacy and data protection laws and healthcare, financial and public sector specific regulations, our ability to comply with these laws timely, and cost of wage and hour litigation in the United States; and risks inherent in our equity structure including our controlling shareholder risk, and Delaware choice of dispute resolution risks.

Our forward-looking statements speak only as of the date that this report is filed with the United States Securities and Exchange Commission ("SEC"). We undertake no obligation to update them, except as may be required by applicable law. Although we believe that our forward-looking statements are reasonable, they depend on many factors outside of our control and we can provide no assurance that they will prove to be correct.

AVAILABILITY OF INFORMATION

TTEC Holdings, Inc.'s principal executive offices are located at 9197 South Peoria Street, Englewood, Colorado 80112. Electronic copies of our Annual Reports on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, Proxy Statements and any amendments to these reports are available free of charge by (i) visiting our website at http://www.ttec.com/investors/sec-filings/ or (ii) sending a written request to Investor Relations at our corporate headquarters or to investor.relations@ttec.com. TTEC's SEC filings are posted on our corporate website as soon as reasonably practical after we electronically file such materials with, or furnish them to, the SEC. Information on our website is not incorporated by reference into this report.

You may also access any materials that we file with the SEC via the SEC's public website at www.sec.gov.

PART I

ITEM 1.

BUSINESS

Our Business

TTEC Holdings, Inc. (“TTEC”, “the Company”, “we”, “our” or “us”) is a leading global customer experience as a service (“CXaaS”) partner for many of the world’s iconic brands, Fortune 1000 companies, government agencies, and disruptive growth companies. TTEC helps its clients deliver frictionless customer experiences, strengthen customer relationships, brand recognition and loyalty through personalized interactions, improve their Net Promoter Score, customer satisfaction and quality assurance, and lower their total cost to serve by combining innovative digital solutions with best-in-class service capabilities to enable and deliver simplified, consistent and seamless customer experience across channels and phases of the customer lifecycle.

Our CXaaS solutions enhance our clients’ customers experience and help differentiate our clients from their competition.

In the fast expanding direct-to-customer ("DTC") channel where experiences are everything, enterprises must become increasingly more customer-centric, virtualized and digitally enabled to acquire, grow and maintain customers. Our mission is to enable and accelerate our clients' path to virtual and digital transformation. We are focused on improving the experience of our clients' customers by leveraging existing and emerging technologies — cloud, omnichannel, analytics, artificial intelligence ("AI"), machine learning ("ML"), robotic process automation ("RPA"), and real-time conversational messaging.

The Company reports its financial information based on two segments: TTEC Digital and TTEC Engage.

- **TTEC Digital** provides the CX technology services and platforms to support our clients’ customer interaction delivery infrastructure. The segment designs, builds and operates the omnichannel ecosystem in a cloud, on premise, or hybrid environment, inclusive of fully integrating, orchestrating, and administrating highly scalable, feature-rich CX technology applications.
- **TTEC Engage** provides the CX managed services to support our clients’ end-to-end customer interaction delivery, by providing the essential CX omnichannel and application technologies, human resources, recruiting, training and production, at-home or facility-based delivery infrastructure on a global scale, and engagement processes. This segment provides full-service digital, omnichannel customer engagement, supporting customer care, customer acquisition, growth and retention, and fraud detection and prevention services.

TTEC Digital and TTEC Engage strategically come together under our unified offering, Humanify® Customer Experience as a Service ("CXaaS"), which drives measurable customer results for clients through the delivery of personalized, omnichannel experiences. Our Humanify® cloud platform provides a fully integrated ecosystem of CX offerings, including messaging, AI, ML, RPA, analytics, cybersecurity, customer relationship management ("CRM"), knowledge management, journey orchestration and traditional voice solutions. Our end-to-end platform differentiates us from many competitors by combining design, strategic consulting, best-in-class technology, data analytics, process optimization, system integration and operational excellence. This unified offering is value-oriented, outcome-based and delivered to large enterprises, governments and disruptive growth companies on a global scale.

During fiscal 2020, the TTEC global operating platform delivered onshore, nearshore and offshore services in 20 countries on six continents -- the United States, Australia, Belgium, Brazil, Bulgaria, Canada, Costa Rica, Germany, Greece, India, Ireland, Mexico, the Netherlands, New Zealand, the Philippines, Poland, Singapore, South Africa, Thailand, and the United Kingdom – with the help of 61,000 consultants, technologists, and CX professionals.

Our revenue for fiscal 2020 was $1.949 billion, approximately $307 million, or 16% which came from our TTEC Digital segment and $1.642 billion, or 84%, which came from our TTEC Engage segment.

To improve our competitive position in a rapidly changing market and stay strategically relevant to our clients, we continue to invest in innovation and service offerings for both mainstream and high growth disruptive businesses, diversifying and strengthening our core customer care services with consulting, data analytics, insights, and technology-enabled, outcomes-focused services.

We also invest to broaden our product and service capabilities, increase our global client base and industry expertise, tailor our geographic footprint to the needs of our clients, and further scale our end-to-end integrated solutions platform. To this end we have been highly acquisitive in the last several years, including an acquisition in the second half of 2020 of a preferred Amazon Connect cloud contact center service provider, an acquisition in the first quarter of 2020 of an autonomous customer experience and intelligent automation solutions provider and an acquisition in the fourth quarter of 2019 of a provider of customer care, social media community management, content moderation, technical support and business process solutions for rapidly growing businesses in early stages of their lifecycle.

We have extensive expertise in the automotive, communications, financial services, national/federal and state and local government, healthcare, logistics, media and entertainment, e-tail/retail, technology, travel and transportation industries. We serve more than 300 diverse clients globally, including many of the world's iconic brands, Fortune 1000 companies, government agencies, and disruptive growth companies.

Our strong balance sheet, cash flow from operations and access to debt and capital markets have historically provided us the financial flexibility to effectively fund our organic growth, capital expenditures, strategic acquisitions, incremental investments, and capital distributions.

We return capital to our shareholders through our dividend program. Given our cash flow generation and balance sheet strength, we believe cash dividends, in balance with our investments in product and service innovations, organic growth, and strategic acquisitions, align shareholder interests with the needs of the Company. After consideration of TTEC's performance, cash flow from operations, capital needs and the overall liquidity of the Company, the Company's Board of Directors adopted a dividend policy in 2015, with the intent to distribute a periodic cash dividend to stockholders of our common stock. Since inception in 2015, the Company has continued to pay a semi-annual dividend in October and April of each year in gradually increasing amounts from $0.18 to $0.40 per common share. On December 3, 2020, the Board of Directors authorized a special one-time dividend of $2.14 per common share, payable on December 30, 2020, to shareholders of record as of December 18, 2020. On February 25, 2021, the Board of Directors authorized a semi-annual dividend of $0.43 per common share, payable on April 21, 2021 to shareholders of record as of April 5, 2021.

In March 2020, the World Health Organization declared the outbreak of COVID-19 as a global pandemic. Within weeks of this announcement, travel bans, a state of emergency, quarantines, lockdowns, "shelter in place" orders, and business restrictions and shutdowns were issued in most countries where TTEC does business. The need to comply with these measures, which came into effect with little notice, impacted our day-to-day operations and disrupted our business in the last month of the first quarter and second quarter of the year. As a result, operations were suspended in some of our TTEC Engage customer experience delivery sites. Business continuity plans were executed to transition as many employees as was reasonably possible to a work from home environment to support the health and well-being of our employees and communities and to provide a stable service delivery platform for our clients.

Between mid-March and mid-April 2020, we transitioned over 43,000 employees, or 80% of our employee population, to a work from home environment. With the easing of some of the government restrictions, those employees who were considered essential and could not operate effectively while remote returned to our brick-and-mortar sites, but most continue to work from home.

For those sites that continue to operate, we have taken extensive measures to protect the health and safety of our employees, in accordance with the recommendations and guidelines provided by the World Health Organization, the U.S. and European Centers for Disease Control and Prevention, the U.S. Occupational Safety Association, and local governments in jurisdictions where our customer experience centers are located.

Although our business experienced the effects of COVID-19 in the first half of 2020, our implementation of business continuity plans, rapid transition of employees to a work from home environment, and the geographic diversification of our delivery centers allowed us to mitigate potentially more severe impacts, and positioned us to support our commercial and public sector clients experiencing significant surge volumes of customer, patient and citizen COVID-19 related engagement. Our COVID-19 related surge work has contributed approximately 12% of our total revenue for 2020. Although approximately 20% of our pre-COVID-19 business was comprised of clients in industries that have been negatively impacted by the pandemic, i.e. automotive, retail and travel and hospitality, the 2020 total revenue derived from these clients has increased approximately 10% over the prior year period. Through the period ended December 31, 2020 the COVID-19 pandemic has not had a material adverse impact on our operational or financial results. While we expect this positive trend to continue and while some of our COVID-19 related work has transitioned to more traditional business activities for the same clients, there is uncertainty about our COVID-19 surge volumes and our non-COVID-19 related business. We cannot accurately predict the severity of the economic and operational challenges of a pro-longed COVID-19 pandemic on our clients' businesses and its effect on the magnitude and timing of their buying decisions. Further, while to date we have been successful in managing service delivery from our delivery sites that could not be replaced with work from home delivery, unpredictable lockdown decisions in some jurisdictions where we do business may continue to impact our delivery capability with little notice, thus potentially impacting our results of operations in the future.

In March 2020, we launched multiple cost reduction, optimization, and liquidity preservation initiatives to align our expenses with anticipated changes in revenue and increased costs related to the COVID-19 pandemic and government mandated restriction measures. We also intensified our cash flow discipline, including working capital management, hiring freezes, cuts in non-essential spending, suspension of merit increases and some incentive programs, deferral of capital expenditures, where possible, and negotiations for rent concessions for those facilities that we were unable to use during the government restrictions related to the COVID-19 pandemic. Our results of operations for 2020 permitted us to reverse most of the cost austerity measures. With the greater adoption of our work from home solution during the COVID-19 pandemic, we also launched a comprehensive review of our global real estate footprint to balance our commitments to physical facilities around the globe against evolving client preferences with respect to traditional physical delivery centers and work from home delivery. Considering the continued COVID-19 related uncertainties, we continue to remain vigilant in our cost management.

Our Industry – Key Emerging Themes

- *Accelerated Digital and Virtual Transformation* – Before the onset of the COVID-19 pandemic, leading organizations were already transforming to a more digitized, virtualized future. The pandemic and related impacts on access to products and services and how organizations manage their customer interactions, exposed significant customer interaction technology and delivery deficiencies for many organizations across the world that were not digitized or agile enough to adequately support their customers. Organizations' front-line operations and customer support infrastructure were too brick-and-mortar focused with limited non-voice digital customer interaction alternatives. Organizations are recognizing the growing importance for increased virtual delivery solutions and expanded and enhanced digital omnichannel capabilities. This development is expected to create accelerated demand for our demonstrated suite of CX product and service offerings to enable and support this transformation.

- *Direct-to-Consumer ("DTC") Revolution* - The DTC revolution has created a new generation of disruptive brands with few barriers to entry. These emerging brands thrive on emotional connection and authentic customer relationships relying on trusted influencers and personalized service to win the hearts and minds of a growing customer base, one that requires an on-demand, curated buying experience. We believe DTC can enhance the value we provide to our clients as we design, build and operate our clients' digital customer experience.

- *Evolution of Customer Behavior and CX Imperative* - Yesterday's customer service experience is being replaced by today's direct experience, where brands deliver a personalized end-to-end journey. As customers become more connected and share their experiences across a variety of social channels, the quality of the experience has a greater impact on brand loyalty and business performance. Customers are increasingly shaping their attitudes, behaviors and willingness to recommend or stay with a brand based on the totality of their experience, including not only the superiority of the product or service, but also the quality of their ongoing service and support interactions. Given the strong correlation between high customer satisfaction and improved profitability, companies are increasingly focused on selecting partners who can deliver an integrated, insights-driven strategy, service and technology solution that increases the lifetime value of a customer.
- *CX Technology is Migrating to the Cloud* - Cloud investment is expected to continue to grow significantly. The adoption of cloud technology to deliver omnichannel and other customer experience technology is still in its infancy. Our clients are embracing cloud-based CX technology solutions in a manner similar to how they seek cost-effective architecture and rapid deployment across other parts of their operations.
- *Enterprises are Consolidating Partners* - An increasing percentage of companies are consolidating their customer engagement wallet with a few select partners who can deliver measurable business outcomes by offering an integrated, technology-enabled solution. Companies will continue to consolidate with partners like TTEC that have demonstrated expertise in increasing brand value by delivering holistic, integrated customer-centric solutions spanning the entire customer experience journey, instead of inefficiently linking together a series of multiple point solutions.
- CX Delivery Shifting from Brick-and-Mortar to Work From Home – COVID-19 accelerated the shift of customer experience delivery from brick-and-mortar to work from home. While we expect a portion of work from home delivery to shift back to brick-and-mortar post-pandemic, a higher portion of delivery will remain in work from home locations than pre-pandemic.

Our Strategy

We aim to grow our revenue and profitability by focusing on our core customer engagement operational capabilities, linking them to higher margin, insights and technology-enabled platforms and managed services to drive a superior experience for our clients' customers. To that end we continually strive to:

- Build deeper, more strategic relationships with existing global clients to drive enduring, transformational change within their organizations;
- Pursue new clients who lead their respective industries and who are committed to customer engagement as a differentiator;
- Invest in our global sales leadership team at both the segment level to improve collaboration and speed-to-market and consultative sales level to deliver more integrated, strategic, and transformational solutions;
- Expand into new geographic markets that give us access to new customers and partners;
- Execute strategic acquisitions that further complement and expand our integrated solutions;
- Invest in technology-enabled platforms and innovation through technology advancements, broader and globally protected intellectual property, and process optimization, and
- Work within our technology partner ecosystem to deliver best in class solutions with expanding intellectual property through value-add applications, integrations, services and solutions.

Our Integrated Service Offerings and Business Segments

We provide strategic value and differentiation through our two business segments: TTEC Digital and TTEC Engage.

TTEC Digital provides the CX technology services and platforms to support our clients' customer interaction delivery infrastructure. The segment designs, builds and operates the omnichannel ecosystem in a cloud, on premise, or hybrid environment, and fully integrates, orchestrates, and administers highly scalable, feature-rich CX technology applications. These solutions are critical to enabling and accelerating digital transformation for our clients.

- Technology Services: Our technology services design, integrate and operate highly scalable, digital omnichannel technology solutions in the cloud, on premise, or hybrid environment, including journey orchestration, automation and AI, knowledge management, and workforce productivity.
- Professional Services: Our management consulting practices deliver customer experience strategy, analytics, process optimization, and learning and performance services.

TTEC Engage delivers the CX managed services to support our clients' end-to-end customer interaction delivery, by providing the essential CX omnichannel and application technologies, human resources, recruiting, training and production, at-home or facility-based delivery infrastructure on a global scale, and engagement processes. This segment provides full-service digital, omnichannel customer engagement, supporting customer care, customer acquisition, growth and retention, and fraud detection and prevention services.

- Customer Acquisition Services: Our customer growth and acquisition services optimize the buying journeys for acquiring new customers by leveraging technology and analytics to deliver personal experiences that increase the quantity and quality of leads and customers.
- Customer Care Services: Our customer care services provide turnkey contact center solutions, including digital omnichannel technologies, associate recruiting and training, facilities, and operational expertise to create exceptional customer experiences across all touchpoints.
- Fraud Prevention Services: Our digital fraud detection and prevention services proactively identify and prevent fraud and provide community content moderation and compliance.

Based on our clients' preference, we provide our services on an integrated cross-business segment and/or on a discrete basis.

Additional information with respect to our segments and geographic footprint is included in Part II, Item 8. Financial Statements and Supplementary Data, Note 3 to the Consolidated Financial Statements.

Our Competitive Strengths

TTEC is an industry leader in CX by leveraging the following competitive strengths:

- *Humanify® Technology Platform and Insights-Driven Technology Solutions* - Innovation has been a priority since our inception almost 40 years ago. Our dedication and investment in transforming our business has differentiated our solutions portfolio and increased the value we deliver to our clients across the CX continuum. Our Humanify® Technology Platform delivers an ecosystem of integrated CX applications, including omnichannel contact center platforms, the largest CRMs and ERP's as well as innovative technology solutions that we fully integrate into our clients' broader technology systems. The platform is based on secure, scalable public and private data centers, in both pure cloud, on premise, and hybrid environments. This architecture enables us to centralize and standardize our global delivery capabilities, resulting in scalability and improved quality of delivery for our clients, as well as lowering capital and information technology operating costs.

Fundamental to our platforms is our network of global data centers which provide an integrated suite of voice and data routing, workforce management, quality monitoring, business analytics, storage, and infrastructure security and fault-tolerance capabilities, enabling seamless operations from locations around the globe. This 'hub and spoke model' enables us to provide services at a competitive cost while delivering scalability, reliability, regulatory compliance and asset utilization across the full suite of our service offerings. It also provides effective redundancy for a timely response to system interruptions and outages due to natural disasters, grid downtime, and other conditions outside of our control. Importantly, this broad-based platform has accelerated our time to market foundation for new, innovative offerings such as TTEC's cloud based Humanify® Operations/Insights Platform, Humanify® @Home for remote omnichannel agents, and our suite of human capital solutions.

Further, our Humanify® Technology Platforms leverage reference architectures for multiple solutions whether we are operating the platforms and the services, implementing customized platforms for clients, or providing advanced managed services and continuous and automated development environments. They also provide clients with secure and compliant solutions for regional (e.g., the European Union General Data Protection Regulation ("GDPR"), or the California Consumer Protection Act ("CCPA")), industry (e.g., the Payment Card Industry Data Security Standard ("PCI"), or the Health Insurance Portability and Accountability Act ("HITRUST")), or client specific standards (e.g. FedRamp or FISMA).

- *Innovative Human Capital Strategies* - Our global, highly trained employee base is crucial to the success of our business. We have made significant investments in proprietary technologies and management tools, methodologies and training processes in the areas of virtual and non-virtual talent acquisition, learning services, knowledge management, workforce engagement and collaboration and performance optimization. These capabilities are the culmination of almost four decades of experience in managing a large, global workforce combined with the latest technology, innovation and strategies in the field of human capital management. This capability has enabled us to deliver a scalable and flexible workforce that is highly engaged in achieving and exceeding our clients' expectations.

- *Robust Technology Partner Ecosystem* - Our strategic alliances with important digital channel partners enable our clients to deliver high-impact, personalized customer experiences more efficiently. We go to market with our Humanify® cloud offering with our key strategic partners including Cisco, LivePerson, Pega and Amazon to continue to fuel AI-powered digital transformation.

- *Globally Deployed Best Operating Practices* - Globally deployed best operating practices help us deliver a consistent, scalable, high-quality experience to our clients' customers from any of our 83 global customer delivery centers and geographically disbursed work-from-home associate base. Standardized processes include our approach to attracting, screening, hiring, training, scheduling, evaluating, coaching and maximizing associate performance to meet our clients' needs. We also provide real-time reporting and analytics on performance across the globe to help ensure transparency and consistency of delivery. This information provides valuable insight into what is driving customer inquiries, enabling us to proactively recommend process changes that optimize the customer experience.

Clients

We develop long-term relationships with clients globally, including many of the worlds' iconic brands, Fortune 1000 companies, government agencies, and disruptive growth companies. These organizations are in customer intensive industries or sectors, whose complexities and customer focus requires a partner that can quickly design and build integrated technology and data-enabled services, often on a global scale. In 2020, our top five and ten clients represented 40% and 53% of total revenue, respectively.

In several of our offerings across TTEC Digital and TTEC Engage, we enter into long-term relationships that provide us with a more predictable recurring revenue stream. In our TTEC Digital segment, our CX cloud and managed services technology solution contracts have an average three-year term with penalties in the case a client terminates for convenience. In our TTEC Engage segment, most of our contracts can be terminated for convenience by either party, but our relationships with our top five clients have ranged from 14 to 21 years including multiple programs and contract renewals for several of these clients. In 2020, we had a 111% revenue retention rate for the TTEC Engage segment, versus 102% in 2019.

Certain of our communications clients provide us with telecommunication services through arm's length negotiated transactions. These clients currently represent approximately 8% of our total annual revenue. Expenditures under these supplier contracts represent less than one percent of our total operating costs.

Competition

We are a leading global customer experience technology and services partner for many of the world's most iconic brands, Fortune 1000 companies, government agencies, and disruptive growth companies. Our competitors vary by geography and business segment, and range from large multinational corporations to smaller, narrowly focused enterprises. Across our lines of business, the principal competitive factors include: client relationships, technology and process innovation, integrated solutions, digital and virtual delivery capabilities, operational performance and efficiencies, pricing, brand recognition and financial strength.

Our strategy in maintaining market leadership is to invest, innovate and provide integrated value-driven services, all centered around customer engagement management. Today, we are executing on a more expansive, holistic strategy by transforming our business into higher-value offerings through organic investments and strategic acquisitions. As we execute, we are differentiating ourselves in the marketplace and entering new markets that introduce us to an expanded competitive landscape.

In our TTEC Digital segment, we primarily compete with smaller pure play technology and service providers and divisions of multinational companies, including Five9, LivePerson, 8x8, InContact, Twilio, EPAM, Endava, Globant, GlobalLogic, Accenture, Cognizant, Infosys, among others.

In our TTEC Engage segment, we primarily compete with in-house customer management operations as well as other companies that provide customer care services including: Teleperformance, Telus, Concentrix, TaskUs, 24-7 Intouch, Sykes, Webhelp, Accenture, Genpact, Exl, among others.

Research, Innovation, Intellectual Property and Proprietary Technology

We recognize the value of innovation in our business and are committed to developing leading-edge technologies and proprietary solutions. Research and innovation have been a major factor in our success and we believe that they will continue to contribute to our growth in the future. We use our investment in research and development to create, commercialize and deploy innovative business strategies and high-value technology solutions.

We deliver value to our clients through, and our success in part depends on, certain proprietary technologies and methodologies. We leverage U.S. and foreign patent, trade secret, copyright and trademark laws as well as confidentiality, proprietary information non-disclosure agreements, and key staff non-competition agreements to protect our proprietary technology.

As of December 31, 2020, we had 3 patent applications pending; and also hold 84 U.S. and non-U.S. patents in 11 jurisdictions that we leverage in our operations and as marketplace differentiation for our service offerings. Our trade name, logos and names of our proprietary solution offerings are protected by their historic use and, in addition, by trademarks and service marks registered in 21 jurisdictions.

Human Capital Resources

Headcount Information: As of December 31, 2020, TTEC had 61,000 employees, approximately 1,300 of whom are CX professionals serving TTEC Digital clients and approximately 59,700 of whom serve TTEC Engage clients. Approximately 46% of TTEC employees are located in the United States, 38% are based in Asia-Pacific region, 8% are located in Central and South America, 4% are based in India, and 3% are based in Europe, Middle East and Africa and 1% are based in Canada. After the start of the COVID-19 pandemic in the second quarter of 2020, we have seen a rapid growth of our employee population in the United States. Between the start of the second quarter and end of fiscal year 2020, our U.S. based employee population increased from 17,000 to 27,900 with most employees working remotely.

Development and Training: The attraction, development and retention of our employees is important to TTEC's success. To support advancement of our employees and prepare them for demands of rapidly changing workplace and client requirements we offer an extensive career focused curriculum. The pressures of COVID-19 pandemic notwithstanding, in 2020 we made significant investments in our talent management platform, TTEC University, that includes a library of more than 8,000 courses that cover topics important to general business acumen ranging from business operations, leadership, ethics, finance, negotiations, and project management to subject-matter specific professional and technical curriculum. TTEC development programs help identify top performers, improve employee retention, and create promotion-from-within opportunities in the Company. In 2020, TTEC launched the Talent Accelerator Program ("TAP") designed to identify and attract new talent and prepare them for success within our organization. The program recruits recently graduated candidates with diverse backgrounds ranging for technology to humanities who undergo a three-year specialized training and rotation through all business functions and segments in our organization. Program participants gain experience in finance, risk, human capital, IT, communication, marketing, sales, and operations, becoming fully immersed in the day-to-day operations of the business. Once the program is completed, the TAP participants will be equipped with knowledge and experience necessary to progress as a manager in the Company.

Diversity & Inclusion: TTEC believes that our culture of diversity and inclusion enables us to create, develop and leverage the strengths of our employee population to align with our client expectations and enable the Company's growth objectives. To achieve our objectives, TTEC formed the Diversity Council that combines representatives from TTEC's different business segments and geographies who bring a diverse mix of backgrounds and perspectives. The Diversity Council includes special affinity groups representation such as Women in Leadership and Black Leadership Council to help unify us and make us stronger as one team.

Our Diversity Council is a critical driver in fostering organizational change, establishing a dedicated focus on diversity, equity, and inclusion priorities identifying best practices and new opportunities, increasing awareness and education, providing leadership opportunities within TTEC to traditionally underrepresented employees, as well as holding the organization accountable in driving a culture that realizes TTEC's vision of 'bringing humanity to business'. The Company has adopted several metrics that focus on ensuring accountability for progress in diversity. The CEO, members of TTEC executive leadership team and other senior leaders have diversity and inclusion objectives embedded in their annual performance goals. As of December 31, 2020, 59% of the Company's global workforce was female and 51% of employees in supervisory roles were female. As of December 31, 2020, 54% of the U.S. workforce were people of color and 34% of employees in supervisory roles were people of color.

Competitive Pay/Benefits and Pay for Performance Philosophy: TTEC compensation programs are designed to align compensation of our employees to market, and to provide appropriate incentives to attract, retain and motivate employees to achieve exceptional results for our clients and our shareholders. Our pay-for-performance philosophy aligns our compensation with TTEC's performance and with the returns that our stockholders receive from their investment in the Company. Further, TTEC provides employees with a comprehensive benefits program that includes nicotine abatement, mental health initiatives, and overall wellness programs to support employees' physical, emotional, and financial health.

Workplace Safety: The health and safety of our employees is one of our highest priorities. Our business's success depends on protecting our employees, visitors, clients and facilities, and we rely on our employees to help us meet our safety and security standards. TTEC employees are required to complete health and safety training when they join the Company and they are encouraged to report any concerns about safety in their work environment. This employee empowerment initiative launched in 2018 and the shift to working from home during the pandemic, lead to a reduction to our injuries at work of approximately 65% by year end 2020.

Our commitment to safety was more important than ever in 2020 when we had to change how we work to address COVID-19 pandemic. We took rapid measures across our business segments and geographies to transition most of our employees to a work from home environment. For the sites that provided essential services and had to remain operational during the pandemic, we invested approximately $5.6 million into enhanced sanitation and safety protocols including increased cleaning frequency, added signage and workstation reconfiguration for social distancing, personal protective equipment, contact tracing, shuttle services, and automated health attestations.

Retention and Turnover: At TTEC, our employees are at the core of everything we do, and our people strategy centers around their experience as part of our team. Since TTEC Engage segment of our business is people intensive, retention and reduction in turnover is a priority important to the financial results of our operations. Our turnover reduction efforts focus on market pay, trained management teams, development programs, career mobility, communication and the work environment and company culture that make an employee feel engaged, rewarded, appreciated, informed, and fulfilled in the organization.

Employee Engagement: To assess and improve employee engagement, we conduct annual employee pulse and Net Promoter Score ("NPS") surveys. We take action to address areas of employee concerns raised in the surveys and reinforce activities that employees tell us encourage them to stay with the Company and recommend the Company as an employer of choice to others. In recent years, approximately 35,000 employees completed our employee NPS survey. TTEC's overall employee engagement score exceeded Gallup's reported best in-class ratings.

ITEM 1A. RISK FACTORS

In addition to the other information presented in this Annual Report on Form 10-K, you should carefully consider the risks and uncertainties discussed in this section when evaluating our business. If any of these risks or uncertainties actually occur, our business, financial condition, and results of operations (including revenue, profitability and cash flows) could be materially and adversely affected, and the market price of our stock could decline.

RISK RELATED TO OUR BUSINESS OPERATIONS AND OUR STRATEGY

If we are unsuccessful in implementing our business strategy, our long-term business and financial prospects could be affected

Our growth strategy is based on continuous diversification of our business beyond contact center customer care outsourcing to an integrated CXaaS platform that unites innovative and disruptive technologies, CX consulting, data analytics, client growth solutions, and customer experience focused system design and integration enabled through industry focused client relationships, continuous technology innovation, scaled delivery footprint, CX partner ecosystem, and strategic M&A. Failure to successfully implement our business strategy and effectively respond to changes in market dynamics may impact our financial results of operations. Our investments in technologies and integrated solution development may not lead to increased revenue and profitability. If we are not successful in creating value from these investments, there could be a negative impact on our operating results and financial condition.

Our markets are highly competitive, and we may not be able to compete effectively

The markets where we offer our services are highly competitive. Our future performance is largely dependent on our ability to compete successfully in markets we currently serve, while expanding into new, profitable markets. We compete with large multinational service providers; offshore service providers from lower-cost jurisdictions that offer similar services, often at highly competitive prices and aggressive contract terms; niche solution providers that compete with us in specific geographic markets, industry segments or service areas; companies that utilize new, potentially disruptive technologies or delivery models, including artificial intelligence powered solutions; and in-house functions of large companies that use their own resources, rather than outsourcing the customer care and customer experience services we provide. Some of our competitors have greater financial or marketing resources than we do and, therefore, may be better able to compete.

Further, the continuing trend of consolidation among business process outsourcing competitors may result in new competitors with greater scale, a broader footprint, better technologies, or efficiencies that may be attractive to our clients and impact our business. If we are unable to compete successfully and provide our clients with superior service and solutions at competitive prices, we could lose market share and clients to competitors, which would materially adversely affect our business, financial condition, and results of operations.

If we cannot adapt our service offerings to changes in technology and market expectations, our ability to grow and our results of operations may be affected

Our growth and profitability will depend on our ability to develop and adopt new technologies that expand our existing offerings by leveraging new trends in technology and cost efficiencies in our operations, while meeting rapidly evolving client expectations. As technology evolves, more tasks currently performed by our agents may be replaced by automation, robotics, artificial intelligence, chatbots and other technology solutions, which puts our lower-skill tier one customer care offerings at risk. These technology innovations could potentially reduce our business volumes and related revenues, unless we are successful in adapting and deploying technology profitably.

We may not be successful in anticipating or responding to our client expectations and interests in adopting evolving technology solutions, and their integration in our offerings may not achieve the intended enhancements or cost reductions. Services and technologies offered by our competitors may make our service offerings not competitive, or even obsolete, and may negatively impact our clients' interest in our offerings. Our failure to innovate, maintain technological advantages, or respond effectively and timely to transformational changes in technology could have a material adverse effect on our business, financial condition, and results of operations.

Our cloud solutions are technology vendor dependent, which may impact our ability to grow and our results of operations

Our cloud service solutions are based on third-party technologies and our relationships with these solution partners. If these technology providers do not continue to evolve their offerings to stay competitive in the rapidly changing cloud technologies market, if cloud platforms offered by others become more competitive, or if our cloud solution partners do not continue their partnership with TTEC, our financial results of operations could be materially impacted.

While our business has not been materially adversely affected by the COVID-19 pandemic to date, it may be impacted in the future due to the resurgence of the virus, or impact of the pandemic on our clients' businesses

In March 2020, the World Health Organization declared the outbreak of COVID-19 as a global pandemic. Within weeks of this announcement, travel bans, the state of emergency, quarantines, lockdowns, "shelter in place" orders, and business restrictions and shutdowns were issued in most countries where TTEC does business. These restrictions eased during the summer of 2020, but recent increases in the rates of COVID-19 infections and the emergence of new variants of the virus around the globe are leading to reinstatements of some of the restrictions that we experienced in 2020. The COVID-19 vaccine roll-out has been challenged in many parts of the world where TTEC does business. While TTEC was able to adjust to the earlier impacts of the pandemic without material adverse impacts to our business in 2020, we are unable to accurately predict the full impact the COVID-19 pandemic, and measures being taken to respond to its effects, will have on our results of operations, financial condition, liquidity, and cash flows due to numerous uncertainties in the future.

The operations of some of our clients, especially our clients in travel, hospitality, retail, and automotive industries, have been materially impacted by the COVID-19 pandemic and restrictions on travel and people's mobility around the globe. Approximately 20% of our revenue for the fiscal year ended December 31, 2020 was generated from the clients in these affected industries. On-going travel restrictions and large-scale unemployment that resulted from government-mandated restrictions on businesses around the globe are likely to continue to affect certain of our clients and their business volumes in 2021 and beyond. Although our revenue from these clients did not decrease, but actually grew in 2020 as they invested in their customer relationships to adjust to the changing business realities, there can be no assurance that this revenue will not be impacted on a going forward basis. We may also experience payment defaults or bankruptcy of some of our clients, which could also have a material adverse effect on our financial condition and results of operation.

The COVID-19 pandemic and global government-mandated restrictions on business adopted to contain it, are resulting in what is likely to be an extended global economic downturn, which could affect demand for our services and impact our results of operations and financial condition, even after the pandemic is contained and the business restrictions are lifted.

As our work from home delivery grows, our operations are subject to new untested risks

In connection with COVID-19 pandemic, TTEC expanded its work from home environment and transitioned approximately 80% of our global workforce to work remotely from home; and most employees that we hired in 2020 were hired to work from home. Although some of these employees will return to conventional delivery sites and offices, once pandemic is under control, many of our employees may continue to work remotely for the foreseeable future. Certain jurisdictions where we do business have regulations specific to work from home, which add complexity and cost to our service delivery. Some of the services we provide are subject to stringent regulatory requirements, and our inability to continuously observe how our agents deliver services when working from home may impact our compliance. Service delivery from home, in certain of our lines of business, may also expose TTEC, our clients, and their customers to a heighten risk of fraud. Employees who work from home rely on residential communication networks and internet providers that may not be as resilient as commercial networks and providers and may be more susceptible to service interruptions and cyberattacks than commercial systems; which may also make our enterprise information technology systems, when interfacing with these residential environments, vulnerable. Our business continuity and disaster recovery plans, which have been historically developed and tested with focus on centralized delivery locations, may not work effectively in a distributed work from home delivery model, where weather impacts, network and power grid downtime may be difficult to manage and where system redundancies are not possible. Over the years, TTEC established strong operating and administrative controls over our business; and our controls, designed for brick-and-mortar environment, may not always provide effective safeguards for a large-scale work from home delivery model. We may not be effective in timely updating our existing controls nor implementing new controls, tailored to the work from home environment. For these and other reasons, our clients may be unwilling to continue to allow us to deliver our services remotely. If we are unable to manage our work from home environment effectively to address these and other risks unique to remote service delivery or if we cannot maintain client confidence in our work from home environment, our reputation and results of operations may be impacted.

Remote work by majority of our employee population for an extended period of time may impact TTEC culture, and employee engagement with our company, which could affect productivity and our ability to retain employees who are critical to our operations and may increase our costs and impact our financial results of operations.

Our inability to forecast demand, staffing levels, sites and work from home delivery mix could impact our financial results of operations

Predicting customer demand, making timely staffing level decisions, investments in our customer engagement centers work from home technology environment, are important to our successful execution and profitability maximization. We can provide no assurance that we will continue to be able to achieve or maintain desired customer engagement center site capacity utilization and work from home delivery mix, because quarterly variations in client volumes and client sentiment toward work from home delivery, can have a material adverse effect on our delivery platform and our utilization rates. The use of utilization rate as a meaningful metric for business process outsourcing organizations is undergoing a review in light of the changes to the business introduced by COVID-19 pandemic and transition of customer engagement center employees to work from home. If our utilization rates are below expectations, because of our high fixed costs of operation, our financial conditions and results of operations could be adversely affected.

The social distancing rules and other government mandates that continue during the sustained pandemic impacted the structure and configuration of our large-scale facilities, where employees work in close proximity. These new regulatory requirements forced TTEC to make investments to reconfigure our existing customer engagement centers and to accept lower capacity utilization than the utilization priced under our multi-year contracts. If we are unable to renegotiate our contracts to recoup these additional costs, manage these costs by continuing to maintain a large work at home delivery platform, or adjust our cost structure to absorb them, our margins and profitability will be impacted and will result in adverse impact on our results of operations.

A large portion of our revenue is generated from a limited number of clients and the loss of one or more of these clients could adversely affect our business

We rely on strategic, long-term relationships with large, global companies in targeted industries and certain agencies of the United States and state and local governments. As a result, we derive a substantial portion of our revenue from relatively few clients. Our five and ten largest clients collectively represented 40% and 53% of our revenue in 2020 with one client over 10%.

