



**Computer Task Group, Incorporated**  
**2018 Annual Report**





Fellow CTG Shareholders,

On March 18, 2019, we published a letter to shareholders that provided an update on our progress over the past two years and outlined the Company's strategy under the leadership of Filip Gydé, who assumed the role of President and CEO of CTG and became a member of the Board of Directors on March 1, 2019.

As many of you are aware, Filip previously served as the highly effective leader of CTG Europe, where he directed a meaningful turnaround, built on the implementation of strategic initiatives that included two acquisitions, which resulted in nine consecutive years of profitable revenue growth. The unanimous selection of Filip as CEO reflects the Board's confidence in his ability to replicate this success across the broader organization, while also advancing CTG's transformation to a more solutions-centric company.

The Company's recent focused execution on our strategic objectives has begun to generate positive momentum and incremental progress toward achieving our longer-term performance goals. We expect to demonstrate further operational improvement in 2019 as we continue to emphasize growth in our Solutions business, improved revenue quality and profitability in our North American Staffing business, and enhanced revenue and higher earnings in Europe.

We thought it was important to republish Filip's letter to shareholders in our 2018 Annual Report to highlight the results from our strategic growth initiatives during 2018 and also reaffirm our go-forward strategy for achieving continued revenue growth and improved profitability. I would like to also take this opportunity to express my appreciation to our loyal shareholders for their continued support of CTG.

A handwritten signature in black ink, appearing to read 'Daniel J. Sullivan'.

Daniel J. Sullivan  
Chairman of the Board



March 18, 2019



Fellow CTG Shareholders:

I am honored to be writing this letter to you as CEO of CTG. Over the last three decades, I have had the privilege of serving in a number of roles throughout the Company, and working alongside the strong team that makes up CTG. To step into the role of CEO—especially at an important time in the Company’s history—is an opportunity for which I am very excited.

As you know, we have been focused in recent years on transforming CTG into a more solutions-focused company, positioning our respective lines of business for profitable growth and establishing our go-forward strategy for achieving improved company-wide performance in support of driving shareholder value. This focus remains critical to our strategy.

Building on our previously established foundation and progress to date, we successfully executed on a number of strategic growth initiatives during 2018 while continuing to realign certain areas of the business for improved operating results. These actions resulted in the following:

- An increase of 19% in consolidated revenue for the year, led by the continued excellent performance in our European operations.
- Revenue from Europe grew 55% year-over-year, driven by a combination of healthy organic growth and significant revenue contribution from the Soft Company business we acquired in France in early 2018. Operating profit in Europe increased to \$5.3 million in 2018 from \$4.0 million in 2017.
- Consistent with our plan to increase the higher margin business mix, Solutions revenue grew 24% year-over-year, while Staffing revenue increased 17% compared with 2017.

**Disciplined Execution of Strategy, with a Focus on:**

1. Increasing Solutions revenue at a higher rate than Staffing revenue
2. Expanding our health solutions service offerings to drive growth
3. Expanding client relationships to include technical and professional staffing services
4. Improving our business mix within Staffing toward higher margin services

We announced a three-year strategic plan in January 2017 that outlined the steps CTG was taking to improve profitable growth, primarily through a focus on selling consultative IT solutions, the expansion of our client base, and continued disciplined cost management. As part of that plan, we laid out certain goals that we planned to achieve by the end of 2019. While we still believe these goals are achievable—and we continue to make progress towards them—we believe the timeframe to achieve them will need to be extended somewhat beyond 2019.

Acknowledging that a consistent review and refinement of objectives is critical to the success of any strategic plan, we are highly confident in our existing strategy and the Company’s current trajectory, and we are firmly committed to disciplined execution of actions to achieve our goals. As we work to deliver improved operating results in 2019, the solid foundation that provided the basis for our strong top-line growth over the past year remains fully intact.

At the core to our strategy for improving bottom line growth is a continued emphasis on increasing the mix of higher-margin solutions business as a percentage of CTG’s total revenue. In addition to having a more favorable margin profile, solutions offerings represent higher-value services with the opportunity for deeper client engagement and increased loyalty. Today, we are well positioned for future growth with our comprehensive, yet adaptable, Application

Advantage™ and Enterprise Information Management (EIM) Advantage™ solutions offerings. As part of our ongoing ONE CTG initiative to globalize our Solutions teams, we will also continue to expand our solutions offerings to address the evolving needs of both new and existing clients.

Specific to our Staffing business, we are being more selective in the new business opportunities we pursue. This includes targeting middle-market clients, especially for higher-value professional staffing, and continuing to improve our sales organization's effectiveness. We also remain focused on other initiatives to enhance the future operating results of our Staffing business in North America, including optimizing recruiting resources and utilization levels, and retaining and more efficiently redeploying top talent in anticipation of future client demand.

These strategic objectives have been fundamental to the performance of our European operations—with a consistently expanding mix of Solutions business growing to approximately 50% of European revenue and contributing to nine consecutive years of profitable growth. This accomplishment was the result of strong teamwork to develop and execute on sound business strategies at the right time and with the right people. As part of our broader goal to drive improved company-wide performance, we are intently focused on replicating the success we have consistently demonstrated in our European operations across our enterprise.

### **Investments to Drive Future Profitable Growth**

We continued to make significant investments to drive future profitable growth and revenue quality. As part of realigning the focus of our North America operations during 2018, we invested an additional nearly \$3.5 million in personnel, including leadership, business development, recruiting and marketing. As a direct result of making these investments, we secured a number of new and expanded contracts during 2018, including our win with Catholic Health Initiatives (CHI). As further evidence of measurable returns on our investments, our Health Solutions business exited the year with a third consecutive quarter of year-over-year revenue growth and an expanded pipeline of new engagements.

While we are realizing the meaningful top-line benefit from these investments, the expected positive returns had yet to fully materialize by year-end 2018. We have since begun to see small but increasing benefits from these efforts in the early part of 2019; this initial lag is also consistent with what we experienced during the earlier periods of similar past investments in our European operations.

We also plan to make meaningful investments in 2019 of nearly \$1.5 million to expand, enhance and globalize our existing solutions offerings as well as continue to position our Health Solutions business to address the healthcare industry's ongoing transition to value-based care.

### **Seeding Incremental Profitable Growth with Strategic Acquisitions**

We believe small, synergistic acquisitions can play an important role as part of our larger growth objectives. As demonstrated over the last year, we will continue to evaluate tuck-in transactions that have the potential to add value in the form of new geographies, key talent or new solutions offerings. Beyond simply augmenting organic growth, any prospective acquisitions must represent a compelling opportunity to strategically drive future growth and accelerate the transition of our U.S. operations to a higher mix of Solutions business.

We have successfully completed two accretive acquisitions since the beginning of 2018. The purchase of Paris-based Soft Company broadens our market in Belgium and Luxembourg with the addition of complementary services, and it gives CTG an established presence in France's large and growing IT services market. Additionally, this transaction expanded our portfolio of

value-add solutions with additional offerings, including business intelligence and analytics, as well as mobile application development.

More recently, we completed the purchase of Luxembourg-based Tech-IT in February of 2019. In addition to solidifying CTG's market leading position in Luxembourg, Tech-IT's hardware and software expertise filled a previous gap in our solutions offerings. As a result, CTG can now provide a more comprehensive offering of end-to-end IT solutions, including cloud services capabilities, to a combined base of banking, financial services and local government clients in Luxembourg.

### **Strong Corporate Governance and Returning Capital to Shareholders**

Unquestionably, being a good steward of our shareholders' capital goes hand in hand with the operating initiatives we have outlined. In addition to our ongoing execution on a series of growth objectives, senior management and the Board have continued to take bold actions to further strengthen corporate governance, as well as increase alignment with and proactively return capital to shareholders. These actions included:

- Eliminated cash compensation for non-employee directors in favor of providing compensation exclusively in CTG shares, further aligning the Board's interests with shareholders.
- Continued in 2018 the Company's previously implemented equity-based compensation program for senior leadership to include grants and associated vesting solely based upon a significant increase in share price, further increasing leadership's accountability to shareholders.
- Refreshed two-thirds of the Board of Directors by adding four of the six current directors since November 2015, providing exceptional oversight and business acumen in support of CTG's long-term strategy.
- Authorized a total of \$30 million for the Company's share repurchases since November 2016, with \$7.7 million remaining under the existing repurchase authorization program.
- Repurchased 1.8 million shares of CTG stock in 2018 through a tender offer and the Company's existing share repurchase program.
- Purchased 3.2 million shares or 21% of outstanding shares, since November 2016.

### **Positioned for Profitable Growth in 2019**

In closing, we have entered 2019 with significant momentum, and we anticipate continued year-over-year growth and improved profitability as we execute on our strategy. The mid-point of our recently provided guidance for the full year reflects the expectation for a year of double-digit revenue and earnings growth, driven by a combination of expanded organic business, the revenue and profit contribution from Tech-IT, and improved revenue quality. The achievement of our guidance would represent top-line growth that meaningfully exceeds the forecasts for the end markets in which CTG participates.

To the Company's shareholders, clients, employees, contractors and partners, thank you for your continued support of CTG. We are excited about the prospects for the future and look forward to what we can achieve together in 2019 and beyond.



Filip J.L. Gydé  
President and Chief Executive Officer





**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, 2018

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 No. 1-9410

**COMPUTER TASK GROUP, INCORPORATED**

(Exact name of registrant as specified in its charter)

New York  
(State or other jurisdiction of incorporation or organization)  
800 Delaware Avenue, Buffalo, New York  
(Address of principal executive offices)

16-0912632  
(I.R.S. Employer Identification No.)  
14209  
(Zip Code)

Registrant's telephone number, including area code: (716) 882-8000

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

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

Name of each exchange on which registered  
The NASDAQ Stock Market LLC

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

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

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

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

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

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (229.405 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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 "an emerging growth company" in Rule 12b-2 of the Exchange Act:

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input checked="" type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input checked="" type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

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

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

The aggregate market value of the registrant's voting and non-voting common equity held by non-affiliates, computed by reference to the price at which the common equity was last sold on the last business day of the registrant's most recently completed second quarter was \$103.1 million. Solely for the purposes of this calculation, all persons who are or may be executive officers or directors of the registrant have been deemed to be affiliates.

The total number of shares of Common Stock of the Registrant outstanding at February 28, 2019 was 14,482,980.

**DOCUMENTS INCORPORATED BY REFERENCE**

None.

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As used in this annual report on Form 10-K, references to “CTG,” “the Company” or “the Registrant” refer to Computer Task Group, Incorporated and its subsidiaries, unless the context suggests otherwise.

## PART I

### Forward-Looking Statements

This annual report on Form 10-K contains forward-looking statements made by the management of Computer Task Group, Incorporated (CTG, the Company or the Registrant) that are subject to a number of risks and uncertainties. These forward-looking statements are based on information as of the date of this report. The Company assumes no obligation to update these statements based on information from and after the date of this report. Generally, forward looking statements include words or phrases such as “anticipates,” “believes,” “estimates,” “expects,” “intends,” “plans,” “projects,” “could,” “may,” “might,” “should,” “will” and words and phrases of similar impact. The forward-looking statements include, but are not limited to, statements regarding future operations, industry trends or conditions and the business environment, and statements regarding future levels of or trends in business strategy and expectations, new business opportunities, cost control initiatives, business wins, market demand, revenue, operating expenses, capital expenditures, and financing. The forward-looking statements are made pursuant to safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Numerous factors could cause actual results to differ materially from those in the forward-looking statements, including the following: (i) the availability to CTG of qualified professional staff, (ii) domestic and foreign industry competition for clients and talent, including technical, sales and management personnel, (iii) increased bargaining power of large clients, (iv) the Company's ability to protect confidential client data, (v) the partial or complete loss of the revenue the Company generates from International Business Machines Corporation (IBM) and SDI International (SDI), (vi) the uncertainty of clients' implementations of cost reduction projects, (vii) the effect of healthcare reform and initiatives, (viii) the mix of work between staffing and solutions, (ix) currency exchange risks, (x) risks associated with operating in foreign jurisdictions, (xi) renegotiations, nullification, or breaches of contracts with clients, vendors, subcontractors or other parties, (xii) the impact of current and future laws and government regulation, as well as repeal or modification of such, affecting the information technology (IT) solutions and staffing industry, taxes and the Company's operations in particular, (xiii) industry and economic conditions, including fluctuations in demand for IT services, (xiv) consolidation among the Company's competitors or clients, (xv) the need to supplement or change our IT services in response to new offerings in the industry or changes in client requirements for IT products and solutions, (xvi) the risks associated with acquisitions, (xvii) the ability to integrate Soft Company SAS and Tech-IT PSF S.A., (xviii) actions of activist shareholders, and (xix) the risks described in Item 1A of this annual report on Form 10-K and from time to time in the Company's reports filed with the Securities and Exchange Commission (SEC).

### **Item 1. Business**

#### **Overview**

CTG was incorporated in Buffalo, New York on March 11, 1966, and its corporate headquarters are located at 800 Delaware Avenue, Buffalo, New York 14209 (716-882-8000). CTG is an IT solutions and staffing services company with operations in North America, Europe, and India. CTG's employees and billable subcontractors total approximately 4,150 people worldwide. During 2018, the Company had nine operating subsidiaries: Computer Task Group of Canada, Inc., providing services in Canada; Computer Task Group Belgium N.V., CTG ITS S.A., Computer Task Group IT Solutions, S.A., Computer Task Group Luxembourg PSF, Computer Task Group (U.K.) Ltd., CTG Health Solutions N.V., and Soft Company SAS (“Soft Company”) each primarily providing services in Europe; and Computer Task Information Technology Private Services Limited, providing services in India. Services provided in North America are primarily performed by the parent corporation, CTG.

The Company primarily operates in one industry segment, providing IT services to its clients. These services include IT solutions and IT and other staffing. With IT solutions services, we generally take responsibility for the deliverables on a project and the services may include high-end consulting. When providing IT and other staffing services, we typically supply personnel to our clients who then, in turn, take their direction from the client's managers. The Company at times provides administrative or warehouse employees to clients to supplement the IT staffing resources we place at those clients.

#### **Services**

CTG provides industry-specific IT services and solutions and strategic staffing services that address the business needs and challenges of its clients. The Company primarily serves the following industries: healthcare and life sciences, diversified industrials, financial services, government, technology, and telecommunications. The services provided

typically encompass the IT business solution life cycle, including phases for planning, developing, implementing, managing, and ultimately maintaining the IT solution. A typical client is an organization with large, complex information and data processing requirements.

CTG’s offerings are flexible and can be delivered using one or more of CTG’s four delivery approach methodologies—Strategy, Solutions, Services, and Staffing—allowing CTG to support clients in the unique way each requires. The following describes the typical services provided via each delivery approach:

- **Strategy:** CTG’s strategic consulting engagements deliver customized recommendations and plans that address business and IT challenges and maximize benefit realization. Consultants apply business and IT insights to guide clients through business challenges via effective use of technology, from IT strategy and system selection, to workflow process design.
- **Solutions:** CTG’s IT solutions include engagements with a fixed duration and deliverables that achieve value-based outcomes. These solutions include the implementation, maintenance, and optimization of software applications, the development and deployment of customized software and solutions designed to fit the needs of a specific client or market, and the design and distribution of complex technology components.
- **Services:** CTG’s services deliver ongoing support with service-level responsibility for a range of IT functions to ensure system availability and high client satisfaction. CTG provides multi-tier expertise for the management of mission-critical enterprise IT functions including help/service desk, infrastructure maintenance, application management and support, and technical and business monitoring.
- **Staffing:** CTG’s staffing services address a range of IT and business resource needs, from filling specific talent gaps to managing high-volume staffing programs. CTG recruits, retains, and manages IT and other talent for its clients, which are primarily large technology service providers and other companies with multiple locations and a significant need for high-volume professional IT resources.

IT solutions and IT staffing and other revenue as a percentage of consolidated revenue for the three years ended December 31, 2018, 2017, and 2016 is as follows:

	2018	2017	2016
IT solutions	31%	30%	29%
IT and other staffing	69%	70%	71%
Total	<u>100%</u>	<u>100%</u>	<u>100%</u>

### Capabilities

CTG’s full range of offerings span seven service areas that, collectively, address many of our clients’ most pressing technology and business challenges. CTG’s capabilities ensure that our clients are utilizing the right information technology to meet their business needs, maximizing the value from their IT systems, and operating in the most efficient and effective manner. All offerings are supported with proven program and project management processes and tools that ensure the reliability, transparency, and accountability that CTG clients have come to expect.

CTG provides capabilities in the following service areas:

- **Advisory and Planning:** Supports our clients’ needs to evaluate, select, and design new technology, align technology and business strategy, and optimize technology for improved performance and benefits realization.
- **Application Services:** Provides clients with a full range of technical support to maximize the value of enterprise software, with services that include development, deployment, integration, optimization, and application management and support.
- **Quality Assurance and Testing:** Ensures new and legacy technologies are rigorously verified to meet business requirements and industry standards. CTG delivers full testing programs for clients or can help clients assess, develop, improve, implement, and automate their own programs, as well as provide testing training and certification.
- **IT Services Management (ITSM):** Ensures the right processes, people, and technology are in place to support business goals. Offerings support our clients’ needs to deliver IT services in a more effective and efficient manner and future-proof IT to deal with changing business dynamics and threats with services including help/service desk, ITSM process improvement, technology and infrastructure implementation, disaster recovery and business continuity, and IT infrastructure outsourcing.

- **Information Management:** Helps our clients manage and derive greater value and competitive advantage from data with services that include business intelligence and analytics, enterprise data warehouses, data governance, disclosure management, master data management, and legacy data archiving.
- **Regulatory Compliance:** Assists our clients in understanding, preparing for, managing, and mitigating risk related to government regulations and industry standards. Offerings include audits and assessments, validation, and program management for highly regulated industries such as healthcare and financial services, as well as cross-industry data privacy and security requirements.
- **Strategic Staffing:** Addresses our clients' needs, ranging from staff augmentation and volume staffing to fill specific technical skills gaps, to fully managed solutions to improve recruiting quality, speed, and cost. CTG also provides comprehensive vendor management and preferred-supplier solutions to help clients achieve significant improvements in managing contractors and technical-support processes.

### **Vertical Markets**

The Company promotes a majority of its services through five vertical market focus areas: technology service providers, manufacturing, healthcare (which includes services provided to healthcare providers, health insurers (payers), and life sciences companies), financial services, and energy. The remainder of CTG's revenue is derived from general markets.

CTG's revenue by vertical market as a percentage of consolidated revenue for the three years ended December 31, 2018, 2017, and 2016 is as follows:

	2018	2017	2016
Technology service providers	32.4%	33.1%	35.2%
Manufacturing	19.5%	24.3%	24.2%
Healthcare	16.2%	16.8%	18.2%
Financial services	15.2%	9.1%	7.8%
Energy	4.7%	5.0%	5.3%
General markets	12.0%	11.7%	9.3%
Total	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>

Revenue for the Company's technology service providers vertical market as a percentage of consolidated revenue decreased in 2018 as compared with 2017 due, in part, to a change in business mix as the Company began to sell more of its solutions services which are not included in this vertical market. The decrease was also due to a reduction in demand from several of the Company's largest clients in its IT and other staffing services business, which are included in this vertical market. Revenue from IBM, our largest client, which is included in this vertical market, increased in 2018 as compared with 2017, but was offset by declines at other large clients. The revenue as a percentage of consolidated revenue decreased for 2017 as compared with 2016 due to a change in business mix. Demand from this vertical market began to slow in the 2016 fourth quarter as several large clients cut back on their requirements for our services due to their challenging financial results.

The revenue in our manufacturing vertical market is primarily generated from several large staffing clients, including Lenovo (through SDI as a vendor manager for Lenovo) which is our second largest client. Revenue from Lenovo decreased in 2018 as compared with 2017 due to a decrease in demand for the Company's services.

In 2018, the demand from our healthcare clients increased, but at a rate that was less than the overall revenue increase for the Company, which caused the percentage of total revenue to decrease. This increase was a reversal in trend as compared with reductions in 2017 and 2016 as revenue in those years fell due to the completion of electronic health records (EHR) and related projects was not offset through new engagements.

Revenue for the Company's financial services vertical market as a percentage of consolidated revenue increased in 2018 as compared with 2017 due to the addition of Soft Company in February 2018, which provides a large portion of its services to the financial services market. Revenue in this vertical market also increased in 2017 as compared with 2016 as the Company experienced significant organic growth in our European operations where most of the services provided to the financial services vertical market are performed.

Revenue for the Company's energy vertical market decreased as a percentage of consolidated revenue in 2018 given the revenue increase in this vertical market was less than the growth in other vertical markets. Revenue as a percentage of total decreased in 2017 as compared with 2016, as demand in this vertical market declined. Generally, the decrease in the price of oil caused several of our clients to reduce their overall spending, including requirements for IT services, in 2017 and 2016.