We have multiple engagements with our largest clients and all contracts are unlikely to terminate at the same time, the contracts with our five largest clients expire between 2021 and 2023 and there can be no assurance that these contracts will continue to be renewed at all or be renewed on favorable terms. While our ongoing sales and marketing activities aim to add new opportunities with existing and new commercial and public sector clients, there can be no assurances that such additional work can be secured nor that it would yield financial benefits comparable to expiring contracts. The loss of all or part of major clients' business could have a material adverse effect on our business, financial condition, and results of operations, if the loss of revenue is not replaced with profitable business from other clients.

We serve clients in industries that have historically experienced a significant level of consolidation. If one of our clients is acquired (including by another of our clients) our business volumes and revenue may materially decrease due to the termination or phase out of an existing client contract, volume discounts, or other contract concessions which could have an adverse effect on our business, financial condition, and results of operations.

If we cannot recruit, hire, train, and retain qualified employees to respond to client demands at the right price point, our business will be adversely affected

Our business is labor intensive and our ability to recruit and train employees with the right skills, at the right price point, and in the timeframe required by our client commitments is critical to achieving our growth objective. Demand for qualified personnel with multi-language capabilities and fluency in English may exceed supply. While we invest in employee retention, our industry is known for high employee turnover and are continuously recruiting and training replacement staff.

We sign multi-year client contracts that are priced based on prevailing labor rates in jurisdictions where we deliver services. In the United States, however, our business is confronted with a patchwork of ever-changing minimum wage, mandatory time off, and rest and meal break laws at the state and local levels. As these jurisdiction-specific laws change with little notice or grace period for transition, we often have no opportunity to adjust and change how we do business nor pass cost increases to our clients.

The United States and other governments in jurisdictions where we hire employees adopted income support measures aimed at supporting citizens who lost their jobs due to COVID-19 pandemic. The individuals who benefit from these income support measures may be attractive employment prospects for TTEC, but COVID-19 enhanced unemployment benefits in some jurisdictions where we hire, may exceed local prevailing wages and may make it more difficult for us to hire a sufficient number of employees to deliver our contractual commitments.

The frequent changes in the laws, inconsistencies in laws across different jurisdictions, COVID-19 income support measures, and a possible federal government mandate for a $15/hour wage, supported by the Biden administration with the presumptive support of both houses of Congress, may result in higher costs, lower contract profitability, higher turnover, and reduced operational efficiencies, which could, in the aggregate, have material adverse impact on our results of operations.

Our sales cycles for new client relationships, for new lines of business with existing clients, and for public sector clients can be long, which results in a long lead time before we receive revenue

We often face a long selling cycle to secure contracts with new clients or contracts for new lines of business with existing clients. When we are successful in securing a new engagement, it is generally followed by a long implementation period when clients must give notice to incumbent service providers or transfer in-house operations to us. There may also be a long ramp up period before we commence our services, and for certain contracts we receive no revenue until we start performing the work. If we are not successful in obtaining contractual commitments after the initial prolonged sales cycle, or in maintaining the contractual relationship for a period of time necessary to offset new project investment costs and appropriate return on that investment, the investments may have a material adverse effect on our results of operations.

Our growth strategy includes the expansion of our offerings to public sector clients. The procurement process for government entities is often more challenging than contracting in the private sector and is different from our standard Engage and Digital business practices, including upfront investment to position for opportunities and respond to requests for proposal. If we are unable to manage our public sector business development effectively and are not successful in winning work, despite the investment we make, our private sector work can adversely impact our results of operations.

Our growth of operations and geographic footprint expansion could strain our resources and negatively impact our business

We plan to continue growing our business through the growth of clients' wallet share, increasing sales efforts, geographic expansion, and strategic acquisitions, while maintaining tight controls on our expenses and overhead. Lean overhead functions combined with focused growth may place a strain on our management systems, infrastructure, and resources, resulting in internal control failures, missed opportunities, and staff attrition. If we fail to manage our growth effectively, our brand business, financial condition, and results of operations could be adversely affected.

Contract terms typical in our industry can lead to volatility in our revenue and in our margins

Many of our TTEC Engage contracts require clients to provide monthly forecasts of volumes, but no guaranteed or minimum volume or revenue levels. Such forecasts vary from month to month, which can impact our staff and space utilizations, our cost structure, and our profitability.

Many of our contracts have termination for convenience clauses with short notice periods and no guarantees of minimum revenue levels or profitability, which could have a material adverse effect on our results of operation. If a client terminates a contract or materially reduces customer interaction volumes, it could have a material adverse effect on our results of operations and makes it harder to make projections.

We may not always offset increased costs with increased fees under long-term contracts. The pricing and other terms of our client contracts, particularly on our long-term service agreements, are based on estimates and assumptions we make at contact inception. These estimates reflect our best judgments regarding the nature of the engagement and our expected costs to provide the contracted services, but these judgments could differ from actual results. Not all our contracts allow for escalation of fees as our cost of operations increase. Moreover, those that do allow for such escalations do not always allow increases at rates comparable to increases that we experience due to rising minimum wage costs, related payroll cost increases, and increased costs of work from home environment, not offset by reduction in physical footprint due to long term lease commitments. If and to the extent we do not negotiate long-term contract terms that provide for fee adjustments to reflect increases in our cost-of-service delivery, our business, financial conditions, and results of operation could be materially impacted.

We provide service level commitments to certain customers. If we do not meet these contractual commitments, we could be obligated to provide credits or refunds or face contract terminations, which could adversely affect our revenue and harm our reputation.

Our pricing depends on effectiveness of our level of effort forecasts. Pricing of our services in our digital business is contingent on our ability to accurately forecast the level of effort and cost necessary to deliver our services, which is data dependent and can be inaccurate. The errors in level of effort estimations could yield lower profit margins or cause projects to become unprofitable, resulting in adverse impacts on our results of operations.

We routinely consider strategic transactions and may enter into such transactions any time and such transactions may negatively impact our business and create unanticipated risks

We continuously analyze strategic opportunities that we believe could provide value for our stockholders, and have acquisitions, divestitures, and potential business combinations in various stages of active review. There can be no assurances, however, that we will be able to identify strategic transaction opportunities that complement our strategy and are available at valuation levels accretive to our business.

Even if we are successful in identifying and executing these transactions, they may subject our business to risks that could impact our results of operation, including:

- inability to integrate acquired companies effectively and realize anticipated synergies and benefits from the acquisitions;
- diversion of management's attention to the integration of the acquired businesses at the expense of delivering results for the legacy business;
- inability to appropriately scale critical resources to support the business of the expanded enterprise and other unforeseen challenges of operating the acquired business as part of TTEC's operations;
- inability to retain key employees of the acquired businesses and/or inability of such key employees to be effective as part of TTEC operations;
- impact of liabilities or ethical issues of the acquired businesses undiscovered or underestimated as part of the acquisition due diligence;
- failure to realize anticipated growth opportunities from a combined business, because existing and potential clients may be unwilling to consolidate business with a single service provider or to stay with the acquirer post acquisition;
- impacts of cash on hand and debt incurred to finance acquisitions, thus reducing liquidity for other significant strategic objectives;
- inadequate or ineffective internal controls, disclosure controls, corruption prevention policies, human resources and other key policies and practices of the acquired companies;
- reduced revenue and income and resultant stock price impact due to divestiture transactions.

While we consider these transactions to improve our business, financial results, and shareholder value over time, there can be no assurance that our goals will be realized.

Increases in the cost of communication and data services or significant interruptions in such services could adversely affect our business

Our business is significantly dependent on internet, data, and telephone services provided by various domestic and foreign communication companies. Any disruption of these services could adversely affect our business. We have taken steps to mitigate our exposure to service disruptions by investing in complex and multi-layered redundancies focused on our customer engagement center locations, and we can transition service delivery among our different customer engagement centers around the world. Despite these efforts, and especially in light of the recent transition of a large portion of our delivery to a work from home environment where conventional redundancies strategies are ineffective, there can be no assurance that the redundancies we have in place would be sufficient to maintain operations without disruption.

Our inability to obtain communication and data services at favorable rates could negatively affect our results of operations. Where possible, we have entered into long-term contracts with various providers to mitigate short term rate increases and fluctuations. There is no obligation, however, for the vendors to renew their contracts with us, or to offer the same or lower rates in the future, and such contracts may be subject to termination or modification for various reasons outside of our control. A significant increase in the cost of communication services that is not recoverable through an increase in the price of our services could adversely affect our business.

The current trend to outsource customer care may not continue and the prices that clients are willing to pay for the services may diminish, adversely affecting our business

Our growth depends, in large part, on the willingness of our clients and potential clients to outsource customer care and management services to companies like TTEC. There can be no assurance that the customer care outsourcing trend will continue; and our clients and potential clients may elect to perform in-house customer care and management services that they currently outsource. Reduction in demand for our services and increased competition from other providers and in-house service alternatives could create pricing pressures and excess capacity that would have an adverse effect on our business, financial condition, and results of operations.

Our profitability could suffer if our cost-management strategies are unsuccessful

Our ability to improve or maintain our profitability is dependent on our ability to engage in continuous management of our costs. Our cost management strategies include optimizing the alignment between the demand for our services and our resource capacity, including our customer engagement centers' utilization; investment in our work from home environment; the costs of service delivery; the cost of sales and general and administrative costs as a percentage of revenues; and the use of process automation for standard operating tasks. Our ongoing cost management measures must be balanced against the need for investment to support our growth, technology transformation in our business, and increasing cybersecurity threats. If we are not effective in managing our operating and administrative costs in response to changes in demand and pricing for our services, if we manage our costs at the expense of investments necessary to grow and protect our business, or if we are unable to absorb or pass on to our clients the increases in our costs of operations, our results of operations could be materially adversely affected.

Our profitability may be adversely affected if we are unable to expand and maintain service delivery in countries with stable wage rates and launch operations in new delivery locations required by our clients

Our business is labor-intensive and therefore cost of wages, benefits, and related taxes constitute a large component of our operating expenses. As a result, our growth is dependent upon our ability to maintain and expand our operations in cost-effective locations, in and outside of the United States.

Our clients often dictate locations from where they wish for us to serve their customers, such as "near shore" jurisdictions located in close proximity to the U.S., to a headquarter location of the client, or in specific locations elsewhere in the world. There is no assurance that we will be able to effectively launch operations in jurisdictions which meet our cost-effectiveness, labor availability, and security standards. Our inability to expand our operations to such locations, however, may impact our ability to secure new clients and additional business from existing clients, and could adversely affect our growth and results of operations.

Intellectual property infringement may adversely impact our ability to innovate and compete

Our intellectual property may not always receive favorable treatment from the United States Patent and Trademark Office, the European Patent Office, or similar foreign intellectual property adjudication and registration agencies; and our "patent pending" intellectual property may not receive a patent or may be subject to prior art limitations.

The lack of an effective legal system in certain countries where we do business or lack of commitment to protection of intellectual property rights, may prevent us from being able to defend our intellectual property and related technology against infringement by others, leading to a material adverse effect on our business, results of operations and financial condition.

We have incurred and may in the future incur impairments to goodwill, long-lived assets or strategic investments

As a result of past acquisitions, as of December 31, 2020, we have approximately $363.5 million of goodwill and $112.1 million of intangible assets included on our Consolidated Balance Sheet. We review our goodwill and intangible assets for impairment at least once annually, and more often when events or changes in circumstances indicate the carrying value may not be recoverable. We perform an assessment of qualitative and quantitative factors to determine whether the existence of events or circumstances leads to a determination that it is more likely than not that the fair value of the goodwill or intangible asset is less than its carrying amount. In the event that the book value of goodwill or intangible asset is impaired, such impairment would be charged to earnings in the period when such impairment is determined. We have recorded goodwill and intangible impairments in the past, and there can be no assurance that we will not incur impairment charges in the future that could have material adverse effects on our financial condition or results of operations.

RISKS RELATED TO OUR TECHNOLOGY

Cyberattacks, cyber fraud, and unauthorized information disclosure could harm our reputation, result in liability and service outages, any of which could adversely affect our business and results of operations

Our business involves the use, storage, and transmission of information about our clients, their customers, and our employees. While we take reasonable measures to protect the security of and unauthorized access to our systems and the privacy of personal and proprietary information that we access and store, our security controls over our systems may not be adequate to prevent the improper access to or disclosure of this information. Such unauthorized access or disclosure could subject TTEC to significant liability under relevant law or our contracts and could harm our reputation, resulting in impacts on our results of operations, loss of future revenue and business opportunities. These risks may further increase as our business model that includes high percentage of work from home delivery in addition to our delivery through customer experience centers.

In recent years, there have been an increasing number of high-profile security breaches at companies and government agencies, and security experts have warned about the growing risks of hackers, cybercriminals and state actors launching a broad range of attacks targeting information technology systems. Information security breaches, computer viruses, interruption or loss of business data, DDoS (distributed denial of service) attacks, ransomware and other cyberattacks on any of these systems could disrupt our normal operations of customer engagement centers and remote service delivery, our cloud platform offerings, and our enterprise services, impeding our ability to provide critical services to our clients.

We are experiencing an increase in frequency of cyber-fraud attempts, such as so-called "social engineering" attacks and phishing scams, which typically seek unauthorized money transfers or information disclosure. We actively train our employees to recognize these attacks and have implemented proactive risk mitigation measures to curb them. There are no assurances, however, that these attacks, which are growing in sophistication, may not deceive our employees, resulting in a material loss.

While we have taken reasonable measures to protect our systems and processes from unauthorized intrusions and cyber-fraud, we cannot be certain that advances in cyber-criminal capabilities, discovery of new system vulnerabilities, and attempts to exploit such vulnerabilities will not compromise or breach the technology protecting our systems and the information that we manage and control, which could result in damage to our systems, our reputation, and our profitability.

If our cloud platform experiences disruptions due to technology failures or cyberattacks and if we fail to correct such impacts promptly, our business will be materially impacted

Our cloud platforms and third-party software and systems that we use to serve our clients are complex and may, from time to time have service interruptions, contain design defects, configuration or coding errors, and other vulnerabilities that may be difficult to detect or correct, and which may be outside of our control. Although our commercial agreements limit our exposure from such occurrences, they may not always effectively protect us against claims in all jurisdictions and against third-party claims. If our clients' business is damaged, our reputation could suffer, we could be subject to contract termination and payments for damages, adversely affecting our business, our reputation, our results of operations and financial condition.

RISKS RELATED TO OUR INTERNATIONAL OPERATIONS

We face special risks associated with international operations

An important component of our business strategy is service delivery outside of the United States and our continuing international expansion. During 2020, we derived approximately 31% of our revenue from operations outside of the U.S. Conducting business abroad is subject to a variety of risks, including:

- inconsistent regulations, licensing requirements, prescriptive labor rule, corrupt business practices, restrictive export control and immigration laws may result in inadvertent violation of laws that we may not be able to immediately detect or correct; and may increase our cost of operations as we endeavor to comply with laws that differ from one country to another;
- uncertainty of tax regulations in countries where we do business may affect our costs of operation;
- longer payment cycles could impact our cash flows and results of operations;
- political and economic instability and unexpected changes in regulatory regimes could adversely affect our ability to deliver services overseas and our ability to repatriate cash;
- the withdrawal of the United Kingdom from the European Union (known as "Brexit") added complexity and cost to provision of services and movement of people across UK, Ireland and continental members of the European Union, which could impact our European operations and our operations in the UK;
- currency exchange rate fluctuations, restrictions on currency movement, and impact of international tax laws could adversely affect our results of operations, if we are forced to maintain assets in currencies other than U.S. dollars, while our financial results are reported in U.S. dollars;
- infrastructure challenges and lack of sophisticated disaster and pandemic preparedness in some countries where we do business may impact our service delivery; and
- terrorist attacks or civil unrest in some of the regions where we do business, and the resulting need for enhanced security measures may impact our ability to deliver services, threaten the safety of our employees, and increase our costs of operations.

While we monitor and endeavor to mitigate in a timely manner the relevant regulatory, geopolitical, and other risks related to our operations outside of the United States, we cannot assess with certainty what impact such risks are likely to have over time on our business, and we can provide no assurance that we will always be able to mitigate these risks successfully and avoid adverse impact on our business and results of operations.

Our delivery model involves geographic concentration outside of the United States exposing us to significant operational risks

Our customer engagement delivery and our back-office functions are concentrated in the Philippines, Mexico, India, and Bulgaria. Our business model is dependent on our ability to locate at least some of our customer engagement service delivery and enterprise support functions in low-cost jurisdictions around the globe. Our dependence on our customer engagement centers and enterprise support functions in the Philippines and Mexico, which are subject to frequent severe weather, natural disasters, health and security threats, and arbitrary government actions represents a particular risk. Natural disasters (floods, winds, and earthquakes), terrorist attacks, pandemics, large-scale utilities outages, telecommunication and transportation disruptions, labor or political unrest, and restriction on repatriation of funds at some of these locations may interrupt or limit our ability to operate or may increase our costs. Our business continuity and disaster recovery plans, while extensive, may not be effective, particularly if catastrophic events occur.

For these and other reasons, our geographic concentration in locations outside of the United States could result in a material adverse effect on our business, financial condition and results of operations. Although we procure business interruption insurance to cover some of these exposures, adequate insurance may not be available on an ongoing basis for a reasonable price.

We may face new risks as we expand our operations into countries where we have no prior experience

At times, our clients ask us to stand up operations quickly in countries where we previously have not done business. New market entry is fraught with operational, security, regulatory compliance, safety, and corruption risks, and these risks are exacerbated when new operations are launched quickly. TTEC has extensive experience in new market entry around the globe, but there can no assurances that new operations in new countries would not result in financial loses and operational instability. If we elect not to follow our clients to markets where they wish to have services, we may lose lucrative contracts, including contracts in multiple jurisdictions where we have experience, to competitors who are already established in the markets new to us, which would impact our financial results of operations.

Our financial results may be adversely impacted by foreign currency exchange rate risk

Many contracts that we service from customer engagement centers or employees working from home based outside of the United States are typically priced, invoiced, and paid in U.S. and Australian dollars, the British pound or Euros, while the costs incurred to deliver these services are incurred in the functional currencies of the country of operations. The fluctuations between the currencies of the contract and operating currencies present foreign currency exchange risks. Furthermore, because our financial statements are denominated in U.S. dollars, but approximately 17% of our revenue is derived from contracts denominated in other currencies, our results of operations could be adversely affected if the U.S. dollar strengthens significantly against foreign currencies.

While we hedge at various levels against the effect of exchange rate fluctuations, we can provide no assurance that we will be able to continue to successfully manage this foreign currency exchange risk and avoid adverse impacts on our business, financial condition, and results of operations.

RISKS RELATED TO LEGAL, COMPLIANCE AND REGULATORY MATTERS

Our results of operations may be impacted by changes in laws, our failure to comply with laws and regulations relevant to our business

Our business is subject to extensive, and at times conflicting, regulations by the United States, state, local, foreign national, and provincial authorities relating to confidential client and customer data, data privacy, customer communications, telemarketing practices, licensed healthcare, financial services, collections, and gaming/gambling support activities, trade restrictions and sanctions, tariffs, import/export controls, taxation, labor regulations, wages and severance, health care requirements, disclosure obligations, and immigration among other areas.

As we provide services to clients' customers residing in countries where we do not have operations on the ground, we may also be subject to laws and regulations of these countries. Costs and complexity of compliance with existing and future regulations that could apply to our business may adversely affect our profitability; and If we fail to comply with these mandates, we could be subject to contractual, civil and criminal liability, monetary damages and fines. Enforcement actions by regulatory agencies could also materially increase our costs of operations and impact our ability to serve our clients.

Adverse changes in laws or regulations that impact our business may negatively affect the sale of our services, slow the growth of our operations, or mandate changes to how we deliver our services, including our ability to use offshore resources. These changes could threaten our ability to continue to serve certain markets.

Uncertainty and inconsistency in privacy and data protection laws that impact our business, failure to comply with contractual obligations related to privacy, and high cost of compliance may impact our ability to deliver services and our results of operations

During the last several years, there has been a significant increase in data protection and privacy regulations and enforcement activity in many jurisdictions where we and our clients do business. These new regulations are often complex and at times they impose conflicting requirements among different jurisdictions that we serve. For example, the European Union's General Data Protection Regulation (GDPR) imposes data protection requirements for controllers and processers of personally identifiable information collected in Europe, while the California Consumer Privacy Protection Act (CCPA), and other similar acts in Illinois, and New York, and Massachusetts in the United States imposed similar regulations protecting state residents with a different reach. Well-publicized security breaches have led to enhanced government and regulatory scrutiny of the measures being taken by companies to protect against cyberattacks and may in the future result in heightened cybersecurity requirements, including additional regulatory expectations for oversight of vendors and service providers. Unauthorized disclosure of sensitive or confidential client and their customers data, whether through breach of our systems or otherwise, could expose us to costly litigation and cause us to lose clients. For example, the U.S. government may impose new federal data privacy and regulation mandates as part of Biden Administration agenda in 2021. Failure to comply with all privacy and data protection laws that are relevant to different parts of our business may result in legal claims, significant fines, sanctions, or penalties, or may make it difficult for us to secure business or efficiently serve our clients. Compliance with these evolving regulations may require significant investment which would impact our results of operations.

Wage and hour class action lawsuits targeting our business can expose us to costly litigation and damage our reputation

The contact center industry in the United States is a target of plaintiffs' law firms that specialize in wage and hour class action lawsuits against large employers by soliciting potential plaintiffs including current and former employees, with billboard and social media advertising. The plaintiff law firms seek large settlements based entirely on the number of potential plaintiffs in a class, whether or not there is any basis for the claims that they make on behalf of their clients, most of whom do not believe themselves to be aggrieved nor seek recourse until solicited. The cost of defending litigation for these large class action lawsuits is material. Because TTEC hires large numbers of employees in the United States and our industry has large turnover, the potential size of plaintiffs' classes in these wage and hour lawsuits can be considerable, creating a material impact on the cost of operations. As we continue to hire more employees in the United States, and expand our operations to California, where the number of wage and hour class action lawsuits is larger than in many other states combined and where verdicts in these lawsuits are very large, our results of operations may be material impacted by these lawsuits.

Legislation discouraging offshoring of service by United States companies or making such offshoring difficult could significantly affect our business

A perceived association between offshore service providers and the loss of jobs in the United States has been a focus of political debate in recent years. As a result, current and prospective clients may be reluctant to hire offshore service providers like TTEC to avoid negative perceptions and regulatory scrutiny. If they seek customer care and management capacity onshore that was previously available to them through outsourcers outside of the United States., they may elect to perform these services in-house instead of outsourcing the services onshore. Possible tax incentives for U.S. businesses to return offshored services to the United States could also impact our clients' continuing interest in using our services.

Legislation aimed to expand protections for U.S. and European based customers from having their personal data accessible outside of their home jurisdictions, could also impact offshored outsourcing opportunities by requiring notice and consent as a condition for sharing personal identifiable information with foreign service delivery personnel. Further, the U.S. government's reputation for use of individuals' personal information for national security purposes without individuals' consent, caused restrictions on transfer to the United States for processing of customers and customers' data in several countries (e.g., Canada). Any material changes in current trends among our clients to use services outsourced and delivered offshore or to transfer information outside of the home country for processing would materially impact our business and results of operations.

Increases in income tax rates, changes in income tax laws or disagreements with tax authorities could adversely affect our business, financial condition or results of operations

We are subject to income taxes in the United States and in certain foreign jurisdictions in which we operate. Increases in income tax rates or other changes in income tax laws in any particular jurisdiction could reduce our after-tax income from such jurisdictions and could adversely affect our business, financial condition or results of operations. Our operations outside the U.S. generate a significant portion of our income and many of the other countries in which we have significant operations, have recently made or are actively considering changes to existing tax laws that could significantly impact how U.S. multinational corporations are taxed on foreign earnings.

The incoming U.S. presidential administration has called for changes to fiscal and tax policies, which may include comprehensive tax reform. Many of these proposed and enacted changes to the taxation of our activities could increase our effective tax rate or adversely affect our business, financial condition, or results of operations.

There are no assurances that we will be able to implement effective tax planning strategies that are necessary to optimize our tax position following changes in tax laws globally. If we are unable to implement a cost-effective contracting structure, our effective tax rate and our results of operations would be impacted.

Our ability to use our net operating losses or federal tax credits to offset future taxable income may be subject to certain limitations.

If the transfer pricing arrangements we have among our subsidiaries are determined to be inappropriate, our tax liability may increase

We have transfer pricing arrangements among our subsidiaries in relation to various aspects of our business, including operations, marketing, sales, and delivery functions. The United States, Australia, Mexico, India, Philippines and other transfer pricing regulations in other countries where we operate, require that cross-border transactions between affiliates be on arm's-length terms. We carefully consider the pricing among our subsidiaries to assure that they are at arm's-length. If tax authorities were to determine that the transfer prices and terms we have applied are not appropriate, we may incur increased tax liability, including accrued interest and penalties, which would cause material increase in our tax liability, thereby impacting our profitability and cash flows, and potentially resulting in a material adverse effect on our operations, effective tax rate and financial condition.

RISKS RELATED TO OWNERSHIP OF OUR COMMON STOCK

Exclusive forum for dispute resolution provisions in our bylaws could limit our stockholders' ability to obtain a favorable judicial forum for their disputes

Our bylaws designate Delaware's state courts as the exclusive forum for most disputes between us and our stockholders, including federal claims and derivative actions. We believe that this provision may benefit us by providing increased consistency in the application of Delaware law and federal securities laws by chancellors and judges who are particularly experienced in resolving corporate disputes, efficient administration of cases relative to other forums, and protection against the burdens of multi-forum litigation. This choice of forum provision does not have the effect of causing our stockholders to waive our obligation to comply with the federal securities laws. This bylaw forum selection provision is not uncommon for companies incorporated in the State of Delaware, but it could limit our stockholders' ability to select a more favorable judicial forum for disputes with us, our directors, officers or other employees and may therefore discourage litigation. It is important to note, however, that our choice of forum provision would (i) not be enforceable with respect to any suits brought to enforce any liability or duty created by the Securities Exchange Act of 1934, as amended, and (ii) have uncertain enforceability with respect to claims under the Securities Act of 1933, as amended.

Delaware law and certain provisions in our certificate of incorporation and bylaws might discourage, delay or prevent a change of control of our company or changes in our management and, therefore, depress the price of our common stock

Our restated certificate of incorporation and amended and restated bylaws contain provisions that could depress the market price of our common stock by acting to discourage, delay or prevent a change in control of our company or changes in our management that the stockholders of our company may deem advantageous. These provisions, among other things:

- authorize the issuance of "blank check" preferred stock that our board of directors could use to implement a stockholder rights plan;
- provide that special meetings of our stockholders may be called only by our Chairman, President or our board of directors;
- establish advance notice requirements for nominations for election to our board of directors or for proposing matters that can be acted upon by stockholders at annual stockholder meetings;
- permit the board of directors to establish the number of directors; and
- provide that the board of directors is expressly authorized to make, alter or repeal our amended and restated bylaws.

In addition, Section 203 of the Delaware General Corporation Law may discourage, delay or prevent a change in control of our company. Section 203 imposes certain restrictions on mergers, business combinations and other transactions between us and holders of 15% or more of our common stock. Further, as described below, a majority of our stock is held by a single controlling stockholder, which means that a change in control of our company or the composition of the Board of Directors will not occur without the approval of the controlling stockholder.

Our Chairman and Chief Executive Officer controls a majority of our stock and has control over all matters requiring action by our stockholders; and his interest may conflict with the interests of our other stockholders

Kenneth D. Tuchman, our Chairman and Chief Executive Officer, directly and beneficially owns approximately 60% of TTEC's common stock. As a result, Mr. Tuchman could and does exercise significant influence and control over our business practices and strategy. As long as Mr. Tuchman continues to beneficially own more than 50% of our common stock he will be able to elect all of the members of our Board of Directors, effect stockholder actions by written consent in lieu of stockholder meetings, and determine the outcome of all matters submitted to a vote of our stockholders, including matters involving mergers or other business combinations, the acquisition or disposition of assets, the occurrence of indebtedness, the issuance of any additional shares of common stock or other equity securities and the payment of dividends on our common stock.

The interest of Mr. Tuchman may not always coincide with the interest of our other stockholders, and Mr. Tuchman may seek to cause the company to take actions that might involve risks to our business or adversely affect us or our other stockholders. For example, Mr. Tuchman's control of TTEC could delay or prevent a change of control, merger, consolidation, or sale of all or substantially all our assets that our other stockholders support, or conversely, Mr. Tuchman's control could result in the consummation of a transaction that our other stockholders do not support. As a controlling stockholder, Mr. Tuchman is generally entitled to vote his shares as he sees fit, which may not always be in the interest of our other stockholders. This concentrated control could also discourage parties from acquiring our common stock or initiating potential mergers, takeovers or other change of control transactions, which could depress the trading price of our common stock.

Our status as a "controlled company" could make our common stock less attractive to some investors or otherwise harm our stock price

Because we qualify as a "controlled company" under the listing rules of the NASDAQ Stock Market, we are not required to have a majority of our Board of Directors be independent, nor are we required to have an independent compensation committee or an independent nominating committee of the Board. While the Company has elected not to avail itself of these governance exceptions available to "controlled companies," in the future the Company may elect to do so. Accordingly, because of our "controlled company" status, the other stockholders may not have the same protections afforded to stockholders of companies that are subject to all of the corporate governance rules for NASDAQ-listed companies. Our status as a controlled company could make our common stock less attractive to some investors or otherwise harm our stock price.

ITEM 1B. UNRESOLVED STAFF COMMENTS

We have not received written comments regarding our periodic or current reports from the staff of the SEC that were issued 180 days or more preceding the end of our 2020 fiscal year that remain unresolved.

ITEM 2. PROPERTIES

Our corporate headquarters are located in Englewood, Colorado. In addition to our headquarters and the customer engagement centers used by our Engage segment discussed below, we also maintain sales and consulting offices in several countries around the world which serve our Digital segment.

As of December 31, 2020 we operated 83 customer engagement centers that are classified as follows:

- *Multi-Client Center* — We lease space for these centers and serve multiple clients in each facility;
- *Dedicated Center* — We lease space for these centers and dedicate the entire facility to one client; and
- *Managed Center* — These facilities are leased or owned by our clients and we staff and manage these sites on behalf of our clients in accordance with facility management contracts.

As of December 31, 2020, our customer engagement centers were located in the following countries:

	Multi-Client Centers	Dedicated Centers	Managed Centers	Total Number of Delivery Centers
Australia	—	3	—	3
Brazil	2	—	—	2
Bulgaria	2	—	—	2
Canada	3	—	1	4
Greece	1	—	—	1
Germany	—	—	1	1
India	1	—	—	1
Ireland	1	—	—	1
Mexico	3	—	—	3
Philippines	18	—	—	18
Poland	1	—	—	1
South Africa	—	—	1	1
Thailand	—	—	1	1
United Kingdom	1	—	2	3
United States of America	27	5	9	41
Total	60	8	15	83

The leases for our customer engagement centers have remaining terms ranging from one to 13 years and generally contain renewal options. We believe that our existing customer engagement centers are suitable and adequate for our current operations, and we have plans to build additional centers to accommodate future business.

ITEM 3. LEGAL PROCEEDINGS

From time to time, the Company has been involved in legal actions, both as plaintiff and defendant, which arise in the ordinary course of business. The Company accrues for exposures associated with such legal actions to the extent that losses are deemed both probable and reasonably estimable. To the extent specific reserves have not been made for certain legal proceedings, their ultimate outcome, and consequently, an estimate of possible loss, if any, cannot reasonably be determined at this time.

Based on currently available information and advice received from counsel, the Company believes that the disposition or ultimate resolution of any current legal proceedings, except as otherwise specifically reserved for in its financial statements, will not have a material adverse effect on the Company's financial position, cash flows or results of operations.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Our common stock is traded on the NASDAQ Global Select Market under the symbol "TTEC."

As of December 31, 2020, we had 248 holders of record of our common stock and during 2020 we declared and paid a $0.34 per share semi-annual dividend, a $0.40 per share semi-annual dividend and a $2.14 per share special one-time dividend on our common stock. During 2019 we declared and paid a $0.30 per share dividend and a $0.32 per share dividend on our common stock as discussed below.

In 2015, our Board of Directors adopted a dividend policy, with the intent to distribute a periodic cash dividend to stockholders of our common stock, after consideration of, among other things, TTEC's performance, cash flows, capital needs and liquidity factors. The Company paid the initial dividend in 2015 and has continued to pay a semi-annual dividend in October and April of each year in amounts ranging between $0.18 and $0.40 per common share. On December 3, 2020, the Board of Directors authorized a special one-time dividend of $2.14 per common share, payable on December 30, 2020 to shareholders of record as of December 18, 2020. On February 25, 2021, the Board of Directors authorized a $0.43 dividend per common share, payable on April 21, 2021, to shareholders of record as of April 5, 2021. While it is our intention to continue to pay semi-annual dividends in 2021 and beyond, any decision to pay future cash dividends will be made by our Board of Directors. In addition, our credit facility restricts our ability to pay dividends in the event we are in default or do not satisfy certain covenants.

Stock Repurchase Program

We continue to have the opportunity to return capital to our shareholders via an ongoing stock repurchase program (originally authorized by the Board of Directors in 2001). As of December 31, 2020, the cumulative authorized repurchase allowance was $762.3 million, of which we have used $735.8 million to purchase 46.1 million shares. As of December 31, 2020, the remaining amount authorized for repurchases under the program was approximately $26.6 million. During 2019 and 2020, we did not purchase any shares under the program.

From January 1, 2021 through February 24, 2021, we did not purchase any additional shares and we do not currently have plans to make repurchases during 2021. The stock repurchase program does not have an expiration date.

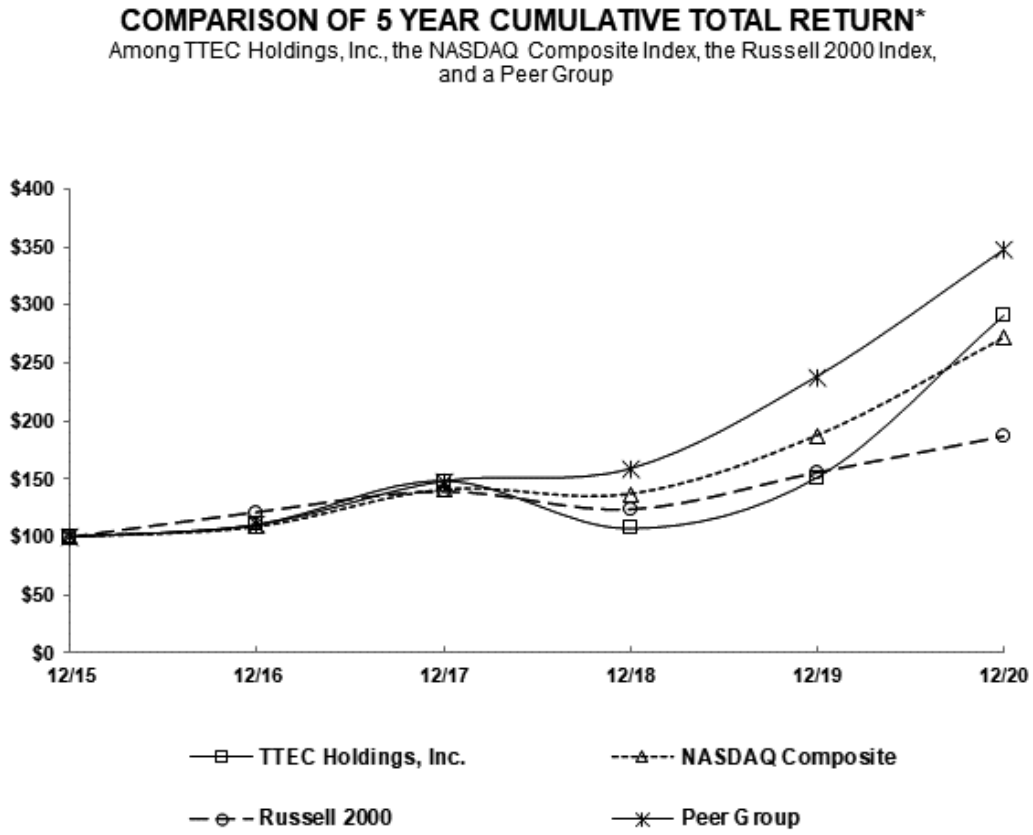
Stock Performance Graph

The graph depicted below compares the performance of TTEC common stock with the performance of the NASDAQ Composite Index; the Russell 2000 Index; and customized peer group over the period beginning on December 31, 2015 and ending on December 31, 2020. We have chosen the "Peer Group" composed of 8x8, Inc. (NASDAQ: EGHT), Five9 Inc. (NASDAQ: FIVN), Genpact (NASDAQ: G), Sykes Enterprises, Incorporated (NASDAQ: SYKE) and Teleperformance (NYSE Euronext: RCF). We believe that the companies in the Peer Group are relevant to our current business model, market capitalization and our two segments Digital and Engage.

The graph assumes that $100 was invested on December 31, 2015 in our common stock and in each comparison index, and that all dividends were reinvested. We declared per share dividends on our common stock of $0.55 during 2018, $0.62 during 2019 and $2.88 during 2020. Stock price performance shown on the graph below is not necessarily indicative of future price performance.

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN
Among TTEC Holdings, Inc., The NASDAQ Composite Index,
The Russell 2000 Index, And A Peer Group

	December 31,					
	2015	2016	2017	2018	2019	2020
TTEC Holdings, Inc.	$ 100	$ 111	$ 148	$ 107	$ 151	$ 290
NASDAQ Composite	$ 100	$ 109	$ 141	$ 137	$ 187	$ 272
Russell 2000	$ 100	$ 121	$ 139	$ 124	$ 155	$ 186
Peer Group	$ 100	$ 110	$ 148	$ 159	$ 238	$ 347



*$100 invested on 12/31/15 in stock or index, including reinvestment of dividends.
Fiscal year ending December 31.

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ITEM 6. SELECTED FINANCIAL DATA

The following selected financial data should be read in conjunction with Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, the Consolidated Financial Statements and the related notes appearing elsewhere in this Form 10-K (amounts in thousands except per share amounts).

	Year Ended December 31,				
	2020	2019	2018	2017	2016
Statement of Operations Data					
Revenue	$ 1,949,248	$ 1,643,704	$ 1,509,171	$ 1,477,365	$ 1,275,258
Cost of services	(1,452,719)	(1,242,887)	(1,157,927)	(1,110,068)	(941,592)
Selling, general and administrative	(203,902)	(202,540)	(182,428)	(182,314)	(175,797)
Depreciation and amortization	(78,862)	(69,086)	(69,179)	(64,507)	(68,675)
Other operating expenses	(9,073)[1]	(5,482)[5]	(7,583)[9]	(19,987)[12]	(36,442)[16]
Income from operations	204,692	123,709	92,054	100,489	52,752
Other income (expense)	(34,424)[2]	(13,298)[6]	(35,816)[10]	(11,602)[13]	(2,454)[17]
Provision for income taxes	(40,937)[3]	(25,677)[7]	(16,483)[11]	(78,075)[14]	(12,863)[18]
Noncontrolling interest	(10,683)	(7,570)	(3,938)	(3,556)	(3,757)
Net income attributable to TTEC stockholders	$ 118,648	$ 77,164	$ 35,817	$ 7,256	$ 33,678
Weighted average shares outstanding					
Basic	46,647	46,373	46,064	45,826	47,423
Diluted	46,993	46,758	46,385	46,382	47,736
Net income per share attributable to TTEC stockholders					
Basic	$ 2.54	$ 1.66	$ 0.78	$ 0.16	$ 0.71
Diluted	$ 2.52	$ 1.65	$ 0.77	$ 0.16	$ 0.71
Dividends issued per common share	$ 2.88	$ 0.62	$ 0.55	$ 0.47	$ 0.385
Balance Sheet Data					
Total assets	$ 1,516,408 [4]	$ 1,376,788 [8]	$ 1,054,508	$ 1,078,736 [15]	$ 846,304 [19]
Total long-term liabilities	$ 609,500 [4]	$ 532,846 [8]	$ 466,241	$ 514,113 [15]	$ 304,380 [19]

(1) Includes $1.1 million related to reductions in force, $2.2 million of expense for facility exit and other charges, and $5.8 million of impairments related to right of use lease assets and leasehold improvements.

(2) Includes a $6.2 million charge related to the purchase of the remaining 30% of the Motif acquisition (for discussion regarding the acquisition of Motif, see our Annual Report on Form 10-K for the year ended December 31, 2017), a $19.9 million charge related to the deconsolidation of three subsidiaries, and a net $1.8 million benefit related to the fair value adjustments of contingent consideration for three acquisitions.

(3) Includes a $1.8 million benefit related to return to provision adjustments, a $2.0 million benefit related to restructuring, $2.9 million of expense related to changes in tax contingent liabilities, $0.4 million of expense related to changes in valuation allowance, a $3.0 million benefit related to losses on dissolution of subsidiaries, $0.8 million of expense for earn outs related to acquisitions, a $4.0 million benefit related to equity based compensation, a $4.2 million benefit related to the amortization of purchased intangibles, and a $0.1 million benefit related to other items.

(4) The Company spent $53.3 million, net of cash acquired of $4.4 million in 2020 for the acquisitions of Serendebyte, Voice Foundry US/UK and Voice Foundry ASEAN. Upon acquisition of these businesses, the Company acquired $84.6 million of assets and assumed $7.6 million in liabilities ($1.6 million in long-term liabilities).

(5) Includes $1.1 million related to reductions in force, $0.7 million of expense for facility exit and other charges, a $2.6 million impairment of leasehold improvements and right to use lease assets, and a $1.1 million impairment of internally developed software, customer relationship intangible assets and other long-term assets.

(6) Includes a $4.7 million charge related to the future purchase of the remaining 30% of the Motif acquisition (for discussion regarding acquisition of Motif, see our Annual Report on Form 10-K for the year ended December 31, 2017), a $2.4 million benefit related to a fair value adjustment of the contingent consideration based on revised estimates of performance against targets for one of our acquisitions, a $1.4 million benefit related to royalty payments in connection with the sale of two business units, a $1.4 million benefit related to the recovery of receivables for a division in winddown, and a $0.7 million benefit related to the sale of trademarks.

(7) Includes a $1.7 million benefit related to return to provision adjustments, a $2.8 million benefit related to tax rate changes, $0.7 million of expense related to changes in tax contingent liabilities, $4.5 million of expense related to changes in valuation allowance, a $0.9 million benefit related to restructuring, a $4.7 million benefit related to equity based compensation, a $2.9 million benefit related to the amortization of purchased intangibles, and a $0.3 million benefit related to other items.

(8) The Company spent $107.0 million, net of cash acquired of $4.5 million in 2019 for the acquisition of FCR. Upon acquisition of FCR, the Company acquired $171.7 million in assets and assumed $9.6 million in liabilities ($4.0 million in long-term liabilities).

(9) Includes $0.8 million related to reductions in force, $5.3 million of expense for facility exit charges and a termination fee for a technology vendor contract, $1.1 million of expense related to the impairment of property and equipment and a $0.3 million impairment charge related to internally developed software.

(10) Includes a $15.6 million impairment of the full value of an equity investment and a related bridge loan, a $9.9 million charge related to the future purchase of the remaining 30% of the Motif acquisition, a $1.6 million net loss related to a business unit which was classified as assets held for sale and subsequently reclassified to assets held and used as of December 31, 2018, a $2.0 million benefit related to royalty payments in connection with the sale of a business unit, a $0.7 million benefit related to the bargain purchase of an acquisition closed in March 2018, and a $0.3 million benefit related to a fair value adjustment of the contingent consideration based on revised estimates of performance against targets for one or our acquisitions.

(11) Includes a $4.2 million benefit related to the impairment of an equity investment, a $3.4 million benefit related to return to provision adjustments, $0.5 million of expense related to the disposition of assets, a $0.7 million benefit related to stock options, $1.6 million of expense related to changes in tax contingent liabilities, $1.5 million of expense related to changes in valuation allowance, a $2.1 million benefit related to restructuring, and a $0.5 million benefit related to other items.

(12) Includes $1.2 million expense related to reductions in force, $2.2 million of expense for facility exit charges, $3.5 million of expense due to write-off of leasehold improvements and other fixed assets in connection with the facilities we exited, $7.8 million expense related to integration charges for the Connextions acquisition (for discussion regarding acquisition of Connextions, see our Annual Report on Form 10-K for the year ended December 31, 2017), and a $5.3 million impairment charge related to two trade name intangible assets.

(13) Includes $5.3 million of expense related to the finalization of the transition services agreement for Connextions, a net $2.6 million loss related to a held for sale business unit that was sold in December 2017 and a $1.2 million charge to interest expense related to the future purchase of the remaining 30% of the Motif acquisition offset by a $3.2 million benefit related to the release of the currency translation adjustment in equity in connection with the dissolution of a foreign entity.

(14) Includes $62.4 million of expense related to the US 2017 Tax Act, $0.4 million of expense related to the disposition of assets, a $1.9 million benefit related to impairments, a $2.2 million benefit related to stock options, $0.6 million of expense related to changes in valuation allowances, a $5.8 million benefit related to restructuring, a $0.6 million benefit related to return to provision adjustments and a $2.1 million benefit related to changes to a transition service agreement.

(15) The Company spent $116.7 million, net of cash acquired of $6.0 million, in 2017 for the acquisitions of Connextions and Motif. Upon acquisitions of Connextions and Motif, the Company acquired $40.8 million in assets and assumed $36.3 million in liabilities ($27.4 million in long-term liabilities).

(16) Includes $3.4 million expense related to reductions in force, $1.0 million of expense for facility exit and other charges, a $1.3 million impairment of fixed assets, a $1.4 million impairment of goodwill, an $11.1 million impairment of internally developed software, and $18.2 million of impairment charges related to several trade name, customer relationship and non-compete intangible assets.

(17) Includes a $5.3 million estimated loss related to two business units which were classified as assets held for sale offset by a $4.8 million benefit related to fair value adjustments to the contingent consideration based on revised estimates of performance against targets for two of our acquisitions.

(18) Includes $1.7 million of expense related to return to provision adjustments, $1.1 million of expense related to a transfer pricing adjustment for a prior period, $0.5 million of expense related to tax rate changes, $0.5 million of expense related to changes in valuation allowances, a $1.5 million benefit related to restructuring charges, and a $9.8 million benefit related to impairments and loss on assets held for sale.

(19) The Company spent $46.1 million, net of cash acquired of $2.7 million, in 2016 for the acquisition of Atelka (for discussion regarding our acquisition of Atelka, see our Annual Report on Form 10-K for the year ended December 31, 2016). Upon acquisition of Atelka, the Company acquired $25.1 million in assets and assumed $7.7 million in liabilities ($1.4 million in long-term liabilities).

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

Executive Summary

TTEC Holdings, Inc. ("TTEC", "the Company", "we", "our" or "us") is a leading global customer experience as a service ("CXaaS") partner for many of the world's iconic brands, Fortune 1000 companies, government agencies, and disruptive growth companies. TTEC helps its clients deliver frictionless customer experiences, strengthen customer relationships, brand recognition and loyalty through personalized interactions, improve their Net Promoter Score, customer satisfaction and quality assurance, and lower their total cost to serve by combining innovative digital solutions with best-in-class service capabilities to enable and deliver simplified, consistent and seamless customer experience across channels and phases of the customer lifecycle.

Our CXaaS solutions enhance our clients' customers experience and help differentiate our clients from their competition.

In the fast expanding direct-to-customer ("DTC") channel where experiences are everything, enterprises must become increasingly more customer-centric, virtualized and digitally enabled to acquire, grow and maintain customers. Our mission is to enable and accelerate our clients' path to virtual and digital transformation. We are focused on improving the experience of our clients' customers by leveraging existing and emerging technologies — cloud, omnichannel, analytics, artificial intelligence ("AI"), machine learning ("ML"), robotic process automation ("RPA"), and real-time conversational messaging.

The Company reports its financial information based on two segments: TTEC Digital and TTEC Engage.

- **TTEC Digital** provides the CX technology services and platforms to support our clients' customer interaction delivery infrastructure. The segment designs, builds and operates the omnichannel ecosystem in a cloud, on premise, or hybrid environment, inclusive of fully integrating, orchestrating, and administrating highly scalable, feature-rich CX technology applications.
- **TTEC Engage** provides the CX managed services to support our clients' end-to-end customer interaction delivery, by providing the essential CX omnichannel and application technologies, human resources, recruiting, training and production, at-home or facility-based delivery infrastructure on a global scale, and engagement processes. This segment provides full-service digital, omnichannel customer engagement, supporting customer care, customer acquisition, growth and retention, and fraud detection and prevention services.

TTEC Digital and TTEC Engage strategically come together under our unified offering, Humanify® Customer Experience as a Service ("CXaaS"), which drives measurable customer results for clients through the delivery of personalized, omnichannel experiences. Our Humanify® cloud platform provides a fully integrated ecosystem of CX offerings, including messaging, AI, ML, RPA, analytics, cybersecurity, customer relationship management ("CRM"), knowledge management, journey orchestration and traditional voice solutions. Our end-to-end platform differentiates us from many competitors by combining design, strategic consulting, best-in-class technology, data analytics, process optimization, system integration and operational excellence. This unified offering is value-oriented, outcome-based and delivered to large enterprises, governments and disruptive growth companies on a global scale.

During fiscal 2020, the TTEC global operating platform delivered onshore, nearshore, and offshore services in 20 countries on six continents -- the United States, Australia, Belgium, Brazil, Bulgaria, Canada, Costa Rica, Germany, Greece, India, Ireland, Mexico, the Netherlands, New Zealand, the Philippines, Poland, Singapore, South Africa, Thailand, and the United Kingdom with the help of 61,000 consultants, technologists, and CX professionals.

Our revenue for fiscal 2020 was $1.949 billion, approximately $307 million, or 16% which came from our TTEC Digital segment and $1.642 billion, or 84%, which came from our TTEC Engage segment.

To improve our competitive position in a rapidly changing market and stay strategically relevant to our clients, we continue to invest in innovation and service offerings for both mainstream and high growth disruptive businesses, diversifying and strengthening our core customer care services with consulting, data analytics, insights, and technology-enabled, outcomes-focused services.

We also invest to broaden our product and service capabilities, increase our global client base and industry expertise, tailor our geographic footprint to the needs of our clients, and further scale our end-to-end integrated solutions platform. To this end we have been highly acquisitive in the last several years, including an acquisition in the second half of 2020 of a preferred Amazon Connect cloud contact center service provider, an acquisition in the first quarter of 2020 of an autonomous customer experience and intelligent automation solutions provider and an acquisition in the fourth quarter of 2019 of a provider of customer care, social media community management, content moderation, technical support and business process solutions for rapidly growing businesses in early stages of their lifecycle.

We have extensive expertise in the automotive, communications, financial services, national/federal and state and local government, healthcare, logistics, media and entertainment, e-tail/retail, technology, travel and transportation industries. We serve more than 300 diverse clients globally, including many of the world's iconic brands, Fortune 1000 companies, government agencies, and disruptive growth companies.

In March 2020, the World Health Organization declared the outbreak of COVID-19 as a global pandemic. Within weeks of this announcement, travel bans, a state of emergency, quarantines, lockdowns, "shelter in place" orders, and business restrictions and shutdowns were issued in most countries where TTEC does business. The need to comply with these measures, which came into effect with little notice, impacted our day-to-day operations and disrupted our business in the last month of the first quarter and second quarter of the year. As a result, operations were suspended in some of our TTEC Engage customer experience delivery sites. Business continuity plans were executed to transition as many employees as was reasonably possible to a work from home environment to support the health and well-being of our employees and communities and to provide a stable service delivery platform for our clients.

Between mid-March and mid-April 2020, we transitioned over 43,000 employees, or 80% of our employee population, to a work from home environment. With the easing of some of the government restrictions, those employees who were considered essential and could not operate effectively while remote returned to our brick-and-mortar sites, but most continue to work from home.

For those sites that continue to operate, we have taken extensive measures to protect the health and safety of our employees, in accordance with the recommendations and guidelines provided by the World Health Organization, the U.S. and European Centers for Disease Control and Prevention, the U.S. Occupational Safety Association, and local governments in jurisdictions where our customer experience centers are located.

Although our business experienced the effects of COVID-19 in the first half of 2020, our implementation of business continuity plans, rapid transition of employees to a work from home environment, and the geographic diversification of our delivery centers allowed us to mitigate potentially more severe impacts, and positioned us to support our commercial and public sector clients experiencing significant surge volumes of customer, patient and citizen COVID-19 related engagement. Our COVID-19 related surge work has contributed approximately 12% of our total revenue for 2020. Although approximately 20% of our pre-COVID-19 business was comprised of clients in industries that have been negatively impacted by the pandemic, i.e. automotive, retail and travel and hospitality, the 2020 total revenue derived from these clients has increased approximately 10% over the prior year period. Through the period ended December 31, 2020 the COVID-19 pandemic has not had a material adverse impact on our operational or financial results. While we expect this positive trend to continue and while some of our COVID-19 related work has transitioned to more traditional business activities for the same clients, there is uncertainty about our COVID-19 surge volumes and our non-COVID-19 related business. We cannot accurately predict the severity of the economic and operational challenges of a pro-longed COVID-19 pandemic on our clients' businesses and its effect on the magnitude and timing of their buying decisions. Further, while to date we have been successful in managing service delivery from our delivery sites that could not be replaced with work from home delivery, unpredictable lockdown decisions in some jurisdictions where we do business may continue to impact our delivery capability with little notice, thus potentially impacting our results of operations in the future.

In March 2020, we launched multiple cost reduction, optimization, and liquidity preservation initiatives to align our expenses with anticipated changes in revenue and increased costs related to the COVID-19 pandemic and government mandated restriction measures. We also intensified our cash flow discipline, including working capital management, hiring freezes, cuts in non-essential spending, suspension of merit increases and some incentive programs, deferral of capital expenditures, where possible, and negotiations for rent concessions for those facilities that we were unable to use during the government restrictions related to the COVID-19 pandemic. Our results of operations for 2020 permitted us to reverse most of the cost austerity measures. With the greater adoption of our work from home solution during the COVID-19 pandemic, we also launched a comprehensive review of our global real estate footprint to balance our commitments to physical facilities around the globe against evolving client preferences with respect to traditional physical delivery centers and work from home delivery. Considering the continued COVID-19 related uncertainties, we continue to remain vigilant in our cost management.

Our Integrated Service Offerings and Business Segments

We provide strategic value and differentiation through our two business segments: TTEC Digital and TTEC Engage.

TTEC Digital provides the CX technology services and platforms to support our clients' customer interaction delivery infrastructure. The segment designs, builds and operates the omnichannel ecosystem in a cloud, on premise, or hybrid environment, and fully integrates, orchestrates, and administers highly scalable, feature-rich CX technology applications. These solutions are critical to enabling and accelerating digital transformation for our clients.

- Technology Services: Our technology services design, integrate and operate highly scalable, digital omnichannel technology solutions in the cloud, on premise, or hybrid environment, including journey orchestration, automation and AI, knowledge management, and workforce productivity.
- Professional Services: Our management consulting practices deliver customer experience strategy, analytics, process optimization, and learning and performance services.

TTEC Engage delivers the CX managed services to support our clients' end-to-end customer interaction delivery, by providing the essential CX omnichannel and application technologies, human resources, recruiting, training and production, at-home or facility-based delivery infrastructure on a global scale, and engagement processes. This segment provides full-service digital, omnichannel customer engagement, supporting customer care, customer acquisition, growth and retention, and fraud detection and prevention services.

- Customer Acquisition Services: Our customer growth and acquisition services optimize the buying journeys for acquiring new customers by leveraging technology and analytics to deliver personal experiences that increase the quantity and quality of leads and customers.
- Customer Care Services: Our customer care services provide turnkey contact center solutions, including digital omnichannel technologies, associate recruiting and training, facilities, and operational expertise to create exceptional customer experiences across all touchpoints.
- Fraud Prevention Services: Our digital fraud detection and prevention services proactively identify and prevent fraud and provide community content moderation and compliance.

Based on our clients' preference, we provide our services on an integrated cross-business segment and/or on a discrete basis.

Additional information with respect to our segments and geographic footprint is included in Part II, Item 8. Financial Statements and Supplementary Data, Note 3 to the Consolidated Financial Statements.

Our 2020 Financial Results

In 2020, our revenue increased 18.6% to $1,949 million over 2019, including an increase of 0.02% or $0.3 million due to foreign currency fluctuations. The increase in revenue was comprised of a $1.6 million, or 0.5%, increase for TTEC Digital and a $303.9 million, or 22.7%, increase for TTEC Engage.

Our 2020 income from operations increased $81.0 million to $204.7 million or 10.5% of revenue, from $123.7 million or 7.5% of revenue for 2019. The change in operating income is attributable to a number of different factors across the segments. The TTEC Digital operating income expanded with an 16.4%, or $6.4 million, improvement over last year primarily due to the growth of its higher margin cloud business. The TTEC Engage operating income increased 88.0%, or $74.6 million, compared to the prior year based on the increase in revenue including, but not limited to, the acquisition of FCR and significant surge volumes in our commercial and public sector clients experiencing spikes in customer interactions related to COVID-19.

Income from operations in 2020 and 2019 included a total of $9.1 million and $5.5 million of restructuring and asset impairments, respectively.

Our offshore customer engagement centers spanning six countries serve clients based in the U.S. and in other countries with 23,400 workstations representing 55% of our global delivery capabilities. Revenue for our TTEC Engage segment provided in these offshore locations represented 29% of our 2020 revenue, as compared to 34% of our 2019 revenue.

Our seat utilization is defined as the total number of utilized workstations compared to the total number of available production workstations. As of December 31, 2020, the total production workstations for our TTEC Engage segment was 42,434 and the overall capacity utilization in our centers was 57% versus 74% in the prior year period. The utilization is lower than the previous year primarily due to COVID-19 protocols requiring the distancing of associates which has reduced the available seat capacity. Adjusted for social distancing protocols, which reduced the available workstations to approximately 21,200, and accounting for all client paid seats as utilized, whether through actual usage or contractual commitments to hold the seats, current utilization is in excess of 114%.

Post COVID-19 we expect our clients to leverage a more diversified geographic footprint and an increased mix of work from home vs. brick and mortar seats. We will continue to refine our site strategy and capacity as we finalize plans with our clients and prospects.

Some of our clients may be subject to regulatory pressures to serve clients onshore. We plan to continue to selectively retain and grow capacity and expand into new offshore markets, while maintaining appropriate capacity onshore. As we grow our offshore delivery capabilities and our exposure to foreign currency fluctuation increases, we will continue to actively manage this risk via a multi-currency hedging program designed to minimize operating margin volatility.

Critical Accounting Policies and Estimates

Management's Discussion and Analysis of our financial condition and results of operations are based upon our Consolidated Financial Statements, which have been prepared in accordance with accounting principles generally accepted in the U.S. ("GAAP"). The preparation of these financial statements requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenue and expenses as well as the disclosure of contingent assets and liabilities. We regularly review our estimates and assumptions. These estimates and assumptions, which are based upon historical experience and on various other factors believed to be reasonable under the circumstances, form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Reported amounts and disclosures may have been different had management used different estimates and assumptions or if different conditions had occurred in the periods presented. Below is a discussion of the policies that we believe may involve a high degree of judgment and complexity.

Revenue Recognition

The Company recognizes revenue from contracts and programs when control of the promised goods or services is transferred to the customers, in an amount that reflects the consideration it expects to be entitled to in exchange for those goods or services. Revenue is recognized when or as performance obligations are satisfied by transferring control of a promised good or service to a customer. A performance obligation is a promise in a contract to transfer a distinct good or service to the customer. Performance obligation is the unit of accounting for revenue recognition under the provisions of ASC Topic 606, "Revenue from Contracts with Customers" and all related amendments ("ASC 606"). A contract's transaction price is allocated to each distinct performance obligation in recognizing revenue.

The BPO inbound and outbound service fees are based on either a per minute, per hour, per FTE, per transaction or per call basis, which represents the majority of our contracts. These contracts have a single performance obligation as the promise to transfer the individual goods or services is not separately identifiable from other promises in the contracts and, therefore, not distinct. For example, services for the training of the Company's agents (which are separately billable to the customer) are a separate promise in our BPO contracts, but they are not distinct from the primary service obligations to transfer services to the customers. The performance of the customer service by the agents is highly dependent on the initial, growth, and seasonal training services provided to the agents during the life of a program. The training itself is not considered to have value to the customer on a standalone basis, and therefore, training on a standalone basis cannot be considered a separate unit of accounting. The Company therefore defers revenue from certain training services that are rendered mainly upon commencement of a new client contract or program, including seasonal programs. Revenue is also deferred when there is significant growth training in an existing program. Accordingly, recognition of initial, growth, and seasonal training revenues and associated costs (consisting primarily of labor and related expenses) are deferred and amortized over the period of economic benefit. With the exception of training, which is typically billed upfront and deferred, the remainder of revenue is invoiced on a monthly or quarterly basis as services are performed and does not create a contract asset or liability.

In addition to revenue from BPO services, revenue also consists of fees from services for program launch, professional consulting, fully-hosted or managed technology and learning innovation services. The contracts containing these service offerings may contain multiple performance obligations. For contracts with multiple performance obligations, the Company allocates the contract's transaction price to each performance obligation using the best estimate of the standalone selling price of each distinct good or service in the contract. The primary method used to estimate standalone selling price is the expected cost plus a margin approach, under which the Company forecasts its expected costs of satisfying a performance obligation and then adds an appropriate margin for that distinct good or service. The Company forecasts its expected cost based on historical data, current prevailing wages, other direct and indirect costs incurred in recently completed contracts, market conditions, and other client specific cost considerations. For these services, the point at which the transfer of control occurs determines when revenue is recognized in a specific reporting period. Within our Digital segment, where there are product sales, the attribution of revenue is recognized when the transfer of control is completed and the products are delivered to the client's location. Where services are rendered to a customer, the attribution is aligned with the progress of work and is recognized over time (i.e. based on measuring the progress toward complete satisfaction of a performance obligation using an output method or an input method). Where output method is used, revenue is recognized on the basis of direct measurements of the value to the customer of the goods or services transferred relative to the remaining goods or services promised under the contract. The majority of the Company's services are recognized over time using the input method in which revenue is recognized on the basis of efforts or inputs toward satisfying a performance obligation (for example, resources consumed, labor hours expended, costs incurred, or time elapsed) relative to the total expected inputs to satisfy the performance obligation. The measures used provide faithful depiction of the transfer of goods or services to the customers. For example, revenue is recognized on certain consulting contracts based on labor hours expended as a measurement of progress where the consulting work involves input of consultants' time. The progress is measured based on the hours expended over total number of estimated hours included in the contract multiplied by the total contract consideration. The contract consideration can be a fixed price or an hourly rate, and in either case, the use of labor hours expended as an input measure provides a faithful depiction of the transfer of services to the customers. Deferred revenues for these services represent amounts collected from, or invoiced to, customers in excess of revenues recognized. This results primarily from i) receipt of license fees that are deferred due to one or more of the revenue recognition criteria not being met, and ii) the billing of annual customer support agreements, annual managed service agreements, and billings for other professional services that have not yet been performed by the Company. The Company records amounts billed and received, but not earned, as deferred revenue. These amounts are recorded in Deferred revenue or Other long-term liabilities, as applicable, in the accompanying Consolidated Balance Sheets based on the period over which the Company expects to render services. Costs directly associated with revenue deferred, consisting primarily of labor and related expenses, are also deferred and recognized in proportion to the expected future revenue from the contract.

Variable consideration exists in contracts for certain client programs that provide for adjustments to monthly billings based upon whether the Company achieves, exceeds or fails certain performance criteria. Adjustments to monthly billings consist of contractual bonuses/penalties, holdbacks and other performance based conditions. Variable consideration is estimated at contract inception at its most likely value and updated at the end of each reporting period as additional performance data becomes available. Revenue related to such variable consideration is recognized only to the extent that a significant reversal of any incremental revenue is not considered probable.

Contract modifications are routine in the performance of the customer contracts. Contracts are often modified to account for customer mandated changes in the contract specifications or requirements, including service level changes. In most instances, contract modifications relate to goods or services that are incremental and distinctly identifiable, and, therefore, are accounted for prospectively.

Direct and incremental costs to obtain or fulfill a contract are capitalized, and the capitalized costs are amortized over the corresponding period of benefit, determined on a contract by contract basis. The Company recognizes an asset for the incremental costs of obtaining a contract with a customer if it expects to recover those costs. The incremental costs of obtaining a contract are those costs that the Company incurs to obtain a customer contract that it would not have incurred if the contract had not been obtained. Contract acquisition costs consist primarily of payment of commissions to sales personnel and are incurred when customer contracts are signed. The deferred sales commission amounts are amortized based on the expected period of economic benefit and are classified as current or non-current based on the timing of when they are expected to be recognized as an expense. Costs to obtain a contract that would have been incurred regardless of whether the contract was obtained are recognized as an expense when incurred, unless those costs are explicitly chargeable to the customer regardless of whether the contract is obtained. Sales commissions are paid for obtaining new clients only and are not paid for contract renewals or contract modifications. Capitalized costs of obtaining contracts are periodically reviewed for impairment.

In certain cases, the Company negotiates an upfront payment to a customer in conjunction with the execution of a contract. Such upfront payments are critical to acquisition of new business and are often used as an incentive to negotiate favorable rates from the clients and are accounted for as upfront discounts for future services. Such payments are either made in cash at the time of execution of a contract or are netted against the Company's service invoices. Payments to customers are capitalized as contract acquisition costs and are amortized in proportion to the expected future revenue from the contract, which in most cases results in straight-line amortization over the life of the contract. Such payments are considered a reduction of the selling prices of the Company's products or services, and therefore, are accounted for as a reduction of revenue when amortized. Such capitalized contract acquisition costs are periodically reviewed for impairment taking into consideration ongoing future cash flows expected from the contract and estimated remaining useful life of the contract.

Some of the Company's service contracts are short-term in nature with a contract term of one year or less. For those contracts, the Company has utilized the practical expedient in ASC 606-10-50-14 exempting the Company from disclosure of the transaction price allocated to remaining performance obligations if the performance obligation is part of a contract that has an original expected duration of one year or less. Also in alignment with ASC 606-10-50-14, the Company does not disclose the value of unsatisfied performance obligations for contracts for which it recognizes revenue at the amount to which it has the right to invoice for services performed. Additionally, the Company's standard payment terms are less than one year. Given the foregoing, the Company has elected the practical expedient under ASC 606-10-32-18 to not assess whether a contract has a significant financing component. Pursuant to the Company's election of the practical expedient under ASC 606-10-32-2A, sales, value add, and other taxes that are collected from customers concurrent with revenue-producing activities, which the Company has an obligation to remit to the governmental authorities, are excluded from revenue.

Income Taxes

Accounting for income taxes requires recognition of deferred tax assets and liabilities for the expected future income tax consequences of transactions that have been included in the Consolidated Financial Statements or tax returns. Under this method, deferred tax assets and liabilities are determined based on the difference between the financial statement and tax basis of assets and liabilities using tax rates in effect for the year in which the differences are expected to reverse. When circumstances warrant, we assess the likelihood that our net deferred tax assets will more likely than not be recovered from future projected taxable income.

We continually review the likelihood that deferred tax assets will be realized in future tax periods under the "more-likely-than-not" criteria. In making this judgment, we consider all available evidence, both positive and negative, in determining whether, based on the weight of that evidence, a valuation allowance is required.

We follow a two-step approach to recognizing and measuring uncertain tax positions. The first step is to determine if the weight of available evidence indicates that it is more likely than not that the tax position will be sustained on audit. The second step is to estimate and measure the tax benefit as the amount that has a greater than 50% likelihood of being realized upon ultimate settlement with the tax authority. We evaluate these uncertain tax positions on a quarterly basis. This evaluation is based on the consideration of several factors including changes in facts or circumstances, changes in applicable tax law, and settlement of issues under audit.

Interest and penalties relating to income taxes and uncertain tax positions are accrued net of tax in the Provision for income taxes in the accompanying Consolidated Statements of Comprehensive Income (Loss).

In the future, our effective tax rate could be adversely affected by several factors, many of which are outside our control. Our effective tax rate is affected by the proportion of revenue and income before taxes in the various domestic and international jurisdictions in which we operate. Further, we are subject to changing tax laws, regulations and interpretations in multiple jurisdictions in which we operate, as well as the requirements, pronouncements and rulings of certain tax, regulatory and accounting organizations. We estimate our annual effective tax rate each quarter based on a combination of actual and forecasted results of subsequent quarters. Consequently, significant changes in our actual quarterly or forecasted results may impact the effective tax rate for the current or future periods.

Impairment of Long-Lived Assets

We evaluate the carrying value of property, plant and equipment and definite-lived intangible assets for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An asset is considered to be impaired when the forecasted undiscounted cash flows of an asset group are estimated to be less than its carrying value. The amount of impairment recognized is the difference between the carrying value of the asset group and its fair value. Fair value estimates are based on assumptions concerning the amount and timing of estimated future cash flows and assumed discount rates.

Goodwill and Indefinite-Lived Intangible Assets

We evaluate goodwill and indefinite-lived intangible assets for possible impairment at least annually or whenever events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable.

We use a two-step process to assess the realizability of goodwill. The first step, Step 0, is a qualitative assessment that analyzes current economic indicators associated with a particular reporting unit. For example, we analyze changes in economic, market and industry conditions, business strategy, cost factors, and financial performance, among others, to determine if there would be a significant decline to the fair value of a particular reporting unit. A qualitative assessment also includes analyzing the excess fair value of a reporting unit over its carrying value from impairment assessments performed in previous years. If the qualitative assessment indicates a stable or improved fair value, no further testing is required.

If a qualitative assessment indicates that a significant decline to fair value of a reporting unit is more likely than not, or if a reporting unit's fair value has historically been closer to its carrying value, we will proceed to Step 1 testing where we calculate the fair value of a reporting unit based on discounted future probability-weighted cash flows. If Step 1 indicates that the carrying value of a reporting unit is in excess of its fair value, we will record an impairment equal to the amount by which a reporting unit's carrying value exceeds its fair value.

We estimate fair value using discounted cash flows of the reporting units. The most significant assumptions used in these analyses are those made in estimating future cash flows. In estimating future cash flows, we use financial assumptions in our internal forecasting model such as projected capacity utilization, projected changes in the prices we charge for our services, projected labor costs, as well as contract negotiation status. The financial and credit market volatility directly impacts our fair value measurement through our weighted average cost of capital that we use to determine our discount rate. We use a discount rate we consider appropriate for the country where the business unit is providing services.

Similar to goodwill, the Company may first use a qualitative analysis to assess the realizability of its indefinite-lived intangible assets. The qualitative analysis will include a review of changes in economic, market and industry conditions, business strategy, cost factors, and financial performance, among others, to determine if there would be a significant decline to the fair value of an indefinite-lived intangible asset. If a quantitative analysis is completed, an indefinite-lived intangible asset (such as a trade name) is evaluated for possible impairment by comparing the fair value of the asset with its carrying value. Fair value is estimated as the discounted value of future revenues arising from a trade name using a royalty rate that a market participant would pay for use of that trade name. An impairment charge is recorded if the intangible asset's carrying value exceeds its estimated fair value.

Derivatives

We may enter into foreign exchange forward and option contracts to reduce our exposure to foreign currency exchange rate fluctuations that are associated with forecasted revenue earned in foreign locations. We may enter into interest rate swaps to reduce our exposure to interest rate fluctuations associated with our variable rate debt. Upon proper qualification, these contracts are often accounted for as cash flow hedges under current accounting standards. From time-to-time, we may also enter into foreign exchange forward contracts to hedge our net investment in a foreign operation.

All derivative financial instruments are reported in the accompanying Consolidated Balance Sheets at fair value. Changes in fair value of derivative instruments designated as cash flow hedges are recorded in Accumulated other comprehensive income (loss), a component of Stockholders' Equity, to the extent they are deemed effective. Based on the criteria established by current accounting standards, all of our cash flow hedge contracts are deemed to be highly effective. Changes in fair value of any net investment hedge are recorded as cumulative translation adjustment in Accumulated other comprehensive income (loss) in the accompanying Consolidated Balance Sheets offsetting the change in cumulative translation adjustment attributable to the hedged portion of our net investment in the foreign operation. Any realized gains or losses resulting from the foreign currency cash flow hedges are recognized together with the hedged transactions within Revenue. Any realized gains or losses resulting from the interest rate swaps are recognized in Interest expense. Gains and losses from the settlements of our net investment hedges remain in Accumulated other comprehensive income (loss) until partial or complete liquidation of the applicable net investment.

We also enter into fair value derivative contracts to reduce our exposure to foreign currency exchange rate fluctuations associated with changes in asset and liability balances. Changes in the fair value of derivative instruments designated as fair value hedges affect the carrying value of the asset or liability hedged, with changes in both the derivative instrument and the hedged asset or liability being recognized in Other income (expense), net in the accompanying Consolidated Statements of Comprehensive Income (Loss).

While we expect that our derivative instruments will continue to be highly effective and in compliance with applicable accounting standards, if our hedges did not qualify as highly effective or if we determine that forecasted transactions will not occur, the changes in the fair value of the derivatives used as hedges would be reflected currently in earnings.

Contingencies

We record a liability for pending litigation and claims where losses are both probable and reasonably estimable. Each quarter, management reviews all litigation and claims on a case-by-case basis and assigns probability of loss and range of loss.