For the year ended December 31, 2018, CTG provided its services to 451 clients in North America and Europe. In North America, the Company operates in the United States and Canada, with greater than 99% of 2018 North American revenue generated in the United States. In Europe, the Company operates in Belgium, Luxembourg, France, and the United Kingdom. Of total 2018 consolidated revenue of \$358.8 million, approximately 65% was generated in North America and 35% in Europe. One client, IBM, accounted for greater than 10% of CTG's consolidated revenue in 2018.

### **Revenue Recognition and Backlog**

The Company recognizes revenue when control of the promised good or service is transferred to customers, in an amount that reflects the consideration the Company expects to be entitled to in exchange for those goods or services. For time-and-material contracts, revenue is recognized as hours are incurred and costs are expended. For contracts with progress billing schedules, primarily monthly, revenue is recognized as services are rendered to the customer. Revenue for fixed-price contracts is recognized over time using an input-based approach. Over time revenue recognition best portrays the Company's performance in transferring control of the goods or services to the customer. On most fixed price contracts, revenue recognition is supported through contractual clauses that require the customer to pay for work performed to date, including cost plus a reasonable profit margin, for goods or services that have no alternative use to the Company. On certain contracts, revenue recognition is supported through contractual clauses that indicate the customer controls the asset, or work in process, as the Company creates or enhances the asset. On a given project, actual salary and indirect labor costs incurred are measured and compared with the total estimate of costs of such items at the completion of the project. Revenue is recognized based upon the percentage-of-completion calculation of total incurred costs to total estimated costs. The Company infrequently works on fixed-price projects that include significant amounts of material or other non-labor related costs that could distort the percent complete within a percentage-of-completion calculation. The Company's estimate of the total labor costs it expects to incur over the term of the contract is based on the nature of the project and our experience on similar projects, and includes management judgments and estimates that affect the amount of revenue recognized on fixed-price contracts in any accounting period. Losses on fixed-price projects are recorded when identified.

The Company's revenue from contracts accounted for under time-and-material, progress billing, and percentage-of-completion methods as a percentage of consolidated revenue for the three years ended December 31, 2018, 2017, and 2016 is as follows:

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Time-and-material	84.7%	85.9%	86.5%
Progress billing	10.5%	10.8%	10.8%
Percentage-of-completion	4.8%	3.3%	2.7%
Total	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>

As of December 31, 2018 and 2017, the backlog for fixed-price and all managed-support contracts was approximately \$52.0 million and \$30.4 million, respectively. Approximately 59% or \$30.4 million of the December 31, 2018 backlog is expected to be earned in 2019. Approximately 54% of the \$30.4 million of backlog at December 31, 2017, or \$16.3 million, was earned in 2018. Revenue is subject to slight seasonal variations, with a minor slowdown and a decrease in billable resource utilization in months of high vacation and legal holidays (July, August, and December). Backlog does not tend to be seasonal; however, it does fluctuate based upon the timing of entry into long-term contracts.

## ***Competition***

The IT services market, for both IT solutions and IT staffing services, is highly competitive. The market is also highly fragmented with many providers and no single competitor maintaining clear market leadership. Competition varies by location, the type of service provided, and the client to whom services are provided. The Company's competition comes from four major channels: large national or international companies, including major accounting and consulting firms and large companies headquartered in India; hardware vendors and suppliers of packaged software systems; small local firms or individuals specializing in specific programming services or applications; and from a client's internal IT staff. CTG competes against all four of these channels for its share of the market. The Company believes that to compete successfully it is necessary to have a local geographic presence, offer appropriate IT solutions, provide skilled professional resources, and price its services competitively.

## ***Intellectual Property***

The Company has registered its symbol and logo with the U.S. Patent and Trademark Office and has taken steps to preserve its rights in other countries where it operates. We regard patents, trademarks, copyrights and other intellectual property as important to our success, and we rely on them in the United States and foreign countries to protect our investments in products and technology. Our patents expire at various times, but we believe that the loss or expiration of any individual patent would not materially affect our business. We, like any other company, may be subject to claims of alleged infringement of the patents, trademarks and other intellectual property rights of third parties from time to time in the ordinary course of business. CTG has entered into agreements with various software and hardware vendors from time to time in the normal course of business, and has capitalized certain costs under software development projects.

## ***Employees***

CTG's business depends on the Company's ability to attract and retain qualified professional staff to provide services to its clients. The Company has a structured recruiting organization that works with its clients to meet their requirements by recruiting and providing high quality, motivated staff. As the Company works with a number of subcontractors with Soft Company, which was acquired on February 15, 2018, the Company now includes subcontractors in its total headcount, which equals approximately 4,150 employees worldwide, with approximately 2,950 in the United States and Canada and 1,200 in Europe. Of these employees, approximately 3,800 are IT professionals and 350 are individuals who work in sales, recruiting, delivery, administrative and support positions. The Company believes that its relationship with its employees is good. No employees are covered by a collective bargaining agreement or are represented by a labor union. CTG is an equal opportunity employer.

## Financial Information About Geographic Areas

The following table sets forth certain financial information relating to the performance of the Company for the three years ended December 31, 2018, 2017, and 2016. This information should be read in conjunction with the audited consolidated financial statements and notes thereto included in Item 8, "Financial Statements and Supplementary Data" included in this report.

	2018	2017	2016
(amounts in thousands)			
<b>Revenue from External Customers:</b>			
United States	\$ 232,178	\$ 219,886	\$ 253,955
Belgium <sup>(1)</sup>	48,585	39,347	35,995
Luxembourg <sup>(2)</sup>	44,660	36,954	31,441
Other countries	33,346	5,023	3,502
Total foreign revenue	126,591	81,324	70,938
Total revenue	<u>\$ 358,769</u>	<u>\$ 301,210</u>	<u>\$ 324,893</u>
<b>Operating Income (loss):</b>			
United States	\$ (3,083)	\$ 221	\$ (35,323)
Luxembourg <sup>(2)</sup>	1,731	2,841	2,943
Belgium <sup>(1)</sup>	1,528	439	(577)
France <sup>(4)</sup>	1,129	—	—
United Kingdom <sup>(3)</sup>	671	596	17
Other countries	104	71	9
Total foreign operating income	5,163	3,947	2,392
Total operating income (loss)	<u>\$ 2,080</u>	<u>\$ 4,168</u>	<u>\$ (32,931)</u>
<b>Total Assets:</b>			
United States	\$ 39,488	\$ 83,499	\$ 91,117
France <sup>(4)</sup>	27,425	2,360	1,533
Belgium <sup>(1)</sup>	27,128	18,410	14,562
Luxembourg <sup>(2)</sup>	26,355	22,478	18,842
Other countries	3,725	888	861
Total foreign assets	84,633	44,136	35,798
Total assets	<u>\$ 124,121</u>	<u>\$ 127,635</u>	<u>\$ 126,915</u>

- (1) Revenue, operating income, and assets for our Belgium operations have been disclosed separately as they exceed 10% of the consolidated balances in at least one of the years presented.
- (2) Revenue, operating income, and assets for our Luxembourg operations have been disclosed separately as they exceed 10% of the consolidated balance in at least one of the years presented.
- (3) Operating income for our United Kingdom operations has been disclosed separately as it exceeds 10% of the consolidated balance in at least one of the years presented.
- (4) Operating income and assets for our France operations have been disclosed separately as they exceed 10% of the consolidated balance in at least one of the years presented.

## Available Company Information

The Company's annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and all amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (Exchange Act), and reports pertaining to the Company filed under Section 16 of the Exchange Act are available without charge on the Company's website at [www.ctg.com](http://www.ctg.com) as soon as reasonably practicable after the Company electronically files the information with, or furnishes it to, the SEC. The SEC's website, [www.sec.gov](http://www.sec.gov), contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. The Company's code of ethics (Code of Conduct), committee charters and governance policies are also available without charge on the Company's website at <http://investors.ctg.com/corporate-governance>. If applicable, the Company intends to disclose future amendments to, or waivers from, certain provisions of the Code of Conduct on the Company's website or in a current report on Form 8-K.



## **Item 1A. Risk Factors**

The following risk factors should be read carefully in connection with evaluating our business and the forward-looking information contained in this Annual Report on Form 10-K. The risk factors below represent what we believe are the known material risk factors with respect to the Company and our business. Any of the following risks could materially adversely affect our business, our operations, the industry in which we operate, our financial position, or our future financial results.

### ***Our business depends on the availability of a large number of highly qualified IT professionals, sales and management personnel, and our ability to recruit and retain these individuals.***

We actively compete with many other IT service providers for qualified personnel, including professional IT staff, recruiters, sales people, and management. The availability of qualified personnel may affect our future ability to provide services and meet the requirements of our clients. An inability to fulfill client requirements at agreed upon rates due to a lack of available qualified personnel may adversely impact our revenue and operating results in the future.

### ***Increased competition and the bargaining power of our large clients may cause our billing rates to decline, which would have an adverse effect on our revenue and, if we are unable to control our personnel costs accordingly, on our margins and operating results.***

We have experienced reductions in the rates we bill some of our larger clients for services due to highly competitive market conditions. Additionally, we actively compete against many other companies for business at both new and existing clients. Billing rate reductions or competitive pressures may lead to a further decline in revenue. When faced with such pressures, if we are unable to make commensurate reductions in our personnel costs, our margins and operating results would be adversely affected.

### ***We derive a significant portion of our revenue from two clients, and a significant reduction in the amount of requirements requested by these clients would have an adverse effect on our revenue and operating results.***

IBM and SDI are CTG's two largest clients. CTG provides services to various IBM divisions in a number of locations. SDI acts as a vendor manager for Lenovo, and all of the Company's revenue generated through SDI relates to CTG employees working at various divisions of Lenovo. During the 2017 third quarter, the National Technical Services Agreement (NTS Agreement) with IBM was extended for two years and now expires on December 31, 2019. In 2018, 2017, and 2016, IBM accounted for \$80.6 million or 22.5%, \$76.4 million or 25.4%, and \$98.4 million or 30.3% of the Company's consolidated revenue, respectively. SDI accounted for \$27.6 million or 7.7%, \$34.2 million or 11.4%, and \$34.5 million or 10.6% of the Company's consolidated revenue, respectively, during these periods. The Company's accounts receivable from IBM at December 31, 2018 and 2017 totaled \$22.1 million and \$21.5 million, respectively, and accounts receivable from SDI totaled \$3.6 million and \$4.7 million, respectively.

During the 2016 third quarter, the Company was informed by IBM that there would be significant reductions in both requirements and billable rates for certain of the employees provided to this client beginning in the 2016 fourth quarter. Originally, these employee reductions could have totaled as much as 40% of the revenue earned from IBM. However, CTG was able to negotiate to retain a number of these requirements, although many of the retained employees were subject to reductions in billable rates. If IBM or Lenovo were to significantly reduce their requirements for the Company's services in future periods, our revenue and operating results would be adversely affected.

### ***Our client contracts generally have a short term or are terminable on short notice, and a significant number of failures to renew contracts in place, or early terminations or renegotiations of our existing client contracts could adversely affect our results of operations.***

Our clients typically retain us on a non-exclusive, engagement-by-engagement basis, rather than under exclusive long-term contracts. We performed 84.7% of our services on a time-and-materials basis during 2018. As such, our clients generally have the right to terminate a contract with us upon written notice without the payment of any financial penalty. Client projects may involve multiple engagements or stages, and there is a risk that a client may choose not to retain us for additional stages of a project, or that a client will cancel or delay additional planned engagements. These terminations, cancellations, or delays could result from factors that are beyond our control and are unrelated to our work product or the progress of the project, but could be related to business or financial conditions of the client, changes in client strategies or the economy in general. When contracts are terminated, we lose the anticipated future revenue and we may not be able to eliminate the associated costs required to support those contracts in a timely manner. Consequently, our operating results in subsequent periods may be lower than expected. Our clients can cancel or reduce the scope of their

engagements with us on short notice. If they do so, we may be unable to reassign our professionals to new engagements without delay. The cancellation or reduction in scope of an engagement could, therefore, reduce the utilization rate of our professionals, which would have a negative impact on our business, financial condition, and results of operations. As a result of these and other factors, our past financial performance should not be relied on as a guarantee of similar or improved future performance. Due to these factors, we believe that our results from operations in the future may fluctuate from period to period.

***The introduction of new IT services or changes in client requirements for IT services may render our existing IT Solutions or IT Staffing offerings obsolete or unnecessary, which, if we are unable to keep pace with these corresponding changes, could have an adverse effect on our business.***

Our success depends, in part, on our ability to implement and deliver IT Solutions or IT and other staffing services that anticipate and keep pace with rapid and continuing changes in technology, industry standards, and client preferences and requirements. We may not be successful in anticipating or responding to these developments on a timely basis, and our offerings may not be successful in the marketplace. Also, services, solutions, and technologies developed by our competitors may make our solutions or staffing offerings uncompetitive or obsolete. Any one of these circumstances could have a material adverse effect on our ability to obtain and successfully complete client engagements.

***We could be subject to liability and damage to our reputation resulting from cyber attacks or data breaches.***

Cyber risks for companies providing global information technology (IT) and professional services, especially in regulated industries, continue to increase. This increase in risk may be attributed to the increasing value and dependence on data, including organizations' intellectual property and citizens' personal data that could be misused for identity theft and fraud. While the value and dependence of data has increased, likewise the reliance on electronic communications, mobile technologies, social networking, hybrid and cloud-based resources, smart devices, and emerging technologies continues to grow. In some regions, the regulatory compliance requirements surrounding data protection and privacy have also increased. In addition, the sophistication and organization of cyber attacks continues to evolve, as does the sophistication of threat actors such as organized crime, hackers, terrorists, activists, insider threats, foreign governments, and third parties, and their motives.

The Company's business, operations, and its customers rely on the secure processing, transmission, storage, integrity, and availability of information, services, and resources provided by its IT environments and operational processes. The Company's complex IT environments support a variety of technologies, industries, delivery services, regulatory compliance requirements, and clients globally.

Although the Company has not experienced any prior material data breaches, regulatory non-compliance incidents, or cyber security incidents, its environments may be impacted by cyber attacks or cyber security incidents caused via the aforementioned threat actors or the Company's personnel. These incidents could result in information loss, result in the disruption of the Company's internal or client-supporting operations and services, adversely affect its adherence with regulatory requirements, or result in a data breach. Data losses and data breaches could include the unauthorized disclosure, misuse, loss, and destruction of both the Company's and its clients' intellectual property, financial information, or other regulated or privacy-related information, including but not limited to United States personally identifiable information (PII), personal data under the European General Data Protection Regulation (GDPR), and protected health information (PHI) under the United States Health Insurance Portability and Accountability Act of 1996 (HIPAA).

The Company's failure to reasonably protect sensitive data and address the regulatory compliance requirements of data and associated internal or delivery services under the Company's control could result in reputational damage, fines and penalties, litigation costs, external investigations, compensation costs including reimbursement and monetary awards, prohibition of providing services in a region or industry, and/or additional compliance costs that could have a material, adverse impact on the Company's operations. It could also have an adverse impact on the Company's ability to maintain and execute new contracts with clients that produce or work with similar data, and make it more difficult to retain and recruit qualified personnel to perform its services in the future. As the cyber threat and regulatory compliance landscape continues to evolve and the Company's risk profile changes, it may be required to expend additional resources to enhance existing and implement new risk mitigation strategies.

***The foreign currency exchange, legislative, tax, regulatory and economic risks associated with international operations could have an adverse effect on our operating results if we are unable to mitigate or hedge these risks.***

We have operations in the United States and Canada in North America, in Belgium, Luxembourg, France, and the United Kingdom in Europe, and in India. Although our foreign operations conduct their business in their local currencies, these operations are subject to their own currency fluctuations, legislation, employment and tax law changes, and

economic climates. These factors as they relate to our foreign operations are different than those of the United States. Although we actively manage these foreign operations with local management teams, our overall operating results may be negatively affected by local economic conditions, changes in foreign currency exchange rates, or tax, regulatory or other economic changes beyond our control.

***Government cuts in healthcare programs, such as Medicare, and delays in legislative or regulatory healthcare mandates could cause a reduction in IT spending by our healthcare clients, which could materially and adversely affect our revenue and results of operations.***

The Company's growth efforts have previously been primarily focused in the healthcare market. Growth in this market depends on continued spending by our healthcare clients on IT projects. Cuts in government healthcare programs, such as sequestration, which cut Medicare reimbursements to hospitals and health systems beginning in April 2013, may result in reduced expenditures by our healthcare clients on IT projects. If additional government cuts in healthcare programs were to occur, whether due to the failure of Congress to adopt a budget, pass appropriations bills or raise the U.S. debt ceiling or for other reasons, there may be delays, reductions or cessation of funding to our clients, which could cause our clients to purchase less IT services from us, which could materially and adversely affect our revenue and results of operations.

In addition, delays in implementation of legislative or regulatory healthcare mandates could adversely affect the IT spending by our healthcare clients to implement such mandates. If the implementation of existing or contemplated legislative or regulatory healthcare mandates are deferred, the resulting reduction in IT spending by our healthcare clients could materially and adversely affect our revenue and results of operations.

***Changes in government regulations and laws affecting the IT services industry, and the industries in which our clients operate, including accounting principles and interpretations, and the taxation of domestic operations could adversely affect our results of operations.***

Changing laws, regulations and standards relating to corporate governance and public disclosure, including the Sarbanes-Oxley Act of 2002, the Dodd-Frank Wall Street Reform and Consumer Protection Act, the Patient Protection and Affordable Care Act (PPACA), and new SEC regulations, create uncertainty for companies such as ours. These new or updated laws, regulations, and standards are subject to varying interpretations which, in many instances, is due to their lack of specificity. As a result, the application of these new standards and regulations in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices. We are committed to maintaining high standards of corporate governance and public disclosure. As a result, our efforts to comply with evolving laws, tax regulations and other standards have resulted in, and are likely to continue to result in, increased general and administrative expenses and a diversion of management time and attention from revenue-generating activities to compliance activities. In particular, our continuing efforts to comply with Section 404 of the Sarbanes-Oxley Act of 2002 and the related regulations regarding our required assessment of our internal controls over financial reporting and our independent auditors' audit of internal control require the commitment of significant internal, financial and managerial resources.

The Financial Accounting Standards Board (FASB), the SEC, and the Public Company Accounting Oversight Board (PCAOB) or other accounting rule making authorities have issued and may continue to issue new accounting rules or auditing standards that are different than those that we presently apply to our financial results. Such new accounting rules or auditing standards could require significant changes from the way we currently report our financial condition, results of operations or cash flows.

U.S. generally accepted accounting principles have been the subject of frequent changes in interpretations. As a result of the enactment of the Sarbanes-Oxley Act of 2002 and the review of accounting policies by the SEC as well as by national and international accounting standards bodies, the frequency of future accounting policy changes may accelerate. Such future changes in financial accounting standards may have a significant effect on our reported results of operations, including results of transactions entered into before the effective date of the changes.

We are subject to income and other taxes in the United States (federal and state) and numerous foreign jurisdictions. Our provisions for income and other taxes and our tax liabilities in the future could be adversely affected by numerous factors. These factors include, but are not limited to, income before taxes being lower than anticipated in countries with lower statutory tax rates and higher than anticipated in countries with higher statutory tax rates, changes in the valuation of deferred tax assets and liabilities, and changes in various federal, state and international tax laws, regulations, accounting principles or interpretations thereof, which could adversely impact our financial condition, results

of operations, and cash flows in future periods. Due to the enactment of the Tax Cuts and Jobs Act in 2017, the Company recorded an additional \$1.7 million of tax expense upon enactment. There could be additional estimates related to the Tax Cuts and Jobs Act that could adversely affect our future financial position.

***Existing and potential clients may outsource or consider outsourcing their IT requirements to foreign countries in which we may not currently have operations, which could have an adverse effect on our ability to obtain new clients or retain existing clients.***

In recent years, more companies have started using, or are considering using, low-cost offshore outsourcing centers to perform technology-related work and complete projects. Currently, we have partnered with clients to perform services outside of North America to mitigate and reduce this risk to our Company. However, the risk of additional outsourcing of IT solutions overseas to countries where we do not have operations could have a material, adverse impact on our future operations.

***Decreases in demand for IT Solutions and IT and Other Staffing services in the future would cause an adverse effect on our revenue and operating results.***

The Company's revenue and operating results are significantly affected by changes in demand for its services. In the past, when the world economy deteriorated, such as in 2008, there was a significant decline in demand for the Company's services which negatively affected the Company's revenue and operating results as compared with prior years. Declines in demand for the requirement for our IT services in 2019 or future years would adversely affect our operating results as it has in the past.

***The IT services industry is highly competitive and fragmented, which means that our clients have a number of choices for providers of IT services and we may not be able to compete effectively.***

The market for our services is highly competitive. The market is fragmented, and no company holds a dominant position. Consequently, our competition for client requirements and experienced personnel varies significantly by geographic area and by the type of service provided. Some of our competitors are larger and have greater technical, financial, and marketing resources and greater name recognition than we have in the markets we collectively serve. In addition, clients may elect to increase their internal IT systems resources to satisfy their custom software development and integration needs. Finally, our industry is being impacted by the growing use of lower-cost offshore delivery capabilities (primarily India and other parts of Asia). There can be no assurance that we will be able to continue to compete successfully with existing or future competitors or that future competition will not have a material adverse effect on our results of operations and financial condition.

***If we are unable to collect our receivables or unbilled services, our results of operations, financial condition, and cash flows could be adversely affected.***

Our business depends on our ability to successfully obtain payment from our clients of the amounts they owe us for work performed. We evaluate the financial condition of our clients and typically bill and collect on reasonable cycles. We might, however, not accurately assess the creditworthiness of our clients, or macroeconomic conditions could also result in financial difficulties for our clients, including bankruptcy and insolvency. In certain industries, some clients have requested longer payment terms, which has adversely affected, and may continue to adversely affect, our cash flows. The timely collection of client balances also depends on our ability to complete our contractual commitments as required. If we are unable to meet our commitments or bill our clients on a timely basis, our results of operations and cash flows could be adversely affected. We have established allowances for losses of receivables and unbilled services where we deem the amounts to be uncollectible. The uncollectible amounts due to the Company from clients could differ from those that we currently anticipate.

***Our share price could fluctuate and be difficult to predict.***

Our share price has fluctuated in the past and could continue to fluctuate in the future in response to various factors, both external and internal. These factors include:

- changes in macroeconomic or political factors unrelated to our business in the geographies in which we operate;
- general or industry-specific market conditions or changes in financial markets;
- our failure to meet our growth or financial objectives (including revenue, operating margins, and earnings per share targets);

- our ability to generate cash flow to return cash to our shareholders at historical levels or levels expected by our shareholders;
- announcements by us or competitors about developments in our business or prospects; and
- projections or speculation about our business by the media or investment analysts.

***If we repatriate our cash balances from our foreign operations, we may be subject to additional tax liabilities.***

We earn a portion of our operating income outside of the United States, and any repatriation or deemed repatriation of funds currently held in foreign jurisdictions to the United States may result in additional tax liabilities for the Company. In addition, there have been changes to the tax laws in the United States that significantly impact how United States-based multinational corporations are taxed on foreign earnings. Any further changes in these tax laws could have a material adverse impact on our tax expense and cash flows.

***Ineffective internal controls could impact the Company's business and operating results.***

The Company's internal control over financial reporting may not prevent or detect misstatements because of the inherent limitations of internal controls, including the possibility of human error, the circumvention or overriding of controls, poorly designed or ineffective controls, or fraud. Internal controls that are deemed to be effective can provide only reasonable assurance with respect to the preparation and fair presentation of the Company's financial statements. If the Company fails to maintain the adequacy of its internal controls, including the failure to implement new or improve existing controls, or fails to properly execute or properly test these controls, the Company's business and operating results could be adversely impacted and the Company could fail to meet its financial reporting obligations.

***Changing economic conditions and the effect of such changes on accounting estimates could have a material impact on our results of operations.***

The Company has also made a number of estimates and assumptions relating to the reporting of its assets and liabilities and the disclosure of contingent assets and liabilities to prepare its consolidated financial statements pursuant to the rules and regulations of the SEC and other accounting rulemaking authorities. Such estimates primarily relate to the valuation of stock options for recording equity-based compensation expense, allowances for doubtful accounts receivable, investment valuation, discount rates associated with pension plans, incurred but not recorded claims related to the Company's self-insured medical plan, valuation allowances for deferred tax assets, legal matters, other contingencies and estimates of progress toward completion and direct profit or loss on contracts, as applicable. As future events and their effects cannot be determined with precision, actual results could differ from these estimates. Changes in the economic climates in which the Company operates may affect these estimates and will be reflected in the Company's financial statements in the event they occur. Such changes could result in a material impact on the Company's results of operations.

***Risks to the Company from acquisitions include integration challenges, disruptions of the Company's core business, a failure to achieve objectives, and the assumption of liabilities.***

The Company regularly evaluates acquisitions to aid the Company's growth in revenue and profits by expanding the services the Company offers in the geographies in which the Company operates, and its client base. On February 15, 2018, the Company acquired 100% of the equity of Soft Company. Soft Company, located in Paris, France, is an IT consulting company that specializes in providing IT services to finance, insurance, telecom, and media services companies. The Company also announced and closed on the acquisition of Tech-IT PSF S.A. ("Tech-IT") on February 6, 2019 in Luxembourg. Acquisitions often present significant challenges and risks relating to the integration of the business into the Company, and there can be no assurances that the Company will manage acquisitions successfully, that the Company's core business will not be significantly disrupted after an acquisition is finalized, or that strategic acquisition opportunities will be available to the Company on acceptable terms. The risks from an acquisition include the Company failing to achieve strategic objectives and anticipated revenue and profit improvements, borrowing a significant amount of money to fund the acquisitions which creates financial stress for the Company's operations, as well as failing to retain the key personnel of the acquired business. Finally, the assumption of liabilities related to litigation or other legal proceedings involving the acquired business may present a significant risk.

***We may require additional capital to support our business, and this capital may not be available to us on acceptable terms, if at all.***

On December 21, 2017, the Company entered into a credit and security agreement, which provides for a three-year revolving credit facility in an aggregate principal amount of \$45.0 million, including a sublimit of \$10.0 million for letters of credit and a \$10.0 million sublimit for swing line loans. At December 31, 2018, we had \$3.6 million of borrowings outstanding under our revolving credit line. The Company may be dependent on our revolving credit facility to meet working capital and operational requirements, and access to our facility is dependent on, among other things, compliance with applicable covenants, including fixed charge coverage ratio, consolidated earnings before interest, taxes, depreciation, and amortization (EBITDA) targets, and a limit on annual expenditures for property, plant, equipment, and capitalized software. The fixed charge coverage ratio is only tested if availability on a measurement date is below a threshold. The amount available for borrowing under the credit facility could be significantly reduced due to poor operational performance, or other factors. Any loss or material reduction of our ability to access funds under the credit facility could materially and negatively impact our liquidity.

***Actions of activist stockholders could cause us to incur substantial costs, divert management's and the board's attention and resources, and have an adverse affect on our business and stock price.***

From time to time, we may be subject to proposals by stockholders urging us to take certain corporate actions. If activist stockholder activities ensue, our business could be adversely affected as responding to proxy contests and reacting to other actions by activist stockholders can be costly and time-consuming, disrupt our operations, and divert the attention of management and our board of directors, all of which could interfere with our ability to execute our strategic plan. We may be required to retain the services of various professionals to advise us on activist stockholder matters, including legal, financial and communications advisors, the costs of which may adversely affect our future financial results. In addition, the perceived uncertainties as to our future direction, strategy or leadership created as a consequence of activist stockholder initiatives may result in the loss of potential business opportunities, harm our ability to attract new investors, customers, and employees, and cause our stock price to experience periods of volatility or stagnation.

***Item 1B. Unresolved Staff Comments***

None.

***Item 2. Properties***

At December 31, 2018, the Company owned its headquarters building at 800 Delaware Avenue located in Buffalo, New York. This building is operated by CTG of Buffalo, a subsidiary of the Company which is part of the Company's North American operations. The corporate headquarters consists of approximately 48,000 square feet and is occupied by corporate administrative operations. At December 31, 2018, this property was not used as collateral as part of the Company's existing revolving credit agreement.

The Company previously owned a corporate administrative building at 700 Delaware Avenue located in Buffalo, New York. The Company sold its corporate administrative building in February 2018 for \$1.8 million, and as the book value was \$1.6 million, recorded an immaterial gain on the sale.

All of the remaining Company locations, totaling approximately 20 sites, are leased facilities. Most of these facilities are located in the United States, with five of these locations in Europe in the countries of Belgium, Luxembourg, France, and the United Kingdom, where our European operations are located, and one in Hyderabad, India. These facilities generally serve as sales and support offices and their size varies with the number of people employed at each office, ranging from 300 to 26,000 square feet. The Company's lease terms vary from periods of less than a year to five years and typically have flexible renewal options. The Company believes that its presently owned and leased facilities are adequate to support its current and anticipated future needs.

***Item 3. Legal Proceedings***

The Company and its subsidiaries are involved from time to time in various legal proceedings arising in the ordinary course of business. Although the outcome of lawsuits or other proceedings involving the Company and its subsidiaries cannot be predicted with certainty and the amount of any liability that could arise with respect to such lawsuits or other proceedings cannot be predicted accurately, management does not expect these matters, if any, to have a material adverse effect on the financial position, results of operations, or cash flows of the Company.

***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**

#### **Stock Market Information**

The Company's common stock is traded on The NASDAQ Stock Market LLC under the symbol CTG. The following table sets forth the high and low sales prices for the Company's common stock for each quarter of the previous two years.

<b>Stock Price</b>	<b>High</b>		<b>Low</b>	
<b>Year Ended December 31, 2018</b>				
Fourth Quarter	\$	5.65	\$	3.85
Third Quarter	\$	8.21	\$	5.16
Second Quarter	\$	9.24	\$	6.31
First Quarter	\$	8.35	\$	4.97
<b>Year Ended December 31, 2017</b>				
Fourth Quarter	\$	5.59	\$	4.90
Third Quarter	\$	6.04	\$	5.04
Second Quarter	\$	6.30	\$	5.25
First Quarter	\$	6.33	\$	4.20

On February 28, 2019, there were 1,309 holders of record of the Company's common shares. The Company currently does not pay a dividend. The Company paid a quarterly dividend for the first three quarters of 2016. The dividend was suspended in the 2016 fourth quarter and no dividends were paid in 2018 or 2017 at the Company's discretion. At December 31, 2018, as per the Company's revolving line of credit, the Company is required to meet certain financial covenants in order to pay dividends. The Company was in compliance with these financial covenants at both December 31, 2018 and 2017. For additional information regarding these financial covenants, see Item 7, "Management's Discussion and Analysis of Financial Condition and Results of Operations - Financial Condition and Liquidity." The determination of the timing, amount and the payment of dividends, if any, on the Company's common stock in the future is at the discretion of the Board of Directors and will depend upon, among other things, the Company's profitability, liquidity, financial condition, capital requirements, and compliance with the covenants under the Company's revolving credit agreement. The Company currently has no intention to pay a dividend in the foreseeable future.

For information concerning common stock issued in connection with the Company's equity compensation plans, see Item 12, "Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters."

## Issuer Purchases of Equity Securities

During the 2016 fourth quarter, the Company's Board of Directors authorized the repurchase of up to \$10.0 million of its stock over the next two years. This share repurchase authorization replaced the Company's previous share repurchase program. The Company's Board of Directors approved a \$10.0 million addition in the 2017 fourth quarter and a \$10 million addition to the stock repurchase program in the 2018 first quarter to bring the authorization to \$30.0 million in total. On February 15, 2018, the Company announced its intent to commence in the future a modified "Dutch auction" tender offer to repurchase up to 10% of its outstanding shares of common stock. On April 20, 2018, the Company accepted for payment an aggregate of 1,530,990 shares of its common stock at a purchase price of \$8.85 per share, for an aggregate cost of approximately \$13.5 million, excluding fees and expenses related to the tender offer. As of February 15, 2019, the Company had repurchased approximately \$22.3 million of shares pursuant to the authorization. The information below does not include shares withheld by or surrendered to the Company either to satisfy the exercise cost for the cashless exercise of employee stock options, or to satisfy tax withholding obligations associated with employee equity awards as the number of shares is minor.

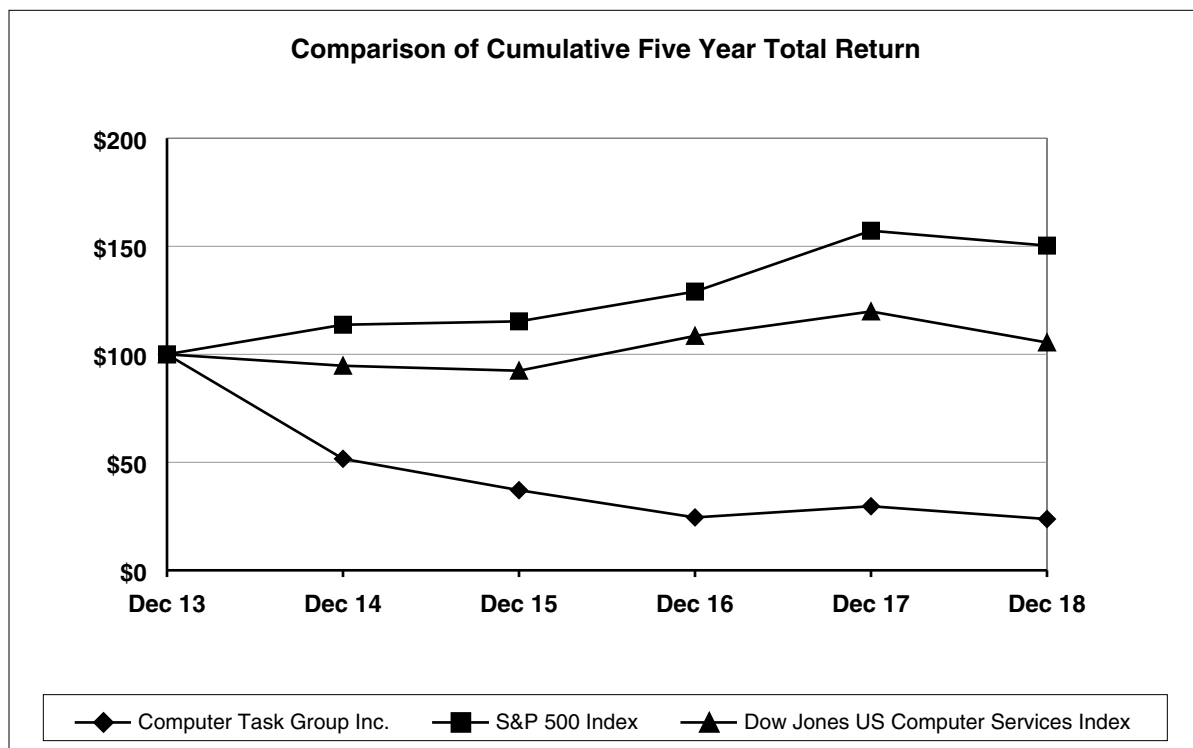
Period	Total Number of Shares Purchased	Average Price Paid per Share*	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Dollar Amount that May Yet be Purchased Under the Plans Or Programs
September 29 - October 26	16,308	\$ 5.47	16,308	\$ 7,727,724
October 27 - November 23	—	—	—	\$ 7,727,724
November 24 - December 31	—	—	—	\$ 7,727,724
Total	16,308	\$ 5.47	16,308	

\* Excludes broker commissions



## Company Performance Graph

The following graph displays a five-year comparison of cumulative total shareholder returns for the Company's common stock, the S&P 500 Index, and the Dow Jones U.S. Computer Services Index, assuming a base index of \$100 at the end of 2013. The cumulative total return for each annual period within the five years presented is measured by dividing (1) the sum of (A) the cumulative amount of dividends for the period, assuming dividend reinvestment, and (B) the difference between the Company's share price at the end and the beginning of the period by (2) the share price at the beginning of the period. The calculations were made excluding trading commissions and taxes.



	Base Period	Indexed Returns Years Ending				
	December 2013	December 2014	December 2015	December 2016	December 2017	December 2018
Computer Task Group, Inc.	\$ 100.00	\$ 51.62	\$ 37.10	\$ 24.48	\$ 29.66	\$ 23.73
S&P 500 Index	\$ 100.00	\$ 113.69	\$ 115.26	\$ 129.05	\$ 157.22	\$ 150.33
Dow Jones U.S. Computer Services Index	\$ 100.00	\$ 94.69	\$ 92.40	\$ 108.52	\$ 119.83	\$ 105.47

The information included under this section entitled "Company Performance Graph" is deemed not to be "soliciting material" or "filed" with the SEC, is not subject to the liabilities of Section 18 of the Exchange Act, and shall not be deemed incorporated by reference into any of the filings previously made or made in the future by the Company under the Exchange Act or the Securities Act of 1933, except to the extent the Company specifically incorporates any such information into a document that is filed.

## Item 6. Selected Financial Data

### Consolidated Summary—Five-Year Selected Financial Information

The selected operating data and financial position information set forth below for each of the years in the five-year period ended December 31, 2018 has been derived from the Company's audited consolidated financial statements. This information should be read in conjunction with the audited consolidated financial statements and notes thereto included in Item 8, "Financial Statements and Supplementary Data" included in this report.

(amounts in millions, except per-share data)	2018 (1)	2017 (2)	2016 (3)	2015 (4)	2014 (5)
<b>Operating Data</b>					
Revenue	\$ 358.8	\$ 301.2	\$ 324.9	\$ 369.5	\$ 393.3
Operating income (loss)	\$ 2.1	\$ 3.9	\$ (33.3)	\$ 10.6	\$ 17.2
Net income (loss)	\$ (2.8)	\$ 0.8	\$ (34.6)	\$ 6.5	\$ 10.4
Basic net income (loss) per share	\$ (0.20)	\$ 0.05	\$ (2.22)	\$ 0.42	\$ 0.68
Diluted net income (loss) per share	\$ (0.20)	\$ 0.05	\$ (2.22)	\$ 0.41	\$ 0.64
Cash dividend per share	\$ —	\$ —	\$ 0.18	\$ 0.24	\$ 0.24

### Financial Position

Working capital	\$ 51.9	\$ 50.8	\$ 53.7	\$ 53.0	\$ 69.2
Total assets	\$ 124.1	\$ 127.6	\$ 126.9	\$ 163.1	\$ 170.2
Long-term debt	\$ 3.6	\$ 4.4	\$ 4.7	\$ 1.2	\$ —
Shareholders' equity	\$ 64.2	\$ 78.6	\$ 78.8	\$ 117.7	\$ 111.0

- (1) During 2018, the Company recorded a valuation allowance against its U.S. deferred tax assets of \$4.1 million based on the history of U.S. losses for tax purposes and uncertain profitability in future years. The Company incurred acquisition-related legal and consulting fees, adjustments to the fair value of the earn-out liability, and amortization of intangible assets of approximately \$2.0 million in 2018. The Company also recorded severance of approximately \$0.7 million for former executives. Finally, the Company recorded a \$0.8 million gain from non-taxable life insurance for a former executive that passed away in 2018. These charges decreased net loss by a net amount of \$6.0 million and basic and diluted loss per share by \$0.43.
- (2) During 2017, the Company incurred \$1.2 million of unexpected costs associated with the Company's self-insured medical plan, and \$0.8 million for severance charges for former executives, which reduced operating income by a total of \$2.0 million. Additionally, the Company was impacted by the enactment of the Tax Cuts and Jobs Act, which resulted in the Company recording an additional \$1.7 million of tax expense upon enactment. Finally, the Company recorded a \$0.4 million gain from non-taxable life insurance for a former executive that passed away in 2017. These charges decreased net income by a net amount of \$2.5 million and basic and diluted loss per share by \$0.17.
- (3) During 2016, the Company incurred \$37.3 million related to goodwill impairment charges, and \$1.5 million for severance charges for two former executives, which reduced operating income by a total of \$38.8 million. These charges increased net loss by \$38.3 million and basic and diluted loss per share by \$2.45.
- (4) During 2015, the Company incurred approximately \$1.1 million of costs relating to the disposal of one of the Company's capitalized software projects. The Company also incurred approximately \$1.2 million of costs relating to severance charges in Europe. In total, these costs reduced operating income by \$2.3 million, net income by \$1.2 million, and basic and diluted net income per share by \$0.08. Included in net income is \$0.2 million from a non-taxable life insurance gain for a former executive that passed away in 2015.
- (5) During 2014, the Company incurred \$2.0 million in costs associated with the death of the Company's Chairman and CEO under his employment agreement. The Company also recorded an impairment charge totaling \$1.5 million for capitalized software costs associated with one of its IT solutions. In total, these costs reduced operating income by \$3.5 million, net income by \$2.2 million, and basic and diluted net income per share by \$0.14 and \$0.13, respectively.