Explanation of Key Metrics and Other Items

Cost of Services

Cost of services principally include costs incurred in connection with our customer experience services and technology services, including direct labor and related taxes and benefits, telecommunications, technology costs, sales and use tax and certain fixed costs associated with the customer engagement centers. In addition, cost of services includes income related to grants we may receive from local or state governments as an incentive to locate customer engagement centers in their jurisdictions which reduce the cost of services for those facilities.

Selling, General and Administrative

Selling, general and administrative expenses primarily include costs associated with administrative services such as sales, marketing, product development, legal, information systems (including core technology and telephony infrastructure), accounting and finance. It also includes outside professional fees (i.e., legal and accounting services), building expense for non-engagement center facilities and other items associated with general business administration.

Restructuring Charges, Net

Restructuring charges, net primarily include costs incurred in conjunction with reductions in force or decisions to exit facilities, including termination benefits and lease liabilities, net of expected sublease rentals.

Interest Expense

Interest expense includes interest expense, amortization of debt issuance costs associated with our Credit Facility, and the accretion of deferred payments associated with our acquisitions.

Other Income

The main components of other income are miscellaneous income not directly related to our operating activities, such as foreign exchange gains and reductions in our contingent consideration.

Other Expenses

The main components of other expenses are expenditures not directly related to our operating activities, such as foreign exchange losses and increases in our contingent consideration.

RESULTS OF OPERATIONS

Year Ended December 31, 2020 Compared to December 31, 2019

The tables included in the following sections are presented to facilitate an understanding of Management's Discussion and Analysis of Financial Condition and Results of Operations and present certain information by segment for the years ended December 31, 2020 and 2019 (amounts in thousands). All inter-company transactions between the reported segments for the periods presented have been eliminated.

TTEC Digital

	Year Ended December 31,			
	2020	2019	$ Change	% Change
Revenue	$ 306,985	$ 305,346	$ 1,639	0.5 %
Operating Income	45,315	38,927	6,388	16.4 %
Operating Margin	14.8 %	12.7 %		

The increase in revenue for the TTEC Digital segment was related to significant increases in the cloud platform and the systems integration practice including a large multi-year governmental contract, and the acquisitions of Serendebyte and Voice Foundry during 2020, offset by reductions in the legacy facility based training business and the Middle East consulting practice, both of which the Company has exited.

The operating income expansion is primarily attributable to the acquisitions and continued improved utilization of technology and people assets as the business scales its cloud and system integration revenue, as well as the exit of the less profitable facilities based training and Middle East consulting practices. The operating income also increased due to the $2.0 million impairment of intangible and other long-lived assets for one of the consulting components in this segment (See Part II, Item 8. Financial Statements and Supplementary Data, Notes 6 and 11 to the Consolidated Financial Statements) recorded during 2019. The operating income as a percentage of revenue increased to 14.8% in 2020 as compared to 12.7% in 2019. Included in the operating income was amortization related to acquired intangibles of $3.0 million and $2.6 million for the years ended December 31, 2020 and 2019, respectively.

TTEC Engage

	Year Ended December 31,			
	2020	**2019**	**$ Change**	**% Change**
Revenue	$ 1,642,263	$ 1,338,358	$ 303,905	22.7 %
Operating Income	159,377	84,782	74,595	88.0 %
Operating Margin	9.7 %	6.3 %		

The increase in revenue for the TTEC Engage segment was due to a net increase of $408.5 million in client programs including the acquisition of FCR in the fourth quarter of 2019 and certain surge programs for several clients in connection with the COVID-19 pandemic, offset by a decrease for program completions of $104.6 million. Prior to the end of 2020, a significant portion of the surge work has converted into longer-term normal course business.

The operating income increased in line with the improved revenue including the acquisition of FCR as well as continued improved profitability in our customer growth, @Home, fraud prevention and detection and customer acquisition offerings and auto and hypergrowth client portfolios, offset by increases in amortization for acquired intangibles. Partially offsetting these increases was a net $7.6 million in restructuring and impairment charges related to several facilities in the U.S, Canada, and the Philippines. (see Part II, Item 8. Financial Statements and Supplementary Data, Note 11 to the Consolidated Financial Statements). As a result, the operating income as a percentage of revenue increased to 9.7% in 2020 as compared to 6.3% in the prior period. Included in the operating income was amortization expense related to acquired intangibles of $13.2 million and $9.0 million for the years ended December 31, 2020 and 2019, respectively.

Interest Income (Expense)

Interest income decreased to $1.7 million in 2020 from $1.9 million in 2019 due to lower interest rates offset by higher average cash balances. Interest expense decreased to $17.5 million during 2020 from $19.1 million during 2019, primarily due to lower interest rates despite higher utilization of the line of credit, and a $1.6 million increase period over period in the charge related to the future purchase of the remaining 30% interest in Motif, which was finalized during the second quarter of 2020.

Other Income (Expense), Net

For the year ended December 31, 2020 Other income (expense), net decreased to net expense of $18.6 million from net income of $3.9 million during the prior year.

Included in the year ended December 31, 2020 was a net $1.8 million benefit related to the fair value adjustments of contingent consideration for three acquisitions, offset by a $19.9 million expense related to the deconsolidation of three subsidiaries and the related removal of the Currency Translation Adjustments (see Part II, Item 8. Financial Statements and Supplementary Data, Notes 2 and 9 to the Consolidated Financial Statements).

Included in the year ended December 31, 2019 was a $2.4 million benefit related to the fair value adjustment of contingent consideration for an acquisition, a $1.4 million benefit on recovery of receivables in connection with the consulting business that we are winding down, a $1.4 million benefit related to royalty payments in connection with the sale of a business, and a $0.7 million benefit on the sale of trademarks.

Income Taxes

The reported effective tax rate for 2020 was 24.0% as compared to 23.3% for 2019. The effective tax rate for 2020 was impacted by earnings in international jurisdictions currently under an income tax holiday, $2.9 million of expense related to changes in tax contingent liabilities, a $1.8 million benefit related to provision to return adjustments, a $3.0 million benefit related to losses on dissolutions of subsidiaries, $0.4 million of expense related to changes in valuation allowances, a $2.0 million benefit related to restructuring charges, $0.8 million of expense for earnouts related to acquisitions, a $4.0 million benefit related to equity based compensation, a $4.2 million benefit related to the amortization of purchased intangibles, and $0.1 million of other benefits. Without these items our effective tax rate for the year ended December 31, 2020 would have been 22.5%.

For the year ended December 31, 2019, our effective tax rate was 23.3%. The effective tax rate for 2019 was impacted by earnings in international jurisdictions currently under an income tax holiday, $0.7 million of expense related to changes in tax contingent liabilities, a $1.7 million benefit related to provision to return adjustments, a $2.8 million benefit related to tax rate changes, $4.5 million of expense related to changes in valuation allowances, a $0.9 million benefit related to restructuring charges, a $4.7 million benefit related to equity based compensation, a $2.9 million benefit related to the amortization of purchased intangibles, and $0.3 million of other benefits. Without these items our effective tax rate for the year ended December 31, 2019 would have been 24.4%.

Year Ended December 31, 2019 compared to December 31, 2018

For a discussion of our results of operations for the year ended December 31, 2019 compared to the year ended December 31, 2018, please see Part II. Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations – Results of Operations in our Annual Report on Form 10-K for the year ended December 31, 2019.

Liquidity and Capital Resources

Our principal sources of liquidity are our cash generated from operations, our cash and cash equivalents, and borrowings under our Credit Facility. During the year ended December 31, 2020, we generated positive operating cash flows of $271.9 million. We believe that our cash generated from operations, existing cash and cash equivalents, and available credit will be sufficient to meet expected operating and capital expenditure requirements for the next 12 months.

We manage a centralized global treasury function in the United States with a focus on safeguarding and optimizing the use of our global cash and cash equivalents. Our cash is held in the U.S. in U.S. dollars, and outside of the U.S. in U.S. dollars and foreign currencies. We expect to use our cash to fund working capital, global operations, dividends, acquisitions, and other strategic activities. While there are no assurances, we believe our global cash is well protected given our cash management practices, banking partners and utilization of diversified bank deposit accounts and other high quality investments.

We have global operations that expose us to foreign currency exchange rate fluctuations that may positively or negatively impact our liquidity. We are also exposed to higher interest rates associated with our variable rate debt. To mitigate these risks, we enter into foreign exchange forward and option contracts through our cash flow hedging program. Please refer to Item 7A. Quantitative and Qualitative Disclosures About Market Risk, Foreign Currency Risk, for further discussion.

In March 2020, we borrowed $350.0 million under our revolving credit facility as a precautionary measure to provide additional liquidity during the global economic uncertainty and financial market conditions cause by the COVID-19 pandemic. During September 2020, this additional borrowing was repaid. Although we expect that current cash and cash equivalent balances and cash flows that are generated from operations will be sufficient to meet our domestic and international working capital needs and other capital and liquidity requirements for at least the next 12 months, if our access to capital is restricted or our borrowing costs increase, our operations and financial condition could be adversely impacted.

We primarily utilize our Credit Facility to fund working capital, general operations, dividends, and other strategic activities, such as the acquisitions described in Part II. Item 8. Financial Statements and Supplementary Data, Note 2 to the Consolidated Financial Statements. As of December 31, 2020 and 2019, we had borrowings of $385.0 million and $290.0 million, respectively, under our Credit Facility, and our average daily utilization was $550.9 million and $331.8 million for the years ended December 31, 2020 and 2019, respectively. After consideration for the current level of availability based on the covenant calculations, our remaining borrowing capacity was approximately $510.0 million as of December 31, 2020. As of December 31, 2020, we were in compliance with all covenants and conditions under our Credit Facility.

The amount of capital required over the next 12 months will depend on our levels of investment in infrastructure necessary to maintain, upgrade or replace existing assets. Our working capital and capital expenditure requirements could also increase materially in the event of acquisitions or joint ventures, among other factors. These factors could require that we raise additional capital through future debt or equity financing. We can provide no assurance that we will be able to raise additional capital with commercially reasonable terms acceptable to us.

The following discussion highlights our cash flow activities during the years ended December 31, 2020 and 2019.

Cash and Cash Equivalents

We consider all liquid investments purchased within 90 days of their original maturity to be cash equivalents. Our cash and cash equivalents totaled $132.9 million and $82.4 million as of December 31, 2020 and 2019, respectively. We diversify the holdings of such cash and cash equivalents considering the financial condition and stability of the counterparty institutions.

We reinvest our cash flows to grow our client base, expand our infrastructure, for investment in research and development, for strategic acquisitions, and to pay dividends.

Cash Flows from Operating Activities

For the years 2020 and 2019, we reported net cash flows provided by operating activities of $271.9 million and $238.0 million, respectively. The increase of $33.9 million from 2019 to 2020 was primarily due to a $73.5 million increase in net cash income from operations offset by a $39.5 million decrease in net working capital.

Cash Flows from Investing Activities

For the years 2020 and 2019, we reported net cash flows used in investing activities of $112.4 million and $162.9 million, respectively. The net decrease in cash used in investing activities from 2019 to 2020 was primarily due to a $49.8 million decrease related to acquisitions.

Cash Flows from Financing Activities

For the years 2020 and 2019, we reported net cash flows used in financing activities of $112.2 million and $47.4 million, respectively. The change in net cash flows from 2019 to 2020 was primarily due to a $87.0 million net additional draw on the line of credit, offset by a $42.8 million increase related to payments of contingent consideration and hold-back payments related to several acquisitions and a $105.8 million increase in dividends paid to shareholders.

Free Cash Flow

Free cash flow (see "Presentation of Non-GAAP Measurements" below for the definition of free cash flow) was $212.1 million and $177.2 million for the years 2020 and 2019, respectively. The increase from 2019 to 2020 was primarily due to an increase in the net cash from operations offset by slightly lower capital expenditures

Presentation of Non-GAAP Measurements

Free Cash Flow

Free cash flow is a non-GAAP liquidity measurement. We believe that free cash flow is useful to our investors because it measures, during a given period, the amount of cash generated that is available for debt obligations and investments other than purchases of property, plant and equipment. Free cash flow is not a measure determined by GAAP and should not be considered a substitute for "income from operations," "net income," "net cash provided by operating activities," or any other measure determined in accordance with GAAP. We believe this non-GAAP liquidity measure is useful, in addition to the most directly comparable GAAP measure of "net cash provided by operating activities," because free cash flow includes investments in operational assets. Free cash flow does not represent residual cash available for discretionary expenditures, since it includes cash required for debt service. Free cash flow also includes cash that may be necessary for acquisitions, investments and other needs that may arise.

The following table reconciles net cash provided by operating activities to free cash flow for our consolidated results (in thousands):

	Year Ended December 31,	
	2020	2019
Net cash provided by operating activities	$ 271,920	$ 237,989
Less: Purchases of property, plant and equipment	59,772	60,776
Free cash flow	$ 212,148	$ 177,213

Obligations and Future Capital Requirements

Future maturities of our outstanding debt and contractual obligations as of December 31, 2020 are summarized as follows (in thousands):

	Less than 1 Year	1 to 3 Years	3 to 5 Years	Over 5 Years	Total
Credit Facility(1)	$ 5,557	$ 11,114	$ 385,685	$ —	$ 402,356
Equipment financing arrangements	6,193	4,188	575	—	10,956
Purchase obligations	15,071	12,520	298	—	27,889
Operating lease commitments undiscounted)	51,120	77,998	25,626	8,397	163,141
Transition tax related to US 2017 Tax Act	3,300	9,600	13,210	—	26,110
Other debt	12,239	8,562	14	—	20,815
Total	$ 93,480	$ 123,982	$ 425,408	$ 8,397	$ 651,267

(1) Includes estimated interest payments based on the weighted-average interest rate, unused commitment, fees, and outstanding debt as of December 31, 2020.

- Contractual obligations to be paid in a foreign currency are translated at the period end exchange rate.
- Purchase obligations primarily consist of outstanding purchase orders for goods or services not yet received, which are not recognized as liabilities in our Consolidated Balance Sheets until such goods and/or services are received.
- The contractual obligation table excludes our liabilities of $10.5 million related to uncertain tax positions because we cannot reliably estimate the timing of future cash payments. See Part II, Item 8. Financial Statements and Supplementary Data, Note 10 to the Consolidated Financial Statements for further discussion.

Our outstanding debt is primarily associated with the use of funds under our Credit Agreement to fund working capital, for strategic acquisitions, to pay dividends and for other cash flow needs across our global operations.

Purchase Obligations

Occasionally we contract with certain of our communications clients to provide us with telecommunication services. These clients currently represent approximately 8% of our total annual revenue. We believe these contracts are negotiated on an arm's-length basis and may be negotiated at different times and with different legal entities.

Future Capital Requirements

We expect total capital expenditures in 2021 to be between 3.1% and 3.3% of revenue. Approximately 60% of these expected capital expenditures are to support growth in our business and 40% relate to the maintenance of existing assets. The anticipated level of 2021 capital expenditures is primarily driven by new client contracts and the corresponding requirements for additional customer engagement center capacity as well as enhancements to our technological infrastructure.

We may consider restructurings, dispositions, mergers, acquisitions and other similar transactions. Such transactions could include the transfer, sale or acquisition of significant assets, businesses or interests, including joint ventures or the incurrence, assumption, or refinancing of indebtedness and could be material to the consolidated financial condition and consolidated results of our operations. Our capital expenditures requirements could also increase materially in the event of an acquisition or joint venture. In addition, as of December 31, 2020, we were authorized to purchase an additional $26.6 million of common stock under our stock repurchase program (see Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities). Our stock repurchase program does not have an expiration date.

The launch of large client contracts may result in short-term negative working capital because of the time period between incurring the costs for training and launching the program and the beginning of the accounts receivable collection process. As a result, we may sometimes generate negative cash flows from operating activities.

Debt Instruments and Related Covenants

On February 14, 2019, we entered into a Fourth Amendment to our Amended and Restated Credit Agreement and Amended and Restated Security Agreement originally dated as of June 3, 2013 (collectively the "Credit Agreement") for a senior secured revolving credit facility with a syndicate of lenders led by Wells Fargo Bank, National Association, as agent, swing line and fronting lender which matures on February 14, 2024 (the "Credit Facility"). We primarily utilize our Credit Facility to fund working capital, general operations, dividends, acquisitions, and other strategic activities.

The maximum commitment under the Credit Facility is $900.0 million with an accordion feature of up to $1.2 billion in the aggregate, if certain conditions are satisfied. The Credit Facility commitment fees are payable to the lenders as previously disclosed and as determined by reference to our net leverage ratio. The Credit Agreement contains customary affirmative, negative, and financial covenants, which remained unchanged from the 2016 Credit Facility, except that we are now obligated to maintain a maximum net leverage ratio of 3.50 to 1.00, and a minimum Interest Coverage Ratio of 2.50 to 1.00. The Credit Agreement permits accounts receivable factoring up to the greater of $75 million or 25 percent of the average book value of all accounts receivable over the most recent twelve month period.

Base rate loans bear interest at a rate equal to the greatest of (i) Wells Fargo's prime rate, (ii) one half of 1% in excess of the federal funds effective rate, or (iii) 1.25% in excess of the one month London Interbank Offered Rate ("LIBOR"), plus in each case a margin of 0% to 0.75% based on our net leverage ratio. Eurodollar loans bear interest at LIBOR plus a margin of 1.0% to 1.75% based on our net leverage ratio. Alternate currency loans bear interest at rates applicable to their respective currencies.

Letter of credit fees are one eighth of 1% of the stated amount of the letter of credit on the date of issuance, renewal or amendment, plus an annual fee equal to the borrowing margin for Eurodollar loans.

Indebtedness under the Credit Agreement is guaranteed by certain of our domestic subsidiaries and is secured by security interests (subject to permitted liens) in the U.S. accounts receivable and cash of our Company and certain of its domestic subsidiaries. The indebtedness may also be secured by tangible assets of our Company and its domestic subsidiaries, if borrowings by foreign subsidiaries exceed $100.0 million and the total net leverage ratio is greater than 3.00 to 1.00. We also pledged 65% of the voting stock and all of the non-voting stock, if any, of certain of our material foreign subsidiaries.

The Credit Facility also contains certain customary information and reporting requirements, and events of default, including without limitation events of default based on payment obligations, material inaccuracies of representations and warranties, covenant defaults, cross defaults to certain other debt, certain ERISA events, changes in control, monetary judgments, and insolvency proceedings. Upon the occurrence of an event of default, the lenders may accelerate the maturity of all amounts outstanding under the Credit Facility.

As of December 31, 2020 and 2019, we had borrowings of $385.0 million and $290.0 million, respectively, under the Credit Facility. During 2020, 2019 and 2018, borrowings accrued interest at an average rate of approximately 1.6%, 3.4%, and 3.1% per annum, respectively, excluding unused commitment fees. Our daily average borrowings during 2020, 2019 and 2018 were $550.9 million, $331.8 million and $514.7 million, respectively. As of December 31, 2020, and 2019, based on the current level of availability based on the covenant calculations, the remaining borrowing capacity was approximately $510.0 million and $530.0 million, respectively.

Off-Balance Sheet Arrangements

As of December 31, 2020, we had no transactions that met the definition of off-balance sheet arrangements that may have a current or future material effect on our consolidated financial position or operating results.

Client Concentration

During 2020, one of our clients represented more than 10% of our total annual revenue. Our five largest clients accounted for 40%, 37% and 35% of our annual revenue for each of the three years ended December 31, 2020, 2019 and 2018, respectively. We have long-term relationships with our top five Engage clients, ranging from 14 to 21 years, with all of these clients having completed multiple contract renewals with us. The relative contribution of any single client to consolidated earnings is not always proportional to the relative revenue contribution on a consolidated basis and varies greatly based upon specific contract terms. In addition, clients may adjust business volumes served by us based on their business requirements. We believe the risk of this concentration is mitigated, in part, by the long-term contracts we have with our largest clients. Although certain client contracts may be terminated for convenience by either party, we believe this risk is mitigated, in part, by the service level disruptions and transition/migration costs that would arise for our clients if they terminated our contract for convenience.

Some of the contracts with our five largest clients expire between 2021 and 2023, but most of our largest clients may have multiple contracts with us with different expiration dates for different lines of work. We have historically renewed most of our contracts with our largest clients, but there can be no assurance that future contracts will be renewed or, if renewed, will be on terms as favorable as the existing contracts.

Cybersecurity

We have made and continue to make significant financial investments in technologies and processes to mitigate cyber risks. We have a number of complex information systems used for a variety of functions ranging from services we deliver to our customers to support for our operations. We depend on the proper functioning of these information systems. Like any information system, they are susceptible to cyber-attack. Any cyber-attack could impact the availability, reliability, speed, accuracy, or other proper functioning of these systems or result in confidential data being compromised, which could have a significant impact on our reputation, results of operations, and financial condition. Our information systems are protected through physical and technological safeguards as well as backup systems considered appropriate by management. We also provide employee awareness training about phishing, malware, social engineering, and other cyber risks. Further, we have formed a cybersecurity specific risk management steering committee that meets periodically to fully coordinate all enterprise level cybersecurity issues. Our Board of Directors and executive leadership team are updated at least quarterly on the progress and status of our cybersecurity priorities. We continuously monitor and develop our information technology networks and infrastructure to prevent, detect, address, and mitigate the risk of unauthorized access, distributed denial of service attacks, malware attacks, computer viruses, cyber fraud, and other events intended to disrupt information systems, theft of valuable information, or other types of malicious events that result in harm to our business. Our investment in cybersecurity is not expected to decrease in the foreseeable future, and despite our on-going efforts to improve our cybersecurity, there can be no assurance that a sophisticated cyber-attack could be detected or thwarted.

Recently Issued Accounting Pronouncements

We discuss the potential impact of recent accounting pronouncements in Part II, Item 8. Financial Statements and Supplementary Data, Note 1 to the Consolidated Financial Statements.

Changes in Accounting Principle

As discussed in Note 1, the Company changed its method of accounting for leases in 2019 due to the adoption of Accounting Standards Update (“ASU”) No. 2016-02, *Leases (Topic 842).*

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Market risk represents the risk of loss that may impact our consolidated financial position, consolidated results of operations, or consolidated cash flows due to adverse changes in financial and commodity market prices and rates. Market risk also includes credit and non-performance risk by counterparties to our various financial instruments. We are exposed to market risks due to changes in interest rates and foreign currency exchange rates (as measured against the U.S. dollar), as well as credit risk associated with potential non-performance of our counterparty banks. These exposures are directly related to our normal operating and funding activities. We enter into derivative instruments to manage and reduce the impact of currency exchange rate changes, primarily between the U.S. dollar/Philippine peso, the U.S. dollar/Mexican peso, and the Australian dollar/Philippine peso. We enter into interest rate derivative instruments to reduce our exposure to interest rate fluctuations associated with our variable rate debt. To mitigate against credit and non-performance risk, it is our policy to only enter into derivative contracts and other financial instruments with investment grade counterparty financial institutions and, correspondingly, our derivative valuations reflect the creditworthiness of our counterparties. As of the date of this report, we have not experienced, nor do we anticipate, any issue related to derivative counterparty defaults.

Interest Rate Risk

We have previously entered into interest rate derivative instruments to reduce our exposure to interest rate fluctuations associated with our variable rate debt. The interest rate on our Credit Agreement is variable based upon the Prime Rate and LIBOR and, therefore, is affected by changes in market interest rates. As of December 31, 2020, we had $385.0 million of outstanding borrowings under the Credit Agreement. Based upon average daily outstanding borrowings during the years ended December 31, 2020 and 2019, interest accrued at a rate of approximately 1.6% and 3.4% per annum, respectively. If the Prime Rate or LIBOR increased by 100 basis points, there would be $1.0 million of additional interest expense per $100.0 million of outstanding borrowing under the Credit Agreement.

The Company's interest rate swap arrangement expired as of May 31, 2017 and no additional swaps have been entered into since that time.

Foreign Currency Risk

Our subsidiaries in the Philippines, Mexico, India, Bulgaria and Poland use the local currency as their functional currency for paying labor and other operating costs. Conversely, revenue for these foreign subsidiaries is derived principally from client contracts that are invoiced and collected in U.S. dollars or other foreign currencies. As a result, we may experience foreign currency gains or losses, which may positively or negatively affect our results of operations attributed to these subsidiaries. For the years ended December 31, 2020, 2019 and 2018, revenue associated with this foreign exchange risk was 17%, 22% and 23% of our consolidated revenue, respectively.

The following summarizes relative (weakening) strengthening of local currencies that are relevant to our business:

	Year Ended December 31,		
	2020	2019	2018
Canadian Dollar vs. U.S. Dollar	2.1%	4.5 %	(8.6)%
Philippine Peso vs. U.S. Dollar	5.2%	3.5 %	(5.1)%
Mexican Peso vs. U.S. Dollar	(5.2)%	3.8 %	0.2 %
Australian Dollar vs. U.S. Dollar	9.0%	(0.6)%	(10.7)%
Euro vs. U.S. Dollar	8.6%	(2.0)%	(4.7)%
Indian Rupee vs. U.S. Dollar	(2.5)%	(2.5)%	(9.0)%
Philippine Peso vs. Australian Dollar	(4.2)%	4.0 %	5.0 %

In order to mitigate the risk of these non-functional foreign currencies weakening against the functional currencies of the servicing subsidiaries, which thereby decreases the economic benefit of performing work in these countries, we may hedge a portion, though not 100%, of the projected foreign currency exposure related to client programs served from these foreign countries through our cash flow hedging program. While our hedging strategy can protect us from adverse changes in foreign currency rates in the short term, an overall weakening of the non-functional revenue foreign currencies would adversely impact margins in the segments of the servicing subsidiary over the long term.

Cash Flow Hedging Program

To reduce our exposure to foreign currency exchange rate fluctuations associated with forecasted revenue in non-functional currencies, we purchase forward and/or option contracts to acquire the functional currency of the foreign subsidiary at a fixed exchange rate at specific dates in the future. We have designated and account for these derivative instruments as cash flow hedges for forecasted revenue in non-functional currencies.

While we have implemented certain strategies to mitigate risks related to the impact of fluctuations in currency exchange rates, we cannot ensure that we will not recognize gains or losses from international transactions, as this is part of transacting business in an international environment. Not every exposure is or can be hedged and, where hedges are put in place based on expected foreign exchange exposure, they are based on forecasts for which actual results may differ from the original estimate. Failure to successfully hedge or anticipate currency risks properly could adversely affect our consolidated operating results.

Our cash flow hedging instruments as of December 31, 2020 and 2019 are summarized as follows (in thousands). All hedging instruments are forward contracts, except as noted.

As of December 31, 2020	Local Currency Notional Amount	U.S. Dollar Notional Amount	% Maturing in the next 12 months	Contracts Maturing Through
Canadian Dollar	2,450	$ 1,853	100.0 %	July 2021
Philippine Peso	6,725,000	130,468 [1]	54.9 %	December 2023
Mexican Peso	1,159,500	52,398	51.1 %	December 2023
		$ 184,719		

As of December 31, 2019	Local Currency Notional Amount	U.S. Dollar Notional Amount
Philippine Peso	7,715,000	147,654 [1]
Mexican Peso	1,299,500	61,529
		$ 209,183

(1) Includes contracts to purchase Philippine pesos in exchange for New Zealand dollars and Australian dollars, which are translated into equivalent U.S. dollars on December 31, 2020 and December 31, 2019.

The fair value of our cash flow hedges at December 31, 2020 was an asset (in thousands):

	December 31, 2020	Maturing in the Next 12 Months
Canadian Dollar	$ 73	$ 73
Philippine Peso	7,942	4,819
Mexican Peso	3,375	(1,974)
	$ 11,390	$ 2,918

Our cash flow hedges are valued using models based on market observable inputs, including both forward and spot foreign exchange rates, implied volatility, and counterparty credit risk. The fair value of our cash flow hedges increased by $5.6 million from December 31, 2019 to December 31, 2020. The increase in fair value from December 31, 2019 primarily reflects changes in the currency translation between the U.S. dollar and Mexican Peso and U.S. dollar and Philippines Peso.

We recorded net gains (losses) of $2.6 million, $(4.2) million, and $(17.5) million for settled cash flow hedge contracts for the years ended December 31, 2020, 2019, and 2018, respectively. These gains(losses) were reflected in Revenue in the accompanying Consolidated Statements of Comprehensive Income (Loss). If the exchange rates between our various currency pairs were to increase or decrease by 10% from current period-end levels, we would incur a material gain or loss on the contracts. However, any gain or loss would be mitigated by corresponding increases or decreases in our underlying exposures.

Other than the transactions hedged as discussed above and in Part II. Item 8. Financial Statements and Supplementary Data, Note 8 to the Consolidated Financial Statements, the majority of the transactions of our U.S. and foreign operations are denominated in their respective local currency. However, transactions are denominated in other currencies from time-to-time. We do not currently engage in hedging activities related to these types of foreign currency risks because we believe them to be insignificant as we endeavor to settle these accounts on a timely basis. For the years ended 2020 and 2019, approximately 14% and 21%, respectively, of revenue was derived from contracts denominated in currencies other than the U.S. Dollar. Our results of operations and revenue could be adversely affected if the U.S. Dollar strengthens significantly against foreign currencies.

Fair Value of Debt and Equity Securities

We did not have any investments in marketable debt or equity securities as of December 31, 2020 or 2019.

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

The financial statements required by this item are located beginning on page F-1 of this report and incorporated herein by reference.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

Not applicable.

ITEM 9A. CONTROLS AND PROCEDURES

This Form 10-K includes the certifications of our Chief Executive Officer (the "CEO") and Chief Financial Officer (the "CFO") required by Rule 13a-14 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"). See Exhibits 31.1 and 31.2. This Item 9A includes information concerning the controls and control evaluations referred to in those certifications.

Disclosure Controls and Procedures

Disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) are designed to provide reasonable assurance that information required to be disclosed in reports filed or submitted under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in SEC rules and forms, and that such information is accumulated and communicated to management, including our CEO and CFO, as appropriate, to allow timely decisions regarding required disclosure.

We carried out an evaluation under the supervision and with the participation of management, including the CEO and CFO, of the effectiveness of our disclosure controls and procedures, as of December 31, 2020, the end of the period covered by this Form 10-K. Based on this evaluation, our CEO and CFO have concluded that the Company's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended) were effective at the reasonable assurance level.

Inherent Limitations of Internal Controls

Our management, including the CEO and CFO, believes that any disclosure controls and procedures or internal control over financial reporting, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of internal controls are met. Further, the design of internal controls must consider the benefits of controls relative to their costs. Inherent limitations within internal controls include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of 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 unauthorized override of the control. Over time, control may become inadequate because of changes in conditions or deterioration in the degree of compliance with associated policies or procedures. While the objective of the design of any system of controls is to provide reasonable assurance of the effectiveness of controls, such design is also based in part upon certain assumptions about the likelihood of future events, and such assumptions, while reasonable, may not take into account all potential future conditions. Thus, even effective internal control over financial reporting can only provide reasonable assurance of achieving their objectives. Therefore, because of the inherent limitations in cost effective internal controls, misstatements due to error or fraud may occur and may not be prevented or detected.

Management's Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. 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. Internal control over financial reporting includes those policies and procedures which (a) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of assets, (b) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, (c) provide reasonable assurance that receipts and expenditures are being made only in accordance with appropriate authorization of management and the Board of Directors, and (d) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of assets that could have a material effect on the financial statements.

In connection with the preparation of this Annual Report on Form 10-K, our management, under the supervision and with the participation of our CEO and CFO, conducted an evaluation of the effectiveness of our internal control over financial reporting as of December 31, 2020 based on the framework established in *Internal Control — Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). As a result of that evaluation, our management concluded that the Company's internal control over financial reporting was effective as of December 31, 2020, the end of the period covered by this Form 10-K.

We excluded Voice Foundry from our assessment of internal control over financial reporting as of December 31, 2020 because this company was acquired by the Company in a purchase business combination in 2020. Voice Foundry's total assets and total revenues represent 4.7% and 3.7%, respectively, of the related consolidated financial amounts as of and for the year ended December 31, 2020.

The effectiveness of our internal control over financial reporting as of December 31, 2020 has been audited by PricewaterhouseCoopers LLP, our independent registered public accounting firm, as stated in their report, which is included herein.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting during the most recent quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The information in our 2021 Definitive Proxy Statement on Schedule 14A, which will be filed no later than 120 days after December 31, 2020 (the "2021 Proxy Statement") regarding our executive officers under the heading "Information Regarding Executive Officers" is incorporated herein by reference. We have both the Ethics Code for Senior Executive and Financial Officers and the Ethics Code defining rules of conduct for our employees, partners and suppliers. Our Ethics Code for Senior Executive and Financial Officers applies to our Chief Executive Officer, Chief Financial Officer, lead executives of our business segments, Controller, Treasurer, the General Counsel, Chief Audit executive, senior financial officers of each operating segment and other persons performing similar functions. The Ethics Code defines conduct for all directors, officers, employees, partners and suppliers (as applicable). Both the Ethics Code for Senior Executive and Financial Officers and the Ethics Code are posted on our website at www.ttec.com on the Corporate Governance page. We will post on our website any amendments to or waivers under the Ethics Code for Senior Executive and Financial Officers in accordance with applicable laws and regulations.

There have been no material changes to the procedures by which stockholders may recommend nominees to the board of directors. The remaining information called for by this Item 10 is incorporated by reference herein from our 2021 Proxy Statement.

ITEM 11. EXECUTIVE COMPENSATION

The information in our 2021 Proxy Statement is incorporated herein by reference.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information regarding these matters is included in Part II, Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities. Also the information in our 2021 Proxy Statement is incorporated herein by reference.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information in our 2021 Proxy Statement is incorporated herein by reference.

ITEM 14. PRINCIPAL ACCOUNTANTS FEES AND SERVICES

The information in our 2021 Proxy Statement is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

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

1. *Consolidated Financial Statements.*

   The Index to Consolidated Financial Statements is set forth on page F-1 of this report.

2. *Financial Statement Schedules.*

   All schedules for TTEC have been omitted since the required information is not present or not present in amounts sufficient to require submission of the schedule, or because the information is included in the respective Consolidated Financial Statements or notes thereto.