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

### Forward-Looking Statements

This annual report on Form 10-K contains forward-looking statements made by the management of Computer Task Group, Incorporated (CTG, the Company or the Registrant) that are subject to a number of risks and uncertainties. These forward-looking statements are based on information as of the date of this report. The Company assumes no obligation to update these statements based on information from and after the date of this report. Generally, forward looking statements include words or phrases such as "anticipates," "believes," "estimates," "expects," "intends," "plans," "projects," "could," "may," "might," "should," "will" and words and phrases of similar impact. The forward-looking statements include, but are not limited to, statements regarding future operations, industry trends or conditions and the business environment, and statements regarding future levels of or trends in business strategy and expectations, new business opportunities, cost control initiatives, business wins, market demand, revenue, operating expenses, capital expenditures, and financing. The forward-looking statements are made pursuant to safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Numerous factors could cause actual results to differ materially from those in the forward-looking statements, including the following: (i) the availability to CTG of qualified professional staff, (ii) domestic and foreign industry competition for clients and talent, including technical, sales and management personnel, (iii) increased bargaining power of large clients, (iv) the Company's ability to protect confidential client data, (v) the partial or complete loss of the revenue the Company generates from International Business Machines Corporation (IBM) and SDI International (SDI), (vi) the uncertainty of clients' implementations of cost reduction projects, (vii) the effect of healthcare reform and initiatives, (viii) the mix of work between staffing and solutions, (ix) currency exchange risks, (x) risks associated with operating in foreign jurisdictions, (xi) renegotiations, nullification, or breaches of contracts with clients, vendors, subcontractors or other parties, (xii) the impact of current and future laws and government regulation, as well as repeal or modification of such, affecting the information technology (IT) solutions and staffing industry, taxes and the Company's operations in particular, (xiii) industry and economic conditions, including fluctuations in demand for IT services, (xiv) consolidation among the Company's competitors or clients, (xv) the need to supplement or change our IT services in response to new offerings in the industry or changes in client requirements for IT products and solutions, (xvi) the risks associated with acquisitions, (xvii) the ability to integrate Soft Company and Tech-IT, (xviii) actions of activist shareholders, and (xix) the risks described in Item 1A of this annual report on Form 10-K and from time to time in the Company's reports filed with the Securities and Exchange Commission (SEC).

### Industry Trends

The market demand for the Company's services is heavily dependent on IT spending by major corporations, organizations and government entities in the markets and regions that we serve. The pace of technology advances and changes in business requirements and practices of our clients all have a significant impact on the demand for the services that we provide. Competition for new engagements and pricing pressure has been strong. Throughout 2017 and 2016, many of our healthcare clients did not begin new projects when existing projects ended due to their capital constraints. The demand for the Company's IT solutions business, primarily in our healthcare vertical market in North America improved in 2018 as spending increased along with the improving economy. Additionally, the demand for our IT staffing and other services from certain of our large staffing clients increased during 2018.

The Company primarily operates in one industry segment, providing IT services to its clients. These services include IT solutions and IT and other staffing. With IT solutions services, we generally take responsibility for the deliverables on a project and the services may include high-end consulting. When providing IT and other staffing services, we typically supply personnel to our clients who then, in turn, take their direction from the client's managers. The Company at times provides administrative or warehouse employees to clients to supplement the IT staffing resources we place at those clients.

IT solutions and IT and other staffing revenue as a percentage of consolidated revenue for the three years ended December 31, 2018, 2017, and 2016 is as follows:

	2018	2017	2016
IT solutions	31%	30%	29%
IT and other staffing	69%	70%	71%
Total	<u>100%</u>	<u>100%</u>	<u>100%</u>

The Company promotes a majority of its services through five vertical market focus areas: technology service providers, manufacturing, healthcare (which includes services provided to healthcare providers, health insurers (payers), and life sciences companies), financial services, and energy. The remainder of CTG's revenue is derived from general markets.

CTG's revenue by vertical market as a percentage of consolidated revenue for the three years ended December 31, 2018, 2017, and 2016 is as follows:

	2018	2017	2016
Technology service providers	32.4%	33.1%	35.2%
Manufacturing	19.5%	24.3%	24.2%
Healthcare	16.2%	16.8%	18.2%
Financial services	15.2%	9.1%	7.8%
Energy	4.7%	5.0%	5.3%
General markets	12.0%	11.7%	9.3%
Total	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>

The IT services industry is extremely competitive and characterized by continuous changes in client requirements and improvements in technologies. Our competition varies significantly by geographic region, as well as by the type of service provided. Many of our competitors are larger than CTG, and have greater financial, technical, sales, and marketing resources. In addition, the Company frequently competes with a client's own internal IT staff. Our industry is being impacted by the growing use of lower-cost offshore delivery capabilities (primarily India and other parts of Asia). There can be no assurance that we will be able to continue to compete successfully with existing or future competitors or that future competition will not have a material adverse effect on our results of operations and financial condition.

## Revenue Recognition

The Company recognizes revenue when control of the promised good or service is transferred to customers, in an amount that reflects the consideration the Company expects to be entitled to in exchange for those goods or services. For time-and-material contracts, revenue is recognized as hours are incurred and costs are expended. For contracts with progress billing schedules, primarily monthly, revenue is recognized as services are rendered to the customer. Revenue for fixed-price contracts is recognized over time using an input-based approach. Over time revenue recognition best portrays the Company's performance in transferring control of the goods or services to the customer. On most fixed price contracts, revenue recognition is supported through contractual clauses that require the customer to pay for work performed to date, including cost plus a reasonable profit margin, for goods or services that have no alternative use to the Company. On certain contracts, revenue recognition is supported through contractual clauses that indicate the customer controls the asset, or work in process, as the Company creates or enhances the asset. On a given project, actual salary and indirect labor costs incurred are measured and compared with the total estimate of costs of such items at the completion of the project. Revenue is recognized based upon the percentage-of-completion calculation of total incurred costs to total estimated costs. The Company infrequently works on fixed-price projects that include significant amounts of material or other non-labor related costs that could distort the percent complete within a percentage-of-completion calculation. The Company's estimate of the total labor costs it expects to incur over the term of the contract is based on the nature of the project and our experience on similar projects, and includes management judgments and estimates that affect the amount of revenue recognized on fixed-price contracts in any accounting period. Losses on fixed-price projects are recorded when identified.

The Company's revenue from contracts accounted for under time-and-material, progress billing, and percentage-of-completion methods as a percentage of consolidated revenue for the three years ended December 31, 2018, 2017, and 2016 is as follows:

	2018	2017	2016
Time-and-material	84.7%	85.9%	86.5%
Progress billing	10.5%	10.8%	10.8%
Percentage-of-completion	4.8%	3.3%	2.7%
Total	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>

## Results of Operations

The table below sets forth percentage information calculated as a percentage of consolidated revenue as reported on the Company's consolidated statements of operations as included in Item 8, "Financial Statements and Supplementary Data" in this report.

<u>Year Ended December 31,</u> (percentage of revenue)	<u>2018</u>	<u>2017</u>	<u>2016</u>
Revenue	100.0%	100.0%	100.0%
Direct costs	80.9%	81.4%	81.8%
Selling, general and administrative expenses	18.5%	17.2%	17.0%
Goodwill impairment charges	—	—	11.5%
Operating income (loss)	0.6%	1.4%	(10.3)%
Interest and other income (expense), net	0.1%	—	(0.1)%
Income (loss) before income taxes	0.7%	1.4%	(10.4)%
Provision for income taxes	1.5%	1.1%	0.3%
Net income (loss)	<u>(0.8)%</u>	<u>0.3%</u>	<u>(10.7)%</u>

### 2018 as compared with 2017

The Company recorded revenue in 2018 and 2017 as follows:

<u>Year Ended December 31,</u> (dollars in thousands)	<u>% of total</u>	<u>2018</u>	<u>% of total</u>	<u>2017</u>	<u>Year-Over- Year Change</u>
North America	64.9%	\$ 232,695	73.1%	\$ 220,085	5.7%
Europe	35.1%	126,074	26.9%	81,125	55.4%
Total	<u>100.0%</u>	<u>\$ 358,769</u>	<u>100.0%</u>	<u>\$ 301,210</u>	<u>19.1%</u>

Reimbursable expenses billed to clients and included in revenue totaled \$3.2 million and \$3.3 million in 2018 and 2017, respectively.

The revenue increase in North America in 2018 as compared with 2017 was primarily due to a significant increase in demand for the Company's IT solutions business, primarily in our healthcare vertical market, and a modest increase in demand for our IT staffing business, primarily in our technology services provider vertical market. The revenue increase in Europe is primarily due to strong demand for the Company's services in the European markets we serve, and the acquisition of Soft Company on February 15, 2018, which has an annual revenue of approximately \$30 million.

On a consolidated basis, IT solutions revenue increased \$21.7 million or 23.7% in 2018 as compared with 2017. The increase is primarily due to an increase in IT solutions services in Europe and the addition of Soft Company, which was acquired on February 15, 2018. Soft Company primarily specializes in providing IT services to finance, insurance, telecom, and media services companies. The increase was also due in part to our strategy to shift to non-electronic health records (EHR) services in our healthcare vertical market. The Company expanded its healthcare IT business development team in 2018 with individuals who have experience selling healthcare IT services such as advisory and technical services, outsourcing, and staff augmentation. This team was successful in driving revenue growth in this vertical market and expanding the non-EHR healthcare related services we provide.

Also on a consolidated basis, IT and other staffing revenue increased \$35.9 million or 17.1% during 2018 as compared with 2017. The IT staffing increase was primarily due to the addition of Soft Company in the 2018 first quarter, growth in IT staffing in North America, and in part due to a change in accounting related to the new revenue recognition standard which requires revenue we previously recorded on a net basis to now be recorded on a gross basis for billable subcontractors. The Company recorded \$4.6 million, or 1.3% of our 2018 consolidated revenue on a gross basis, which would have been recorded on a net basis under the Company's historic accounting under Topic 605. This accounting change solely related to the IT and other staffing services.

Following the acquisition of Soft Company, which relies heavily on billable subcontractors, we have revised how we define and calculate headcount in order to report all billable consultants, including both employees and subcontractors. Based on this new approach, the Company's headcount was approximately 4,150 at December 31, 2018, which was a 22.1% increase from approximately 3,400 billable consultants at December 31, 2017. Approximately 92% of this headcount is for technical resources and 8% for support positions.

The significant increase in revenue in the Company's European operations in 2018 as compared with the corresponding 2017 period was due to an increase in demand for the Company's IT solutions services across a number of the vertical markets we serve, and the strength relative to the U.S. dollar of the currencies in Belgium, Luxembourg, France, and the United Kingdom, the countries in which the Company's European subsidiaries operate. In Belgium, Luxembourg, and France, the functional currency is the Euro, while in the United Kingdom the functional currency is the British Pound. In 2018 as compared with 2017, the average value of the Euro increased 4.5%, and the average value of the British Pound increased 3.6%. A significant portion of the Company's revenue from its European operations is generated in Belgium and Luxembourg. Had there been no change in these exchange rates from 2017 to 2018, total European revenue would have been approximately \$4.9 million lower, or \$121.2 million as compared with the \$126.1 million reported. When considering the year-over-year change in revenue in constant currencies, revenue from our European operations increased 49%. Operating income increased by \$0.3 million in 2018 as compared with 2017 given the change in the exchange rates year-over-year.

The Company continues to assess the potential impact, if any, that the United Kingdom's proposed exit from the European Union will have on the Company's operations. As the total revenue generated by our British subsidiary is immaterial when compared with the Company's total consolidated revenue, we do not expect the impact of the pending exit to have a material impact on the Company's operations.

International Business Machines Corporation (IBM) was CTG's largest client and accounted for \$80.6 million or 22.5% and \$76.4 million or 25.4% of the Company's consolidated revenue in 2018 and 2017, respectively. During the 2017 third quarter, the National Technical Services Agreement with IBM was extended for two years and now expires on December 31, 2019. As part of the National Technical Services Agreement, the Company also provides its services as a predominant supplier to IBM's Integrated Technology Services and the Systems and Technology Group business units. This agreement accounted for approximately 72% of all of the services provided to IBM by the Company in 2018. The Company's accounts receivable from IBM at December 31, 2018 and 2017 totaled \$22.1 million and \$21.5 million, respectively.

SDI was the Company's second largest client and accounted for \$27.6 million or 7.7% and \$34.2 million or 11.4% of the Company's consolidated revenue in 2018 and 2017, respectively. SDI acts as a vendor manager for Lenovo, and all of the Company's revenue generated through SDI relates to CTG employees working at Lenovo. The Company's accounts receivable from SDI at December 31, 2018 and 2017 totaled \$3.6 million and \$4.7 million, respectively.

We expect to continue to derive a significant portion of our revenue from IBM and SDI in future years; however a significant decline or the loss of the revenue from these clients would have a significant negative effect on our operating results. No other client accounted for more than 10% of the Company's revenue in 2018 or 2017.

Direct costs, defined as costs for billable staff including billable out-of-pocket expenses, were 80.9% and 81.4% of consolidated revenue in 2018 and 2017, respectively. Direct costs in 2018 were impacted by higher fringe benefit costs than planned. In the 2017 third quarter, the Company recorded a significant increase in fringe benefit costs primarily consisting of medical expense. The increase in medical expense, which totaled approximately \$1.0 million in direct costs, was due to much higher utilization of the Company's self-insured medical plan during the year. The Company also recorded \$0.4 million of severance charges in the 2017 second quarter. When considering these items, direct costs as a percentage of revenue in 2018 were comparable with 2017.

Selling, general and administrative (SG&A) expenses were 18.5% of revenue in 2018 as compared with 17.2% of revenue in 2017. The increase in SG&A expenses as a percentage of revenue in 2018 as compared with 2017 is primarily due to costs incurred by our operating units as the Company continues to make investments in sales, recruiting, and delivery resources in order to focus on the Company's long-term growth. Additionally, SG&A in 2018 includes acquisition-related costs, including the amortization of intangible assets associated with the acquisition of Soft Company, totaling \$2.0 million, and \$0.7 million in severance.

Operating income was 0.6% of revenue in 2018 as compared with 1.4% of revenue in 2017. The operating loss from the North American operations was \$2.4 million in 2018 compared with \$0.1 million in 2017. The 2018 loss was impacted by investments in business development, recruiting, and marketing of nearly \$3.5 million, some of which have yet to generate revenue and profits. Additionally, the Company recorded \$2.0 million in acquisition related costs, and \$0.7 million in severance. Operating income in 2017 was reduced by a total of \$2.0 million from unusually high utilization of the Company's self-insured medical plan, and severance.

Operating income from our European operations was \$5.3 million in 2018 compared with \$4.0 million in 2017. The increase in operating income in 2018 compared with 2017 is primarily due to strong demand for the Company's services in the European markets we serve, and the acquisition of Soft Company completed in February 2018.

Other income (expense) was 0.1% of revenue in 2018 and 0.0% of revenue in 2017. In 2018 and 2017, the Company recorded a non-taxable life insurance gain of approximately \$0.8 and \$0.4 million, respectively, as one of its former executives passed away in each year.

The Company's effective tax rate (ETR) is calculated based upon the full year's operating results and various tax related items. The ETR in 2018 was 224%, while the 2017 ETR was 80.1%.

The ETR was high in 2018 primarily due to the Company recording a valuation allowance for its deferred tax assets in the U.S. totaling \$3.8 million as the Company has recurring pre-tax losses in recent years, cumulative pre-tax losses from 2016 to 2018, and uncertainty as to income in future years. The Company also incurred approximately \$0.7 million of tax associated with the GILTI provisions of the 2017 Tax Cut and Jobs Act, and \$0.3 million of tax from non-deductible acquisition related costs in our foreign operations. These items, which caused additional tax expense, were offset by a non-taxable life insurance gain, the reversal of the valuation for deferred tax assets in the United Kingdom, the Tax Cuts and Jobs Act which reduced the US federal corporate tax rate to 21%, and tax benefits for the Work Opportunity Tax Credit (WOTC) and Research and Development tax credit (R&D).

The ETR was high in 2017 primarily due to the effects of the Tax Cuts & Jobs Act which resulted in the Company reducing its U.S. deferred tax assets by \$1.7 million, and the adoption of ASU 2016-09, "Improvements to Employee Share-Based Payment Accounting," which required the Company to record additional tax expense of \$0.3 million for shortfalls that would previously have been recorded to capital in excess of par value on the Company's consolidated balance sheet. This additional tax expense was partially offset by tax benefits for the Work Opportunity Tax Credit (WOTC) and Research and Development tax credit (R&D).

Net loss for 2018 was (0.8)% of revenue or \$(0.20) per diluted share, compared with net income of 0.3% of revenue or \$0.05 per diluted share in 2017. Diluted earnings per share were calculated using 13.8 million weighted-average equivalent shares outstanding in 2018 and 15.3 million in 2017. The decrease in shares year-over-year is due to the Company's Dutch auction tender offer where the Company repurchased approximately 10% of its outstanding shares in April 2018.

## 2017 as compared with 2016

The Company recorded revenue in 2017 and 2016 as follows:

<u>Year Ended December 31,</u> (dollars in thousands)	<u>% of total</u>	<u>2017</u>	<u>% of total</u>	<u>2016</u>	<u>Year-Over- Year Change</u>
North America	73.1%	\$ 220,085	78.3%	\$ 254,264	(13.4)%
Europe	26.9%	81,125	21.7%	70,629	14.9%
Total	<u>100.0%</u>	<u>\$ 301,210</u>	<u>100.0%</u>	<u>\$ 324,893</u>	(7.3)%

Reimbursable expenses billed to clients and included in revenue totaled \$3.3 million and \$4.0 million in 2017 and 2016, respectively. The decrease in reimbursable expenses year-over-year is primarily due to a reduction in the number of consultants in our healthcare vertical market, as many of those employees travel to client locations to perform services.

The revenue decrease in North America in 2017 as compared with 2016 was primarily due to a significant decrease in demand for the Company's IT staffing business, primarily in our technology service provider vertical market, and a decrease in demand for our IT solutions services business, primarily in our healthcare vertical market. The revenue increase in Europe is primarily due to strong demand for the Company's services in the European markets we serve.

On a consolidated basis, IT solutions revenue decreased \$3.3 million or 3.5% in 2017 as compared with 2016. Beginning in late 2014, the Company began to see significant reductions in billable resources at a number of its larger healthcare clients which decreased IT solutions revenue in the Company's healthcare vertical market as existing electronic health records (EHR) projects came to an end. This decrease in spending on healthcare IT projects continued throughout 2017 for the clients that we serve. As part of our strategy to shift to non-EHR services, the Company expanded its healthcare IT business development team in 2017 with individuals who have experience selling healthcare IT services such as advisory and technical services, outsourcing, and staff augmentation. However, in 2017, this team as a whole was not successful in reducing our revenue losses in this vertical market and expanding the non-EHR healthcare related services we provide.

Also on a consolidated basis, IT and other staffing revenue decreased \$20.3 million or 8.8% during 2017 as compared with 2016. The IT staffing decrease was primarily due to a decrease in demand from a number of the Company's largest staffing clients. Additionally, there was a significant reduction in both requirements and billable rates for certain of the employees provided to our largest staffing client which began to impact the Company in the 2016 fourth quarter.

The Company's headcount was approximately 3,200 employees at December 31, 2017, which was a 7% decrease from approximately 3,450 employees at December 31, 2016. Approximately 90% of this headcount was for technical resources and 10% for support positions.

The significant increase in revenue in the Company's European operations in 2017 as compared with the corresponding 2016 period was due to an increase in demand for the Company's IT solutions services across a number of the vertical markets we serve and the strength relative to the U.S. dollar of the currencies in Belgium and Luxembourg, partially offset by weakness relative to the U.S. dollar of the currency of the United Kingdom, the countries in which the Company's European subsidiaries operate. In Belgium and Luxembourg, the functional currency is the Euro, while in the United Kingdom the functional currency is the British Pound. In 2017 as compared with 2016, the average value of the Euro increased 2.1%, and the average value of the British Pound decreased 4.9%. A significant portion of the Company's revenue from its European operations is generated in Belgium and Luxembourg. Had there been no change in these exchange rates from 2016 to 2017, total European revenue would have been approximately \$1.4 million lower, or \$79.7 million as compared with the \$81.1 million reported. When considering the year-over-year change in revenue in constant currencies, revenue from our European operations increased 12.9%. Operating income increased by less than \$0.1 million in 2017 as compared with 2016 given the change in the exchange rates year-over-year.

The Company continues to assess the potential impact, if any, that the United Kingdom's proposed exit from the European Union will have on the Company's operations. As the total revenue generated by our British subsidiary is immaterial when compared with the Company's total consolidated revenue, we do not expect the impact of the pending exit to have a material impact on the Company's operations.

International Business Machines Corporation (IBM) was CTG's largest client and accounted for \$76.4 million or 25.4% and \$98.4 million or 30.3% of the Company's consolidated revenue in 2017 and 2016, respectively. During the 2017 third quarter, the National Technical Services Agreement with IBM was extended for two years and now expires on December 31, 2019. As part of the National Technical Services Agreement, the Company also provides its services as a predominant supplier to IBM's Integrated Technology Services and the Systems and Technology Group business units. This agreement accounted for approximately 85% of all of the services provided to IBM by the Company in 2017. As previously mentioned, the reduction in revenue in 2017 as compared with 2016 is due to a reduction in both the number of requirements and bill rates for certain employees provided to this client beginning in the 2016 fourth quarter. The Company's accounts receivable from IBM at December 31, 2017 and 2016 totaled \$21.5 million and \$28.0 million, respectively.

SDI was the Company's second largest client and accounted for \$34.2 million or 11.4% and \$34.5 million or 10.6% of the Company's consolidated revenue in 2017 and 2016, respectively. SDI acts as a vendor manager for Lenovo, and all of the Company's revenue generated through SDI relates to CTG employees working at Lenovo. The Company's accounts receivable from SDI at December 31, 2017 and 2016 totaled \$4.7 million and \$5.6 million, respectively.

No other client accounted for more than 10% of the Company's revenue in 2017 or 2016.

Direct costs, defined as costs for billable staff including billable out-of-pocket expenses, were 81.4% and 81.8% of consolidated revenue in 2017 and 2016, respectively. In the 2017 third quarter, the Company recorded a significant increase in fringe benefit costs primarily consisting of medical expense. The increase in medical expense, which totaled approximately \$1.0 million in direct costs, was due to much higher utilization of the Company's self-insured medical plan during the year. The Company also recorded \$0.4 million of severance charges in the 2017 second quarter. In the 2016 second quarter, the Company's European operations recorded a payroll tax credit totaling approximately \$0.7 million which reduced direct costs in 2016. The credited amounts returned certain costs incurred from 2011 to 2014, and the Company does not anticipate a significant credit in the future. When considering these items, direct costs as a percentage of revenue in 2017 decreased as compared with 2016. This decrease was in part due to the significant reduction in IT staffing revenue. These services are provided to the Company's largest IT staffing clients, which have much higher direct costs as a percentage of revenue as compared with the Company's IT solutions clients.

Selling, general and administrative (SG&A) expenses were 17.3% of revenue in 2017 as compared with 17.0% of revenue in 2016. The increase in SG&A expenses as a percentage of revenue in 2017 as compared with 2016 is primarily due to costs incurred by our operating units as the Company continues to make investments in sales, recruiting and



delivery resources in order to focus on the Company's long-term growth, and the loss of operating leverage from a decrease in revenue. Additionally, severance incurred for the resignation of three former executives totaled \$0.4 million and \$1.5 million in 2017 and 2016, respectively.

During the 2016 first quarter, the Company determined that a goodwill impairment indicator existed which required an interim impairment analysis. As a result of the analysis, the Company determined the implied fair value of its goodwill balance was below the carrying value. Accordingly, the Company recorded a non-tax deductible goodwill impairment charge of \$21.5 million to reduce the value of its goodwill balance to the implied fair value. Additionally, during the 2016 third quarter, the Company determined that another goodwill impairment indicator existed which required a second interim impairment analysis. As a result of the analysis, the Company determined the implied fair value of its goodwill balance was again below the carrying value. Accordingly, the Company recorded a non-tax deductible goodwill impairment charge of \$15.8 million to reduce the value of its goodwill balance to the implied fair value, which reduced the Company's goodwill balance to \$0.0.

The significant increase in operating income in 2017 was due to the goodwill impairment charges taken in the 2016 first and third quarters totaling \$37.3 million. Operating income (loss) was 1.3% of revenue in 2017 as compared with (10.3)% of revenue in 2016. Operating loss from North American operations was reduced by \$1.2 million of unexpected costs associated with the Company's self-insurance medical plan, and \$0.8 million for severance charges for former executives, or \$2.0 million in total, and was \$0.1 million in 2017 compared with \$35.7 million in 2016.

Operating income from our European operations was \$4.0 million in 2017 compared with \$2.4 million in 2016. The increase in operating income in 2017 compared with 2016 is primarily due to an increase in revenue due to strong demand for the Company's services in the European markets we serve. The 2016 results in Europe were reduced by a goodwill impairment charge of approximately \$1.7 million, offset by a payroll tax credit of \$0.7 million recorded in the 2016 second quarter.

Other income (expense) was 0.1% of revenue in 2017 and (0.1)% of revenue in 2016. In 2017, the Company recorded a non-taxable life insurance gain of approximately \$0.4 million as one of its former executives passed away in the 2017 fourth quarter.

The Company's effective tax rate (ETR) is calculated based upon the full year's operating results and various tax related items. The ETR in 2017 was 80.1%, while the 2016 ETR was (3.3)%.

The ETR was higher than the normal range in 2017 primarily due to the effects of the Tax Cuts & Jobs Act which resulted in the Company reducing its U.S. deferred tax assets by \$1.7 million and the adoption of ASU 2016-09, "Improvements to Employee Share-Based Payment Accounting," which required the Company to record approximately \$0.3 million in 2017 of additional tax expense for shortfalls that would previously have been recorded to capital in excess of par value on the Company's consolidated balance sheet. This additional tax expense was partially offset by tax benefits for the Work Opportunity Tax Credit (WOTC) and Research and Development tax credit (R&D).

The ETR was lower than the normal range in 2016 primarily due to the non-deductible goodwill impairment charges totaling \$37.3 million in the 2016 first and third quarters, and also due to the extension of the Work Opportunity Tax Credit (WOTC) and the Research and Development tax credit (R&D) which were renewed by the U.S. federal government in the 2015 fourth quarter and were effective for all of 2016. These credits totaled approximately \$0.6 million.

Net income for 2017 was 0.3% of revenue or \$0.05 per diluted share, compared with net loss of (10.7)% of revenue or \$(2.22) per diluted share in 2016. Diluted earnings per share were calculated using 15.3 million weighted-average equivalent shares outstanding in 2017 and 15.6 million in 2016. The decrease in shares year-over-year is due to the Company's stock repurchase program. The Company purchased approximately 1.2 million shares of its stock for treasury during 2017.

### **Critical Accounting Policies**

The preparation of financial statements and related disclosures in conformity with U.S. generally accepted accounting principles requires the Company's management to make estimates, judgments and assumptions that affect the amounts reported in the consolidated financial statements and accompanying notes. The Company's significant accounting policies are included in note 1 to the consolidated financial statements contained in this annual report on Form 10-K under Item 8, "Financial Statements and Supplementary Data." These policies, along with the underlying assumptions and judgments made by the Company's management in their application, have a significant impact on the

Company's consolidated financial statements. The Company identifies its most critical accounting policies as those that are the most pervasive and important to the portrayal of the Company's financial position and results of operations, and that require the most difficult, subjective and/or complex judgments by management regarding estimates about matters that are inherently uncertain. The Company's critical accounting policy is related to the valuation allowance for deferred income taxes.

### **Income Taxes—Valuation Allowances on Deferred Tax Assets**

At December 31, 2018, the Company had a total of approximately \$0.8 million of deferred tax assets, and approximately \$1.6 million of deferred tax liabilities recorded on its consolidated balance sheet. During the 2018 fourth quarter, the Company made the determination to establish a valuation allowance for its deferred tax assets in the U.S. given recurring losses in those operations, a cumulative loss from 2016 to 2018, and the uncertainty of income in future years. The deferred tax assets, net, primarily consist of deferred compensation, loss carryforwards, and state taxes. The changes in deferred tax assets and liabilities from period to period are determined based upon the changes in differences between the basis of assets and liabilities for financial reporting purposes and the basis of assets and liabilities for tax purposes, as measured by the enacted tax rates when these differences are estimated to reverse. The Company has made certain assumptions regarding the timing of the reversal of these assets and liabilities, and whether taxable income in future periods will be sufficient to recognize all or a part of any gross deferred tax asset of the Company.

At December 31, 2018, the Company had deferred tax assets recorded resulting from net operating losses in previous years totaling approximately \$1.0 million. The Company has analyzed each jurisdiction's tax position, including forecasting potential taxable income in future periods and the expiration of the net operating loss carryforwards as applicable, and determined that it is unclear whether all of these deferred tax assets will be realized at any point in the future. Accordingly, at December 31, 2018, the Company had offset a portion of these assets with a valuation allowance totaling approximately \$0.3 million, resulting in a net deferred tax asset from net operating loss carryforwards of approximately \$0.7 million.

The Company's deferred tax assets and their potential realizability are evaluated each quarter to determine if any changes should be made to the valuation allowance. Any change in the valuation allowance in the future could result in a change in the Company's ETR. A 1% change in the ETR in 2018 would have increased or decreased net income by approximately \$22,700, or less than \$0.01 per diluted share.

### **Other Estimates**

The Company has also made a number of estimates and assumptions relating to the reporting of its assets and liabilities and the disclosure of contingent assets and liabilities to prepare the consolidated financial statements pursuant to the rules and regulations of the SEC, the FASB, and other regulatory authorities. Such estimates primarily relate to the valuation of stock options for recording equity-based compensation expense, allowances for doubtful accounts receivable, investment valuation, discount rates associated with pension plans, incurred but not reported healthcare claims, legal matters, and estimates of progress toward completion and direct profit or loss on contracts, as applicable. As future events and their effect on the Company's operating results cannot be determined with precision, actual results could differ from these estimates. Changes in the economic climates in which the Company operates may affect these estimates and will be reflected in the Company's financial statements in the event they occur.

### **Financial Condition and Liquidity**

Cash provided by (used in) operating activities was \$(0.3) million, \$9.2 million, and \$2.4 million in 2018, 2017, and 2016, respectively. In 2018, net loss was \$(2.8) million, while other non-cash adjustments, primarily consisting of depreciation expense, equity-based compensation, deferred income taxes, deferred compensation, and non-taxable life insurance gain totaled \$6.3 million. In 2017 and 2016, net income (loss) was \$0.8 million and \$(34.6) million, respectively, while the corresponding non-cash adjustments netted to \$4.5 million and \$40.3 million, respectively.

Accounts receivable balances increased \$8.7 million in 2018 as compared with 2017, decreased \$5.2 million in 2017 as compared with 2016, and increased \$0.7 million in 2016 as compared with 2015. The increase in the accounts receivable balance in 2018 resulted from an increase in revenue of 24.8% in the 2018 fourth quarter as compared with the 2017 fourth quarter. Despite the increase in 2018 fourth quarter revenue, the Company experienced a decrease in days sales outstanding (DSO) due an acceleration of cash collection from several customers. DSO is calculated by dividing accounts receivable obtained from the consolidated balance sheet by average daily revenue for the fourth quarter of the respective year. DSO was 82 days at December 31, 2018 as compared with DSO at December 31, 2017 of 86 days. DSO was 86 days at December 31, 2017 as compared with DSO at December 31, 2016 of 85 days.

The cash surrender value of life insurance policies increased \$1.4 million in 2018, increased \$0.8 million in 2017, and increased \$0.6 million in 2016. The increase in each of the years were due to normal appreciation of the existing cash surrender value of the outstanding policies at each respective point in time. Accounts payable increased less than \$0.1 million in 2018, increased \$1.7 million in 2017, and decreased \$0.8 million in 2016. The increase in 2017 was primarily due to payments made near year-end, while the decrease in 2016 was primarily due to lower payables as the Company's business contracted, and the timing of certain payments near year-end. Accrued compensation increased \$2.6 million in 2018 primarily due to significant growth in the company's operations and headcount, and decreased \$1.3 million in 2017 primarily due to a reduction in employee headcount. Accrued Compensation was essentially unchanged in 2016 as compared with 2015 as the U.S. bi-weekly payroll was paid on the last business day of the year. Income taxes receivable decreased by \$0.5 million in 2018 due to refunds received from the federal government, and increased by \$0.6 million in 2017 due to the timing of payments made in 2017. Income taxes receivable were essentially unchanged in 2016 due to the timing and amount of payments made in 2016.

Investing activities used \$12.6 million, \$3.2 million, and \$2.6 million of cash in 2018, 2017, and 2016, respectively. Cash paid for the acquisition of Soft Company, net of cash acquired was \$13.8 million, which includes \$12.9 million paid in the 2018 first quarter, and \$0.9 million paid in the 2018 second quarter based upon the achievement by Soft Company of certain revenue and earnings before interest and taxes (EBIT) targets for fiscal 2017. The Company also used cash for additions to property, equipment and capitalized software of \$2.2 million in 2018, \$2.5 million in 2017, and \$2.2 million in 2016. The Company expects the amount to be spent in 2019 on additions to property, equipment and capitalized software to be similar as the amount spent in 2018. The Company has no material commitments for future capital expenditures. The Company received approximately \$1.8 million of proceeds from the sale of its corporate administrative building in the first quarter of 2018. As the carrying value of the building was \$1.6 million, the Company recorded a gain of \$0.1 million after applicable fees. In addition, the Company received a total of \$2.1 million of proceeds from life insurance policies on former executives in the 2018 first and fourth quarters, and paid premiums totaling \$0.7 million for life insurance policies in the 2018 period. Net cash received from the Company's deferred compensation plans was \$0.2 million in the 2018 period as compared with net payments of less than \$0.1 million in the 2017 period.

Financing activities provided (used) \$14.6 million, \$(5.5) million, and \$(0.9) million of cash in 2018, 2017, and 2016, respectively. Net cash paid under the Company revolving credit agreement was \$0.8 million in 2018 and \$0.3 in 2017. The Company borrowed \$29.3 million against the cash surrender value of its life insurance policies, primarily to return capital to shareholders through the "Dutch Auction" tender offer, fund the acquisition of Soft Company, and for general working capital purposes. Payments made to taxing authorities that represent the value of shares withheld for taxes in employee equity-based compensation transactions totaled \$0.3 million in both the 2018 and 2017 periods. Cash overdrafts relate to the amount of outstanding checks at a point in time, and netted to \$(0.5) million and \$0.4 million in the 2018 and 2017 periods, respectively. The Company also used \$14.9 million to purchase 1,767,000 shares for treasury under its buyback program in the 2018 period, including 1,530,990 shares purchased under the "Dutch Auction" tender offer in the 2018 second quarter. The Company also used \$6.2 million to purchase 1.2 million shares for treasury under its buyback program in the 2017 period, and \$1.2 million to purchase 0.3 million shares in 2016. As of December 31, 2018, \$7.7 million was available under the Company's authorization to purchase shares in future periods. The Company recorded \$1.8 million, \$0.7 million, and \$0.3 million during 2018, 2017, and 2016, respectively, from the proceeds from stock option exercises and excess tax benefits from equity-based compensation transactions. These amounts were lower in 2017 and 2016 as compared with 2018 primarily due to a lower average stock price in 2017 and 2016 which led to fewer stock option exercises, and lower tax benefits from equity-based compensation activity.

The Company paid dividends totaling \$2.9 million in 2016. No dividends were paid in 2018 or 2017 as the Company suspended the payment of its dividend in the 2016 fourth quarter.

In December 2017, the Company entered into a new credit and security agreement (the "Credit and Security Agreement") with its bank, which provides for a three-year revolving credit facility in an aggregate principal amount of \$45.0 million, including a sublimit of \$10.0 million for letters of credit and a \$10.0 million sublimit for swing line loans. In connection with execution of the credit and security agreement, the Company concurrently repaid in full and terminated the credit agreement dated October 30, 2015.

The Credit and Security Agreement expires in December 2020, and has interest rates ranging from 150 to 200 basis points over LIBOR or the greater of (i) the prime rate, (ii) the federal fund effective rate plus 50 basis points, and (iii) adjusted LIBOR plus 100 basis points plus a spread ranging from 50 to 100 basis points based on the amounts outstanding under the Credit and Security Agreement. The Company can borrow under the agreement with either rate at its discretion.

There was \$3.6 million, \$4.4 million, and \$4.7 million outstanding under the Company's lines of credit at December 31, 2018, 2017, and 2016, respectively. The Company borrows or repays its debt as needed based upon its working capital obligations, including the timing of the U.S. bi-weekly payroll.

The maximum amount outstanding under its credit agreements in 2018, 2017, and 2016 was \$12.8 million, \$6.0 million, and \$4.7 million, respectively. The average amounts outstanding during 2018, 2017, and 2016 were \$4.1 million, \$2.2 million, and \$1.9 million, respectively, and carried weighted-average interest rates of 3.4%, 3.0%, and 2.9%, respectively. Total commitment fees incurred in 2018 totaled \$0.3 million and approximately \$0.1 million in 2017 and 2016, while interest paid in 2018 totaled \$0.2 million and less than \$0.1 million in 2017 and 2016.

Under the Credit and Security Agreement, the Company is required to meet certain financial covenants in order to maintain borrowings under its revolving credit line, pay dividends, and make acquisitions. The covenants are measured quarterly, and at December 31, 2018, included a fixed charge coverage ratio, which must be less than 1.10 to 1.00, consolidated earnings before interest, taxes, depreciation, and amortization (EBITDA), adjusted for equity-based compensation and severance expense, must be no less than \$5.0 million for the trailing twelve months, and capital expenditures for property, plant, equipment, and capitalized software must be no more than \$5.0 million in any annual period. The fixed charge coverage ratio is only tested if availability on a measurement date is less than \$5.625 million. Actual borrowings by CTG under the Credit and Security Agreement are subject to a borrowing base, which is a formula based on certain eligible receivables and reserves. Total availability as of December 31, 2018 was approximately \$30.6 million. The Company was in compliance with these covenants at December 31, 2018 as EBITDA, as defined above, was \$8.0 million and capital expenditures for property, equipment and capitalized software were \$2.2 million in 2018. The Company was also in compliance with its covenants at December 31, 2017 and December 31, 2016.

Of the total cash and cash equivalents reported on the consolidated balance sheet at December 31, 2018 of \$12.4 million, approximately \$11.8 million is held by the Company's foreign operations and is considered to be indefinitely reinvested in those operations. The Company has not repatriated any of its cash and cash equivalents from its foreign operations in the past five years, and has no intention of doing so in the foreseeable future as the funds are generally required to meet the working capital needs of its foreign operations.

At December 31, 2018, the Company believes existing internally available funds, cash potentially generated from future operations, and funds available under the Company's revolving line of credit (subject to collateral limits) totaling \$41.1 million, will be sufficient to meet foreseeable working capital and capital expenditure needs, fund stock repurchases, pay a dividend (if any), fund acquisitions, and allow for future internal growth and expansion.

### **Off-Balance Sheet Arrangements**

The Company did not have off-balance sheet arrangements or transactions in 2018, 2017 or 2016 other than guarantees in our European operations which support office leases and performance under government contracts. These guarantees totaled approximately \$2.7 million at December 31, 2018.

### **Quantitative and Qualitative Disclosures about Market Risk**

The Company's primary market risk exposure consists of foreign currency exchange risk associated with the Company's European operations. See Item 7A, "Quantitative and Qualitative Disclosure about Market Risk" in this report.

### **Recently Issued Accounting Standards**

In May 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update No. 2014-09, "Revenue from Contracts with Customers (Topic 606)," ("ASU 2014-09"). On January 1, 2018, the Company adopted Topic 606 using the cumulative effect method and applied the requirements of the new standard to only projects that were open as of January 1, 2018. Results for the reporting periods beginning after January 1, 2018 are presented under Topic 606, while prior period amounts are not adjusted and continue to be reported in accordance with our historic accounting under Topic 605.

The Company recorded a net positive adjustment to beginning retained earnings of less than \$0.1 million and a corresponding amount to unbilled receivables as of January 1, 2018 due to the cumulative impact of adopting Topic 606, primarily related to a change in the identification of performance obligations on certain projects. In addition, the Company evaluated its principal and agent conclusions when more than one party is involved in providing goods or service to a customer. The Company recorded approximately \$4.6 million, or 1.3% of our 2018 year-to-date revenue on a gross basis, which would have been recorded on a net basis under the Company's historic accounting under Topic 605. The Company reported \$358.8 million of revenue in 2018 under Topic 606 and the Company would have reported approximately \$354.2 million of revenue under Topic 605.

In February 2016, the FASB issued ASU 2016-02, "Leases (Topic 842)," which sets out the principles for the recognition, measurement, presentation and disclosure of leases for both parties to a contract (i.e. lessees and lessors). The new standard requires lessees to apply a dual approach, classifying leases as either finance or operating leases based on the principle of whether or not the lease is effectively a financed purchase by the lessee. This classification will determine whether lease expense is recognized based on an effective interest method or on a straight line basis over the term of the lease, respectively. A lessee is also required to record a right-of-use asset and a lease liability for all leases with a term of greater than 12 months regardless of their classification. Leases with a term of 12 months or less will be accounted for similar to existing guidance for operating leases today. Topic 842 supersedes the previous leases standard, ASC 840, Leases. This guidance is effective for reporting periods beginning after December 15, 2018; however, early adoption is permitted. The Company will adopt the new lease standard on January 1, 2019 using the modified retrospective transition approach and will elect the transition method to apply the new lease standard as of the January 1, 2019 adoption date. The Company will continue to report and present comparative periods prior to the adoption date in accordance with ASC 840, including disclosures. The new standard provides a number of optional practical expedients in transition. The Company expects to elect the 'package of practical expedients', which permits the Company not to reassess under the new standard prior conclusions about lease identification, lease classification and initial direct costs. The Company also expects to elect the use-of-hindsight practical expedient and it does not expect to elect the practical expedient pertaining to land easements, as it is not applicable. The Company expects a material increase in our assets and liabilities due to the recognition of right-of-use assets and lease liabilities. However, the Company does not expect the new lease standard to have a material impact on its consolidated statements of operations and its consolidated statements of cash flows. The Company does not expect the new lease standard to affect its compliance with financial covenants associated with its debt agreement.