3. *Exhibits.*

EXHIBIT INDEX

Exhibit No.	Exhibit Description	Incorporated Herein by Reference		
		Form	Exhibit	Filing Date
3.01**	Restated Certificate of Incorporation of TeleTech Holdings, Inc. filed with the State of Delaware on August 1, 1996	S-1/A	3.01	7/5/1996
3.03**	Certificate of Amendment of Incorporation of TTEC Holdings, Inc. (reflecting name change) with an effective date of January 1, 2018	8-K	3.03	1/9/2018
3.04**	Amended and Restated Bylaws of TTEC Holdings, Inc. (reflecting name change)	8-K	3.04	1/9/2018
4.01**	Description of Securities of TTEC Holdings, Inc. registered pursuant to Section 12 of the Securities Act of 1934	10-K	4.01	3/4/2020
10.06**	TeleTech Holdings, Inc. 2010 Equity Incentive Plan	DEF 14A	A	4/12/2010

10.07**	TTEC Holdings, Inc. 2020 Equity Incentive Plan	DEF 14A	A	4/3/2020
10.25**	Form of TTEC Holdings, Inc. Performance Restricted Stock Unit Agreement (Executive Committee Members) effective July 5, 2019	10-Q	10.25	8/7/2019
10.26**	Form of TTEC Holdings, Inc. Performance Restricted Stock Unit Agreement (Executive Committee Members) effective March 6, 2020	10-Q	10.26	5/4/2020
10.29**	Form of TeleTech Holdings, Inc. Restricted Stock Unit Award Agreement (non-executive employees) effective July 1, 2014	10-K	10.29	3/9/2015
10.30**	Form of TeleTech Holdings, Inc. Restricted Stock Unit Award Agreement (Directors and Executive Committee Members) effective July 1, 2014	10-K	10.30	3/9/2015
10.31**	Independent Director Restricted Stock Unit Award Agreement (effective May 14, 2020)	10-Q	10.31	8/5/2020
10.32**	Independent Director Compensation Arrangements (effective May 2019)	10-K	10.32	3/6/2019
10.33**	Form of Indemnification Agreement with Directors and Executive Officers	10-Q	10.33	11/5/2019
10.34*	Independent Director Compensation Arrangements (effective May 2021)			
10.40**	Employment Agreement between Kenneth D. Tuchman and TeleTech Holdings, Inc. dated October 15, 2001	10-K	10.68	4/1/2002
10.41**	Amendment to Employment Agreement between Kenneth D. Tuchman and TeleTech Holdings, Inc. dated December 31, 2008	10-K	10.17	2/23/2009
10.60**	Amended and Restated Executive Employment Agreement between Regina M. Paolillo and TTEC Services Corporation effective May 1, 2018	10-Q	10.60	5/10/2018
10.82**	Amended and Restated Executive Employment Agreement between Judi A. Hand and TTEC Services Corporation effective May 1, 2018	10-Q	10.82	5/10/2018
10.86**	Amended and Restated Executive Employment Agreement between Margaret B. McLean and TTEC Services Corporation effective December 12, 2018	10-K	10.86	3/6/2019
10.87*	Summary of employment arrangements between Richard Sean Erickson and TTEC Services Corporation effective September 8, 2020. While Mr. Erickson joined TTEC in September 2020, he only recently has been appointed as an Executive Officer whose compensation is subject to disclosure.			
10.88**	Executive Employment Agreement between Jonathan Lerner and TTEC Services Corporation effective December 9, 2019	8-K	10.88	12/11/2019

10.90**	Amended and Restated Credit Agreement, dated as of June 3, 2013, among TeleTech Holdings, Inc., the foreign borrowers party thereto, the lenders party thereto, Wells Fargo Bank, National Association, as Administrative Agent, Swing Line Lender and Fronting Lender, KeyBank National Association, Bank of America, N.A., BBVA Compass, and HSBC Bank USA, National Association, each as Documentation Agent and Wells Fargo Securities, LLC, KeyBank National Association, Merrill Lynch, Pierce, Fenner & Smith Incorporated, BBVA Compass and HSBC Bank USA, National Association, as Joint Lead Arrangers	8-K	10.1	6/7/2013
10.91**	First Amendment to Amended and Restated Credit Agreement and First Amendment to Amended and Restated Security Agreement for the senior secured revolving credit facility with a syndicate of lenders led by Wells Fargo Bank, National Association, as agent, swing line and fronting lender.	8-K	10.90	2/16/2016
10.94**	Fourth Amendment to Amended and Restated Credit Agreement and Restated Security Agreement for a senior secured revolving credit facility with a syndicate of lenders led by Wells Fargo Bank, National Association, as agent, swing line and fronting lender	8-K	10.32	2/26/2019
10.99**	Membership Interest Purchase Agreement dated October 26, 2019, by and among Ortana Holdings, LLC, an Oregon limited liability company, First Call Resolution, LLC, an Oregon limited liability company, John Stadter, Matthew Achak, and TTEC Services Corporation, a Colorado corporation	8-K	10.99	10/29/2019
21.1*	List of subsidiaries			
23.1*	Consent of Independent Registered Public Accounting Firm			
24.1*	Power of Attorney			
31.1*	Rule 13a-14(a) Certification of CEO of TTEC			
31.2*	Rule 13a-14(a) Certification of CFO of TTEC			
32.1*	Written Statement of Chief Executive Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. Section 1350)			
32.2*	Written Statement of Chief Financial Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (18 U.S.C. Section 1350)			
101.INS	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	XBRL Taxonomy Extension Schema			
101.CAL	XBRL Taxonomy Extension Calculation Linkbase			
101.DEF	XBRL Taxonomy Extension Definition Linkbase			
101.LAB	XBRL Taxonomy Extension Label Linkbase			
101.PRE	XBRL Taxonomy Extension Presentation Linkbase			
104	The cover page from TTEC Holdings, Inc's Annual Report on Form 10-K for the year ended December 31, 2020, formatted in Inline XBRL			

* Filed or furnished herewith.
** Identifies exhibit that consists of or includes a management contract or compensatory plan or arrangement.

ITEM 16. FORM 10-K SUMMARY

None

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned; thereunto duly authorized on March 1, 2021.

TTEC HOLDINGS, INC.

By: /s/ KENNETH D. TUCHMAN
Chief Executive Officer

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below on March 1, 2021, by the following persons on behalf of the registrant and in the capacities indicated:

Signature	Title
/s/ KENNETH D. TUCHMAN Kenneth D. Tuchman	PRINCIPAL EXECUTIVE OFFICER Chief Executive Officer and Chairman of the Board
/s/ REGINA M. PAOLILLO Regina M. Paolillo	PRINCIPAL FINANCIAL AND ACCOUNTING OFFICER Chief Financial Officer
* Steven J. Anenen	DIRECTOR
* Tracy L. Bahl	DIRECTOR
* Gregory A. Conley	DIRECTOR
* Robert N. Frerichs	DIRECTOR
* Marc L. Holtzman	DIRECTOR
* Ekta Singh-Bushell	DIRECTOR

* By /s/ Regina M. Paolillo under Power of Attorney as attached hereto as Exhibit 24.1

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Consolidated Statements of Cash Flows for the Years Ended December 31, 2020, 2019 and 2018	F-8
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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of TTEC Holdings, Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of TTEC Holdings, Inc. and its subsidiaries (the "Company") as of December 31, 2020 and 2019, and the related consolidated statements of comprehensive income (loss), of stockholders' equity and mezzanine equity, and of cash flows for each of the three years in the period ended December 31, 2020, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

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, 2020 and 2019, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2020 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Changes in Accounting Principles

As discussed in Note 1 to the consolidated financial statements, the Company changed the manner in which it accounts for leases in 2019 and the manner in which it accounts for revenues from contracts with customers in 2018.

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 Management's Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and 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.

As described in Management's Report on Internal Control over Financial Reporting, management has excluded Voice Foundry from its assessment of internal control over financial reporting as of December 31, 2020 because it was acquired by the Company in a purchase business combination during 2020. We have also excluded Voice Foundry from our audit of internal control over financial reporting. Voice Foundry is a wholly owned subsidiary, whose total assets and total revenues excluded from management's assessment and our audit of internal control over financial reporting represent 4.7% and 3.7%, respectively, of the related consolidated financial statement amounts as of and for the year ended December 31, 2020.

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 (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with 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 (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. 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 matter communicated below is a matter arising from the current period audit of the consolidated financial statements that was communicated or required to be communicated to the audit committee and that (i) relates to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Acquisition of Voice Foundry US - Valuation of Customer Relationships Intangible Asset

As described in Note 2 to the consolidated financial statements, on August 5, 2020, the Company closed the first phase of the acquisition of the Voice Foundry business by acquiring 100% of the business's net assets in the U.S. and U.K. (the "VF US Transaction") for the total purchase price of $45.89 million, which resulted in a $6.55 million customer relationships intangible asset being recorded. A multi-period excess earnings method under the income approach was used to estimate the fair value of the customer relationships intangible asset. The significant assumption utilized in calculating the fair value of the customer relationships intangible asset was the customer attrition rate.

The principal considerations for our determination that performing procedures relating to the valuation of customer relationships intangible assets acquired in the VF US Transaction is a critical audit matter are the significant judgment by management when developing the fair value estimate for the customer relationships intangible asset, which in turn led to a high degree of auditor judgment, subjectivity and effort in performing procedures and evaluating management's significant assumption related to the customer attrition rate. In addition, the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls over management's valuation of the customer relationships intangible asset and controls over the development of the customer attrition rate assumption. These procedures also included, among others, (i) reading the purchase agreement, (ii) testing management's process for developing the fair value estimate for the customer relationships intangible asset, (iii) evaluating the appropriateness of the valuation method and the reasonableness of the customer attrition rate used by management in the valuation, and (iv) testing the completeness and accuracy of the data used in the valuation. Evaluating the reasonableness of the customer attrition rate involved considering the past performance of the acquired business as well as economic and industry forecasts. Professionals with specialized skill and knowledge were used to assist in the evaluation of the Company's valuation method and the customer attrition rate.

/s/PricewaterhouseCoopers LLP

Denver, Colorado
March 1, 2021

We have served as the Company's auditor since 2007.

TTEC HOLDINGS, INC. AND SUBSIDIARIES
Consolidated Balance Sheets
(Amounts in thousands, except share amounts)

	December 31, 2020	December 31, 2019
ASSETS		
Current assets		
Cash and cash equivalents	$ 132,914	$ 82,407
Accounts receivable, net of allowance of $5,067 and $5,452	378,397	331,096
Prepaids and other current assets	104,597	96,287
Income and other tax receivables	40,894	40,035
Total current assets	656,802	549,825
Long-term assets		
Property, plant and equipment, net	178,706	176,633
Operating lease assets	120,820	150,808
Goodwill	363,502	301,694
Deferred tax assets, net	15,081	13,263
Other intangible assets, net	112,059	115,596
Other long-term assets	69,438	68,969
Total long-term assets	859,606	826,963
Total assets	$ 1,516,408	$ 1,376,788
LIABILITIES, STOCKHOLDERS' EQUITY AND MEZZANINE EQUITY		
Current liabilities		
Accounts payable	$ 66,658	$ 64,440
Accrued employee compensation and benefits	163,658	114,165
Other accrued expenses	55,915	79,171
Income tax payable	19,709	11,307
Deferred revenue	39,956	39,447
Current operating lease liabilities	43,651	45,218
Other current liabilities	6,623	9,541
Total current liabilities	396,170	363,289
Long-term liabilities		
Line of credit	385,000	290,000
Deferred tax liabilities, net	7,747	10,602
Non-current income tax payable	22,291	25,208
Non-current operating lease liabilities	98,277	127,395
Other long-term liabilities	96,185	79,641
Total long-term liabilities	609,500	532,846
Total liabilities	1,005,670	896,135
Commitments and contingencies (Note 13)		
Redeemable noncontrolling interest	52,976	48,923
Stockholders' equity		
Preferred stock; $0.01 par value; 10,000,000 shares authorized; zero shares outstanding as of December 31, 2020 and December 31, 2019	—	—
Common stock; $0.01 par value; 150,000,000 shares authorized; 46,737,033 and 46,488,938 shares outstanding as of December 31, 2020 and December 31, 2019, respectively	467	465
Additional paid-in capital	360,293	356,409
Treasury stock at cost: 35,315,220 and 35,563,315 shares as of December 31, 2020 and December 31, 2019, respectively	(601,214)	(605,314)
Accumulated other comprehensive income (loss)	(72,156)	(106,234)
Retained earnings	757,312	773,218
Noncontrolling interest	13,060	13,186
Total stockholders' equity	457,762	431,730
Total liabilities, stockholders' equity and mezzanine equity	$ 1,516,408	$ 1,376,788

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

TTEC HOLDINGS, INC. AND SUBSIDIARIES
Consolidated Statements of Comprehensive Income (Loss)
(Amounts in thousands, except per share amounts)

	Year Ended December 31,		
	2020	**2019**	**2018**
Revenue	$ 1,949,248	$ 1,643,704	$ 1,509,171
Operating expenses			
Cost of services (exclusive of depreciation and amortization presented separately below)	1,452,719	1,242,887	1,157,927
Selling, general and administrative	203,902	202,540	182,428
Depreciation and amortization	78,862	69,086	69,179
Restructuring charges, net	3,264	1,747	6,131
Impairment losses	5,809	3,735	1,452
Total operating expenses	1,744,556	1,519,995	1,417,117
Income from operations	204,692	123,709	92,054
Other income (expense)			
Interest income	1,656	1,913	4,476
Interest expense	(17,489)	(19,113)	(28,674)
Other income (expense), net	(18,591)	3,902	(11,618)
Total other income (expense)	(34,424)	(13,298)	(35,816)
Income before income taxes	170,268	110,411	56,238
Provision for income taxes	(40,937)	(25,677)	(16,483)
Net income	129,331	84,734	39,755
Net income attributable to noncontrolling interest	(10,683)	(7,570)	(3,938)
Net income attributable to TTEC stockholders	$ 118,648	$ 77,164	$ 35,817
Other comprehensive income (loss)			
Net income	$ 129,331	$ 84,734	$ 39,755
Foreign currency translation adjustments	29,537	6,816	(30,382)
Derivative valuation, gross	5,717	16,990	11,526
Derivative valuation, tax effect	(1,468)	(4,530)	(4,058)
Other, net of tax	488	(786)	308
Total other comprehensive income (loss)	34,274	18,490	(22,606)
Total comprehensive income (loss)	163,605	103,224	17,149
Less: Comprehensive income attributable to noncontrolling interest	(8,352)	(7,698)	(3,624)
Comprehensive income attributable to TTEC stockholders	$ 155,253	$ 95,526	$ 13,525
Weighted average shares outstanding			
Basic	46,647	46,373	46,064
Diluted	46,993	46,758	46,385
Net income per share attributable to TTEC stockholders			
Basic	$ 2.54	$ 1.66	$ 0.78
Diluted	$ 2.52	$ 1.65	$ 0.77

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

TTEC HOLDINGS, INC. AND SUBSIDIARIES
Consolidated Statements of Stockholders' Equity and Mezzanine Equity
(Amounts in thousands)

	Stockholders' Equity of the Company										
	Preferred Stock		Common Stock		Treasury	Additional	Accumulated Other Comprehensive	Retained	Noncontrolling		Mezzanine
	Shares	Amount	Shares	Amount	Stock	Paid-in Capital	Income (Loss)	Earnings	interest	Total Equity	Equity
Balance as of December 31, 2017	—	$ —	45,862	$ 459	$ (615,677)	$ 351,725	$ (102,304)	$ 721,664	$ 6,978	$ 362,845	$ —
Cumulative effect of adopting accounting standard updates	—	—	—	—	—	—	—	(6,584)	—	(6,584)	—
Net income	—	—	—	—	—	—	—	35,817	3,938	39,755	—
Dividends to shareholders ($0.55 per common share)	—	—	—	—	—	—	—	(25,346)	—	(25,346)	—
Dividends distributed to noncontrolling interest	—	—	—	—	—	—	—	—	(2,925)	(2,925)	—
Foreign currency translation adjustments	—	—	—	—	—	—	(30,068)	—	(314)	(30,382)	—
Derivatives valuation, net of tax	—	—	—	—	—	—	7,468	—	—	7,468	—
Vesting of restricted stock units	—	—	318	3	5,252	(9,898)	—	—	—	(4,643)	—
Exercise of stock options	—	—	15	—	248	(40)	—	—	—	208	—
Equity-based compensation expense	—	—	—	—	—	12,145	—	—	—	12,145	—
Other, net of tax	—	—	—	—	—	—	308	—	—	308	—
Balance as of December 31, 2018	—	$ —	46,195	$ 462	$ (610,177)	$ 353,932	$ (124,596)	$ 725,551	$ 7,677	$ 352,849	$ —
Cumulative effect of adopting accounting standard updates	—	—	—	—	—	—	—	(758)	—	(758)	—
Net income	—	—	—	—	—	—	—	77,164	6,969	84,133	601
Acquisition of noncontrolling interest	—	—	—	—	—	—	—	—	—	—	48,322
Dividends to shareholders ($0.62 per common share)	—	—	—	—	—	—	—	(28,739)	—	(28,739)	—
Contribution from noncontrolling interest	—	—	—	—	—	—	—	—	3,362	3,362	—
Dividends distributed to noncontrolling interest	—	—	—	—	—	—	—	—	(4,950)	(4,950)	—
Foreign currency translation adjustments	—	—	—	—	—	—	6,688	—	128	6,816	—
Derivatives valuation, net of tax	—	—	—	—	—	—	12,460	—	—	12,460	—
Vesting of restricted stock units	—	—	294	3	4,863	(10,337)	—	—	—	(5,471)	—
Equity-based compensation expense	—	—	—	—	—	12,814	—	—	—	12,814	—
Other, net of tax	—	—	—	—	—	—	(786)	—	—	(786)	—
Balance as of December 31, 2019	—	$ —	46,489	$ 465	$ (605,314)	$ 356,409	$ (106,234)	$ 773,218	$ 13,186	$ 431,730	$ 48,923
Net income	—	—	—	—	—	—	—	118,648	8,156	126,804	2,527
Acquisition of noncontrolling interest	—	—	—	—	—	—	—	—	—	—	3,849
Dividends to shareholders ($2.88 per common share)	—	—	—	—	—	—	—	(134,554)	—	(134,554)	—
Dividends distributed to noncontrolling interest	—	—	—	—	—	—	—	—	(8,478)	(8,478)	(2,323)
Foreign currency translation adjustments	—	—	—	—	—	—	29,341	—	196	29,537	—
Derivatives valuation, net of tax	—	—	—	—	—	—	4,249	—	—	4,249	—
Vesting of restricted stock units	—	—	248	2	4,100	(8,623)	—	—	—	(4,521)	—
Equity-based compensation expense	—	—	—	—	—	12,507	—	—	—	12,507	—
Other, net of tax	—	—	—	—	—	—	488	—	—	488	—
Balance as of December 31, 2020	—	$ —	46,737	$ 467	$ (601,214)	$ 360,293	$ (72,156)	$ 757,312	$ 13,060	$ 457,762	$ 52,976

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

TTEC HOLDINGS, INC. AND SUBSIDIARIES
Consolidated Statements of Cash Flows
(Amounts in thousands)

	Year Ended December 31,		
	2020	2019	2018
Cash flows from operating activities			
Net income	$ 129,331	$ 84,734	$ 39,755
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	78,862	69,086	69,179
Amortization of contract acquisition costs	590	1,002	3,015
Amortization of debt issuance costs	732	1,083	992
Imputed interest expense and fair value adjustments to contingent consideration	4,484	2,339	10,217
Provision for credit losses	494	1,711	3,679
(Gain) loss on disposal of assets	521	189	111
Loss on dissolution of subsidiary	19,905	—	—
Impairment losses	5,809	3,735	1,452
Impairment on equity investment	—	—	15,632
Gain (adjustment) on bargain purchase of a business	—	—	(685)
Non-cash loss on assets held for sale reclassified to held and used	—	—	1,616
Deferred income taxes	(5,193)	(1,376)	(7,975)
Excess tax benefit from equity-based awards	(726)	(1,231)	(635)
Equity-based compensation expense	12,507	12,814	12,145
(Gain) loss on foreign currency derivatives	103	(140)	1,524
Changes in assets and liabilities, net of acquisitions:			
Accounts receivable	(40,625)	29,608	29,985
Prepaids and other assets	57,597	27,413	(30,438)
Accounts payable and accrued expenses	76,726	97,268	11,713
Deferred revenue and other liabilities	(69,197)	(90,246)	7,063
Net cash provided by operating activities	271,920	237,989	168,345
Cash flows from investing activities			
Proceeds from sale of long-lived assets	20	382	34
Purchases of property, plant and equipment, net of acquisitions	(59,772)	(60,776)	(43,450)
Investments in non-marketable equity investments	—	—	(2,119)
Acquisitions, net of cash acquired of $4,423, $4,547, and $4,530, respectively	(52,675)	(102,457)	(2,027)
Net cash used in investing activities	(112,427)	(162,851)	(47,562)
Cash flows from financing activities			
Net proceeds(borrowings) from line of credit	95,000	8,000	(62,000)
Payments on other debt	(8,619)	(11,855)	(5,989)
Payments of contingent consideration and hold-back payments to acquisitions	(48,686)	(5,902)	(1,349)
Dividends paid to shareholders	(134,554)	(28,739)	(25,346)
Payments to noncontrolling interest	(10,801)	(4,950)	(2,925)
Capital contribution from noncontrolling interest	—	3,362	—
Proceeds from exercise of stock options	—	—	208
Tax payments related to issuance of restricted stock units	(4,521)	(5,471)	(4,643)
Payments of debt issuance costs	(45)	(1,819)	(35)
Net cash used in financing activities	(112,226)	(47,374)	(102,079)
Effect of exchange rate changes on cash, cash equivalents and restricted cash	6,157	(410)	(14,904)
Increase in cash, cash equivalents and restricted cash	53,424	27,354	3,800
Cash, cash equivalents and restricted cash, beginning of period	105,591	78,237	74,437
Cash, cash equivalents and restricted cash, end of period	$ 159,015	$ 105,591	$ 78,237
Supplemental disclosures			
Cash paid for interest	$ 10,233	$ 13,108	$ 17,456
Cash paid for income taxes	$ 47,761	$ 36,316	$ 39,984
Non-cash investing and financing activities			
Acquisition of long-lived assets through finance leases	$ 1,852	$ 3,731	15,018
Acquisition of equipment through increase in accounts payable, net	$ 347	$ 881	$ 339

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

(1) OVERVIEW AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Overview

TTEC Holdings, Inc. ("TTEC", "the Company") is a leading global customer experience as a service ("CXaaS") partner for many of the world's iconic brands, Fortune 1000 companies, government agencies, and disruptive growth companies. TTEC helps its clients deliver frictionless customer experiences, strengthen customer relationships, brand recognition and loyalty through personalized interactions, improve their Net Promoter Score, customer satisfaction and quality assurance, and lower their total cost to serve by combining innovative digital solutions with best-in-class service capabilities to enable and deliver simplified, consistent and seamless customer experience across channels and phases of the customer lifecycle. TTEC's 61,000 employees serve clients in the automotive, communication, financial services, national/federal and state and local governments, healthcare, logistics, media and entertainment, e-tail/retail, technology, travel and transportation industries via operations in the United States, Australia, Belgium, Brazil, Bulgaria, Canada, Costa Rica, Germany, Greece, India, Ireland, Mexico, the Netherlands, New Zealand, the Philippines, Poland, Singapore, South Africa, Thailand, and the United Kingdom.

The Company reports its financial information based on two segments: TTEC Digital and TTEC Engage.

- **TTEC Digital** provides the CX technology services and platforms to support the Company's clients' customer interaction delivery infrastructure. The segment designs, builds and operates the omnichannel ecosystem in a cloud, on premise, or hybrid environment, inclusive of fully integrating, orchestrating, and administrating highly scalable, feature-rich CX technology applications.
- **TTEC Engage** provides the CX managed services to support the Company's clients' end-to-end customer interaction delivery, by providing the essential CX omnichannel and application technologies, human resources, recruiting, training and production, at-home or facility-based delivery infrastructure on a global scale, and engagement processes. This segment provides full-service digital, omnichannel customer engagement, supporting customer care, customer acquisition, growth and retention, and fraud detection and prevention services.

TTEC Digital and TTEC Engage strategically come together under the Company's unified offering, Humanify® Customer Experience as a Service ("CXaaS"), which drives measurable customer results for clients through the delivery of personalized, omnichannel experiences. The Company's Humanify® cloud platform provides a fully integrated ecosystem of CX offerings, including messaging, artificial intelligence, machine learning, robotic process automation, analytics, cybersecurity, customer relationship management, knowledge management, journey orchestration, and traditional voice solutions. The Company's end-to-end platform differentiates the Company from many competitors by combining design, strategic consulting, best-in-class technology, data analytics, process optimization, system integration and operational excellence.

Basis of Presentation

The Consolidated Financial Statements are comprised of the accounts of TTEC, its wholly owned subsidiaries, its 55% equity owned subsidiary Percepta, LLC, its 70% equity owned subsidiary First Call Resolution, LLC and its 70% equity owned subsidiary Serendebyte, Inc. (see Note 2). All intercompany balances and transactions have been eliminated in consolidation.

Reclassifications

The Company has elected to modify the presentation of the proceeds and borrowings on the line of credit within the financing section of the Cash Flow Statement from a two-line presentation to a one-line net presentation. Prior period presentation has been modified to ensure consistency.

Use of Estimates

The preparation of the Consolidated Financial Statements in conformity with accounting principles generally accepted in the U.S. ("GAAP") requires management to make estimates and assumptions in determining the reported amounts of assets and liabilities, disclosure of contingent liabilities at the date of the Consolidated Financial Statements and the reported amounts of revenue and expenses during the reporting period. On an on-going basis, the Company evaluates its estimates including those related to derivatives and hedging activities, income taxes including the valuation allowance for deferred tax assets, litigation reserves, restructuring reserves, allowance for credit losses, contingent consideration, valuation of goodwill, long-lived and intangible assets and redeemable noncontrolling interest. The Company bases its estimates on historical experience and on various other assumptions that are believed to be reasonable, the results of which form the basis for making judgments about the carrying values of assets and liabilities. Actual results may differ materially from these estimates under different assumptions or conditions.

Concentration of Credit Risk

The Company is exposed to credit risk in the normal course of business, primarily related to accounts receivable and derivative instruments. Historically, the losses related to credit risk have been immaterial. The Company regularly monitors its credit risk to mitigate the possibility of current and future exposures resulting in a loss. The Company evaluates the creditworthiness of its clients prior to entering into an agreement to provide services and as necessary through the life of the client relationship. The Company does not believe it is exposed to more than a nominal amount of credit risk in its derivative hedging activities, as the Company diversifies its activities across eight investment-grade financial institutions.

Fair Value of Financial Instruments

Fair values of cash equivalents, accounts receivable and payable and debt approximate the carrying amounts because of their short-term nature.

Cash, Cash Equivalents and Restricted Cash

Cash and cash equivalents consist of cash, primarily held in interest-bearing investments, and liquid short-term maturities, which have original maturities of less than 90 days. Restricted cash includes cash whereby the Company's ability to use the funds at any time is contractually limited or is generally designated for specific purposes arising out of certain contractual or other obligations.

The Company manages a centralized global treasury function in the United States with a focus on safeguarding and optimizing the use of its global cash and cash equivalents. The Company's cash is held in the U.S. in U.S. dollars and outside of the U.S. in U.S. dollars and foreign currencies. The Company believes that it has effectively mitigated and managed its risk relating to its global cash through its cash management practices, banking partners, and utilization of diversified bank deposit accounts and high quality investments. However, the Company can provide no assurances that it will not sustain losses.

The following table provides a reconciliation of cash, cash equivalents and restricted cash reported in the Consolidated Balance Sheets that sum to the amounts reported in the Consolidated Statement of Cash Flows (in thousands):

	December 31, 2020	December 31, 2019	December 31, 2018
Cash and cash equivalents	$ 132,914	$ 82,407	$ 78,237
Restricted cash included in "Prepaid and other current assets"	26,101	23,172	—
Restricted cash included in "Other noncurrent assets"	—	12	—
Total	$ 159,015	$ 105,591	$ 78,237

Accounts Receivable

At the end of each quarter an allowance for credit losses will be calculated based on the current quarterly revenue multiplied by the historical loss percentage of the prior three-year period and recorded in the income statement. In addition to the evaluation of historical losses, the Company considers current and future economic conditions and events such as changes in customer credit quality and liquidity. The Company will write-off accounts receivable against this allowance when the Company determines a balance is uncollectible.

Derivatives

The Company enters into foreign exchange forward and option contracts to reduce its exposure to foreign currency exchange rate fluctuations that are associated with forecasted revenue earned in foreign locations. The Company also enters into interest rate derivatives which consist of interest rate swaps to reduce the Company's exposure to interest rate fluctuations associated with its variable rate debt. Upon proper qualification, these contracts are designated as cash flow hedges. The Company formally documents at the inception of the hedge all relationships between hedging instruments and hedged items as well as its risk management objective and strategy for undertaking various hedging activities.

All derivative financial instruments are reported at fair value and recorded in Prepaids and other current assets, Other long-term assets, Other current liabilities, and Other long-term liabilities in the accompanying Consolidated Balance Sheets as applicable for each period end. Changes in fair value of derivative instruments designated as cash flow hedges are recorded in Accumulated other comprehensive income (loss), a component of Stockholders' Equity, to the extent they are deemed effective. Ineffectiveness is measured based on the change in fair value of the forward contracts and the fair value of the hypothetical derivatives with terms that match the critical terms of the risk being hedged. Based on the criteria established by current accounting standards, the Company's cash flow hedge contracts are deemed to be highly effective. Any realized gains or losses resulting from the foreign currency cash flow hedges are recognized together with the hedged transaction within Revenue. Any realized gains or losses from the interest rate swaps are recognized in Interest expense. Gains and losses from the settlements of the Company's net investment hedges remain in Accumulated other comprehensive income (loss) until partial or complete liquidation of the applicable net investment.

The Company also enters into fair value derivative contracts that hedge against foreign currency exchange gains and losses primarily associated with short-term payables and receivables. Changes in the fair value of derivative instruments designated as fair value hedges affect the carrying value of the asset or liability hedged, with changes in both the derivative instrument and the hedged asset or liability being recognized in Other income (expense), net in the accompanying Consolidated Statements of Comprehensive Income (Loss).

Property, Plant and Equipment

Property, plant and equipment are stated at historical cost less accumulated depreciation and amortization. Maintenance, repairs and minor renewals are expensed as incurred.

Depreciation and amortization are computed on the straight-line method based on the following estimated useful lives:

Building	30 years
Computer equipment and software	3 to 7 years
Telephone equipment	4 to 7 years
Furniture and fixtures	5 years
Leasehold improvements	Lesser of economic useful life (typically 10 years) or original lease term
Other	3 to 7 years

The Company evaluates the carrying value of property, plant and equipment for impairment whenever events or changes in circumstances indicate that the carrying amounts may not be recoverable. An asset is considered to be impaired when the forecasted undiscounted cash flows of an asset group are estimated to be less than its carrying value. The amount of impairment recognized is the difference between the carrying value of the asset group and its fair value. Fair value estimates are based on assumptions concerning the amount and timing of forecasted future cash flows.

Software Development Costs

The Company capitalizes costs incurred to acquire or develop software for internal use. Capitalized software development costs are amortized using the straight-line method over the estimated useful life equal to the lesser of the license term or 4 or 7 years depending on the software type. Previously, the expense related to these assets has been classified as amortization expense within the income statement. Based on the new guidance adopted as of January 1, 2020, the amortization of any assets that are classified as cloud computing arrangements will be expensed and included in operating expenses within the income statement. The expense for the portion of the internally developed software incurred prior to January 1, 2020 and any assets that are not related to a cloud computing arrangement, will remain in amortization expense on a go-forward basis, as TTEC adopted the new standard on a prospective basis.

Goodwill

The Company evaluates goodwill for possible impairment at least annually on December 1, and whenever events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable. The Company uses a two-step process to assess the realizability of goodwill. The first step, Step 0, is a qualitative assessment that analyzes current economic indicators associated with a particular reporting unit. For example, the Company analyzes changes in economic, market and industry conditions, business strategy, cost factors, and financial performance, among others, to determine if there would be a significant decline to the fair value of a particular reporting unit. A qualitative assessment also includes analyzing the excess fair value of a reporting unit over its carrying value from impairment assessments performed in previous years. If the qualitative assessment indicates a stable or improved fair value, no further testing is required.

If a qualitative assessment indicates that a significant decline to fair value of a reporting unit is more likely than not, or if a reporting unit's fair value has historically been closer to its carrying value, the Company will proceed to Step 1 testing where the Company calculates the fair value of a reporting unit. If Step 1 indicates that the carrying value of a reporting unit is in excess of its fair value, the Company will record an impairment equal to the amount by which a reporting unit's carrying value exceeds its fair value.

Other Intangible Assets

The Company has other intangible assets that include customer relationships (definite-lived), trade names (definite-lived) and non-compete agreements (definite-lived). Definite-lived intangible assets are amortized on a straight-line basis over their estimated useful lives, which range from 2 to 12 years. The Company evaluates the carrying value of its definite-lived intangible assets whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. A definite-lived intangible asset is considered to be impaired when the forecasted undiscounted cash flows of its asset group are estimated to be less than its carrying value.

The Company evaluates indefinite-lived intangible assets for possible impairment at least annually or whenever events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable. Similar to goodwill, the Company may first use a qualitative analysis to assess the realizability of its indefinite-lived intangible assets. The qualitative analysis will include a review of changes in economic, market and industry conditions, business strategy, cost factors, and financial performance, among others, to determine if there would be a significant decline to the fair value of an indefinite-lived intangible asset. If a quantitative analysis is completed, an indefinite-lived intangible asset (i.e. trade name) is evaluated for possible impairment by comparing the fair value of the asset with its carrying value. Fair value is estimated as the discounted value of future revenues arising from a trade name using a royalty rate that a market participant would pay for use of that trade name. An impairment charge is recorded if the intangible asset's carrying value exceeds its estimated fair value.

Restructuring Liabilities

The Company routinely assesses the profitability and utilization of its customer engagement centers and existing markets. In some cases, the Company has chosen to close under-performing customer engagement centers and complete reductions in workforce to enhance future profitability. Severance payments that occur from reductions in workforce are in accordance with the Company's postemployment plans and/or statutory requirements that are communicated to all employees upon hire date; therefore, severance liabilities are recognized when they are determined to be probable and reasonably estimable. Other liabilities for costs associated with an exit or disposal activity are recognized when the liability is incurred, rather than upon commitment to a plan.

Income Taxes

Accounting for income taxes requires recognition of deferred tax assets and liabilities for the expected future income tax consequences of transactions that have been included in the Consolidated Financial Statements or tax returns. Under this method, deferred tax assets and liabilities are determined based on the difference between the financial statement and tax basis of assets and liabilities using enacted tax rates in effect for the year in which the differences are expected to reverse. Gross deferred tax assets may then be reduced by a valuation allowance for amounts that do not satisfy the realization criteria established by current accounting standards.

The Company accounts for uncertain tax positions using a two-step approach to recognizing and measuring uncertain tax positions. The first step is to determine if the weight of available evidence indicates that it is more likely than not that the tax position will be sustained on audit. The second step is to estimate and measure the tax benefit as the amount that has a greater than 50% likelihood of being realized upon ultimate settlement with the tax authority. The Company evaluates these uncertain tax positions on a quarterly basis. This evaluation is based on the consideration of several factors including changes in facts or circumstances, changes in applicable tax law, and settlement of issues under audit. The Company recognizes interest and penalties related to uncertain tax positions as a part of the Provision for income taxes in the accompanying Consolidated Statements of Comprehensive Income (Loss).

Minimal changes in indefinite reinvestment assertion were made during 2020. The Company has completed its analysis in regard to the full tax impact related to prior changes in indefinite reinvestment reassertion and any related taxes have been recorded. No additional income taxes have been provided for any remaining outside basis difference inherent in our foreign subsidiaries as these amounts continue to be indefinitely reinvested in foreign operations. Determination of any unrecognized deferred tax liability related to the outside basis difference in investments in foreign subsidiaries is not practicable due to the inherent complexity of the multi-national tax environment in which we operate.

Revenue Recognition

The Company recognizes revenue from contracts and programs when control of the promised goods or services is transferred to the customers, in an amount that reflects the consideration it expects to be entitled to in exchange for those goods or services. Revenue is recognized when or as performance obligations are satisfied by transferring control of a promised good or service to a customer. A performance obligation is a promise in a contract to transfer a distinct good or service to the customer. Performance obligation is the unit of accounting for revenue recognition under the provisions of ASC Topic 606, "Revenue from Contracts with Customers" and all related amendments ("ASC 606"). A contract's transaction price is allocated to each distinct performance obligation in recognizing revenue.

The Business Process Outsourcing ("BPO") inbound and outbound service fees are based on either a per minute, per hour, per FTE, per transaction or per call basis, which represents the majority of our contracts. These contracts have a single performance obligation as the promise to transfer the individual goods or services is not separately identifiable from other promises in the contracts and, therefore, not distinct. For example, services for the training of the Company's agents (which are separately billable to the customer) are a separate promise in the BPO contracts, but they are not distinct from the primary service obligations to transfer services to the customers. The performance of the customer service by the agents is highly dependent on the initial, growth, and seasonal training services provided to the agents during the life of a program. The training itself is not considered to have value to the customer on a standalone basis, and therefore, training on a standalone basis cannot be considered a separate unit of accounting. The Company therefore defers revenue from certain training services that are rendered mainly upon commencement of a new client contract or program, including seasonal programs. Revenue is also deferred when there is significant growth training in an existing program. Accordingly, recognition of initial, growth, and seasonal training revenues and associated costs (consisting primarily of labor and related expenses) are deferred and amortized over the period of economic benefit. With the exception of training which is typically billed upfront and deferred, the remainder of revenue is invoiced on a monthly or quarterly basis as services are performed and does not create a contract asset or liability.

In addition to revenue from BPO services, revenue also consists of fees from services for program launch, professional consulting, fully-hosted or managed technology and learning innovation services. The contracts containing these service offerings may contain multiple performance obligations. For contracts with multiple performance obligations, the Company allocates the contract's transaction price to each performance obligation using the best estimate of the standalone selling price of each distinct good or service in the contract. The primary method used to estimate standalone selling price is the expected cost plus a margin approach, under which the Company forecasts its expected costs of satisfying a performance obligation and then adds an appropriate margin for that distinct good or service. The Company forecasts its expected cost based on historical data, current prevailing wages, other direct and indirect costs incurred in recently completed contracts, market conditions, and other client specific cost considerations. For these services, the point at which the transfer of control occurs determines when revenue is recognized in a specific reporting period. Within our Digital segment, where there are product sales, the attribution of revenue is recognized when the transfer of control is completed and the products are delivered to the client's location. Where services are rendered to a customer, the attribution is aligned with the progress of work and is recognized over time (i.e. based on measuring the progress toward complete satisfaction of a performance obligation using an output method or an input method). Where output method is used, revenue is recognized on the basis of direct measurements of the value to the customer of the goods or services transferred relative to the remaining goods or services promised under the contract. The majority of the Company's services are recognized over time using the input method in which revenue is recognized on the basis of efforts or inputs toward satisfying a performance obligation (for example, resources consumed, labor hours expended, costs incurred, or time elapsed) relative to the total expected inputs to satisfy the performance obligation. The measures used provide faithful depiction of the transfer of goods or services to the customers. For example, revenue is recognized on certain consulting contracts based on labor hours expended as a measurement of progress where the consulting work involves input of consultants' time. The progress is measured based on the hours expended over total number of estimated hours included in the contract multiplied by the total contract consideration. The contract consideration can be a fixed price or an hourly rate, and in either case, the use of labor hours expended as an input measure provides a faithful depiction of the transfer of services to the customers. Deferred revenues for these services represent amounts collected from, or invoiced to, customers in excess of revenues recognized. This results primarily from i) receipt of license fees that are deferred due to one or more of the revenue recognition criteria not being met, and ii) the billing of annual customer support agreements, annual managed service agreements, and billings for other professional services that have not yet been performed by the Company. The Company records amounts billed and received, but not earned, as deferred revenue. These amounts are recorded in either Deferred revenue or Other long-term liabilities, as applicable, in the accompanying Consolidated Balance Sheets based on the period over which the Company expects to render services. Costs directly associated with revenue deferred, consisting primarily of labor and related expenses, are also deferred and recognized in proportion to the expected future revenue from the contract.