In March 2017, the FASB issued ASU 2017-07, "Compensation – Retirement Benefits (Topic 715)," which requires that an employer report the service cost component in the same line item or items as other compensation costs arising from services rendered by the pertinent employees during the period. The other components of net benefit cost are required to be presented in the income statement separately from the service cost component and outside a subtotal of income from operations, if one is presented. The amendments in this Update are effective for public business entities for annual periods beginning after December 15, 2017, including interim periods within those annual periods. The amendments in this Update should be applied retrospectively for the presentation of the service cost component and the other components of net periodic pension cost and net periodic postretirement benefit cost in the income statement. The Company has adopted this standard and has applied it retrospectively in the 2018 first quarter. Upon adoption, the Company increased direct costs by approximately \$0.1 million and reduced selling, general, and administrative expenses by \$0.3 million and increased interest and other expenses by approximately \$0.2 million for the 2017 year-to-date period. The Company also reduced selling, general, and administrative expenses by \$0.4 million with a corresponding increase to interest and other expenses for the 2016 year-to-date period.

In January 2018, the FASB issued ASU 2018-02, "Income Statement – Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from accumulated other comprehensive income (AOCI)", which gives entities the option to reclassify to retained earnings the tax effects resulting from the Act related to items in AOCI that the FASB refers to as having been stranded in AOCI. The Company must adopt this guidance for fiscal years beginning after December 15, 2018 and interim periods within those fiscal years. The guidance, when adopted, will require new disclosures regarding a company's accounting policy for releasing the tax effects in AOCI and permit the company the option to reclassify to retained earnings the tax effects resulting from the Act that are stranded in AOCI. The Company reclassified approximately \$0.3 million to retained earnings due to the adoption of ASU 2018-02 in the 2018 fourth quarter.

## Contractual Obligations

The Company intends to satisfy its contractual obligations from operating cash flows, and, if necessary, from draws on its demand credit line. A summary of the Company's contractual obligations at December 31, 2018 is as follows:

(in millions)		Payments Due by Period				
		Total	Less than 1 year	Years 2-3	Years 4-5	More than 5 years
Long-term debt	A	\$ 3.6	\$ —	\$ 3.6	\$ —	\$ —
Operating lease obligations	B	17.8	5.6	7.4	3.6	1.2
Purchase obligations	C	2.6	2.3	0.3	—	—
Deferred compensation benefits (U.S.)	D	4.6	0.6	1.0	1.0	2.0
Deferred compensation benefits (Netherlands)	E	3.1	0.2	0.5	0.6	1.8
Deferred compensation benefits (Belgium)	F	2.0	—	0.2	0.2	1.6
Other long-term liabilities	G	0.1	—	0.1	—	—
Contingent consideration	H	1.5	1.1	0.4	—	—
Total		<u>\$ 35.3</u>	<u>\$ 9.8</u>	<u>\$ 13.5</u>	<u>\$ 5.4</u>	<u>\$ 6.6</u>

- A On December 21, 2017, the Company entered into the Credit and Security Agreement which provides for a three-year revolving credit facility in an aggregate principal amount of \$45.0 million, including a sublimit of \$10.0 million for letters of credit and a \$10.0 million sublimit for swing line loans. The Company uses this Credit and Security Agreement to fund its working capital obligations as needed, primarily funding the U.S. bi-weekly payroll. A total of \$3.6 million in borrowings was outstanding under the Credit and Security Agreement as of December 31, 2018.
- B Operating lease obligations relate to the rental of office space, office equipment, and automobiles leased in the Company's European operations. Total rental expense under operating leases in 2018, 2017 and 2016 was approximately \$6.6 million, \$5.9 million, and \$5.7 million, respectively.
- C The Company's purchase obligations in 2019, 2020 and 2021 total approximately \$2.6 million, including \$1.0 million for software maintenance, support and related fees, \$0.3 million for telecommunications, \$0.6 million for recruiting services, \$0.4 million for professional organization memberships, and \$0.3 million for computer-based training courses.
- D The Company is committed for deferred compensation benefits in the U.S. under two plans. The Executive Supplemental Benefit Plan (ESBP) provides certain former key executives with deferred compensation benefits. The ESBP was amended as of November 30, 1994 to freeze benefits for participants at that time. At December 31, 2018, 15 individuals were receiving benefits under this plan. The ESBP is deemed to be unfunded as the Company has not specifically identified Company assets to be used to discharge the deferred compensation benefit liabilities.
- E The Company retained a contributory defined-benefit plan for its previous employees located in the Netherlands when the Company disposed of its subsidiary, CTG Nederland B.V. This plan was curtailed on January 1, 2003 for additional contributions. The Company does not anticipate making additional contributions to fund the plan in future years.
- F The Company maintains a fully funded pension plan for its Belgium employees. The Company will continue to make additional contributions to fund the plan in future years.
- G The Company has other long-term liabilities including payments for a postretirement benefit plan for several retired employees and their spouses, totaling fewer than 10 participants.
- H The Company has a contingent consideration liability related to an earn-out provision of which a portion will be payable in each period subject to the achievement by Soft Company of certain revenue and EBIT targets for fiscal 2018 and 2019. The Company expects to pay approximately \$1.1 million and \$0.4 million for the achievement of these targets for fiscal 2018 and 2019, respectively.

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

The Company's primary market risk exposure consists of foreign currency exchange risk associated with the Company's European operations.

During 2018, revenue was affected by the year-over-year foreign currency exchange rate changes of Belgium, Luxembourg, France, and the United Kingdom, the countries in which the Company's European subsidiaries operate. In Belgium, Luxembourg, and France, the functional currency is the Euro, while in the United Kingdom the functional currency is the British Pound. Had there been no change in these exchange rates from 2017 to 2018, total European revenue would have been approximately \$4.9 million lower in 2018, or \$121.2 million as compared with the \$126.1 million reported. Operating income in the Company's European operations would have increased by \$0.3 million less if there had been no change in foreign currency exchange rates year-over-year.

The Company has historically not used any market rate sensitive instruments to hedge its foreign currency exchange risk as it conducts its foreign operations in local currencies, which generally limits risk. The Company believes the market risk related to intercompany balances in future periods will not have a material effect on its results of operations.

**Item 8. Financial Statements and Supplementary Data**

**Report of Independent Registered Public Accounting Firm**

To the Shareholders and Board of Directors  
Computer Task Group, Incorporated:

*Opinion on the Consolidated Financial Statements*

We have audited the accompanying consolidated balance sheets of Computer Task Group, Incorporated and subsidiaries (the Company) as of December 31, 2018 and 2017, the related consolidated statements of operations, comprehensive income (loss), stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2018, and the related notes and financial statement schedule (collectively, the consolidated financial statements). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2018 and 2017, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2018, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Company's internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated March 15, 2019 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

*Basis for Opinion*

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

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

/s/ KPMG LLP

We have served as the Company's auditor since 2003.

Buffalo, New York  
March 15, 2019



## Consolidated Statements of Operations

Year Ended December 31,	2018	2017	2016
(amounts in thousands, except per-share data)			
Revenue	\$ 358,769	\$ 301,210	\$ 324,893
Direct costs	290,282	245,234	265,711
Selling, general and administrative expenses	66,407	51,808	54,784
Goodwill impairment charges	—	—	37,329
Operating income (loss)	2,080	4,168	(32,931)
Interest and other income	223	88	188
Non-taxable life insurance gain	807	390	—
Interest and other expense	841	589	793
Income (loss) before income taxes	2,269	4,057	(33,536)
Provision for income taxes	5,086	3,251	1,102
Net income (loss)	<u>\$ (2,817)</u>	<u>\$ 806</u>	<u>\$ (34,638)</u>
Net income (loss) per share:			
Basic	<u>\$ (0.20)</u>	<u>\$ 0.05</u>	<u>\$ (2.22)</u>
Diluted	<u>\$ (0.20)</u>	<u>\$ 0.05</u>	<u>\$ (2.22)</u>
Weighted average shares outstanding:			
Basic	13,805	15,055	15,593
Diluted	13,805	15,324	15,593
Cash dividend per common share	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 0.18</u>

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

## Consolidated Statements of Comprehensive Income (Loss)

Year Ended December 31, (amounts in thousands)	2018	2017	2016
Net Income (loss)	\$ (2,817)	\$ 806	\$ (34,638)
Foreign currency translation adjustment, net of taxes	(2,059)	2,481	(758)
Implementation of accounting standards	(263)	—	—
Change in pension loss, net of taxes of \$0, \$308, and \$71, in 2018, 2017 and 2016, respectively	1,387	606	(1,365)
Other comprehensive income (loss)	(935)	3,087	(2,123)
Comprehensive income (loss)	<u>\$ (3,752)</u>	<u>\$ 3,893</u>	<u>\$ (36,761)</u>

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

## Consolidated Balance Sheets

December 31, (amounts in thousands, except share balances)	2018	2017
<b>Assets</b>		
Current Assets:		
Cash and cash equivalents	\$ 12,431	\$ 11,170
Accounts receivable, net of allowances of \$104 and \$133 in 2018 and 2017, respectively	81,313	68,920
Prepaid and other current assets	1,925	2,370
Income taxes receivable	349	1,068
Total current assets	96,018	83,528
Property, equipment and capitalized software, net	5,656	6,996
Deferred income taxes	767	3,861
Acquired intangibles, net	5,936	—
Goodwill	11,664	—
Cash surrender value of life insurance	2,626	31,547
Other assets	1,262	1,302
Investments	192	401
Total assets	\$ 124,121	\$ 127,635
<b>Liabilities and Shareholders' Equity</b>		
Current Liabilities:		
Accounts payable	\$ 12,387	\$ 9,425
Accrued compensation	21,434	17,065
Advance billings on contracts	2,875	1,918
Other current liabilities	7,467	4,328
Total current liabilities	44,163	32,736
Long-term debt	3,640	4,435
Deferred compensation benefits	9,906	11,647
Deferred income taxes	1,632	28
Other long-term liabilities	552	165
Total liabilities	59,893	49,011
Shareholders' Equity:		
Common stock, par value \$0.01 per share, 150,000,000 shares authorized; 27,017,824 shares issued in both periods	270	270
Capital in excess of par value	116,427	120,247
Retained earnings	82,548	85,029
Less: Treasury stock of 12,745,888 and 11,754,147 shares at cost, in 2018 and 2017, respectively	(120,406)	(113,246)
Accumulated other comprehensive loss	(14,611)	(13,676)
Total shareholders' equity	64,228	78,624
Total liabilities and shareholders' equity	\$ 124,121	\$ 127,635

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

## Consolidated Statements of Cash Flows

Year Ended December 31, (amounts in thousands)	2018	2017	2016
<b>Cash flow from operating activities:</b>			
Net income (loss)	\$ (2,817)	\$ 806	\$ (34,638)
Adjustments to reconcile net income (loss) to net cash provided by (used in) operating activities:			
Depreciation and amortization expense	2,537	1,578	1,647
Equity-based compensation expense	2,353	1,059	1,626
Deferred income taxes	3,070	2,437	(583)
Deferred compensation	(729)	(162)	270
Gain on the sale of property and equipment	(108)	—	—
Goodwill impairment	—	—	37,329
Non-taxable life insurance gain	(807)	(390)	—
Changes in assets and liabilities, excluding the effects of acquisitions:			
(Increase) decrease in accounts receivable	(8,724)	5,202	(729)
(Increase) decrease in prepaid and other current assets	174	85	(520)
(Increase) decrease in other long-term assets	847	(421)	(242)
(Increase) in cash surrender value of life insurance	(1,406)	(772)	(567)
Increase (decrease) in accounts payable	30	1,651	(763)
Increase (decrease) in accrued compensation	2,580	(1,336)	132
Increase (decrease) in income taxes payable / receivable	497	(592)	(242)
Increase in advance billings on contracts	210	808	29
Increase (decrease) in other current liabilities	2,508	(447)	(354)
Increase (decrease) in other long-term liabilities	(518)	(276)	40
Net cash provided by (used in) operating activities	(303)	9,230	2,435
<b>Cash flow from investing activities:</b>			
Cash paid for acquisitions, net of cash received	(13,782)	—	—
Additions to property and equipment	(2,011)	(1,557)	(1,665)
Additions to capitalized software	(234)	(952)	(522)
Proceeds from the sale of property and equipment	1,724	—	—
Premiums paid for life insurance	(702)	(632)	(690)
Life insurance proceeds	2,151	—	394
Deferred compensation plan investments, net	209	(45)	(110)
Net cash used in investing activities	(12,645)	(3,186)	(2,593)
<b>Cash flow from financing activities:</b>			
Proceeds from long-term debt	134,386	60,620	47,065
Payments on long-term debt	(135,181)	(60,910)	(43,565)
Proceeds from stock option plan exercises	1,848	735	262
Proceeds from life insurance loans	29,268	—	—
Excess tax benefits from equity-based compensation	—	—	22
Taxes remitted for shares withheld from equity-based compensation transactions	(329)	(328)	(380)
Proceeds from Employee Stock Purchase Plan	93	155	215
Change in cash overdraft, net	(528)	397	(362)
Dividends paid	—	—	(2,890)
Purchase of stock for treasury	(14,945)	(6,159)	(1,244)
Net cash provided by (used in) financing activities	14,612	(5,490)	(877)
Effect of exchange rates on cash and cash equivalents	(403)	1,209	(359)
Net increase (decrease) in cash and cash equivalents	1,261	1,763	(1,394)
Cash and cash equivalents at beginning of year	11,170	9,407	10,801
Cash and cash equivalents at end of year	<u>\$ 12,431</u>	<u>\$ 11,170</u>	<u>\$ 9,407</u>

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

## Consolidated Statements of Shareholders' Equity

	Common Stock		Capital in	Retained	Treasury Stock		Stock Trusts		Accumulated	Total
	Shares	Amount	Excess of Par Value	Earnings	Shares	Amount	Shares	Amount	Other Comprehensive Income (loss)	Shareholders' Equity
(amounts in thousands)										
<b>Balances as of December 31, 2015</b>	27,018	270	125,226	121,798	8,014	(60,275)	3,265	(54,662)	(14,640)	117,717
Employee Stock Purchase Plan share issuance	—	—	(211)	—	(44)	426	—	—	—	215
Stock Option Plan share issuance, net	—	—	(820)	—	(95)	1,082	—	—	—	262
Excess tax benefits from equity-based compensation	—	—	(233)	—	—	—	—	—	—	(233)
Restricted stock plan share issuance/forfeiture	—	—	(1,241)	—	259	(1,286)	(503)	2,145	—	(382)
Deferred compensation plan share issuance	—	—	(400)	—	(105)	949	—	—	—	549
Purchase of stock	—	—	—	—	287	(1,244)	—	—	—	(1,244)
Termination of stock trusts	—	—	—	—	2,762	(52,510)	(2,762)	52,517	—	7
Equity-based compensation	—	—	1,626	—	—	—	—	—	—	1,626
Net income	—	—	—	(34,638)	—	—	—	—	—	(34,638)
Dividends declared	—	—	—	(2,937)	—	—	—	—	—	(2,937)
Foreign currency adjustment	—	—	—	—	—	—	—	—	(758)	(758)
Pension loss adjustment, net of tax	—	—	—	—	—	—	—	—	(1,365)	(1,365)
<b>Balances as of December 31, 2016</b>	27,018	270	123,947	84,223	11,078	(112,858)	—	—	(16,763)	78,819
Employee Stock Purchase Plan share issuance	—	—	(133)	—	(29)	288	—	—	—	155
Stock Option Plan share issuance, net	—	—	(1,346)	—	(195)	2,080	—	—	—	734
Restricted stock plan share issuance/forfeiture	—	—	(2,870)	—	(182)	2,543	—	—	—	(327)
Deferred compensation plan share issuance	—	—	(410)	—	(87)	860	—	—	—	450
Purchase of stock	—	—	—	—	1,169	(6,159)	—	—	—	(6,159)
Equity-based compensation	—	—	1,059	—	—	—	—	—	—	1,059
Net income	—	—	—	806	—	—	—	—	—	806
Foreign currency adjustment	—	—	—	—	—	—	—	—	2,481	2,481
Pension loss adjustment, net of tax	—	—	—	—	—	—	—	—	606	606
<b>Balances as of December 31, 2017</b>	27,018	270	120,247	85,029	11,754	(113,246)	—	—	(13,676)	78,624

(continued on next page)

	Common Stock		Capital in	Retained	Treasury Stock		Stock Trusts		Accumulated	Total
	Shares	Amount	Excess of Par Value	Earnings	Shares	Amount	Shares	Amount	Other Comprehensive Income (loss)	Shareholders' Equity
(amounts in thousands)										
<b>Balances as of December 31, 2017</b>	27,018	270	120,247	85,029	11,754	(113,246)	—	—	(13,676)	78,624
Implementation of Accounting Standards	—	—	—	336	—	—	—	—	(263)	73
Employee Stock Purchase Plan share issuance	—	—	(109)	—	(21)	202	—	—	—	93
Stock Option Plan share issuance, net	—	—	(1,589)	—	(366)	3,438	—	—	—	1,849
Restricted stock plan share issuance/forfeiture	—	—	(4,475)	—	(229)	2,626	—	—	—	(1,849)
Deferred compensation plan share issuance	—	—	—	—	(159)	1,519	—	—	—	1,519
Purchase of stock	—	—	—	—	1,767	(14,945)	—	—	—	(14,945)
Equity-based compensation	—	—	2,353	—	—	—	—	—	—	2,353
Net loss	—	—	—	(2,817)	—	—	—	—	—	(2,817)
Foreign currency adjustment	—	—	—	—	—	—	—	—	(2,059)	(2,059)
Pension loss adjustment, net of tax	—	—	—	—	—	—	—	—	1,387	1,387
<b>Balances as of December 31, 2018</b>	<u>27,018</u>	<u>\$ 270</u>	<u>\$ 116,427</u>	<u>\$ 82,548</u>	<u>12,746</u>	<u>\$(120,406)</u>	<u>—</u>	<u>\$ —</u>	<u>\$ (14,611)</u>	<u>\$ 64,228</u>

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

## Notes to Consolidated Financial Statements

### 1. Summary of Significant Accounting Policies

#### Basis of Presentation and Consolidation

The consolidated financial statements include the accounts of Computer Task Group, Incorporated, and its subsidiaries (the Company or CTG), located primarily in North America, Western Europe, and India. There are no unconsolidated entities, or off-balance sheet arrangements other than certain guarantees supporting office leases and the performance under government contracts in the Company's European operations. All inter-company accounts have been eliminated. Management of the Company has made a number of estimates and assumptions relating to the reporting of assets and liabilities and the disclosure of contingent assets and liabilities to prepare these consolidated financial statements in conformity with U.S. generally accepted accounting principles. Such estimates primarily relate to the valuation allowances for deferred tax assets, actuarial assumptions including discount rates and expected rates of return, as applicable, for the Company's defined benefit plans, the allowance for doubtful accounts receivable, assumptions underlying stock option valuation, investment valuation, estimates of progress toward completion and direct profit or loss on contracts, legal matters, and other contingencies. The current economic environments in the United States, Canada, Western Europe, and India where the Company has operations have increased the degree of uncertainty inherent in these estimates and assumptions. Actual results could differ from those estimates.

The Company operates in one industry segment, providing IT services to its clients. These services include IT Solutions and IT and other Staffing. CTG provides these services to all of the markets that it serves. The services provided typically encompass the IT business solution life cycle, including phases for planning, developing, implementing, managing, and ultimately maintaining the IT solution. A typical client is an organization with large, complex information and data processing requirements. The Company provides administrative or warehouse employees to clients from time to time to supplement the IT resources we place at those clients. The Company promotes a significant portion of its services through five vertical market focus areas: technology service providers, manufacturing, healthcare (which includes services provided to healthcare providers, health insurers (payers), and life sciences companies), financial services, and energy. The Company focuses on these five vertical areas as it believes that these areas are either higher growth markets than the general IT services market and the general economy, or are areas that provide greater potential for the Company's growth due to the size of the vertical market. The remainder of CTG's revenue is derived from general markets.

CTG's revenue by vertical market as a percentage of consolidated revenue for the three years ended December 31, 2018, 2017, and 2016 is as follows:

	2018	2017	2016
Technology service providers	32.4%	33.1%	35.2%
Manufacturing	19.5%	24.3%	24.2%
Healthcare	16.2%	16.8%	18.2%
Financial services	15.2%	9.1%	7.8%
Energy	4.7%	5.0%	5.3%
General markets	12.0%	11.7%	9.3%
Total	100.0%	100.0%	100.0%

#### Revenue and Cost Recognition

The Company recognizes revenue when control of the promised good or service is transferred to customers, in an amount that reflects the consideration the Company expects to be entitled to in exchange for those goods or services. For time-and-material contracts, revenue is recognized as hours are incurred and costs are expended. For contracts with progress billing schedules, primarily monthly, revenue is recognized as services are rendered to the customer. Revenue for fixed-price contracts is recognized over time using an input-based approach. Over time revenue recognition best portrays the Company's performance in transferring control of the goods or services to the customer. On most fixed price contracts, revenue recognition is supported through contractual clauses that require the customer to pay for work performed to date, including cost plus a reasonable profit margin, for goods or services that have no alternative use to the Company. On certain contracts, revenue recognition is supported through contractual clauses that indicate the customer controls the asset, or work in process, as the Company creates or enhances the asset. On a given project, actual salary and indirect labor costs incurred are measured and compared with the total estimate of costs of such items at the completion of the project. Revenue is recognized based upon the percentage-of-completion calculation of total incurred

costs to total estimated costs. The Company infrequently works on fixed-price projects that include significant amounts of material or other non-labor related costs that could distort the percent complete within a percentage-of-completion calculation. The Company's estimate of the total labor costs it expects to incur over the term of the contract is based on the nature of the project and experience on similar projects, and includes management judgments and estimates that affect the amount of revenue recognized on fixed-price contracts in any accounting period. Losses on fixed-price projects are recorded when identified.

The Company's revenue from contracts accounted for under time-and-material, progress billing, and percentage-of-completion methods as a percentage of consolidated revenue for the three years ended December 31, 2018, 2017, and 2016 is as follows:

	2018	2017	2016
Time-and-material	84.7%	85.9%	86.5%
Progress billing	10.5%	10.8%	10.8%
Percentage-of-completion	4.8%	3.3%	2.7%
Total	<u>100.0%</u>	<u>100.0%</u>	<u>100.0%</u>

The Company recorded revenue for fiscal years ended 2018 compared to 2017 and 2017 compared to 2016 as follows:

<u>Year Ended December 31,</u>	<u>% of total</u>	<u>2018</u>	<u>% of total</u>	<u>2017</u>	<u>Year-Over- Year Change</u>
(dollars in thousands)					
North America	64.9%	\$ 232,695	73.1%	\$ 220,085	5.7%
Europe	35.1%	126,074	26.9%	81,125	55.4%
Total	<u>100.0%</u>	<u>\$ 358,769</u>	<u>100.0%</u>	<u>\$ 301,210</u>	19.1%

<u>Year Ended December 31,</u>	<u>% of total</u>	<u>2017</u>	<u>% of total</u>	<u>2016</u>	<u>Year-Over- Year Change</u>
(dollars in thousands)					
North America	73.1%	\$ 220,085	78.3%	\$ 254,264	(13.4)%
Europe	26.9%	81,125	21.7%	70,629	14.9%
Total	<u>100.0%</u>	<u>\$ 301,210</u>	<u>100.0%</u>	<u>\$ 324,893</u>	(7.3)%

## Significant Judgments

With the exception of cost estimates on certain fixed-price projects, there are no other significant judgments used to determine the timing of satisfaction of performance obligations or determining transaction price and amounts allocated to performance obligations. The Company allocates the transaction price based on standalone selling prices for contracts with customers that include more than one performance obligation. Standalone selling prices are based on the expected cost of the good or service plus margin approach. Certain customers may qualify for discounts and rebates, which we account for as variable consideration. The Company estimates variable consideration and reduces revenue recognized based on the amount it expects to provide to customers.

## Contract Balances

For time-and-material and progress billing contracts, the timing of the Company's satisfaction of its performance obligations is consistent with the timing of payment. For these contracts, the Company has the right to payment in the amount that corresponds directly with the value of the Company's performance to date. The Company uses the right to invoice practical expedient that allows the Company to recognize revenue in the amount for which it has the right to invoice for time-and-material and progress billing contracts. Bill schedules for fixed-price contracts are generally consistent with the Company's performance in transferring control of the goods or services to the customer. There are no significant financing components in our contracts with customers. Advanced billings represent contract liabilities for cash payments received in advance of our performance. Unbilled receivables are reported within "accounts receivable" on the consolidated balance sheet. Accounts receivable and contract liability balances fluctuate based on the timing of the customer's billing schedule and the Company's period-end date. There are no significant costs to obtain or fulfill contracts with customers.



## Transaction Price Allocated to Remaining Performance Obligations

As of December 31, 2018, the aggregate transaction price allocated to unsatisfied or partially unsatisfied performance obligations for fixed-price and all progress billing contracts was approximately \$13.2 million and \$38.8 million, respectively. Approximately \$30.4 million of the transaction price allocated to unsatisfied or partially unsatisfied performance obligations is expected to be earned in 2019. Approximately \$21.6 million of the transaction price allocated to unsatisfied or partially unsatisfied performance obligations is expected to be earned in 2020 and beyond. The Company uses the right to invoice practical expedient. Therefore, no disclosure is required for unsatisfied performance obligations for contracts in which we recognize revenue at the amount to which we have the right to invoice for services performed.

## Taxes Collected from Customers

In instances where the Company collects taxes from its customers for remittance to governmental authorities, primarily in its international locations, revenue and expenses are not presented on a gross basis in the consolidated financial statements as such taxes are recorded in the Company's accounts on a net basis.

The Company includes billable expenses in its accounts as both revenue and direct costs. These billable expenses totaled \$3.2 million, \$3.3 million, and \$4.0 million in 2018, 2017, and 2016, respectively.

## Fair Value

Fair value is defined as the exchange price that would be received for an asset or paid for a liability in the principal or most advantageous market for the asset or liability, in an orderly transaction between market participants. The Company utilizes a fair value hierarchy for its assets and liabilities, as applicable, based upon three levels of input, which are:

Level 1—quoted prices in active markets for identical assets or liabilities (observable)

Level 2—inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities, quoted prices in inactive markets, or other inputs that are observable or can be supported by observable market data for essentially the full term of the asset or liability (observable)

Level 3—unobservable inputs that are supported by little or no market activity, but are significant to determining the fair value of the asset or liability (unobservable)

At December 31, 2018 and 2017, the carrying amounts of the Company's cash of \$12.4 million and \$11.2 million, respectively, approximated fair value.

As described in Note 3 of the consolidated financial statements, the Company acquired 100% of the equity of Soft Company in the 2018 first quarter. Level 3 inputs were used to estimate the fair values of the assets acquired and liabilities assumed. The valuation techniques used to assign fair values to intangible assets included the relief-from-royalty method and excess earnings method. In addition, the Company has a contingent consideration liability related to the earn-out provision of which a portion will be payable in each period subject to the achievement by Soft Company of certain revenue and EBIT targets for fiscal 2017, 2018, and 2019. There is no payout if the achievement on either target is below a certain target threshold. The fair value of this contingent consideration is determined using level 3 inputs. The fair value assigned to the contingent consideration liability is determined using the real options method, which requires inputs such as revenue forecasts, EBIT forecasts, discount rate, and other market variables to assess the probability of Soft Company achieving the revenue and EBIT targets. The fair value as of the February 15, 2018 acquisition date was determined to be \$2.0 million. In the 2018 second quarter, the Company paid approximately \$0.9 million relating to the earn-out based on the achievement by Soft Company of certain revenue and EBIT targets for fiscal 2017. The fair value of the remaining contingent consideration liability was determined to be approximately \$1.5 million as of December 31, 2018. As such, the Company recorded \$0.5 and \$0.1 million of selling, general and administrative expense during the 2018 third and fourth quarters, respectively. Approximately \$1.1 million and \$0.4 million of the remaining contingent consideration liability is recorded in "other current liabilities" and "other long-term liabilities", respectively, on the December 31, 2018, consolidated balance sheet.

The Company is also allowed to elect an irrevocable option to measure, on a contract by contract basis, specific financial instruments and certain other items that are currently not being measured at fair value. The Company did not elect to apply the fair value provisions of this standard for any specific contracts during the years ended December 31, 2018 and 2017.

## **Life Insurance Policies**

The Company has purchased life insurance on the lives of a number of former employees who are plan participants in the non-qualified defined benefit Executive Supplemental Benefit Plan. In total, there are policies on 18 individuals, whose average age is 75 years old. These policies have generated cash surrender value, and the Company, prior to 2015, and then again in 2018, took loans against the policies.

The Company borrowed \$29.2 million against the cash surrender value of these life insurance policies during 2018. At December 31, 2018, these insurance policies have a gross cash surrender value of \$28.4 million, outstanding loans and interest totaling \$25.8 million, and a net cash surrender value of \$2.6 million. As December 31, 2017, these insurance policies, with no outstanding loans, had a cash surrender value of \$31.5 million.

At December 31, 2018 and 2017, the total death benefit for the remaining policies was approximately \$37.6 million and \$42.2 million, respectively. Currently, upon the death of all of the plan participants, the Company would expect to receive approximately \$11.6 million, and under current tax regulations, would record a non-taxable gain of approximately \$8.9 million.

Two former employees covered by these policies recently passed away, one in the 2018 third quarter and the other in the 2017 fourth quarter. The Company recorded non-taxable gains of approximately \$0.8 million and \$0.4 million in the respective quarters. The Company received approximately \$1.0 million in the 2018 fourth quarter for the 2018 death, and received approximately \$1.1 million in the 2018 first quarter for the 2017 death.

## **Cash and Cash Equivalents, and Cash Overdrafts**

For purposes of the statement of cash flows, cash and cash equivalents are defined as cash on hand, demand deposits, and short-term, highly liquid investments with a maturity of three months or less. As the Company does not fund its bank accounts for the checks it has written until the checks are presented to the bank for payment, the "change in cash overdraft, net" line item as presented on the consolidated statement of cash flows represents the increase or decrease in outstanding checks for a given period.

## **Trade Accounts Receivable**

Trade accounts receivable balances are received on average approximately 82 days from the date of invoice. Generally, the Company does not work on any projects where amounts due are expected to be received greater than one year from the date of the invoice. Accordingly, the recorded book value for the Company's accounts receivable equals fair value. Outstanding trade accounts receivable are generally considered past due when they remain unpaid after the contractual due date has passed. An allowance for doubtful accounts receivable (allowance) is established using management's judgment. Specific identification of balances that are significantly past due and where client payments have not been recently received are generally added to the allowance unless the Company has direct knowledge that the client intends to make payment. Additionally, any balances which relate to a client that has declared bankruptcy or ceased its business operations are added to the allowance at the amount not expected to be received.

The Company recorded a net bad debt recovery of less than \$0.1 million in 2018 and 2017. Bad debt expense, net of recoveries was approximately \$0.2 million in 2016.

## **Property, Equipment and Capitalized Software Costs**

Property and equipment are generally stated at historical cost less accumulated depreciation. Depreciation is computed using the straight-line method based on estimated useful lives of one year to 30 years, and begins after an asset has been placed into service. Leasehold improvements are generally depreciated over the shorter of the term of the lease or the useful life of the improvement. The cost of property or equipment sold or otherwise disposed of, along with related accumulated depreciation, is eliminated from the accounts, and the resulting gain or loss, if any, is reflected in current earnings. Maintenance and repairs are charged to expense when incurred, while significant improvements to existing assets are capitalized.

As of December 31, 2018 and 2017, the Company had capitalized costs relating to software projects developed for internal use. Amortization periods for these projects range from two to five years, and begin when the software, or enhancements thereto, is available for its intended use. Amortization periods are evaluated annually for propriety.

## Impairment of Long-Lived Assets and Long-Lived Assets to Be Disposed Of

Long-lived assets are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. When such circumstances exist, the recoverability of assets to be held and used is measured by a comparison of the carrying amount of an asset to future cash flows expected to be generated by the asset. If such assets are considered to be impaired, the impairment to be recognized is measured by the amount by which the carrying amount of the assets exceeds the fair value of the assets. Assets to be disposed of by sale, if any, are reported at the lower of the carrying amount or fair value less costs to sell. The Company does not have any long-lived assets that are impaired at December 31, 2018.

During 2017, the Company was in the process of negotiating the sale of its corporate administrative building. The Company classified the corporate administration building as held for sale and did not record depreciation expense relative to the corporate administrative building during the 2017 fourth quarter. The carrying value of the property was approximately \$1.6 million at December 31, 2017. In February 2018, the Company sold this property for \$1.8 million.

## Leases

The Company is obligated under a number of short and long-term operating leases, primarily for the rental of office space, office equipment, and for automobiles in our European operations. In instances where the Company has negotiated leases that contain rent holidays or escalation clauses, the expense for those leases is recognized monthly on a straight-line basis over the term of the lease.

## Goodwill

The goodwill recorded on the Company's consolidated balance sheet at December 31, 2018 relates to the acquisition of Soft Company in the 2018 first quarter. In accordance with current accounting guidance for "Intangibles - Goodwill and Other," the Company performs goodwill impairment testing at least annually (in the Company's fourth quarter), unless indicators of impairment exist in interim periods.

The changes in the carrying amount of goodwill for the year ended December 31, 2018 are as follows:

(amounts in thousands)

Balance at December 31, 2017	\$	—
Acquired goodwill		12,720
Foreign currency translation		(1,056)
Balance at December 31, 2018	\$	<u>11,664</u>

## Acquired Intangibles Assets

Acquired intangible assets at December 31, 2018 consist of the following:

(amounts in thousands)	Estimated Economic Life	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Trademarks	2 years	\$ 686	\$ 300	\$ 386
Customer relationships	13 years	5,951	401	5,550
Total		<u>\$ 6,637</u>	<u>\$ 701</u>	<u>\$ 5,936</u>

Estimated amortization expense for fiscal 2019 and the five succeeding fiscal years and thereafter is as follows (amounts in thousands):

Year	Annual Amortization
2019	\$ 801
2020	501
2021	458
2022	458
2023	458
Thereafter	3,260
Total	<u>\$ 5,936</u>

## Income Taxes

On December 22, 2017, the U.S. government enacted comprehensive tax legislation commonly referred to as the Tax Cuts and Jobs Act (the "Tax Act"). The Tax Act makes broad and complex changes to the U.S. tax code, including, but not limited to, (1) reducing the U.S. federal corporate tax rate from 35 percent to 21 percent; (2) requiring companies to pay a one-time transition tax on certain unrepatriated earnings of foreign subsidiaries; (3) generally eliminating U.S. federal income taxes on dividends from foreign subsidiaries; (4) requiring a current inclusion in U.S. federal taxable income of certain earnings of controlled foreign corporations; (5) eliminating the corporate alternative minimum tax (AMT) and changing how existing AMT credits can be realized; (6) creating the base erosion anti-abuse tax (BEAT), a new minimum tax; (7) creating a new limitation on deductible interest expense; and (8) changing rules related to uses and limitations of net operating loss carryforwards created in tax years beginning after December 31, 2017.

Accounting Standards Codification (ASC) 740, Income Taxes, requires companies to recognize the effect of the tax law changes in the period of enactment. However, the SEC staff issued Staff Accounting Bulletin (SAB) 118, which allows companies to record provisional amounts during a measurement period that is similar to the measurement period used when accounting for business combinations. The Company recorded reasonable estimates when possible in 2017 with the understanding that provisional amounts would be finalized during the measurement period.

As a result, the Company has completed its accounting for the provisions of the Tax Act as follows:

- A. **Deferred tax assets and liabilities:** The Company remeasured certain deferred tax assets and liabilities based on the federal rate at which they are expected to reverse in the future, which is generally 21%. The Company also remeasured the state rate at which certain deferred tax assets and liabilities are expected to reverse in the future associated with the reduction in the future federal benefit from state deferred tax assets and liabilities from 34% to 21%. The provisional amount recorded related to the remeasurement of the Company's deferred tax balance was a tax expense of \$1.7 million. The Company has concluded its analysis of all aspects of the Tax Act relating to compensation expense and determined that there is no adjustment needed to the provisional amount at December 31, 2018. Since there is no change from the provisional amount, there are no measurement period adjustments recorded with respect to this item.
- B. The Company made a policy election with respect to its treatment of potential global intangible low-taxed income (GILTI) to account for taxes on GILTI as incurred at December 31, 2018.
- C. **Foreign tax effects:** The one-time transition tax is based on the Company's total post-1986 earnings and profits (E&P) that were previously deferred from U.S. income taxes. The Company recorded a provisional amount of zero as of December 31, 2017, based on the Company's estimation that accumulated post-1986 earnings of the Company's foreign subsidiaries is less than zero. As of September 28, 2018, the Company has completed its analysis of the accumulated post-1986 earnings of the Company's foreign subsidiaries, and has confirmed that the aggregate amount of such earnings is less than zero. Accordingly, the Company has determined that the final amount of the transition tax liability is zero. Since there is no change from the provisional amount, there are no measurement period adjustments recorded with respect to this item.

The Company has not recorded a U.S. deferred tax liability for the excess book basis over the tax basis of its investments in foreign subsidiaries as these amounts continue to be indefinitely reinvested in foreign operations.

The Company provides for deferred income taxes for the temporary differences between the financial reporting basis and the tax basis of the Company's assets and liabilities. In assessing the realizability of deferred tax assets, management considers within each tax jurisdiction, whether it is more likely than not that some portion or all of the deferred tax assets will not be realized, or that a valuation allowance is required. Management considers the scheduled reversal of deferred tax liabilities, projected future taxable income, and tax-planning strategies in making this assessment. Based on the Company's recent history of US losses for tax purposes and uncertain profitability in future years and assessment of the factors discussed above, management has determined that it is more likely than not that it will not realize its U.S. deferred tax assets, and accordingly a full valuation allowance has been recorded against these assets. Additionally, management has determined that a valuation allowance is no longer necessary against its U.K. and India deferred tax assets. The total valuation allowance recorded against these deferred tax assets is \$5.6 million, a net increase of \$3.1 million during the year, which was recorded as income tax expense in the consolidated statement of operations. The valuation allowance is further discussed in note 5, "Income Taxes." The Company recognizes, as applicable, accrued interest and penalties related to unrecognized tax benefits (if any) in tax expense.

The Company establishes an unrecognized tax benefit based upon the anticipated outcome of tax positions taken for financial statement purposes compared with positions taken on the Company's tax returns. The Company records the benefit for unrecognized tax benefits only when it is more likely than not that the position will be sustained upon examination by the taxing authorities. The Company reviews its unrecognized tax benefits on a quarterly basis. Such reviews include consideration of factors such as the cause of the action, the degree of probability of an unfavorable outcome, the Company's ability to estimate the liability, and the timing of the liability and how it will impact the Company's other tax attributes.

In January 2018, the FASB issued ASU 2018-02, Income Statement – Reporting Comprehensive Income (Topic 220). Reclassification of Certain Tax Effects from accumulated other comprehensive income (AOCI), which gives entities the option to reclassify to retained earnings the tax effects resulting from the Tax Act related to items in AOCI that the FASB refers to as having been stranded in AOCI. The Company must adopt this guidance for fiscal years beginning after December 15, 2018 and interim periods within those fiscal years. The guidance requires new disclosures regarding a company's accounting policy for releasing the tax effects in AOCI and permits the company the option to reclassify to retained earnings the tax effects resulting from the Tax Act that are stranded in AOCI. The Company reclassified approximately \$0.3 million to retained earnings due to the adoption of ASU 2018-02 in the 2018 fourth quarter.

### Equity-Based Compensation

The Company records the fair value of equity-based compensation expense for all equity-based compensation awards granted and recognizes the cost in the Company's income statement over the periods in which an employee or director is required to provide the services for the award. Compensation cost is not recognized for employees or directors that do not render the requisite services. The Company recognized the expense for equity-based compensation in its 2018, 2017, and 2016 statements of operations on a straight-line basis based upon awards that are ultimately expected to vest. See note 10, "Equity-Based Compensation."

### Net Income (Loss) Per Share

Basic and diluted earnings (loss) per share (EPS) for the years ended December 31, 2018, 2017, and 2016 are as follows:

For the year ended	Net Income (loss)	Weighted Average Shares	Earnings (loss) per Share
(amounts in thousands, except per-share data)			
<b>December 31, 2018</b>			
Basic EPS	\$ (2,817)	13,805	\$ (0.20)
Dilutive effect of outstanding equity instruments	—	—	—
Diluted EPS	<u>\$ (2,817)</u>	<u>13,805</u>	<u>\$ (0.20)</u>
<b>December 31, 2017</b>			
Basic EPS	\$ 806	15,055	\$ 0.05
Dilutive effect of outstanding equity instruments	—	269	—
Diluted EPS	<u>\$ 806</u>	<u>15,324</u>	<u>\$ 0.05</u>
<b>December 31, 2016</b>			
Basic EPS	\$ (34,638)	15,593	\$ (2.22)
Dilutive effect of outstanding equity instruments	—	—	—
Diluted EPS	<u>\$ (34,638)</u>	<u>15,593</u>	<u>\$ (2.22)</u>

Weighted-average shares represent the average number of issued shares less treasury shares and shares held in the Stock Trusts in 2016, and for the basic EPS calculations, unvested restricted stock.