Variable consideration exists in contracts for certain client programs that provide for adjustments to monthly billings based upon whether the Company achieves, exceeds or fails certain performance criteria. Adjustments to monthly billings consist of contractual bonuses/penalties, holdbacks and other performance based conditions. Variable consideration is estimated at contract inception at its most likely value and updated at the end of each reporting period as additional performance data becomes available. Revenue related to such variable consideration is recognized only to the extent that a significant reversal of any incremental revenue is not considered probable.

Contract modifications are routine in the performance of the customer contracts. Contracts are often modified to account for customer mandated changes in the contract specifications or requirements, including service level changes. In most instances, contract modifications relate to goods or services that are incremental and distinctly identifiable, and, therefore, are accounted for prospectively.

Incremental Costs to Obtain a Contract

Direct and incremental costs to obtain or fulfill a contract are capitalized, and the capitalized costs are amortized over the corresponding period of benefit, determined on a contract by contract basis. The Company recognizes an asset for the incremental costs of obtaining a contract with a customer if it expects to recover those costs. The incremental costs of obtaining a contract are those costs that the Company incurs to obtain a customer contract that it would not have incurred if the contract had not been obtained. Contract acquisition costs consist primarily of payment of commissions to sales personnel and are incurred when customer contracts are signed. The deferred sales commission amounts are amortized based on the expected period of economic benefit and are classified as current or non-current based on the timing of when they are expected to be recognized as an expense. Costs to obtain a contract that would have been incurred regardless of whether the contract was obtained are recognized as an expense when incurred, unless those costs are explicitly chargeable to the customer regardless of whether the contract is obtained. Sales commissions are paid for obtaining new clients only and are not paid for contract renewals or contract modifications. Capitalized costs of obtaining contracts are periodically reviewed for impairment. As of December 31, 2020, the Company has a deferred asset of $6.8 million related to sales commissions.

In certain cases, the Company negotiates an upfront payment to a customer in conjunction with the execution of a contract. Such upfront payments are critical to acquisition of new business and are often used as an incentive to negotiate favorable rates from the clients and are accounted for as upfront discounts for future services. Such payments are either made in cash at the time of execution of a contract or are netted against the Company's service invoices. Payments to customers are capitalized as contract acquisition costs and are amortized in proportion to the expected future revenue from the contract, which in most cases results in straight-line amortization over the life of the contract. Such payments are considered a reduction of the selling prices of the Company's products or services, and therefore, are accounted for as a reduction of revenue when amortized. Such capitalized contract acquisition costs are periodically reviewed for impairment taking into consideration ongoing future cash flows expected from the contract and estimated remaining useful life of the contract.

Practical Expedients and Exemptions

Some of the Company's service contracts are short-term in nature with a contract term of one year or less. For those contracts, the Company has utilized the practical expedient in ASC 606-10-50-14 exempting the Company from disclosure of the transaction price allocated to remaining performance obligations if the performance obligation is part of a contract that has an original expected duration of one year or less. Also in alignment with ASC 606-10-50-14, the Company does not disclose the value of unsatisfied performance obligations for contracts for which it recognizes revenue at the amount to which it has the right to invoice for services performed. Additionally, the Company's standard payment terms are less than one year from transfer of goods or services, as such, the election could apply. Given the foregoing, the Company has elected the practical expedient under ASC 606-10-32-18 to not assess whether a contract has a significant financing component. Pursuant to the Company's election of the practical expedient under ASC 606-10-32-2A, sales, value add, and other taxes that are collected from customers concurrent with revenue-producing activities, which the Company has an obligation to remit to the governmental authorities, are excluded from revenue.

Lease Expense

The Company has negotiated certain rent holidays, landlord/tenant incentives and escalations in the base price of lease payments over the initial term of its operating leases. The initial term could include the "build-out" period of leases, where no lease payments are typically due. The Company recognizes rent holidays and rent escalations on a straight-line basis to lease expense over the lease term. The landlord/tenant incentives are recorded as a reduction to the right of use asset and depreciated on a straight line basis over the remaining lease term once the assets are placed in service.

Equity-Based Compensation Expense

Equity-based compensation expense for all share-based payment awards granted is determined based on the grant-date fair value net of an estimated forfeiture rate on a straight-line basis over the requisite service period of the award, which is typically the vesting term of the share-based payment award. The Company estimates the forfeiture rate annually based on its historical experience of forfeited awards.

Foreign Currency Translation

The assets and liabilities of the Company's foreign subsidiaries, whose functional currency is not the U.S. Dollar, are translated at the exchange rates in effect on the last day of the period and income and expenses are translated using the monthly average exchange rates in effect for the period in which the items occur. Foreign currency translation gains and losses are recorded in Accumulated other comprehensive income (loss) within Stockholders' Equity. Foreign currency transaction gains and losses are included in Other income (expense), net in the accompanying Consolidated Statements of Comprehensive Income (Loss).

Recently Adopted Accounting Pronouncements

In February 2016, the FASB issued ASU 2016-02, "Leases", along with subsequent amendments, which amended the existing accounting standards for lease accounting, including requiring lessees to recognize most leases on their balance sheets related to the rights and obligations created by those leases. The Company adopted ASU 2016-02 as of January 1, 2019 and recorded a $0.8 million reduction to retained earnings as the cumulative effect of adoption. See Note 15 for additional disclosures.

In January 2016, the FASB issued ASU 2016-13, "Financial Instruments – Credit Losses" (ASC 326), which amends the methodology of how and when companies measure credit losses on financial instruments. The objective of the ASU is to provide financial statement users more useful information regarding expected credit losses on financial instruments and other commitments. In November 2018, the FASB issued ASU 2018-19, "Codification Improvements to Topic 326, Financial Instruments – Credit Losses" which clarifies the scope of guidance in ASU 2016-13. In May 2019, the FASB issued ASU No. 2019-05, "Financial Instruments – Credit Losses (Topic 326), Targeted Transition Relief", which amended the transition guidance for the new credit losses standard. The ASU is effective for interim and annual periods beginning on or after December 15, 2019 with early adoption permitted, using a modified retrospective approach. The Company adopted the new guidance effective January 1, 2020 and the adoption did not have a material effect on the financial statements. See Note 4 for additional disclosures.

In August 2018, the FASB issued ASU 2018-15 "Customer's Accounting for Implementation Costs Incurred in a Cloud Computing Arrangement That is a Service Contract" ("CCA"), which aligns the accounting for the costs of implementing CCA's with the requirements for capitalizing implementation costs incurred to develop or obtain hosting arrangement. The ASU is effective for interim and annual periods beginning on or after December 15, 2019, using a prospective or retrospective transition approach. The Company adopted the new guidance effective January 1, 2020 using the prospective approach and the adoption did not have a material effect on the financial statements.

Other Recently Issued Accounting Pronouncements

In December 2019, the FASB issued ASU 2019-12, "Simplifying the Accounting for Income Taxes" (ASU 740), which is intended to simplify various aspects related to income tax accounting. The ASU is effective for interim and annual periods beginning on or after December 15, 2020 with early adoption permitted. The Company will adopt this guidance prospectively beginning January 1, 2021, and has determined the impact of adoption will not have a material impact on the Company's financial position, results of operations or cash flows.

In March 2020, the FASB issued ASU 2020-04, "Reference Rate Reform" (Topic 848), which provides optional expedients and exceptions for contracts, hedging relationships, and other transactions affected by reference rate reform due to the anticipated cessation of LIBOR on or before December 31, 2021. The ASU is effective from March 12, 2020 through December 31, 2022 and could impact the accounting for LIBOR provisions in the Company's credit facility agreement. In addition, in January 2021, the FASB issued ASU 2021-01, "Reference Rate Reform – Scope," which clarified the scope of ASC 848 relating to contract modifications. The Company does not expect that the adoption of this guidance will have a material impact on the Company's financial position, results of operations or cash flows.

(2) ACQUISITIONS

Voice Foundry

On August 5, 2020, TTEC Digital, LLC, a subsidiary of the Company, closed the first phase of the acquisition of the Voice Foundry business by acquiring 100% of the business's net assets in the U.S. and U.K., (the "VF US Transaction"). Voice Foundry is a preferred Amazon Connect cloud contact center service and implementation partner with approximately 60 employees in the U.S. and U.K. The business has been integrated into the TTEC Digital segment and is being fully consolidated into the financial statements of TTEC.

Total cash paid at acquisition was $34.3 million. The VF US Transaction is subject to customary representations and warranties, holdbacks, and working capital adjustments. The VF US Transaction includes two contingent payments over the next two years with each payment having a maximum value of $7.4 million based on VF US's EBITDA performance for 2020 and 2021. The Company finalized the net working capital adjustment for $0.3 million which will be paid from TTEC Digital to Voice Foundry during the first quarter of 2021.

The fair value of the contingent consideration has been estimated using a Monte Carlo model. The model was based on current expected EBITDA performance, a discount rate of 23.1%, a volatility rate of 47%, and an adjusted risk-free rate of 2.6%. Based on the model, a $10.9 million expected future payment was calculated and recorded as of the acquisition date. During the fourth quarter of 2020, a $3.2 million expense was recorded related to a fair value adjustment of the estimated contingent consideration based on revised estimates of EBITDA performance for 2021. The expense was included in Other income (expense) in the Consolidated Statements of Comprehensive Income (Loss). As of December 31, 2020, the value of the accrual is $14.1 million, with $7.4 million included in Other accrued expenses and $6.7 million included in Other long-term liabilities in the accompanying Consolidated Balance Sheets.

A multi-period excess earnings method under the income approach was used to estimate the fair value of the customer relationships intangible asset. The significant assumption utilized in calculating the fair value of the customer relationships intangible asset was the customer attrition rate.

The following summarizes the estimated fair values of the identifiable assets acquired and liabilities assumed as of the acquisition date (in thousands):

	Preliminary Estimate of Acquisition Date Fair Value
Accounts receivable, net	$ 3,758
Prepaid and other expenses	345
Tradename	400
Non-compete	150
Customer relationships	6,550
Goodwill	35,891
	$ 47,094
Accounts payable	$ 289
Accrued employee compensation	741
Deferred revenue	170
	$ 1,200
Total purchase price	$ 45,894

The estimates of fair value of identifiable assets acquired and liabilities assumed are preliminary, pending finalization of the valuation and tax returns, thus are subject to revisions that may result in adjustments to the values presented above.

The VF US customer relationships and tradename have been estimated based on the initial valuation and will be amortized over estimated useful lives of 4 and 2 years, respectively. The goodwill recognized from the VF US acquisition is estimated to be attributable, but not limited to, the acquired workforce and expected synergies with TTEC Digital segment. The tax basis of the acquired intangibles and goodwill will be deductible for income tax purposes. The acquired goodwill and intangibles and operating results of VF US are reported within the TTEC Digital segment from the date of acquisition.

Voice Foundry ASEAN

On November 4, 2020, TTEC Europe BV, a subsidiary of the Company, closed the final phase of the acquisition of the Voice Foundry business by acquiring 100% of the issued stock of Saasy Ventures Pty Ltd. (“Saasy”, “VF ASEAN”). The business has been integrated into the TTEC Digital segment and is being fully consolidated into the financial statements of TTEC.

Total cash paid at acquisition was $15.2 million. The VF ASEAN Transaction is subject to customary representations and warranties, holdbacks, and working capital adjustments. The VF ASEAN Transaction includes two contingent payments over the next two years with each payment having a maximum value of $4.4 million based on VF ASEAN’s EBITDA performance for 2020 and 2021.

The fair value of the contingent consideration has been estimated using a Monte Carlo model. The model was based on current expected EBITDA performance, a discount rate of 18.4%, a volatility rate of 50%, and an adjusted risk-free rate of 1.6%. Based on the model, a $2.8 million expected future payment was calculated and recorded as of the acquisition date. During the fourth quarter of 2020, a $1.2 million expense was recorded related to a fair value adjustment of the estimated contingent consideration based on estimates of EBITDA performance for 2020 and 2021. The expense was included in Other income (expense) in the Consolidated Statements of Comprehensive Income (Loss). As of December 31, 2020, the value of the accrual is $3.9 million, with $2.2 million included in Other accrued expenses and $1.7 million included in Other long-term liabilities in the accompanying Consolidated Balance Sheets.

A multi-period excess earnings method under the income approach was used to estimate the fair value of the customer relationships intangible asset. The significant assumption utilized in calculating the fair value of the customer relationships intangible asset was the customer attrition rate.

The following summarizes the estimated fair values of the identifiable assets acquired and liabilities assumed as of the acquisition date (in thousands):

	Preliminary Estimate of Acquisition Date Fair Value
Cash	$ 1,300
Accounts receivable, net	937
Prepaid and other expenses	115
Income tax receivable	30
Property, plant and equipment	274
Tradename	300
Customer relationships	3,100
Goodwill	14,418
	$ 20,474
Accounts payable	$ 960
Accrued employee compensation	113
Deferred revenue	236
Deferred tax liability	1,013
Other accrued liabilities	(78)
	$ 2,244
Total purchase price	$ 18,230

The estimates of fair value of identifiable assets acquired and liabilities assumed are preliminary, pending finalization of the valuation and tax returns, thus are subject to revisions that may result in adjustments to the values presented above.

The VF ASEAN customer relationships and tradename have been estimated based on the initial valuation and will be amortized over estimated useful lives of 4 and 2 years, respectively. The goodwill recognized from the VF ASEAN acquisition is estimated to be attributable, but not limited to, the acquired workforce and expected synergies with TTEC Digital segment. The tax basis of the acquired intangibles and goodwill will be not deductible for income tax purposes. The acquired goodwill and intangibles and operating results of VF ASEAN are reported within the TTEC Digital segment from the date of acquisition.

Serendebyte

On February 7, 2020, the Company acquired, through its subsidiary TTEC Digital LLC, 70% of the outstanding shares of capital stock of Serendebyte Inc., a Delaware corporation (“the Serendebyte Transaction”). Serendebyte is an autonomous customer experience and intelligent automation solutions provider with 125 employees based in India, the United States, and Canada. The business has been integrated into the TTEC Digital segment and is being fully consolidated into the financial statements of TTEC.

Total cash paid at acquisition, for 70% of the outstanding shares of capital stock, was $9.0 million. The Serendebyte Transaction is subject to customary representations and warranties, holdbacks, and a net working capital adjustment. The Company finalized the net working capital adjustment for $0.8 million during the second quarter of 2020 which was paid by Serendebyte to TTEC Digital LLC in the second quarter of 2020.

As of the closing of the Serendebyte Transaction, Serendebyte's founder and certain members of its management continued to hold the remaining 30% interest in Serendebyte, Inc. ("Remaining Interest"). Between January 31, 2023 and December 31, 2023, Serendebyte's founder and the management team shall have an option to sell to TTEC Digital LLC and TTEC Digital LLC shall have an option to purchase the Remaining Interest at a purchase price equal to a multiple of Serendebyte's adjusted trailing twelve month EBITDA for this particular acquisition. The noncontrolling interest was recorded at fair value on the date of acquisition. The fair value was based on significant inputs not observable in the market (Level 3 inputs) including forecasted earnings, discount rate of 35%, working capital requirements and applicable tax rates. The noncontrolling interest was valued at $3.8 million and is shown as Redeemable noncontrolling interest in the accompanying Consolidated Balance Sheets.

As a condition to closing, Serendebyte's founder and certain members of the management team agreed to continue their affiliation with Serendebyte at least through 2023, and the founder agreed not to compete with TTEC for a period of four years after the disposition of the Remaining Interest.

The following summarizes the fair values of the identifiable assets acquired and liabilities assumed as of the acquisition date (in thousands):

	Acquisition Date Fair Value
Cash	$ 3,123
Accounts receivable, net	1,243
Prepaid and other expenses	1,327
Property, plant and equipment	20
Deferred tax assets	14
Tradename	400
Customer relationships	1,920
Goodwill	9,033
	$ 17,080
Accounts payable	$ 120
Accrued employee compensation and benefits	1,025
Accrued income taxes	170
Accrued expenses	2,208
Deferred tax liabilities - long-term	629
	$ 4,152
Total purchase price	$ 12,928

In the fourth quarter of 2020, the Company finalized the valuation of Serendebyte for the acquisition date assets acquired and liabilities assumed and determined that no material adjustments to any of the balances were required.

At the date of the purchase, an additional $2.2 million of cash was retained in the entity that was withdrawn by the holders of the Remaining Interest during the second quarter of 2020.

The Serendebyte customer relationships and tradename are being amortized over useful lives of 5 and 3 years, respectively. The goodwill recognized from the Serendebyte acquisition is attributable, but not limited to, the acquired workforce and expected synergies with TTEC Digital segment. The tax basis of the acquired intangibles and goodwill will not be deductible for income tax purposes. The acquired goodwill and intangibles and operating results of Serendebyte are reported within the TTEC Digital segment from the date of acquisition.

First Call Resolution

On October 26, 2019, the Company acquired, through its subsidiary TTEC Services Corporation ("TSC"), 70% of the outstanding membership interest in First Call Resolution, LLC ("FCR"), an Oregon limited liability company ("the FCR Transaction"). FCR is a customer care, social networking and business process solutions service provider with approximately 2,000 employees based in the U.S. The business has been integrated into the Engage segment and is being fully consolidated into the financial statements of TTEC.

Total cash paid at acquisition was $107.0 million, inclusive of $4.5 million related to cash balances, for the 70% membership interest in FCR. The FCR Transaction was subject to customary representations and warranties, holdbacks, and a net working capital adjustment. The FCR Transaction included a potential contingent payment with a maximum value of $10.9 million based on FCR's 2020 EBITDA performance. The Company finalized the working capital adjustment for $0.7 million during the first quarter of 2020 which was paid by FCR to TSC in March 2020.

As of the closing of the FCR Transaction, Ortana Holdings, LLC, an Oregon limited liability company ("Ortana"), owned by the FCR founders, will continue to hold the remaining 30% membership interest in FCR ("Remaining Interest"). Between January 31, 2023 and December 31, 2023, Ortana shall have an option to sell to TSC and TSC shall have an option to purchase from Ortana the Remaining Interest at a purchase price equal to a multiple of FCR's adjusted trailing twelve month EBITDA for this particular acquisition and not to compete with the Company for a period of four years after the disposition of the Remaining Interest. The noncontrolling interest was recorded at fair value on the date of acquisition. The fair value was based on significant inputs not observable in the market (Level 3 inputs) including forecasted earnings, discount rate of 19.6%, working capital requirements and applicable tax rates. The noncontrolling interest was valued at $48.3 million on the acquisition date and is shown as Redeemable noncontrolling interest in the accompanying Consolidated Balance Sheets.

The fair value of the contingent consideration has been measured based on significant inputs not observable in the market (Level 3 inputs). Significant assumptions include a discount rate of 16.7% expected forecast volatility of 20%, an equivalent metric risk premium of 15.1%, risk-free rate of 1.6% and a credit spread of 1.8%. Based on these, a $6.5 million expected future payment was calculated. As of the acquisition date, the present value of the contingent consideration was $6.1 million. During the first, second and fourth quarters of 2020, $3.3 million, $1.1 million and $1.8 million of net benefits, respectively, were recorded related to fair value adjustment of the estimated contingent consideration based on revised actuals and estimates of EBITDA performance for 2020. The benefits were included in Other income (expense) in the Consolidated Statements of Comprehensive Income (Loss). As of December 31, 2020, the final value of the contingent consideration was calculated at zero based on actual performance for 2020.

The following summarizes the fair values of the identifiable assets acquired and liabilities assumed as of the acquisition date (in thousands):

	Acquisition Date Fair Value
Cash	$ 5,225
Accounts receivable, net	10,659
Prepaid expenses	357
Property and equipment	6,006
Other assets	224
Operating lease assets	5,127
Tradename	8,600
Customer relationships	38,540
Goodwill	96,739
	$ 171,477
Accounts payable	$ 388
Operating lease liability - short-term	1,160
Accrued employee compensation and benefits	4,049
Accrued expenses	72
Operating lease liability - long-term	3,967
	$ 9,636
Total purchase price	$ 161,841

In the first quarter of 2020, the Company finalized its valuation of FCR for the acquisition date assets acquired and liabilities assumed and determined that no material adjustments to any of the balances were required.

As part of the purchase, an additional net $0.7 million of cash was retained in the entity to pay for certain Ortana liabilities that had been recorded prior to the acquisition.

The FCR customer relationships and tradename are being amortized over a useful life of 10 and 4 years, respectively. The goodwill recognized from the FCR acquisition is attributable, but not limited to, the acquired workforce and expected synergies with Engage. The tax basis of the acquired intangibles and goodwill will be deductible for income tax purposes. The acquired goodwill and intangibles and operating results of FCR are reported within the Engage segment from the date of acquisition.

Financial Impact of Acquired Businesses

The acquired businesses purchased in 2020 and 2019 noted above contributed revenues of $122.1 million and $18.6 million, and a net income of $8.2 million and $1.4 million, inclusive of $7.4 million and $1.1 million of acquired intangible amortization, to the Company for the years ended December 31, 2020 and 2019, respectively.

The unaudited proforma financial results for the twelve months ended 2020 and 2019 combines the consolidated results of the Company, Voice Foundry US, Voice Foundry ASEAN, Serendebyte and FCR, assuming the acquisitions had been completed on January 1, 2019. The reported revenue and net income of $1,643.7 and $77.2 million would have been $1,741.3 million and $93.1 million for the twelve months ended December 31, 2019, respectively, on an unaudited proforma basis.

For 2020, the reported revenue and net income of $1,949.2 million and $118.6 million would have been $1,965.6 million and $123.8 million for the year ended December 31, 2020, respectively, on an unaudited proforma basis.

The unaudited pro forma consolidated results are not to be considered indicative of the results if these acquisitions occurred in the periods mentioned above, or indicative of future operations or results. Additionally, the pro forma consolidated results do not reflect any anticipated synergies expected as a result of the acquisition.

Investments

CaféX

Between 2015 and 2016, the Company invested $13.3 million in CaféX Communications, Inc. (“CaféX”), a provider of omni-channel web-based real time communication solutions. In 2018, the Company provided CaféX a $2.1 million bridge loan which was supposed to accrue interest at a rate of 12% per annum and to mature in the second quarter of 2020, more recently changed to November 30, 2021. As of December 31, 2020, the Company owns 17.8% of the total equity of CaféX. The investment is accounted for under the cost method of accounting. The Company evaluates its investments for possible other-than-temporary impairment at least annually or whenever events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable. As of March 31, 2018, the Company evaluated the investment in CaféX for impairment due to its failure to consummate a planned IP sale, a shift in the strategy, a default under a loan agreement with its bank, and a lack of potential additional funding options. Based on this evaluation, the Company determined that the fair value of its investment in CaféX was zero and thus the investment was impaired. The Company recorded a $15.6 million write-off of the equity investment and the bridge loan which was included in Other income (expense) in the Consolidated Statements of Comprehensive Income (Loss).

Dissolutions

In the ordinary course of business, the Company operates different legal entities around the globe that have functional currencies other than USD. From time-to-time, the Company liquidates some of the entities when they are no longer needed to operate its business, and also forms new entities to support the needs of the business. The liquidation proceedings may take different forms, take considerable amount of time, and may also result in losses or gains unrelated to operations. In the second quarter ended June 30, 2020, the Company exited a foreign subsidiary that resulted in a $2.5 million loss included in Other income (expense), net in the Consolidated Statements of Comprehensive Income (Loss) from the realization of the Accumulated Other Comprehensive Income (Loss), which represents the Currency Translation Adjustment of the investment in the foreign subsidiary. Similarly, in the third quarter ended September 30, 2020, the Company exited two foreign subsidiaries that have ceased operations and therefore were removed from the consolidated financial statements as of the reporting period ended September 30, 2020. As a result of the deconsolidation, a $17.4 million loss was included in Other income (expense), net in the Consolidated Statements of Comprehensive Income (Loss). The majority of this loss related to the realization of the Accumulated Other Comprehensive Income (Loss) balance which represents the Currency Translation Adjustment of the investment in the foreign subsidiaries. The operating income of these subsidiaries prior to dissolution was not material to the year-to-date consolidated results of the Company.

(3) SEGMENT INFORMATION

The Company reports the following two segments:

TTEC Digital provides the CX technology services and platforms to support the Company's clients' customer interaction delivery infrastructure. The segment designs, builds and operates the omnichannel ecosystem in a cloud, on premise, or hybrid environment, and fully integrates, orchestrates, and administers highly scalable, feature-rich CX technology applications. These solutions are critical to enabling and accelerating digital transformation for the Company's clients.

- Technology Services: the Company's technology services design, integrate and operate highly scalable, digital omnichannel technology solutions in the cloud, on premise, or hybrid environment, including journey orchestration, automation and AI, knowledge management, and workforce productivity.
- Professional Services: the Company's management consulting practices deliver customer experience strategy, analytics, process optimization, and learning and performance services.

TTEC Engage delivers the CX managed services to support the Company's clients' end-to-end customer interaction delivery, by providing the essential CX omnichannel and application technologies, human resources, recruiting, training and production, at-home or facility-based delivery infrastructure on a global scale, and engagement processes. This segment provides full-service digital, omnichannel customer engagement, supporting customer care, customer acquisition, growth and retention, and fraud detection and prevention services.

- Customer Acquisition Services: the Company's customer growth and acquisition services optimize the buying journeys for acquiring new customers by leveraging technology and analytics to deliver personal experiences that increase the quantity and quality of leads and customers.
- Customer Care Services: the Company's customer care services provide turnkey contact center solutions, including digital omnichannel technologies, associate recruiting and training, facilities, and operational expertise to create exceptional customer experiences across all touchpoints.
- Fraud Prevention Services: the Company's digital fraud detection and prevention services proactively identify and prevent fraud and provide community content moderation and compliance.

The Company allocates to each segment its portion of corporate operating expenses. All intercompany transactions between the reported segments for the periods presented have been eliminated.

The following tables present certain financial data by segment (in thousands):

Year Ended December 31, 2020

	Gross Revenue	Intersegment Sales	Net Revenue	Depreciation & Amortization	Income from Operations
TTEC Digital	$ 307,278	$ (293)	$ 306,985	$ 14,029	$ 45,315
TTEC Engage	1,642,263	—	1,642,263	64,833	159,377
Total	$ 1,949,541	$ (293)	$ 1,949,248	$ 78,862	$ 204,692

Year Ended December 31, 2019

	Gross Revenue	Intersegment Sales	Net Revenue	Depreciation & Amortization	Income from Operations
TTEC Digital	$ 305,595	$ (249)	$ 305,346	$ 11,216	$ 38,927
TTEC Engage	1,338,358	—	1,338,358	57,870	84,782
Total	$ 1,643,953	$ (249)	$ 1,643,704	$ 69,086	$ 123,709

Year Ended December 31, 2018

	Gross Revenue	Intersegment Sales	Net Revenue	Depreciation & Amortization	Income from Operations
TTEC Digital	$ 239,144	$ (345)	$ 238,799	$ 8,814	$ 33,054
TTEC Engage	1,270,372	—	1,270,372	60,365	59,000
Total	$ 1,509,516	$ (345)	$ 1,509,171	$ 69,179	$ 92,054

	For the Year Ended December 31,		
	2020	2019	2018
Capital Expenditures			
TTEC Digital	$ 7,881	$ 14,397	$ 4,833
TTEC Engage	51,891	46,379	38,617
Total	$ 59,772	$ 60,776	$ 43,450

	December 31,		
	2020	2019	2018
Total Assets			
TTEC Digital	$ 277,365	$ 238,081	$ 222,977
TTEC Engage	1,239,043	1,138,707	831,531
Total	$ 1,516,408	$ 1,376,788	$ 1,054,508

	December 31,		
	2020	2019	2018
Goodwill			
TTEC Digital	$ 128,211	$ 66,275	$ 66,158
TTEC Engage	235,291	235,419	138,475
Total	$ 363,502	$ 301,694	$ 204,633

The following tables present certain financial data based upon the geographic location where the services are provided (in thousands):

	As of and for the Year Ended December 31,		
	2020	2019	2018
Revenue			
United States	$ 1,338,267	$ 1,002,524	$ 862,026
Philippines	347,575	370,395	351,829
Latin America	98,633	100,117	109,104
Europe / Middle East / Africa	78,478	70,613	67,163
Asia Pacific / India	59,750	55,554	57,978
Canada	26,545	44,501	61,071
Total	$ 1,949,248	$ 1,643,704	$ 1,509,171
Property, plant and equipment, gross			
United States	$ 576,803	$ 559,326	$ 508,202
Philippines	162,391	144,213	130,176
Latin America	46,307	45,743	44,065
Europe / Middle East / Africa	23,043	14,823	10,499
Asia Pacific / India	15,918	21,562	19,874
Canada	13,844	15,516	15,193
Total	$ 838,306	$ 801,183	$ 728,009
Other long-term assets			
United States	$ 55,548	$ 57,417	$ 56,459
Philippines	8,756	7,892	5,188
Latin America	912	993	1,329
Europe / Middle East / Africa	2,328	993	544
Asia Pacific / India	1,726	1,422	1,680
Canada	168	252	241
Total	$ 69,438	$ 68,969	$ 65,441

(4) ACCOUNTS RECEIVABLE AND SIGNIFICANT CLIENTS

Accounts receivable, net in the accompanying Consolidated Balance Sheets consists of the following (in thousands):

	December 31,	
	2020	2019
Accounts receivable	$ 383,464	$ 336,548
Less: Allowance for credit losses	(5,067)	(5,452)
Accounts receivable, net	$ 378,397	$ 331,096

In connection with the implementation of ASC 326 as of January 1, 2020, the Company analyzed the prior history of credit losses on revenue for TTEC as a whole and separately for each of the two segments. Based on this evaluation, no modification to the allowance for credit losses balance was necessary as of the implementation date. At the end of each quarter beginning with March 31, 2020, an allowance for credit losses has been calculated based on the current quarterly revenue multiplied by the historical loss percentage of the prior three year period and recorded in the income statement. In addition to the evaluation of historical losses, the Company considers current and future economic conditions and events such as changes in customer credit quality and liquidity. The Company will write-off accounts receivable against this allowance when the Company determines a balance is uncollectible.

Activity in the Company's Allowance for credit losses consists of the following (in thousands):

	December 31,		
	2020	2019	2018
Balance, beginning of year	$ 5,452	$ 5,592	$ 921
Provision for credit losses	494	1,711	3,679
Uncollectible receivables written-off	(880)	(1,311)	(429)
Effect of foreign currency and other	1	(540)	1,421
Balance, end of year	$ 5,067	$ 5,452	$ 5,592

On October 15, 2018, Sears Holding Corporation ("Sears") announced that it had filed a petition for bankruptcy protection in the United States Bankruptcy Court for the Southern District of New York. As of December 31, 2020 and December 31, 2019, TTEC had approximately $2.7 million in pre-petition accounts receivables outstanding related to Sears; during the fourth quarter of 2018 a $2.7 million allowance for uncollectible accounts was recorded and included in Selling, general and administrative expenses in the Consolidated Statements of Comprehensive Income (Loss). TTEC continues to provide post-petition services to Sears and has assessed these receivables for collection risk and has determined that these will be collectible.

Significant Clients

The Company had one client that contributed in excess of 10% of total revenue for the year ended December 31, 2020; this client operates in the financial services industry and is included in the TTEC Engage segment. The Company had no clients that contributed in excess of 10% of total revenue for the year ended December 31, 2019. The Company had one client that contributed in excess of 10% of total revenue for the year ended December 31, 2018; this client operates in the healthcare industry and is included in the TTEC Engage segment. The revenue from these clients as a percentage of total revenue is as follows:

	Year Ended December 31,		
	2020	2019	2018
Financial services client	13 %	3 %	4 %
Healthcare client	6 %	8 %	10 %

Accounts receivable from this client was as follows (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Financial services client	$ 58,960	$ 4,321	$ 9,812
Healthcare client	$ 17,453	$ 18,385	$ 49,245

The Company does have clients with aggregate revenue exceeding $100 million annually and the loss of one or more of these clients could have a material adverse effect on the Company's business, operating results, or financial condition. To mitigate this risk, the Company has multiple contracts with these larger clients, where each individual contract is for an amount below the $100 million aggregate.

To limit the Company's credit risk with its clients, management performs periodic credit evaluations, maintains allowances for credit losses and may require pre-payment for services from certain clients. Based on currently available information, management does not believe significant credit risk exists as of December 31, 2020.

Accounts Receivable Factoring Agreement

On March 5, 2019, the Company entered into an Uncommitted Receivables Purchase Agreement ("Agreement") with Bank of the West ("Bank"), whereby from time-to-time the Company may elect to sell, on a revolving basis, U.S. accounts receivables of certain clients at a discount to the bank for cash on a limited recourse basis. The maximum amount of receivables that the Company may sell to the Bank at any given time shall not exceed $75 million. The sales of accounts receivable in accordance with the Agreement are reflected as a reduction of Accounts Receivable, net on the Consolidated Balance sheets. The Company has retained no interest in the sold receivables but retains all collection responsibilities on behalf of the Bank. The discount on the accounts receivable sold will be recorded within Other expense, net in the Consolidated Statements of Comprehensive Income (Loss). The cash proceeds from this Agreement are included in the change in accounts receivable within the operating activities section of the Consolidated Statements of Cash Flows.

As of December 31, 2020 and 2019, the Company had factored $71.0 million and $52.0 million, respectively, of accounts receivable; under the Agreement discounts on these receivables were not material during the year. As of December 31, 2020 and 2019, the Company had collected $26.1 million and $23.2 million, respectively, of cash from customers which had not been remitted to the Bank. The unremitted cash is Restricted Cash and is included within Prepaid and Other Current Assets with the corresponding liability included in Accrued Expenses on the Consolidated Balance Sheet. The Company has not recorded any servicing assets or liabilities as of December 31, 2020 and 2019 as the fair value of the servicing arrangement as well as the fees earned were not material to the financial statements.

(5) PROPERTY, PLANT AND EQUIPMENT

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

	December 31,	
	2020	2019
Land and buildings	$ 32,944	$ 32,942
Computer equipment and software	474,415	447,260
Telephone equipment	51,717	49,447
Furniture and fixtures	85,149	85,191
Leasehold improvements	193,823	186,083
Motor vehicles	258	260
Construction-in-progress and other	—	—
Property, plant and equipment, gross	838,306	801,183
Less: Accumulated depreciation and amortization	(659,600)	(624,550)
Property, plant and equipment, net	$ 178,706	$ 176,633

Depreciation and amortization expense for property, plant and equipment was $62.7 million, $57.5 million and $58.4 million for the years ended December 31, 2020, 2019 and 2018, respectively.

Included in the computer equipment and software is internally developed software of $16.2 million net and $15.3 million net as of December 31, 2020 and 2019, respectively.

(6) GOODWILL

Goodwill consisted of the following (in thousands):

	December 31, 2019	Acquisitions / Adjustments	Impairments	Effect of Foreign Currency	December 31, 2020
TTEC Digital	$ 66,275	$ 59,341	$ —	$ 2,595	$ 128,211
TTEC Engage	235,419	(254)	—	126	235,291
Total	$ 301,694	$ 59,087	$ —	$ 2,721	$ 363,502

	December 31, 2018	Acquisitions / Adjustments	Impairments	Effect of Foreign Currency	December 31, 2019
TTEC Digital	$ 66,158	$ —	$ —	$ 117	$ 66,275
TTEC Engage	138,475	96,993	—	(49)	235,419
Total	$ 204,633	$ 96,993	$ —	$ 68	$ 301,694

Impairment

The Company has three reporting units with goodwill and performs a goodwill impairment test on at least an annual basis. The Company conducts its annual goodwill impairment test during the fourth quarter, or more frequently, if indicators of impairment exist.

During the third quarter 2020, the Company reassessed the reporting units within the TTEC Digital segment based on a reorganization of the reporting structure within this segment. The Company has changed how it views and assesses performance of the components within the segment as the business has evolved and multiple recent acquisitions have been incorporated. After evaluation, The Company will maintain two reporting units within TTEC Digital but these include different components than previously included. Given the change in reporting units, the Company conducted an impairment test before and after the change, and it was concluded that the fair value of the reporting units exceeded the carrying value on both testing dates. With the change in reporting units, the Company performed a relative fair value valuation calculation to allocate the Company's historical goodwill between the two reporting units based on the shift in components. The resulting reallocation of goodwill was not material.

For the annual goodwill impairment analysis, the Company qualitatively assessed each of the three reporting units to determine whether it was necessary to perform a goodwill impairment test. In evaluating whether it is more likely than not that the fair value of the reporting units are less than their carrying amounts, the entity assessed the following relevant events and circumstances for each of the three reporting units; macroeconomic conditions, industry and market considerations, cost factors, changes in management or key personnel, changes in strategy, changes to the composition of each reporting unit, and the Company's share price relative to the industry and their peers. In addition, the Company identified the relevant assumptions in the most recent fair value analysis for each of the reporting units and then evaluated whether those assumptions had been affected by events or circumstances that were positive, negative or neutral. As of December 1, 2020, the date of the annual impairment test, the Company concluded that for all three of the reporting units the qualitative analysis concluded that the events and circumstances evaluated were primarily positive in nature thus it is not more likely than not that each of the three reporting unit's fair values respectively are less than their carrying amounts.

(7) OTHER INTANGIBLE ASSETS

Other intangible assets which are included in Other long-term assets in the accompanying Consolidated Balance Sheets consisted of the following (in thousands):

	December 31, 2019	Amortization	Impairments	Acquisitions and Adjustments	Effect of Foreign Currency	December 31, 2020
Customer relationships, gross	$ 161,756	$ —	$ —	$ 11,570	$ 275	$ 173,601
Customer relationships - accumulated amortization	(54,653)	(13,640)	—	—	(476)	(68,769)
Other intangible assets, gross	13,162	—	—	1,250	38	14,450
Other intangible assets - accumulated amortization	(4,669)	(2,546)	—	—	(8)	(7,223)
Other intangible assets, net	$ 115,596	$ (16,186)	$ —	$ 12,820	$ (171)	$ 112,059

	December 31, 2018	Amortization	Impairments	Acquisitions and Adjustments	Effect of Foreign Currency	December 31, 2019
Customer relationships, gross	$ 123,527	$ —	$ —	$ 38,540	$ (311)	$ 161,756
Customer relationships - accumulated amortization	(43,223)	(11,055)	(423)	—	48	(54,653)
Other intangible assets, gross	4,575	—	—	8,600	(13)	13,162
Other intangible assets - accumulated amortization	(3,968)	(541)	(170)	—	10	(4,669)
Other intangible assets, net	$ 80,911	$ (11,596)	$ (593)	$ 47,140	$ (266)	$ 115,596

The acquisitions recorded during 2020 relate to the purchases of Serendebyte and Voice Foundry (see Note 2 for further information).

The acquisitions recorded during 2019 relate to the purchase of FCR (see Note 2 for further information). The impairments recorded during 2019 relate to rogenSi intangible assets (see below).

Digital - rogenSi

In connection with reduced profitability of the rogenSi component of the TTEC Digital segment, an interim impairment analysis was completed during the second quarter of 2019. The long-lived assets reviewed for impairment consisted of the customer relationship intangible, intellectual property, and right of use assets. The Company completed an asset group recoverability evaluation based on the current estimated cash flow based on forecasted revenues and operating income using significant inputs not observable in the market (Level 3 inputs). Based on this calculation, the Company recorded an impairment expense of $2.0 million in the three months ended June 30, 2019, which was included in Impairment losses in the Consolidated Statements of Comprehensive Income (Loss). As part of the $2.0 million impairment $0.4 million was assigned to the customer relationship intangible asset and $0.2 million to the IP intangible asset. At December 31, 2020, the Company reviewed the evaluation completed as of June 30, 2019, and noted no material changes, thus no additional impairment is required.

Customer relationships are being amortized over the remaining weighted average useful life of 7.1 years and other intangible assets are being amortized over the remaining weighted average useful life of 2.9 years. Amortization expense related to intangible assets was $16.2 million, $10.5 million and $10.8 million for the years ended December 31, 2020, 2019 and 2018, respectively.

Expected future amortization of other intangible assets as of December 31, 2020 is as follows (in thousands):

2021	$ 18,041
2022	17,313
2023	16,072
2024	13,174
2025	11,140
Thereafter	36,319
Total	$ 112,059

(8) DERIVATIVES

Cash Flow Hedges

The Company enters into foreign exchange related derivatives. Foreign exchange derivatives entered into consist of forward and option contracts to reduce the Company's exposure to foreign currency exchange rate fluctuations that are associated with forecasted revenue earned in foreign locations. Upon proper qualification, these contracts are designated as cash flow hedges. It is the Company's policy to only enter into derivative contracts with investment grade counterparty financial institutions, and correspondingly, the fair value of derivative assets considers, among other factors, the creditworthiness of these counterparties. Conversely, the fair value of derivative liabilities reflects the Company's creditworthiness. As of December 31, 2020, the Company had not experienced, nor does it anticipate, any issues related to derivative counterparty defaults. The following table summarizes the aggregate unrealized net gain or loss in Accumulated other comprehensive income (loss) for the years ended December 31, 2020, 2019 and 2018 (in thousands and net of tax):

	Year Ended December 31,		
	2020	2019	2018
Aggregate unrealized net gain/(loss) at beginning of period	$ 4,182	$ (8,278)	$ (15,746)
Add: Net gain/(loss) from change in fair value of cash flow hedges	2,321	15,545	20,278
Less: Net (gain)/loss reclassified to earnings from effective hedges	1,928	(3,085)	(12,810)
Aggregate unrealized net gain/(loss) at end of period	$ 8,431	$ 4,182	$ (8,278)

The Company's foreign exchange cash flow hedging instruments as of December 31, 2020 and 2019 are summarized as follows (in thousands). All hedging instruments are forward contracts.

As of December 31, 2020	Local Currency Notional Amount	U.S. Dollar Notional Amount	% Maturing in the next 12 months	Contracts Maturing Through
Canadian Dollar	2,450	$ 1,853	100.0 %	July 2021
Philippine Peso	6,725,000	130,468 [1]	54.9 %	December 2023
Mexican Peso	1,159,500	52,398	51.1 %	December 2023
		$ 184,719		

As of December 31, 2019	Local Currency Notional Amount	U.S. Dollar Notional Amount
Philippine Peso	7,715,000	147,654 [1]
Mexican Peso	1,299,500	61,529
		$ 209,183

(1) Includes contracts to purchase Philippine pesos in exchange for New Zealand dollars and Australian dollars, which are translated into equivalent U.S. dollars on December 31, 2020 and December 31, 2019.

Fair Value Hedges

The Company enters into foreign exchange forward contracts to economically hedge against foreign currency exchange gains and losses on certain receivables and payables of the Company's foreign operations. Changes in the fair value of derivative instruments designated as fair value hedges are recognized in earnings in Other income (expense), net. As of December 31, 2020 and 2019, the total notional amount of the Company's forward contracts used as fair value hedges was $35.5 million and $64.5 million, respectively.

Derivative Valuation and Settlements

The Company's derivatives as of December 31, 2020 and 2019 were as follows (in thousands):

	December 31, 2020	
Designation:	**Designated as Hedging Instruments**	**Not Designated as Hedging Instruments**
Derivative contract type:	**Foreign Exchange**	**Foreign Exchange**
Derivative classification:	**Cash Flow**	**Fair Value**
Fair value and location of derivative in the Consolidated Balance Sheet:		
Prepaids and other current assets	$ 6,939	$ 103
Other long-term assets	4,528	—
Other current liabilities	(73)	(118)
Other long-term liabilities	(4)	—
Total fair value of derivatives, net	$ 11,390	$ (15)

	December 31, 2019	
Designation:	**Designated as Hedging Instruments**	**Not Designated as Hedging Instruments**
Derivative contract type:	**Foreign Exchange**	**Foreign Exchange**
Derivative classification:	**Cash Flow**	**Fair Value**
Fair value and location of derivative in the Consolidated Balance Sheet:		
Prepaids and other current assets	$ 3,467	$ 205
Other long-term assets	3,525	—
Other current liabilities	(1,223)	(107)
Other long-term liabilities	(95)	—
Total fair value of derivatives, net	$ 5,674	$ 98

The effect of derivative instruments on the Consolidated Statements of Comprehensive Income (Loss) for the years ended December 31, 2020 and 2019 were as follows (in thousands):

	Year Ended December 31,	
	2020	2019
Designation:	Designated as Hedging Instruments	
Derivative contract type:	Foreign Exchange	
Derivative classification:	Cash Flow	
Amount of gain or (loss) recognized in Other comprehensive income (loss) - effective portion, net of tax	$ 1,928	$ (3,085)
Amount and location of net gain or (loss) reclassified from Accumulated OCI to income - effective portion:		
Revenue	$ 2,618	$ (4,228)

	Year Ended December 31,	
	2020	2019
Designation:	Not Designated as Hedging Instruments	
Derivative contract type:	Foreign Exchange	
Derivative classification:	Fair Value	
Amount and location of net gain or (loss) recognized in the Consolidated Statement of Comprehensive Income (Loss):		
Other income (expense), net	$ 205	$ 1,773

(9) FAIR VALUE

The authoritative guidance for fair value measurements establishes a three-level fair value hierarchy that prioritizes the inputs used to measure fair value. This hierarchy requires that the Company maximize the use of observable inputs and minimize the use of unobservable inputs. The three levels of inputs used to measure fair value are as follows:

Level 1 — Quoted prices in active markets for identical assets or liabilities.

Level 2 — Observable inputs other than quoted prices included in Level 1, such as quoted prices for similar assets and liabilities in active markets, similar assets and liabilities in markets that are not active or can be corroborated by observable market data.

Level 3 — Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. This includes certain pricing models, discounted cash flow methodologies and similar techniques that use significant unobservable inputs.

The following presents information as of December 31, 2020 and 2019 of the Company's assets and liabilities required to be measured at fair value on a recurring basis, as well as the fair value hierarchy used to determine their fair value.

Accounts Receivable and Payable - The amounts recorded in the accompanying balance sheets approximate fair value because of their short-term nature.

Investments – The Company measures investments, including cost and equity method investments, at fair value on a nonrecurring basis when they are deemed to be other-than-temporarily impaired. The fair values of these investments are determined based on valuation techniques using the best information available, and may include market observable inputs and discounted cash flow projections. An impairment charge is recorded when the cost of the investment exceeds its fair value and this condition is determined to be other-than-temporary. As of December 31, 2020, the investment in CaféX Communications, Inc., which consists of the Company's total $15.6 million investment, was fully impaired to zero (see Note 2).

Debt - The Company's debt consists primarily of the Company's Credit Agreement, which permits floating-rate borrowings based upon the current Prime Rate or LIBOR plus a credit spread as determined by the Company's leverage ratio calculation (as defined in the Credit Agreement). As of December 31, 2020 and 2019, the Company had $385.0 million and $290.0 million, respectively, of borrowings outstanding under the Credit Agreement. During 2020 and 2019, borrowings accrued interest at an average rate of 1.6% and 3.4% per annum, respectively, excluding unused commitment fees. The amounts recorded in the accompanying Balance Sheets approximate fair value due to the variable nature of the debt based on level 2 inputs.

Derivatives - Net derivative assets (liabilities) are measured at fair value on a recurring basis. The portfolio is valued using models based on market observable inputs, including both forward and spot foreign exchange rates, interest rates, implied volatility, and counterparty credit risk, including the ability of each party to execute its obligations under the contract. As of December 31, 2020, credit risk did not materially change the fair value of the Company's derivative contracts.

The following is a summary of the Company's fair value measurements for its net derivative assets (liabilities) as of December 31, 2020 and 2019 (in thousands):

As of December 31, 2020

	Fair Value Measurements Using			
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	At Fair Value
Cash flow hedges	$ —	$ 11,390	$ —	$ 11,390
Fair value hedges	—	(15)	—	(15)
Total net derivative asset (liability)	$ —	$ 11,375	$ —	$ 11,375

As of December 31, 2019

	Fair Value Measurements Using			
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	At Fair Value
Cash flow hedges	$ —	$ 5,674	$ —	$ 5,674
Fair value hedges	—	98	—	98
Total net derivative asset (liability)	$ —	$ 5,772	$ —	$ 5,772

The following is a summary of the Company's fair value measurements as of December 31, 2020 and 2019 (in thousands):

As of December 31, 2020

	Fair Value Measurements Using		
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets			
Derivative instruments, net	$ —	$ 11,375	$ —
Total assets	$ —	$ 11,375	$ —
Liabilities			
Deferred compensation plan liability	$ —	$ (23,858)	$ —
Derivative instruments, net	—	—	—
Contingent consideration	—	—	(18,032)
Total liabilities	$ —	$ (23,858)	$ (18,032)
Redeemable noncontrolling interest	$ —	$ —	$ (52,976)

As of December 31, 2019

	Fair Value Measurements Using		
	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Assets			
Derivative instruments, net	$ —	$ 5,772	$ —
Total assets	$ —	$ 5,772	$ —
Liabilities			
Deferred compensation plan liability	$ —	$ (20,370)	$ —
Derivative instruments, net	—	—	—
Contingent consideration	—	—	(6,134)
Total liabilities	$ —	$ (20,370)	$ (6,134)
Redeemable noncontrolling interest	$ —	$ —	$ (48,923)

Deferred Compensation Plan - The Company maintains a non-qualified deferred compensation plan structured as a Rabbi trust for certain eligible employees. Participants in the deferred compensation plan select from a menu of phantom investment options for their deferral dollars offered by the Company each year, which are based upon changes in value of complementary, defined market investments. The deferred compensation liability represents the combined values of market investments against which participant accounts are tracked.

Contingent Consideration — The Company recorded contingent consideration related to the acquisitions of FCR and VF. The contingent payable for FCR was recognized at fair value using a discounted cash flow approach and a discount rate of 16.7%. The contingent payable for VF US was calculated using a Monte Carlo simulation including a discount rate of 23.1%. The contingent payable for VF Asean was calculated using a Monte Carlo simulation including a discount rate of 18.4% The measurements were based on significant inputs not observable in the market. The Company records interest expense each period using the effective interest method until the future value of these contingent payables reaches their expected future value. Interest expense related to all recorded contingent payables is included in Interest expense in the Consolidated Statements of Comprehensive Income (Loss).

During the first, second and fourth quarters of 2020, the Company recorded fair value adjustments to the contingent consideration associated with the FCR acquisition based on decreased estimates of EBITDA which caused the estimated payable to decrease. Accordingly, a $3.3 million decrease, a $1.1 million decrease and a $1.8 million decrease to the payable were recorded as of March 31, 2020, June 30, 2020 and December 31, 2020, respectively, and were included in Other income (expense), net in the Consolidated Statements of Comprehensive Income (Loss). As of December 31, 2020, the final calculated contingent consideration for FCR is zero.

During the fourth quarter of 2020, the Company recorded fair value adjustments to the contingent consideration associated with the VF acquisitions based on increased actual results and estimates of EBITDA for 2021 which caused the payables to increase. Accordingly, a combined $4.3 million increase to the payables was recorded as of December 31, 2020, and was included in Other income (expense), net in the Consolidated Statements of Comprehensive Income (Loss).

During the fourth quarter of 2018 and the second quarter of 2019, the Company recorded fair value adjustments to the contingent consideration associated with the SCS acquisition based on decreased estimates of EBITDA which caused the estimated payable to be zero for both future payments. Accordingly, a $0.3 million and a $2.5 million decrease to the payable were recorded as of December 31, 2018 and June 30, 2019, respectively, and were included in Other income (expense), net in the Consolidated Statements of Comprehensive Income (Loss). As of December 31, 2019, the EBITDA was below the target, thus the contingent consideration was finalized with a zero value.

A rollforward of the activity in the Company's fair value of the contingent consideration is as follows (in thousands):

	December 31, 2019	Acquisitions	Payments	Imputed Interest / Adjustments	December 31, 2020
FCR	$ 6,134	$ —	$ —	$ (6,134)	$ —
VF US	—	10,943	—	3,142	14,085
VF ASEAN	—	2,778	—	1,169	3,947
Total	$ 6,134	$ 13,721	$ —	$ (1,823)	$ 18,032

	December 31, 2018	Acquisitions	Payments	Imputed Interest / Adjustments	December 31, 2019
SCS	$ 2,363	$ —	$ —	$ (2,363)	$ —
FCR	—	6,134	—	—	6,134
Total	$ 2,363	$ 6,134	$ —	$ (2,363)	$ 6,134

(10) INCOME TAXES

The sources of pre-tax operating income are as follows (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Domestic	$ 129,620	$ 39,864	$ (13,926)
Foreign	40,648	70,547	70,164
Total	$ 170,268	$ 110,411	$ 56,238

The Company's selection of an accounting policy with respect to both the GILTI and BEAT rules is to compute the related taxes in the period the entity becomes subject to either. A reasonable estimate of the effects of these provisions has been included in the 2020 annual financial statements.

Minimal changes in indefinite reinvestment assertion were made during the year. The Company has completed its analysis in regard to the full tax impact related to prior changes in indefinite reinvestment reassertion and any related taxes have been recorded. No additional income taxes have been provided for any remaining outside basis difference inherent in the Company's foreign subsidiaries as these amounts continue to be indefinitely reinvested in foreign operations. Determination of any unrecognized deferred tax liability related to the outside basis difference in investments in foreign subsidiaries is not practicable due to the inherent complexity of the multi-national tax environment in which the Company operates.

On March 27, 2020, the Coronavirus Aid, Relief, and Economic Security Act (the "CARES Act") was enacted and signed into law. The CARES Act did not materially affect our fourth quarter income tax provision, deferred tax assets and liabilities, or related taxes payable. We are continuing to assess the future implications of these provisions within the CARES Act but do not expect there to be a material impact on our financial statements at this time.

The components of the Company's Provision for (benefit from) income taxes are as follows (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Current provision for (benefit from)			
Federal	$ 22,763	$ 5,289	$ 2,771
State	9,871	2,826	2,754
Foreign	13,496	18,938	18,933
Total current provision for (benefit from)	46,130	27,053	24,458
Deferred provision for (benefit from)			
Federal	(2,390)	2,515	(943)
State	(254)	118	(138)
Foreign	(2,549)	(4,009)	(6,894)
Total deferred provision for (benefit from)	(5,193)	(1,376)	(7,975)
Total provision for (benefit from) income taxes	$ 40,937	$ 25,677	$ 16,483

The following reconciles the Company's effective tax rate to the federal statutory rate (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Income tax per U.S. federal statutory rate (21%, 21%, 21%)	$ 35,756	$ 23,186	$ 11,810
State income taxes, net of federal deduction	6,923	3,144	2,003
Change in valuation allowances	3,903	9,832	2,191
Foreign income taxes at different rates than the U.S.	(783)	(3,356)	(3,758)
Foreign withholding taxes	106	600	785
Losses in international markets without tax benefits	(1,656)	(2,651)	(68)
Nondeductible compensation under Section 162(m)	656	668	615
Liabilities for uncertain tax positions	2,882	661	1,105
Permanent difference related to foreign exchange gains	(71)	36	136
(Income) losses of foreign branch operations	(10)	55	475
Non-taxable earnings of noncontrolling interest	(1,964)	(1,294)	(594)
Foreign dividend less foreign tax credits	(1,723)	(1,681)	(1,748)
Decrease (increase) to deferred tax asset - change in tax rate	(48)	(2,848)	(1,944)
State and Federal income tax credits and NOL's	(3,918)	(1,176)	19
Foreign earnings taxed currently in U.S.	1,936	2,172	3,976
Taxes related to prior year filings	(1,718)	(1,643)	(1,659)
Taxes related to acquisition accounting	1,317	978	2,110
Other	(651)	(1,006)	1,029
Income tax per effective tax rate	$ 40,937	$ 25,677	$ 16,483
Effective tax rate percentage	24.0%	23.3%	29.3%

The Company's deferred income tax assets and liabilities are summarized as follows (in thousands):

	Year Ended December 31,	
	2020	2019
Deferred tax assets, gross		
Accrued workers compensation, deferred compensation and employee benefits	$ 8,574	$ 7,999
Allowance for credit losses, insurance and other accruals	4,463	3,393
Amortization of deferred lease liabilities	20,352	25,757
Net operating losses	20,508	19,222
Equity compensation	1,660	1,442
Customer acquisition and deferred revenue accruals	6,868	9,047
Federal and state tax credits, net	2,383	1,263
Unrealized losses on derivatives	1,187	1,421
Impairment of equity investment	4,064	4,142
Partnership Investment	526	2,435
Other	5,444	1,322
Total deferred tax assets, gross	76,029	77,443
Valuation allowances	(18,697)	(17,051)
Total deferred tax assets, net	57,332	60,392
Deferred tax liabilities		
Depreciation and amortization	(10,734)	(6,095)
Unrealized gain on derivatives	(2,959)	(1,491)
Contract acquisition costs	(3,182)	(5,740)
Intangible assets	(15,880)	(22,585)
Operating lease assets	(16,763)	(21,413)
Other	(480)	(407)
Total deferred tax liabilities	(49,998)	(57,731)
Net deferred tax assets	$ 7,334	$ 2,661

Quarterly, the Company assesses the likelihood by jurisdiction that its net deferred tax assets will be recovered. Based on the weight of all available evidence, both positive and negative, the Company records a valuation allowance against deferred tax assets when it is more-likely-than-not that a future tax benefit will not be realized.

As of December 31, 2020 the Company had approximately $1.2 million of net deferred tax liabilities in the U.S. and $8.5 million of net deferred tax assets related to certain international locations whose recoverability is dependent upon their future profitability. As of December 31, 2020 the deferred tax valuation allowance was $18.7 million and related primarily to tax losses in foreign jurisdictions which do not meet the "more-likely-than-not" standard under current accounting guidance.

When there is a change in judgment concerning the recovery of deferred tax assets in future periods, a valuation allowance is recorded into earnings during the quarter in which the change in judgment occurred. In 2020, the Company made adjustments to its deferred tax assets and corresponding valuation allowances. The net change to the valuation allowance consisted of the following: a $1.1 million increase related to capital loss carry forwards and other credit carry forwards not expected to be utilized in New Zealand and the United Kingdom, a $3.6 million increase in valuation allowance in the United Kingdom, Ireland, Canada, Luxembourg, Turkey, the United States and Australia for deferred tax assets that do not meet the "more-likely-than-not" standard, a $1.1 million release of valuation allowance in the U.S. related to capital loss carry forwards not expected to be utilized, and a $1.9 million release of valuation allowance in Luxembourg, Ireland, and various other jurisdictions related to the utilization or write-off of deferred tax assets.

Activity in the Company's valuation allowance accounts consists of the following (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Beginning balance	$ 17,051	$ 10,867	$ 9,526
Additions of deferred income tax expense	4,650	7,373	2,913
Reductions of deferred income tax expense	(3,004)	(1,189)	(1,572)
Ending balance	$ 18,697	$ 17,051	$ 10,867

As of December 31, 2020, after consideration of all tax loss and tax credit carry back opportunities, the Company had tax affected tax loss carry forwards worldwide expiring as follows (in thousands):

2021	$ 2
2022	3
2023	183
2024	4
After 2024	11,229
No expiration	9,087
Total	$ 20,508

The Company has been granted "Tax Holidays" as an incentive to attract foreign investment by the governments of the Philippines and Costa Rica. Generally, a Tax Holiday is an agreement between the Company and a foreign government under which the Company receives certain tax benefits in that country, such as exemption from taxation on profits derived from export-related activities. In the Philippines, the Company has been granted multiple agreements, with an initial period of four years and additional periods for varying years, expiring at various times between 2020 and 2022. The aggregate benefit to income tax expense for the years ended December 31, 2020, 2019 and 2018 was approximately $4.4 million, $8.4 million and $8.2 million, respectively, which had a favorable impact on diluted net income per share of $0.09, $0.18 and $0.18, respectively.

Accounting for Uncertainty in Income Taxes

In accordance with ASC 740, the Company has recorded a reserve for uncertain tax positions. The total amount of interest and penalties recognized in the accompanying Consolidated Balance Sheets and Consolidated Statements of Comprehensive Income (Loss) as of December 31, 2020, 2019 and 2018 was approximately $3.0 million, $2.1 million and $1.4 million, respectively.

The Company had a reserve for uncertain tax benefits, on a net basis, of $7.5 million and $4.8 million for the years ended December 31, 2020 and 2019, respectively.

The tabular reconciliation of the reserve for uncertain tax benefits on a gross basis without interest for the three years ended December 31, 2020 is presented below (in thousands):

Balance as of December 31, 2017	$ 3,298
Additions for current year tax positions	3,600
Reductions in prior year tax positions	(2,114)
Balance as of December 31, 2018	4,784
Additions for current year tax positions	—
Reductions in prior year tax positions	—
Balance as of December 31, 2019	4,784
Additions for current year tax positions	2,725
Reductions in prior year tax positions	—
Balance as of December 31, 2020	$ 7,509

At December 31, 2020, the amount of uncertain tax benefits including interest, that, if recognized, would reduce tax expense was $10.5 million. Within the next 12 months, it is expected that the amount of unrecognized tax benefits may be reduced by $3.9 million as a result of the expiration of various statutes of limitation or other confirmations of tax positions.

The Company and its domestic and foreign subsidiaries (including Percepta LLC and its domestic and foreign subsidiaries) file income tax returns as required in the U.S. federal jurisdiction and various state and foreign jurisdictions. The following table presents the major tax jurisdictions and tax years that are open as of December 31, 2020 and subject to examination by the respective tax authorities:

Tax Jurisdiction	Tax Year Ended
United States	2017 to present
Australia	2016 to present
India	2015 to present
Canada	2016 to present
Mexico	2015 to present
Philippines	2017 to present

The Company's U.S. income tax returns filed for the tax years ending December 31, 2017 to present, remain open tax years. The Company has been notified of the intent to audit, or is currently under audit of, income taxes for the United States for tax year 2017 and 2018, and the Philippines for tax years 2017 and 2018. During 2020, the Company confirmed the closure of the Canadian audit for tax years 2009 and 2010, and the state of New York for tax years 2015 through 2017 with no material changes to the financial statements. Although the outcome of examinations by taxing authorities are always uncertain, it is the opinion of management that the resolution of these audits will not have a material effect on the Company's Consolidated Financial Statements.

(11) RESTRUCTURING CHARGES AND IMPAIRMENT LOSSES

Restructuring Charges

During the years ended December 31, 2020, 2019 and 2018, the Company continued restructuring activities primarily associated with reductions in the Company's capacity, workforce and related management in both segments to better align the capacity and workforce with current business needs.

During 2020 and 2018, TTEC determined it would close several delivery centers in the Engage segment and a $2.2 million and a net $4.8 million, respectively, was expensed related to early termination fees and cease use lease accruals. These expenses are included in the Restructuring charges, net in the Consolidated Statements of Comprehensive Income (Loss).

A summary of the expenses recorded for restructuring and included in Restructuring charges, net in the accompanying Consolidated Statements of Comprehensive Income (Loss) for the years ended December 31, 2020, 2019 and 2018, respectively, is as follows (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Reduction in force			
TTEC Digital	$ 668	$ 141	$ 133
TTEC Engage	396	894	694
Total	$ 1,064	$ 1,035	$ 827

	Year Ended December 31,		
	2020	2019	2018
Facility exit and other charges			
TTEC Digital	$ 90	$ 41	$ —
TTEC Engage	2,110	671	5,304
Total	$ 2,200	$ 712	$ 5,304

A rollforward of the activity in the Company's restructuring accruals for the years ended December 31, 2020 and 2019, respectively, is as follows (in thousands):

	Reduction in Force	Facility Exit and Other Charges	Total
Balance as of December 31, 2018	$ 416	$ 3,226	$ 3,642
Expense	1,039	712	1,751
Payments	(1,145)	(962)	(2,107)
Changes due to foreign currency	(55)	15	(40)
Changes in estimates	(4)	—	(4)
Reclassifications due to ASU 842 implementation	—	(2,917)	(2,917)
Balance as of December 31, 2019	251	74	325
Expense	1,064	2,200	3,264
Payments	(1,067)	(1,729)	(2,796)
Changes due to foreign currency	(14)	(2)	(16)
Changes in estimates	(78)	—	(78)
Balance as of December 31, 2020	$ 156	$ 543	$ 699

The remaining restructuring and other accruals are expected to be paid or extinguished during 2021 and are all classified as current liabilities within Other accrued expenses in the Consolidated Balance Sheets.

Severance Charges

In the normal course of business, the Company will pay severance to terminated employees related to programs that are ending who are no longer needed and cannot be repurposed to a new program.

During the second quarter of 2020, a $3.0 million accrual was recorded with the expense included in Cost of services during the quarter ended June 30, 2020. During the third and fourth quarters, a total of $1.6 million was paid and a $0.3 million reduction in expense was recorded. The accrual is expected to be paid or extinguished during the next six months and thus is classified as current liabilities within Other accrued expenses in the Consolidated Balance Sheets.

Impairment Losses

During each of the periods presented, the Company evaluated the recoverability of its leasehold improvement assets at certain customer engagement centers. An asset is considered to be impaired when the anticipated undiscounted future cash flows of its asset group are estimated to be less than the asset group's carrying value. The amount of impairment recognized is the difference between the carrying value of the asset group and its fair value. To determine fair value, the Company used Level 3 inputs in its discounted cash flows analysis. Assumptions included the amount and timing of estimated future cash flows and assumed discount rates. During 2020, 2019 and 2018, the Company recognized impairment losses, net related to leasehold improvement assets and right of use lease assets of $5.8 million, $2.7 million and $1.1 million, respectively, across the TTEC Digital and TTEC Engage segments.

(12) INDEBTEDNESS

Credit Facility

On February 14, 2019, the Company entered into a Fourth Amendment to its Amended and Restated Credit Agreement and Amended and Restated Security Agreement originally dated as of June 3, 2013 (collectively the "Credit Agreement") for a senior secured revolving credit facility with a syndicate of lenders led by Wells Fargo Bank, National Association, as agent, swing line and fronting lender which matures on February 14, 2024 (the "Credit Facility").

The maximum commitment under the Credit Facility is $900.0 million with an accordion feature of up to $1.2 billion in the aggregate, if certain conditions are satisfied. The Credit Facility commitment fees are payable to the lenders in an amount equal to the unused portion of the Credit Facility multiplied by a rate per annum as determined by reference to the Company's net leverage ratio. The Credit Agreement contains customary affirmative, negative, and financial covenants, which remained unchanged from the 2016 Credit Facility, except that the Company is now obligated to maintain a maximum net leverage ratio of 3.50 to 1.00, and a minimum Interest Coverage Ratio of 2.50 to 1.00. The Credit Agreement permits accounts receivable factoring up to the greater of $75 million or 25 percent of the average book value of all accounts receivable over the most recent twelve month period.

Base rate loans bear interest at a rate equal to the greatest of (i) Wells Fargo's prime rate, (ii) one half of 1% in excess of the federal funds effective rate, and (iii) 1.25% in excess of the one month London Interbank Offered Rate ("LIBOR"); plus in each case a margin of 0% to 0.75% based on the Company's net leverage ratio. Eurodollar loans bear interest at LIBOR plus a margin of 1.0% to 1.75% based on the Company's net leverage ratio. Alternate currency loans bear interest at rates applicable to their respective currencies.

Letter of credit fees are one eighth of 1% of the stated amount of the letter of credit on the date of issuance, renewal or amendment, plus an annual fee equal to the borrowing margin for Eurodollar loans.

The Company primarily utilizes its Credit Agreement to fund working capital, general operations, dividends, acquisitions, and other strategic activities. As of December 31, 2020, and 2019, the Company had borrowings of $385.0 million and $290.0 million, respectively, under its Credit Agreement, and its average daily utilization was $550.9 million and $331.8 million for the years ended December 31, 2020 and 2019, respectively. The Company had increased borrowings under the Credit Agreement from late March 2020 through late September 2020, related to precautionary measures taken to proactively strengthen the Company's cash reserves and financial flexibility in response to COVID-19 related uncertainties. As of September 30, 2020, those additional borrowings had been repaid. Based on the current level of availability based on the covenant calculations, the Company's remaining borrowing capacity was approximately $510.0 million as of December 31, 2020. As of December 31, 2020, the Company was in compliance with all covenants and conditions under its Credit Agreement.

(13) COMMITMENTS AND CONTINGENCIES

Letters of Credit

As of December 31, 2020, outstanding letters of credit under the Credit Agreement totaled $2.8 million and primarily guaranteed workers' compensation and other insurance related obligations. As of December 31, 2020, letters of credit and contract performance guarantees issued outside of the Credit Agreement totaled $0.8 million.

Guarantees

Indebtedness under the Credit Agreement is guaranteed by certain of the Company's present and future domestic subsidiaries.

Legal Proceedings

From time to time, the Company has been involved in legal actions, both as plaintiff and defendant, which arise in the ordinary course of business. The Company accrues for exposures associated with such legal actions to the extent that losses are deemed both probable and reasonably estimable. To the extent specific reserves have not been made for certain legal proceedings, their ultimate outcome, and consequently, an estimate of possible loss, if any, cannot reasonably be determined at this time.

Based on currently available information and advice received from counsel, the Company believes that the disposition or ultimate resolution of any current legal proceedings, except as otherwise specifically reserved for in its financial statements, will not have a material adverse effect on the Company's financial position, cash flows or results of operations.

(14) DEFERRED REVENUE AND COSTS

Deferred revenue in the accompanying Consolidated Balance Sheets consist of the following (in thousands):

	December 31,	
	2020	2019
Deferred Revenue - Current	$ 39,956	$ 39,447
Deferred Revenue - Long-term (included in Other long-term liabilities)	17,434	23,142
Total Deferred Revenue	$ 57,390	$ 62,589

Deferred costs in the accompanying Consolidated Balance Sheets consist of the following (in thousands):

	December 31,	
	2020	2019
Deferred Costs - Current (included in Prepaids and other current assets)	$ 25,669	$ 26,092
Deferred Costs - Long-term (included in Other long-term assets)	18,015	25,436
Total Deferred Costs	$ 43,684	$ 51,528

Activity in the Company's Deferred revenue accounts consists of the following (in thousands):

Balance as of December 31, 2019	$ 62,589
Additions	136,852
Amortization	(142,051)
Balance as of December 31, 2020	$ 57,390

(15) LEASES

Operating leases are included in our Consolidated Balance Sheet as Operating lease assets, Current operating lease liabilities and Non-current operating lease liabilities. Finance leases are included in Property, plant and equipment, Other current liabilities and Other long-term liabilities in our Consolidated Balance Sheet. The Company primarily leases real estate and equipment under various arrangements that provide the Company the right-of-use for the underlying asset that require lease payments over the lease term. The Company determines the value of each lease by computing the present value of each lease payment using the interest rate implicit in the lease, if available; otherwise the Company estimates its incremental borrowing rate over the lease term. The Company determines its incremental borrowing rate based on its estimated credit risk with adjustments for each individual leases' geographical risk and lease term. Operating lease assets also include prepaid rent and initial direct costs less any tenant improvements.

The Company's real estate portfolio typically includes one or more options to renew, with renewal terms that generally can extend the lease term from one to 10 years. The exercise of these lease renewal options is at the Company's discretion and is included in the lease term only if the Company is reasonably certain to exercise. The Company also has service arrangements whereby it controls specific space provided by a third-party service provider. These arrangements meet the definition of a lease and are accounted for under ASC 842. Lease expense for operating leases is recognized on a straight-line basis over the lease term and is included in the Consolidated Statements of Comprehensive Income (Loss). The Company's lease agreements do not contain any material residual value guarantees or restrictive guarantees.

The components of lease expense for the years ended December 31, 2020 and 2019 are as follows (in thousands):

Description	Location in Statements of Comprehensive Income (Loss)	Year Ended December 31, 2020	Year Ended December 31, 2019
Amortization of ROU assets - finance leases	Depreciation and amortization	$ 7,661	7157
Interest on lease liabilities - finance leases	Interest expense	203	$ 141
Operating lease cost (cost resulting from lease payments)	Cost of services	46,375	47,269
Operating lease cost (cost resulting from lease payments)	Selling, general and administrative	2,040	3,731
Operating lease cost (cost resulting from lease payments)	Restructuring	1,232	—
Operating lease cost	Impairment	5,127	—
Operating lease cost (cost resulting from lease payments)	Other income (expense), net	1,149	968
Short-term lease cost	Cost of services	3,888	4,338
Variable lease cost (cost excluded from lease payments	Cost of services	(287)	—
Less: Sublease income	Selling, general and administrative	(836)	(445)
Less: Sublease income	Other income (expense), net	(2,464)	(1,984)
Total lease cost		$ 64,088	$ 61,175

Other supplementary information for the years ended December 31, 2020 and 2019 are as follows (dollar values in thousands):

	Year Ended December 31, 2020	Year Ended December 31, 2019
Finance lease - operating cash flows	$ 68	$ 103
Finance lease - financing cash flows	$ 7,911	$ 10,251
Operating lease - operating cash flows (fixed payments)	$ 55,862	$ 51,898
New ROU assets - operating leases	$ 6,834	$ 15,494
Modified ROU assets - operating leases	$ 6,485	$ 46,543
New ROU assets - finance leases	$ 2,292	$ 6,133

	December 31, 2020	December 31, 2019
Weighted average remaining lease term - finance leases	2.46 years	2.91 years
Weighted average remaining lease term - operating leases	3.73 years	4.27 years
Weighted average discount rate - finance leases	1.64%	1.43%
Weighted average discount rate - operating leases	6.95%	7.22%

Operating and financing lease right-of-use assets and lease liabilities within our Consolidated Balance Sheet as of December 31, 2020 and 2019 are as follows (in thousands):

Description	Location in Balance Sheet	December 31, 2020	December 31, 2019
Assets			
Operating lease assets	Operating lease assets	$ 120,820	$ 150,808
Finance lease assets	Property, plant and equipment, net	12,659	18,016
Total leased assets		$ 133,479	$ 168,824
Liabilities			
Current			
Operating	Current operating lease liabilities	$ 43,651	$ 45,218
Finance	Other current liabilities	6,193	7,470
Non-current			
Operating	Non-current operating lease liabilities	98,277	127,395
Finance	Other long-term liabilities	4,763	8,896
Total lease liabilities		$ 152,884	$ 188,979

The future minimum operating lease and finance lease payments required under non-cancelable leases as of December 31, 2020 and 2019 are as follows (in thousands):

December 31, 2020

	Operating Leases	Sub-lease Income	Finance Leases
Year 1	$ 51,120	$ (3,500)	$ 6,237
Year 2	46,913	(3,489)	2,740
Year 3	31,085	(3,123)	1,631
Year 4	17,338	(2,905)	579
Year 5	8,288	(2,940)	—
Thereafter	8,397	(490)	—
Total minimum lease payments	$ 163,141	$ (16,447)	$ 11,187
Less imputed interest	(21,213)		(231)
Total lease liability	$ 141,928		$ 10,956

December 31, 2019

	Operating Leases	Sub-lease Income	Finance Leases
Year 1	$ 54,903	$ (2,976)	$ 7,594
Year 2	47,892	(621)	5,587
Year 3	43,590	(345)	2,139
Year 4	28,124	(201)	1,109
Year 5	14,494	—	331
Thereafter	14,734	—	—
Total minimum lease payments	$ 203,737	$ (4,143)	$ 16,760
Less imputed interest	(31,124)		(394)
Total lease liability	$ 172,613		$ 16,366

In 2008, the Company sub-leased one of its customer engagement centers to a third party for the remaining term of the lease. The sub-lease began on January 1, 2009 and rental income is recognized on a straight-line basis over the term of the sub-lease through 2026. In 2017, the Company sub-leased one of its office spaces for the remaining term of the original lease. The sub-lease began on November 6, 2017 and ends May 31, 2021. In 2019, the Company sub-leased one of its office spaces for the remaining term of the original lease. The sub-lease began on March 1, 2019 and ends July 21, 2023. In 2020, the Company sub-leased one of its office spaces for the remaining term of the original lease. The sub-lease began on February 6, 2020 and ends on June 14, 2023.

(16) OTHER LONG-TERM LIABILITIES

The components of Other long-term liabilities as of December 31, 2020 and 2019 are as follows (in thousands):

	December 31, 2020	December 31, 2019
Deferred revenue	$ 17,434	$ 23,142
Deferred compensation plan	23,858	20,370
Other	54,893	36,129
Total	$ 96,185	$ 79,641

(17) ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)

The following table presents changes in the accumulated balance for each component of Other comprehensive income (loss), including current period other comprehensive income (loss) and reclassifications out of accumulated other comprehensive income (loss) (in thousands):

	Foreign Currency Translation Adjustment	Derivative Valuation, Net of Tax	Other, Net of Tax	Totals
Accumulated other comprehensive income (loss) at December 31, 2017	$ (84,100)	$ (15,746)	$ (2,458)	$ (102,304)
Other comprehensive income (loss) before reclassifications	(30,068)	20,278	712	(9,078)
Amounts reclassified from accumulated other comprehensive income (loss)	—	(12,810)	(404)	(13,214)
Net current period other comprehensive (income) loss	(30,068)	7,468	308	(22,292)
Accumulated other comprehensive income (loss) at December 31, 2018	$ (114,168)	$ (8,278)	$ (2,150)	$ (124,596)
Accumulated other comprehensive income (loss) at December 31, 2018	$ (114,168)	$ (8,278)	$ (2,150)	$ (124,596)
Other comprehensive income (loss) before reclassifications	6,688	15,545	(588)	21,645
Amounts reclassified from accumulated other comprehensive income (loss)	—	(3,085)	(198)	(3,283)
Net current period other comprehensive income (loss)	6,688	12,460	(786)	18,362
Accumulated other comprehensive income (loss) at December 31, 2019	$ (107,480)	$ 4,182	$ (2,936)	$ (106,234)
Accumulated other comprehensive income (loss) at December 31, 2019	$ (107,480)	$ 4,182	$ (2,936)	$ (106,234)
Other comprehensive income (loss) before reclassifications	9,722	2,321	1,016	13,059
Amounts reclassified from accumulated other comprehensive income (loss)	19,619	1,928	(528)	21,019
Net current period other comprehensive income (loss)	29,341	4,249	488	34,078
Accumulated other comprehensive income (loss) at December 31, 2020	$ (78,139)	$ 8,431	$ (2,448)	$ (72,156)

The following table presents the classification and amount of the reclassifications from Accumulated other comprehensive income (loss) to the Statement of Comprehensive Income (Loss) (in thousands):

	For the Year Ended December 31,			Statement of Comprehensive Income (Loss) Classification
	2020	2019	2018	
Derivative valuation				
Loss on foreign currency forward exchange contracts	$ 2,618	$ (4,228)	$ (17,548)	Revenue
Tax effect	(690)	1,143	4,738	Provision for income taxes
	$ 1,928	$ (3,085)	$ (12,810)	Net income (loss)
Other				
Actuarial loss on defined benefit plan	$ (588)	$ (221)	$ (446)	Cost of services
Tax effect	60	23	42	Provision for income taxes
	$ (528)	$ (198)	$ (404)	Net income (loss)

(18) WEIGHTED AVERAGE SHARE COUNTS

The following table sets forth the computation of basic and diluted shares for the periods indicated (in thousands):

	Year Ended December 31,		
	2020	2019	2018
Shares used in basic earnings per share calculation	46,647	46,373	46,064
Effect of dilutive securities:			
Stock options	—	—	6
Restricted stock units	318	349	314
Performance-based restricted stock units	28	36	1
Total effects of dilutive securities	346	385	321
Shares used in dilutive earnings per share calculation	46,993	46,758	46,385

For the years ended December 31, 2020, 2019 and 2018, there were no options to purchase shares of common stock or performance-based restricted stock that were outstanding but not included in the computation of diluted net income per share because the exercise price exceeded the value of the shares and the effect would have been anti-dilutive. For the years ended December 31, 2020, 2019 and 2018, restricted stock units of 8 thousand, 28 thousand, and 212 thousand, respectively, were outstanding but not included in the computation of diluted net income per share because the effect would have been anti-dilutive.

(19) EMPLOYEE COMPENSATION PLANS

Employee Benefit Plan

The Company currently has a 401(k) profit-sharing plan that allows participation by U.S. employees who have completed six months of service, as defined, and are 21 years of age or older. Participants may defer up to 75% of their gross pay, up to a maximum limit determined by U.S. federal law. Participants are also eligible for a matching contribution. The Company may from time to time, at its discretion, make a “matching contribution” based on the amount and rate of the elective deferrals. The Company determines how much, if any, it will contribute for each dollar of elective deferrals. Participants vest in matching contributions over a three-year period. Company matching contributions to the 401(k) plan(s) totaled $4.2 million, $6.7 million and $5.2 million for the years ended December 31, 2020, 2019 and 2018, respectively.

Equity Compensation Plans

In February 2020, the Company adopted the TTEC Holdings, Inc., 2020 Equity Incentive Plan (the “2020 Plan”), which permits awards of incentive stock options, non-qualified stock options, stock appreciation rights, shares of restricted common stock, performance stock units and restricted stock units. The 2020 Plan will also provide for annual equity-based compensation grants to members of the Company’s Board of Directors. Options granted to employees under the 2020 Plan generally vest over three to five years and have a contractual life of ten years. Options issued to Directors vest over one year and have a contractual life of ten years. At the 2020 Annual Stockholder Meeting, the Company received shareholder approval for the 2020 Plan, including 4.0 million shares of common stock to be reserved for issuance under the Plan.

For the years ended December 31, 2020, 2019, and 2018, the Company recorded total equity-based compensation expense under all equity-based arrangements (stock options and RSUs) of $12.5 million, $12.8 million and $12.1 million, respectively. For 2020, 2019 and 2018, of the total compensation expense, $4.3 million, $4.7 million and $4.7 million was recognized in Cost of services and $8.2 million, $8.1 million and $7.4 million, was recognized in Selling, general and administrative in the Consolidated Statements of Comprehensive Income (Loss), respectively. For the years ended December 31, 2020, 2019, and 2018, the Company recognized a tax benefit under all equity-based arrangements (stock options and RSUs) of $3.5 million, $4.2 million and $3.7 million, respectively.

Restricted Stock Units

2018, 2019 and 2020 RSU Awards: The Company granted RSUs in 2018, 2019 and 2020 to new and existing employees that vest over four or five years. The Company also granted RSUs in 2018, 2019 and 2020 to members of the Board of Directors that vest over one year.

Summary of RSUs: Settlement of the RSUs shall be made in shares of the Company's common stock by delivery of one share of common stock for each RSU then being settled. The Company calculates the fair value for RSUs based on the closing price of the Company's stock on the date of grant and records compensation expense over the vesting period using a straight-line method. The Company factors an estimated forfeiture rate in calculating compensation expense on RSUs and adjusts for actual forfeitures upon the vesting of each tranche of RSUs. The Company also factors in the present value of the estimated dividend payments that will have accrued as these RSUs are vesting.

The weighted average grant-date fair value of RSUs, including performance-based RSUs, granted during the years ended December 31, 2020, 2019, and 2018 was $44.70, $40.10, and $35.15, respectively. The total intrinsic value and fair value of RSUs vested during the years ended December 31, 2020, 2019, and 2018 was $11.5 million, $12.5 million, and $12.5 million, respectively.

Performance Based Restricted Stock Unit Grants

During 2019, the Company awarded performance restricted stock units ("PRSUs") that are subject to service and performance vesting conditions. If defined minimum targets are met, the annual value of the PRSUs issued will be between $0.4 million and $1.4 million and vest immediately. If the defined minimum targets are not met, then no shares will be issued. The award amounts are based on the Company's annual adjusted operating income for the fiscal years 2019, 2020 and 2021. Each fiscal year's adjusted operating income will determine the award amount. The Company recognized compensation expense related to PRSUs of $1.1 million and $1.4 million for the years ended December 31, 2020 and 2019, respectively.

During 2020, the Company awarded PRSUs that are subject to service and performance vesting conditions. If defined minimum targets are met, Company shares will be issued that vest immediately. If the defined minimum targets are not met, then no shares will be issued. The number of shares awarded are based on the Company's annual revenue and adjusted operating income for the fiscal years 2021 and 2022. Each fiscal year's revenue and adjusted operating income will determine the award amount. Expense for these awards will begin at the start of the requisite service period, beginning January 1, 2021.

A summary of the status of the Company's non-vested RSUs and performance-based RSUs and activity for the year ended December 31, 2020 is as follows:

	Shares	Weighted Average Grant Date Fair Value
Unvested as of December 31, 2019	768,472	$ 33.11
Granted	695,467	$ 44.70
Vested	(358,579)	$ 32.04
Cancellations/expirations	(76,184)	$ 35.83
Unvested as of December 31, 2020	1,029,176	$ 41.12

All RSUs vested during the year ended December 31, 2020 were issued out of treasury stock. As of December 31, 2020, there was approximately $25.7 million of total unrecognized compensation expense and approximately $75.1 million in total intrinsic value related to non-vested RSU grants. The unrecognized compensation expense will be recognized over the remaining weighted-average vesting period of 1.6 years using the straight-line method.

(20) STOCK REPURCHASE PROGRAM

Stock Repurchase Program

The Company has a stock repurchase program, which was initially authorized by the Company's Board of Directors in November 2001. As of December 31, 2020, the cumulative authorized repurchase allowance was $762.3 million. During the year ended December 31, 2020, the Company purchased no additional shares. Since inception of the program, the Company has purchased 46.1 million shares for $735.8 million. As of December 31, 2020, the remaining allowance under the program was approximately $26.6 million. For the period from January 1, 2021 through February 24, 2021, the Company did not purchase any additional shares. The stock repurchase program does not have an expiration date.

(21) RELATED PARTY TRANSACTIONS

The Company entered into an agreement under which Avion, LLC ("Avion") and Airmax LLC ("Airmax") provide certain aviation flight services as requested by the Company. Such services include the use of an aircraft and flight crew. Kenneth D. Tuchman, Chairman and Chief Executive Officer of the Company, has an indirect 100% beneficial ownership interest in Avion and Airmax. During 2020, 2019 and 2018, the Company expensed $0.4 million, $1.1 million and $1.1 million, respectively, to Avion and Airmax for services provided to the Company. There was $67 thousand in payments due and outstanding to Avion and Airmax as of December 31, 2020.

During 2015, the Company entered into a contract to purchase software from CaféX, in which the Company holds a 17.8% equity investment. During 2020, 2019 and 2018, the Company purchased zero, $50 thousand and $61 thousand, respectively, of software from CaféX. See Note 2 for further information regarding this investment.

Ms. Regina M. Paolillo, Chief Financial and Administrative Officer of the Company, is a member of the board of directors of Welltok, Inc., a consumer health SaaS company, and partner of the Company in a joint venture. During the years ended December 31, 2020, 2019 and 2018, the Company recorded revenue of $3.0 million, $5.3 million and $5.7 million, respectively, in connection with work performed through the joint venture.

(22) QUARTERLY FINANCIAL DATA (UNAUDITED)

The following tables present certain quarterly financial data for the year ended December 31, 2020 (in thousands except per share amounts).

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Revenue	$ 432,213	$ 453,081	$ 492,980	$ 570,974
Cost of services	321,557	337,306	368,405	425,451
Selling, general and administrative	49,834	47,360	49,473	57,235
Depreciation and amortization	18,872	18,660	19,522	21,808
Restructuring and integration charges, net	538	793	1,233	700
Impairment losses	696	—	948	4,165
Income from operations	40,716	48,962	53,399	61,615
Other income (expense)	(5,832)	(4,374)	(20,852)	(3,366)
Provision for income taxes	(10,199)	(11,039)	(8,415)	(11,284)
Non-controlling interest	(3,151)	(2,224)	(2,766)	(2,542)
Net income attributable to TTEC stockholders	$ 21,534	$ 31,325	$ 21,366	$ 44,423
Weighted average shares outstanding				
Basic	46,498	46,619	46,732	46,736
Diluted	46,813	46,861	47,031	47,232
Net income per share attributable to TTEC stockholders				
Basic	$ 0.46	$ 0.67	$ 0.46	$ 0.95
Diluted	$ 0.46	$ 0.67	$ 0.45	$ 0.94

Included in Other income (expense) in the first, second and fourth quarters is a $3.3 million benefit, a $1.1 million benefit and a $2.5 million expense, respectively, related to the fair value adjustments of contingent consideration for the acquisitions.

Included in the first and second quarters is a $2.5 million expense and a $17.4 million expense, respectively, related to the deconsolidation of three subsidiaries and the related removal of the Currency Translation Adjustments.

Included in Other Income (expense) in the first quarter is an interest expense charge related to the purchase for the remaining 30% of the Motif acquisition for $6.2 million.

Included in the Provision for Income Taxes is: a $0.6 million expense in the fourth quarter, a $1.9 million expense in the third quarter, a $0.2 million expense in the second quarter, and a $0.2 million expense in the first quarter related to changes in tax contingent liabilities; a $2.3 million benefit in the fourth quarter, a $0.4 million expense in the second quarter and a $0.1 million expense in the first quarter related to return to provision adjustments; a $3.0 million benefit in the third quarter related to dissolution of subsidiaries; a $1.0 million expense in the fourth quarter, and a $0.9 million benefit in the second quarter and $0.3 million expense in the first quarter related to changes in valuation allowances; a $0.2 million benefit in the second quarter and a $0.3 million benefit in the first quarter related to restructuring charges; a $0.4 million benefit in the fourth quarter, a $0.3 million expense in the second quarter and a $0.9 million expense in the first quarter related to acquisition earn outs; a $1.0 million benefit in the first quarter, a $1.0 million benefit in the second quarter, a $1.2 million benefit in the third quarter and a $0.8 million benefit in the fourth quarter related to equity based compensation; a $1.1 million benefit in the first quarter, a $1.0 million benefit in the second quarter, a $1.0 million benefit in the third quarter and a $1.1 million benefit in the fourth quarter related to the amortization of purchased intangibles; and a $0.1 million benefit in the fourth quarter, a $0.1 million expense in the second quarter, and a $0.1 million benefit in the first quarter of other items. Without these items our effective tax rate for the year ended December 31, 2020 would have been 22.5%.

The following tables present certain quarterly financial data for the year ended December 31, 2019 (in thousands except per share amounts).

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
Revenue	$ 394,356	$ 392,515	$ 395,507	$ 461,326
Cost of services	293,334	299,237	304,622	345,694
Selling, general and administrative	49,720	50,864	48,062	53,894
Depreciation and amortization	16,743	17,050	16,659	18,634
Restructuring and integration charges, net	961	428	183	175
Impairment losses	1,506	2,063	—	166
Income from operations	32,092	22,873	25,981	42,763
Other income (expense)	(4,150)	(1,914)	(806)	(6,428)
Provision for income taxes	(7,466)	(7,345)	(5,196)	(5,670)
Non-controlling interest	(1,474)	(1,816)	(1,878)	(2,402)
Net income (loss) attributable to TTEC stockholders	$ 19,002	$ 11,798	$ 18,101	$ 28,263
Weighted average shares outstanding				
Basic	46,203	46,318	46,481	46,487
Diluted	46,590	46,684	46,768	46,830
Net income per share attributable to TTEC stockholders				
Basic	$ 0.41	$ 0.25	$ 0.39	$ 0.61
Diluted	$ 0.41	$ 0.25	$ 0.39	$ 0.60

Included in Other income (expense) in the second quarter is a $2.4 million benefit related to the fair value adjustment of contingent consideration for an acquisition.

Included in Other income (expense) in the third quarter is a $1.4 million benefit on recovery of receivables in connection with the consulting business that is being wound down and a $0.7 million benefit on the sale of trademarks.

Included in Other Income (expense) for each of the quarters is an interest expense charge related to the future purchase for the remaining 30% of the Motif acquisition - $1.3 million, $0.5 million, $0.8 million and $2.1 million in the first, second, third and fourth quarters, respectively.

Included in the Provision for Income Taxes is: a $0.2 million expense in the fourth quarter, a $0.2 million expense in the third quarter, a $0.1 million expense in the second quarter, and a $0.2 million expense in the first quarter related to changes in tax contingent liabilities; a $1.6 million benefit in the fourth quarter, a $0.2 million benefit in the third quarter, a $0.1 million benefit in the second quarter and a $0.1 million expense in the first quarter related to return to provision adjustments; a $2.8 million benefit in the fourth quarter related to tax rate changes; a $2.2 million expense in the fourth quarter, and a $2.3 million expense in the second quarter related to changes in valuation allowances; a $0.2 million benefit in the second quarter and a $0.7 million benefit in the first quarter related to restructuring charges; a $1.2 million benefit in the first quarter, a $1.2 million benefit in the second quarter, a $1.5 million benefit in the third quarter and a $0.8 million benefit in the fourth quarter related to equity based compensation; a $0.8 million benefit in the first quarter, a $0.7 million benefit in the second quarter, a $0.7 million benefit in the third quarter, a $0.7 million benefit in the fourth quarter related to the amortization of purchased intangibles; and a $0.1 million benefit in the fourth quarter, a $0.2 million expense in the third quarter, a $0.1 million expense in the second quarter, and a $0.1 million expense in the first quarter of other items. Without these items our effective tax rate for the year ended December 31, 2019 would have been 24.4%.

Exhibit 10.34

Independent Director Compensation Arrangements

The following compensation arrangements for TTEC Holdings, Inc. (the "Company") Independent Directors was adopted by the TTEC Compensation Committee and its Board of Directors on February 24, 2021 to be effective as of the start of the 2021/2022 board cycle in May 2021 (the "Effective Date") until otherwise modified by the Compensation Committee of the Board. For purposes of these arrangements, the term Independent Director shall mean a director who is not an employee director, whether or not the person qualifies as an "independent director" pursuant to the Rules of the NASDAQ Stock Market as they apply to the Company.

1. Commencing as of the Effective Date, each Independent Director shall be paid as follows:

   (a) An annual retainer of US $75,000 for Board service ("Annual Retainer");

   (b) Incremental to Annual Retainer, the Company will also provide special fees for services on Board Committees, if any, as follows:

Chair of Audit Committee	$	27,000
Other Members of Audit Committee	$	13,500
Chair of Compensation Committee	$	20,000
Other Members of Compensation Committee	$	10,000
Chair of Nominating and Governance Committee	$	15,000
Other Members of Nominating and Corporate Governance Committee	$	7,500

   (c) The annual equity grant in restricted stock units ("RSUs") grant, to be made as of the date of the next Annual Stockholder Meeting in the amount of US $130,000, based on the fair market value of the Company's common stock on the grant date; *provided, however,* that the Company will not issue RSUs that are convertible into fractional shares of the Company's common stock. The RSUs will vest in full on the earlier of: (i) the first anniversary of the date of grant; (ii) the date of the succeeding year's Annual Stockholders Meeting; or (iii) any change-in-control event (as defined in the relevant RSU agreement).

2. All cash fees shall be paid quarterly in arrears, with fees earned during a fiscal quarter to be paid during the first month of the immediately succeeding quarter. In the event an Independent Director serves as a member of the Board, a member of a Committee or as Chair of a Committee for less than all of a fiscal quarter, the amount of the quarterly installment of each applicable fee under paragraphs 1(a) and 1(b) above shall be pro-rated based on the number of days served during the quarter.

   For each Independent Director who joins the Board after the start of the annual board term, the equity grant shall be made at the time Director joining the Board and it is be pro-rated based on the start date through the end of that term.

3. The fair market value of the Company's common stock shall be determined by the closing price of the Company's common stock on the grant date or, if the Company's common stock is not traded on the NASDAQ Stock Market (or other applicable exchange or quotation system) on the date of the grant, the last preceding trading day.

4. All equity grants are subject to the ***Stock Ownership Guidelines*** for the Board of Directors as approved by the Board from time to time. Current Guidelines state that within five years of joining our Board, each director must hold common stock valued at 5x their Annual Retainer amount.

Exhibit 10.87

HEADS OF EMPLOYMENT AGREEMENT
RICHARD SEAN ERICKSON

Mr. Erickson's employment and compensation arrangements with the company are documented via ordinary course offer letter and incentive plan documents that apply to his employment; he does not have a formal employment agreement with the company. Hence, for purposes of this disclosure, the terms of Mr. Erickson's employment are presented in these 'heads of agreement' format.

- **EMPLOYER**: TTEC Services Corporation ("TTEC")

- **ROLE**: Senior ranking executive overseeing TTEC Engage business segment

- **TITLE:** Senior Vice President and Global Head of Engage

- **COMPENSATION**:
  - Base Salary: $350,000 per annum, payable bi-monthly.
  - Sign-on Bonus: $50,000, paid within two weeks of start of employment.
  - New Hire Equity Grant: Fair market equity grant in TTEC restricted stock units ("RSUs") equal in value to $600,000, as of close of market on the date of the grant; vested over five years with 40% of the grant vesting on the 2nd anniversary of the start of employment, and subsequent vesting of 20% each, occurring on the 3rd, 4th, and 5th anniversary of start of employment.
  - Variable Incentive Pay (VIP): Eligible for cash bonus of up to 60% of annual Base Salary, based on TTEC's annual performance targets, TTEC Engage performance targets; and individual performance goals, as set by, the CEO and approved by the Compensation Committee of the Board; no guaranteed minimum, with overfunding possible based on performance of the business.
  - Equity Incentive Pay: Eligible for annual equity grant, in TTEC RSUs, with 60% of Base Salary at a target. The Equity grant may comprise of performance based RSUs for 50% of the total grant value, tied to specific financial targets (Revenue and/or OI and other possible metrics, as determined by the Compensation Committee of TTEC board of directors), over a 3-year period and payable after financial results of operations for that 3-year period have been determined; and time based RSUs for 50% of the total grant value, that vest over a four-year period in equal annual installments of 25%, starting on the 1st anniversary of the grant. No guaranteed minimum, with overfunding possible based on performance of the business.

- **SEVERANCE**: On involuntary separation without cause, and subject to standard releases, eligible for severance pay equal to three weeks of then current base salary for each year of service subject to a minimum severance of 26 weeks and a maximum severance of 36 weeks.

- **RESTRICTIVE COVENANTS**: Mr. Erickson is subject to customary non-disclosure and non-disparagement undertakings; and non-compete and client and employees non-solicitation undertakings for one year from separation from the company (regardless of reasons for separation) and limited to his scope of responsibilities (TTEC Engage business around the globe). Because of Mr. Erickson's executive role, the client non-solicitation restrictions are broad to include TTEC clients and potential clients (those whom TTEC served or marketed to during Mr. Erickson's term of employment).

- **TERM AND TERMINATION**: Employment *at will* started on September 8, 2020. Each party can terminate without notice.

Exhibit 21.1

List of Subsidiaries

Subsidiary	Jurisdiction
TTEC Services Corporation	Colorado, USA
TTEC Government Solutions, LLC	Colorado, USA
TTEC Digital, LLC	Colorado, USA
TTEC Healthcare Solutions, Inc.	Delaware, USA
TTEC@Home, LLC	Colorado, USA
TTEC Financial Services Management, LLC	Delaware, USA
Percepta, LLC	Delaware, USA
First Call Resolution, LLC	Colorado, USA
TTEC Canada Solutions, Inc.	Canada
TTEC Europe B.V.	Netherlands
TTEC B.V.	Netherlands
TTEC CX Solutions Mexico, S.A. de C.V.	Mexico
TTEC India Customer Solutions Private Limited	India
Serendebyte Technology Solutions Private Limited	India
TTEC Brasil Servicos Ltda.	Brazil
TTEC Eastern Europe EAD	Bulgaria
TTEC International Pty Ltd	NSW, Australia
TeleTech Customer Care Management Philippines, Inc.	Philippines
TeleTech Offshore Investments B.V. – Philippine Branch	Philippines
TTEC Consulting (UK) Limited	United Kingdom
TTEC (UK) Solutions Limited	United Kingdom
TTEC Customer Care Management (Ireland) Limited	Ireland

Exhibit 23.1

Consent of Independent Registered Public Accounting Firm

We hereby consent to the incorporation by reference in the Registration Statements on Form S-3 (No. 333-232756) and S-8 (Nos. 333-167300, 333-239003) of TTEC Holdings, Inc. of our report dated March 1, 2021 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP

Denver, Colorado
March 1, 2021

Exhibit 24.1

POWER OF ATTORNEY

Each person whose signature appears below does hereby make, constitute and appoint each of Kenneth D. Tuchman, Regina M. Paolillo and Margaret B. McLean, acting individually, as such person's true and lawful attorney-in-fact and agent, with full power of substitution, re-substitution and revocation to execute, deliver and file with the U.S. Securities and Exchange Commission, and the securities regulatory agency in each other country where a registration or filing may be necessary or advised in connection with any offering of the Company's securities, including but not limited to: Brazil, Bulgaria, Canada, India, Ireland, Mexico, the Philippines, Singapore, the United Arab Emirates, and the United Kingdom, for and on such person's behalf, and in any and all capacities,

1. The Annual Report on Form 10-K of TTEC Holdings, Inc. for the year ended December 31, 2020, any and all amendments (including post-effective amendments) thereto with all exhibits thereto and other documents in connection therewith, or foreign jurisdiction equivalent reports and statements;

2. A Prospectus for use in the member nations of the European Union pursuant to the EU Prospectus Directions and any and all amendments thereto with all exhibits and other documents in connection therewith; and

3. Such annual or other periodic reports on business, prospects, financial and results of operations as may be required in any such other country granting unto each of said attorneys-in fact and agents full power and authority to do and perform each and every act and thing requisite and necessary to be done as fully to all intents and purposes as such person might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent or such person's substitute or substitutes may lawfully do or cause to be done by virtue hereof.

/s/ Kenneth D. Tuchman Kenneth D. Tuchman	Feb. 25, 2021	*/s/ Steven J. Anenen* Steven J. Anenen	Feb. 25, 2021
/s/ Tracy L. Bahl Tracy L. Bahl	Feb. 25, 2021	*/s/ Gregory A. Conley* Gregory A. Conley	Feb. 25, 2021
/s/ Robert N. Frerichs Robert N. Frerichs	Feb. 25, 2021	*/s/ Marc L. Holtzman* Marc L. Holtzman	Feb. 25, 2021
/s/ Ekta Singh-Bushell Ekta Singh-Bushell	Feb. 25, 2021		

Exhibit 31. 1

CERTIFICATION

I, Kenneth D. Tuchman, certify that:

1. I have reviewed this Annual Report on Form 10-K of TTEC Holdings, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(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.

By: /s/ Kenneth D. Tuchman
Kenneth D. Tuchman
Chairman and Chief Executive Officer
(Principal Executive Officer)

Date: March 1, 2021

Exhibit 31.2

CERTIFICATION

I, Regina M. Paolillo, certify that:

1. I have reviewed this Annual Report on Form 10-K of TTEC Holdings, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(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.

By: /s/ Regina M. Paolillo
Regina M. Paolillo
Chief Financial Officer
(Principal Financial and Accounting Officer)

Date: March 1, 2021

Exhibit 32.1

Written Statement of Chief Executive Officer
Pursuant to Section 906
of the Sarbanes-Oxley Act of 2002 (18 U.S.C. Section 1350)

The undersigned, the Chief Executive Officer of TTEC Holdings, Inc. (the "Company"), hereby certifies that, to his knowledge on the date hereof:

a. The Annual Report on Form 10-K of the Company for the year ended December 31, 2020 filed on the date hereof with the Securities and Exchange Commission (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

b. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

By: /s/ Kenneth D. Tuchman
Kenneth D. Tuchman
Chief Executive Officer

Date: March 1, 2021

Exhibit 32.2

Written Statement of Chief Financial Officer
Pursuant to Section 906
of the Sarbanes-Oxley Act of 2002 (18 U.S.C. Section 1350)

The undersigned, the Chief Financial Officer of TTEC Holdings, Inc. (the "Company"), hereby certifies that, to his knowledge on the date hereof:

a. The Annual Report on Form 10-K of the Company for the year ended December 31, 2020 filed on the date hereof with the Securities and Exchange Commission (the "Report") fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

b. The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

By: /s/ Regina M. Paolillo
Regina M. Paolillo
Chief Financial Officer

Date: March 1, 2021

CORPORATE INFORMATION

Directors

Kenneth D. Tuchman
Founder, Chairman of the Board

Steven J. Anenen
Director, DealerSocket; former Chief Executive Officer, CDK Global, Inc.; former President of ADP Dealer Services; former Senior Vice President of North America Systems.

Tracy L. Bahl
Partner, Healthcare Group, Welsh, Carson, Anderson & Stowe; Former President and CEO, OneOncology; former Executive Vice President, Health Plans, CVS Health; former Director, MedExpress; former Executive Chairman, Emdeon; former Chief Executive Officer, Uniprise

Gregory A. Conley
Director, Travelport; former Chief Executive Officer, Aha! Software; former Chief Executive Officer, Odyssey Group, SA

Robert N. Frerichs
Director, Wedgewood Enterprises Corporation; former International Chairman, Accenture, Inc.; former Director, Merkle, Inc.; former Chairman, Aricent Group; former Chairman, Avanade

Marc L. Holtzman
Chairman, CBZ Holdings Limited; Chairman, Bank of Kigali; Director, Duddell Street Acquisition Corporation; former Chief Executive Officer of Kazkommertsbank; former Director, FTI Consulting; former Chairman, Meridian Capital HK; former Vice Chairman, Barclays Capital

Ekta Singh-Bushell
Director, DBI, Inc.; Director, Huron Consulting Group; Director, Net 1 UEPS Technologies, Inc; Director, Datatec Limited; former Deputy to the First Vice President, Chief Operating Officer Executive Office at the Federal Reserve Bank of New York; former Partner, DecisionGPS LLC; former Global Client Services Partner, Ernst & Young

Executive Officers

Kenneth D. Tuchman
Chief Executive Officer

Regina M. Paolillo
Executive Vice President; Chief Administrative and Financial Officer

Judi A. Hand
Executive Vice President,
Chief Revenue Officer

Richard Sean Erickson
Senior Vice President, Global Head of Engage

Chandra Venkataramani
Senior Vice President,
Chief Information Officer

Jonathan Lerner
President, TTEC Digital

Margaret B. McLean
Senior Vice President,
General Counsel and Chief Risk Officer

Michael Wellman
Senior Vice President,
Chief People Officer

ESG: GROWING A SOCIALLY AND ENVIRONMENTALLY RESPONSIBLE BUSINESS

At TTEC, meeting the needs of the present without compromising the ability of future generations to enjoy our world is a part of our overarching purpose to "bring humanity to business". We believe that proactively managing environmental, social, and governance ("ESG") issues as part of our business strategy is critical to our sustainable growth and is an important part of our risk management strategy.

Our comprehensive ESG program is built on four pillars — enlightened people strategy, sustainable climate friendly operations, philanthropy, and responsible information management. These programs are well resourced, active, and vital to our goal of being a global business leader chosen by employees, customers, partners, and investors because of our reputation for operating with integrity and promoting strong ESG best practices across the globe. Learn more at ttec.com/ESG.

Audit Committee
Gregory A. Conley, *Chairman*
Robert N. Frerichs
Ekta Singh-Bushell

Compensation Committee
Tracy L. Bahl, *Chairman*
Gregory A. Conley
Robert N. Frerichs

Nominating and Governance Committee
Robert N. Frerichs, *Chairman*
Steven J. Anenen
Tracy L. Bahl
Ekta Singh-Bushell

Executive Committee
Kenneth D. Tuchman, *Chairman*
Tracy L. Bahl
Steven J. Anenen

Stock Listing
NASDAQ Global Select Market
Symbol: TTEC

Website
ttec.com

2021 Annual Meeting of Stockholders
to be held virtually at
www.virtualshareholdermeeting.com/TTEC2021
on May 26, 2021 at 10:00 a.m. MDT

Transfer Agent and Registrar
Broadridge Corporate Issuer Solutions, Inc.
1717 Arch Street, Suite 1300
Philadelphia, PA 19103
Telephone: 855.206.5002
Facsimile: 215.553.5402
Email: shareholder@broadridge.com

Investor Information
Investor information, including TTEC's Annual Report, press releases and filings with the U.S. Securities and ExchangeCommission, may be obtained from TTEC's website, ttec.com or by contacting TTEC Investor Relations at: 1.800.835.3832
investor.relations@ttec.com

Independent Accountants
PricewaterhouseCoopers LLP
Denver, Colorado

TTEC Holdings, Inc. (NASDAQ: TTEC) is one of the largest, global CX (customer experience) technology and services innovators for end-to-end, digital CX solutions. TTEC delivers leading CX technology and operational CX orchestration at scale through its proprietary cloud-based CXaaS (CX as a service) platform.

Serving iconic and disruptive brands, TTEC's outcome-based solutions span the entire enterprise, touch every virtual interaction channel, and improve each step of the customer journey. Leveraging next gen digital and cognitive technology, TTEC's Digital business designs, builds, and operates omnichannel contact center technology, conversational messaging, CRM, automation (AI / ML and RPA), and analytics solutions. TTEC's Engage business delivers digital customer engagement, customer acquisition & growth, content moderation, fraud prevention, and data annotation solutions.

Founded in 1982, TTEC's singular obsession with CX excellence has earned it leading client NPS scores across the globe. The company's nearly 61,000 employees operate on six continents and bring technology and humanity together to deliver happy customers and differentiated business results. To learn more visit us at ttec.com

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ttec.com

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