Certain options representing 1.1 million, 1.2 million, and 1.9 million shares of common stock were outstanding at December 31, 2018, 2017, and 2016, respectively, but were not included in the computation of diluted earnings per share as their effect on the computation would have been anti-dilutive.

## Accumulated Other Comprehensive Loss

The components that comprised accumulated other comprehensive loss on the consolidated balance sheets at December 31, 2018 and 2017 are as follows:

(amounts in thousands)	2018	2017
Foreign currency translation adjustment, net of taxes	\$ (8,022)	\$ (5,963)
Implementation of accounting standards	(263)	—
Pension loss, net of tax of \$0 in 2018, and \$527 in 2017	(6,326)	(7,713)
Accumulated other comprehensive loss	<u>\$ (14,611)</u>	<u>\$ (13,676)</u>

During 2018, 2017, and 2016, actuarial losses were amortized to expense as follows:

(amounts in thousands)	2018	2017	2016
Amortization of actuarial losses	\$ 277	\$ 322	\$ 285
Income tax	—	(57)	(63)
Net of tax	<u>\$ 277</u>	<u>\$ 265</u>	<u>\$ 222</u>

The amortization of actuarial losses is included in determining net periodic pension cost. See note 7, "Deferred Compensation Benefits" for additional information.

## Foreign Currency

The functional currency of the Company's foreign subsidiaries is the applicable local currency. The translation of the applicable foreign currencies into U.S. dollars is performed for assets and liabilities using current exchange rates in effect at the balance sheet date, for equity accounts using historical exchange rates, and for revenue and expense activity using the applicable month's average exchange rates. The Company recorded nominal losses in 2018, 2017, and 2016 from foreign currency transactions for balances settled during the year or intended to be settled as of each respective year-end.

## Guarantees

The Company has a number of guarantees in place in our European operations which support office leases and performance under government projects. These guarantees totaled approximately \$2.7 million and \$1.1 million at December 31, 2018 and 2017, respectively, and generally have expiration dates ranging from January 2019 through December 2024.

## Recently Issued Accounting Standards

In May 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update No. 2014-09, "Revenue from Contracts with Customers (Topic 606)," ("ASU 2014-09"). On January 1, 2018, the Company adopted Topic 606 using the cumulative effect method and applied the requirements of the new standard to only projects that were open as of January 1, 2018. Results for the reporting periods beginning after January 1, 2018 are presented under Topic 606, while prior period amounts are not adjusted and continue to be reported in accordance with our historic accounting under Topic 605.

The Company recorded a net positive adjustment to beginning retained earnings of less than \$0.1 million and a corresponding amount to unbilled receivables as of January 1, 2018 due to the cumulative impact of adopting Topic 606, primarily related to a change in the identification of performance obligations on certain projects. In addition, the Company evaluated its principal and agent conclusions when more than one party is involved in providing goods or service to a customer. The Company recorded approximately \$4.6 million, or 1.3% of our 2018 year-to-date revenue on a gross basis, which would have been recorded on a net basis under our historic accounting under Topic 605. The Company reported \$358.8 million of revenue in 2018 under Topic 606 and the Company would have reported approximately \$354.2 million of revenue under Topic 605.

In February 2016, the FASB issued ASU 2016-02, "Leases (Topic 842)," which sets out the principles for the recognition, measurement, presentation and disclosure of leases for both parties to a contract (i.e. lessees and lessors). The new standard requires lessees to apply a dual approach, classifying leases as either finance or operating leases based on the principle of whether or not the lease is effectively a financed purchase by the lessee. This classification will determine whether lease expense is recognized based on an effective interest method or on a straight line basis over the

term of the lease, respectively. A lessee is also required to record a right-of-use asset and a lease liability for all leases with a term of greater than 12 months regardless of their classification. Leases with a term of 12 months or less will be accounted for similar to existing guidance for operating leases today. Topic 842 supersedes the previous leases standard, ASC 840, Leases. This guidance is effective for reporting periods beginning after December 15, 2018; however, early adoption is permitted. The Company will adopt the new lease standard on January 1, 2019 using the modified retrospective transition approach and will elect the transition method to apply the new lease standard as of the January 1, 2019 adoption date. The Company will continue to report and present comparative periods prior to the adoption date in accordance with ASC 840, including disclosures. The new standard provides a number of optional practical expedients in transition. The Company expects to elect the 'package of practical expedients', which permits the Company not to reassess under the new standard prior conclusions about lease identification, lease classification and initial direct costs. The Company also expects to elect the use-of-hindsight practical expedient and it does not expect to elect the practical expedient pertaining to land easements, as it is not applicable. The Company expects a material increase in our assets and liabilities due to the recognition of right-of-use assets and lease liabilities. However, the Company does not expect the new lease standard to have a material impact on its consolidated statements of operations and its consolidated statements of cash flows. The Company does not expect the new lease standard to affect its compliance with financial covenants associated with its debt agreement.

In March 2017, the FASB issued ASU 2017-07, "Compensation – Retirement Benefits (Topic 715)," which requires that an employer report the service cost component in the same line item or items as other compensation costs arising from services rendered by the pertinent employees during the period. The other components of net benefit cost are required to be presented in the income statement separately from the service cost component and outside a subtotal of income from operations, if one is presented. The amendments in this Update are effective for public business entities for annual periods beginning after December 15, 2017, including interim periods within those annual periods. The amendments in this Update should be applied retrospectively for the presentation of the service cost component and the other components of net periodic pension cost and net periodic postretirement benefit cost in the income statement. The Company has adopted this standard and has applied it retrospectively in the 2018 first quarter. Upon adoption, the Company increased direct costs by approximately \$0.1 million and reduced selling, general, and administrative expenses by \$0.3 million and increased interest and other expenses by approximately \$0.2 million for the 2017 year-to-date period. The Company also reduced selling, general, and administrative expenses by \$0.4 million with a corresponding increase to interest and other expenses for the 2016 year-to-date period.

In January 2018, the FASB issued ASU 2018-02, "Income Statement – Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from accumulated other comprehensive income (AOCI)," which gives entities the option to reclassify to retained earnings the tax effects resulting from the Act related to items in AOCI that the FASB refers to as having been stranded in AOCI. The Company must adopt this guidance for fiscal years beginning after December 15, 2018 and interim periods within those fiscal years. The guidance, when adopted, will require new disclosures regarding a company's accounting policy for releasing the tax effects in AOCI and permit the company the option to reclassify to retained earnings the tax effects resulting from the Act that are stranded in AOCI. The Company reclassified approximately \$0.3 million to retained earnings due to the adoption of ASU 2018-02 in the 2018 fourth quarter.

### **Subsequent Event**

On February 6, 2019, the Company acquired 100% of the equity of Tech-IT PSF S.A. for approximately \$9.7 million. The acquisition was funded using cash on hand and borrowings under the Credit and Security Agreement. The Luxembourg-based Tech-IT is a leading provider of software and hardware services, including consulting, infrastructure and software design and development, infrastructure integration, project management, and training. The acquisition of Tech-IT is expected to enable the Company to strengthen its market position in Luxembourg and broaden its portfolio to offer complete end-to-end IT solutions.

## 2. Property, Equipment and Capitalized Software

Property, equipment and capitalized software at December 31, 2018 and 2017 are summarized as follows:

December 31, (amounts in thousands)	Useful Life (years)	2018	2017
Land	—	\$ 50	\$ 378
Buildings	30	1,808	4,596
Equipment	2 - 5	5,608	5,451
Furniture	5 - 10	2,433	2,738
Capitalized software	2 - 5	1,864	1,960
Other software	1 - 5	2,174	2,308
Leasehold improvements	3 - 10	4,355	5,578
		18,292	23,009
Accumulated depreciation and amortization		(12,636)	(16,013)
		<u>\$ 5,656</u>	<u>\$ 6,996</u>

The Company recorded additions to capitalized software of \$0.2 million and \$1.0 million during the years ended December 31, 2018 and December 31, 2017, respectively, and disposals of \$0.3 million and \$0.0 million, respectively. As of these dates the Company had capitalized a total of \$1.9 million and \$2.0 million, respectively, solely for software projects developed for commercial use. Accumulated amortization for these projects totaled \$0.7 million and \$0.6 million as of December 31, 2018 and 2017, respectively. Amortization expense for these projects totaled \$0.5 million, \$0.3 million, and \$0.2 million in 2018, 2017, and 2016, respectively.

## 3. Acquisitions

On February 15, 2018, the Company acquired 100% of the equity of Soft Company for approximately \$16.9 million (13.6 million based on a EUR into USD exchange rate of 1.2392). The acquisition was funded using cash on hand and borrowings under the Company's existing credit agreement. Soft Company, located in Paris, France, is an IT consulting company that specializes in providing IT services to finance, insurance, telecom, and media services companies. The acquisition of Soft Company is expected to enable the Company to expand its position in Europe and enhance its service offerings.

The Company has a contingent consideration liability related to an earn-out provision of which a portion will be payable in each period subject to the achievement by Soft Company of certain revenue and EBIT targets for fiscal 2017, 2018, and 2019. There is no payout if the achievement on either target is below a certain target threshold. The fair value as of the February 15, 2018 acquisition date was determined to be \$2.0 million. In the 2018 second quarter, the Company paid approximately \$0.9 million relating to the earn-out based on the achievement by Soft Company of certain revenue and EBIT targets for fiscal 2017. The fair value of the remaining contingent consideration liability was determined to be approximately \$1.5 million as of December 31, 2018. As such, the Company recorded \$0.5 million and \$0.1 million of selling, general and administrative expense during the 2018 third and fourth quarters, respectively. Approximately \$1.1 million and \$0.4 million of the remaining contingent consideration liability is recorded in "other current liabilities" and "other long-term liabilities", respectively, on the December 31, 2018, consolidated balance sheet.

The acquisition date fair value of the consideration for the above transaction consisted of the following as of February 15, 2018:

(amounts in thousands)	
Cash consideration	\$ 16,910
Fair value of contingent consideration	1,997
Fair value of purchase consideration	<u>\$ 18,907</u>



The following tables summarizes the allocation of the aggregate purchase consideration to the fair values of the assets acquired and liabilities assumed as of February 15, 2018:

(amounts in thousands)

<b>Assets Acquired:</b>	
Cash	\$ 4,059
Accounts receivable	5,551
Prepays & other	243
Property & equipment, net	53
Acquired intangibles	7,238
Goodwill	12,720
<b>Total assets acquired</b>	<b>\$ 29,864</b>
<b>Liabilities Assumed:</b>	
Accounts payable	\$ 4,085
Accrued compensation	2,669
Other short-term liabilities	2,006
Deferred income taxes	1,827
Other long-term liabilities	370
<b>Total liabilities assumed</b>	<b>\$ 10,957</b>
<b>Net assets acquired</b>	<b>\$ 18,907</b>

The purchase consideration for the acquisition was allocated to the assets acquired and liabilities assumed based upon their respective fair values. The excess consideration was recorded as goodwill, which is not deductible for income tax purposes. The goodwill balance of \$12.7 million reflects a decrease of approximately \$0.5 million from which was recorded at September 28, 2018. The decrease is due to an adjustment to the amount of consideration allocated to deferred tax assets and liabilities.

The intangible assets acquired in this acquisition consisted of the following:

(amounts in thousands)	Fair Value	Estimated Economic Life
Trademarks	\$ 749	2 years
Customer relationships	6,489	13 years
<b>Fair value of purchase consideration</b>	<b>\$ 7,238</b>	

The results of operations of Soft Company have been included in the Company's consolidated financial results since the date of acquisition. As the Company has determined that the acquisition is not material to its existing operations, certain disclosures, including pro forma financial information, have not been included in this annual report on Form 10-K. The Company incurred acquisition-related legal and consulting fees, adjustments to the fair value of the earn-out liability, and amortization of intangible assets of approximately \$2.0 million in 2018, which were recorded as a component of selling, general, and administrative expenses in the consolidated statement of operations. Acquisition-related legal and consulting fees include fees incurred for the acquisition of Soft Company and Tech-IT. The acquisition of Tech-IT is further discussed in the "Subsequent Event" section of note 1.

#### 4. Debt

In December 2017, the Company entered into a new credit and security agreement (the "Credit and Security Agreement") with its bank, which provides for a three-year revolving credit facility in an aggregate principal amount of \$45.0 million, including a sublimit of \$10.0 million for letters of credit and a \$10.0 million sublimit for swing line loans. In connection with the execution of the Credit and Security Agreement, the Company concurrently repaid in full and terminated the credit agreement dated October 30, 2015.

The Credit and Security Agreement expires in December 2020, and has interest rates ranging from 150 to 200 basis points over LIBOR or the greater of (i) the prime rate, (ii) the federal fund effective rate plus 50 basis points, and (iii) adjusted LIBOR plus 100 basis points plus a spread ranging from 50 to 100 basis points based on the amounts outstanding under the Credit and Security Agreement. The Company can borrow under the agreement with either rate at its discretion. At December 31, 2018 and 2017, there was \$3.6 million and \$4.4 million outstanding under the Credit and

Security Agreement. The Company borrows or repays its debt as needed based upon its working capital obligations, including the timing of the U.S. bi-weekly payroll.

The maximum amount outstanding under its credit agreements in 2018 and 2017 was \$12.8 million and \$6.0 million, respectively. In 2018 and 2017, the average amounts outstanding were \$4.1 million and \$2.2 million, respectively, and carried weighted-average interest rates of 3.4% and 3.0%, respectively. Total commitment fees incurred in 2018 and 2017 totaled approximately \$0.3 million and \$0.1 million, respectively, while interest paid in 2018 and 2017 totaled \$0.2 million and less than \$0.1 million, respectively.

Under the new agreement, the Company is required to meet certain financial covenants in order to maintain borrowings under its revolving credit line, pay dividends, and make acquisitions. The covenants are measured quarterly, and at December 31, 2018, included a fixed charge coverage ratio, which must be less than 1.10 to 1.00, consolidated earnings before interest, taxes, depreciation, and amortization (EBITDA), adjusted for equity-based compensation and severance expense, must be no less than \$5.0 million for the trailing twelve months, and capital expenditures for property, plant, equipment, and capitalized software must be no more than \$5.0 million in any annual period. The fixed charge coverage ratio is only tested if availability on a measurement date is less than \$5.625 million. Actual borrowings by CTG under the Credit and Security Agreement are subject to a borrowing base, which is a formula based on certain eligible receivables and reserves. Total availability as of December 31, 2018 was approximately \$30.6 million. The Company was in compliance with these covenants at December 31, 2018 as EBITDA, as defined above, was \$8.0 million and capital expenditures for property, equipment and capitalized software were \$2.2 million in 2018. The Company was also in compliance with its covenants at December 31, 2017 and December 31, 2016.

## 5. Income Taxes

On December 22, 2017, the U.S. government enacted comprehensive tax legislation commonly referred to as the Tax Cuts and Jobs Act (the "Tax Act"), The Tax Act makes broad and complex changes to the U.S. tax code, including, but not limited to, (1) reducing the U.S. federal corporate tax rate from 35 percent to 21 percent; (2) requiring companies to pay a one-time transition tax on certain unrepatriated earnings of foreign subsidiaries; (3) generally eliminating U.S. federal income taxes on dividends from foreign subsidiaries; (4) requiring a current inclusion in U.S. federal taxable income of certain earnings of controlled foreign corporations; (5) eliminating the corporate alternative minimum tax (AMT) and changing how existing AMT credits can be realized; (6) creating the base erosion anti-abuse tax (BEAT), a new minimum tax; (7) creating a new limitation on deductible interest expense; and (8) changing rules related to uses and limitations of net operating loss carryforwards created in tax years beginning after December 31, 2017.

Accounting Standards Codification (ASC) 740, Income Taxes, requires companies to recognize the effect of the tax law changes in the period of enactment. However, the SEC staff issued Staff Accounting Bulletin (SAB) 118, which allows companies to record provisional amounts during a measurement period that is similar to the measurement period used when accounting for business combinations. The Company recorded reasonable estimates when possible in 2017 with the understanding that provisional amounts would be finalized during the measurement period.

As a result, the Company has completed its accounting for the provision of the Tax Act as follows:

- A. **Deferred tax assets and liabilities:** The Company remeasured certain deferred tax assets and liabilities based on the federal rate at which they are expected to reverse in the future, which is generally 21%. The Company also remeasured the state rate at which certain deferred tax assets and liabilities are expected to reverse in the future associated with the reduction in the future federal benefit from state deferred tax assets and liabilities from 34% to 21%. The provisional amount recorded related to the remeasurement of the Company's deferred tax balance was a tax expense of \$1.7 million. The Company has concluded its analysis of all aspects of the Tax Act relating to compensation expense and determined that there is no adjustment needed to the provisional amount at December 31, 2018. Since there is no change from the provisional amount, there are no measurement period adjustments recorded with respect to this item.
- B. The Company made a policy election with respect to its treatment of potential global intangible low-taxed income (GILTI) to account for taxes on GILTI as incurred at December 31, 2018.
- C. **Foreign tax effects:** The one-time transition tax is based on the Company's total post-1986 earnings and profits (E&P) that were previously deferred from U.S. income taxes. The Company recorded a provisional amount of zero as of December 31, 2017, based on the Company's estimation that accumulated post-1986 earnings of the Company's foreign subsidiaries is less than zero. As of September 28, 2018, the Company has completed its analysis of the accumulated post-1986 earnings of the Company's foreign subsidiaries, and has confirmed that

the aggregate amount of such earnings is less than zero. Accordingly, the Company has determined that the final amount of the transition tax liability is zero. Since there is no change from the provisional amount, there are no measurement period adjustments recorded with respect to this item.

The Company has not recorded a U.S. deferred tax liability for the excess book basis over the tax basis of its investments in foreign subsidiaries as these amounts continue to be indefinitely reinvested in foreign operations.

In January 2018, the FASB issued ASU 2018-02, "Income Statement – Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from accumulated other comprehensive income (AOCI)," which gives entities the option to reclassify to retained earnings the tax effects resulting from the Tax Act related to items in AOCI that the FASB refers to as having been stranded in AOCI. The Company must adopt this guidance for fiscal years beginning after December 15, 2018 and interim periods within those fiscal years. The guidance requires new disclosures regarding a company's accounting policy for releasing the tax effects in AOCI and permits the company the option to reclassify to retained earnings the tax effects resulting from the Tax Act that are stranded in AOCI. The Company reclassified approximately \$0.3 million to retained earnings due to the adoption of ASU 2018-02 in the 2018 fourth quarter.

The provision for income taxes for 2018, 2017, and 2016 consists of the following:

	2018	2017	2016
(amounts in thousands)			
<b>Domestic and foreign components of income (loss) before income taxes are as follows:</b>			
Domestic	\$ (1,119)	\$ 591	\$ (35,100)
Foreign	3,388	3,466	1,564
Total income (loss) before income taxes	<u>\$ 2,269</u>	<u>\$ 4,057</u>	<u>\$ (33,536)</u>
<b>The provision (benefit) for income taxes consists of:</b>			
Current tax:			
U.S. federal	\$ 16	\$ (570)	\$ 47
Foreign	1,937	1,458	1,533
U.S. state and local	107	116	101
Total current tax	<u>2,060</u>	<u>1,004</u>	<u>1,681</u>
Deferred tax:			
Enactment of the Tax Cuts and Jobs Act	\$ —	\$ 1,704	\$ —
U.S. federal	3,939	347	(584)
Foreign	(784)	(25)	28
U.S. state and local	(129)	221	(23)
Total deferred tax	<u>3,026</u>	<u>2,247</u>	<u>(579)</u>
Total tax	<u>\$ 5,086</u>	<u>\$ 3,251</u>	<u>\$ 1,102</u>
<b>The effective and statutory income tax rate can be reconciled as follows:</b>			
Tax at statutory rate	\$ 476	\$ 1,379	\$ (11,402)
State tax, net of federal benefit	(12)	212	47
Non-taxable income	(300)	(573)	(495)
Non-deductible expenses	607	971	13,465
Change in estimate primarily related to foreign taxes	(767)	(69)	46
Change in valuation allowance related to U.S. federal taxes	4,154	—	—
Tax credits	(389)	(289)	(552)
Enactment of the Tax Cuts and Jobs Act	—	1,704	—
GILTI	662	—	—
Foreign rate differential	608	(164)	(46)
Other, net	47	80	39
Total tax	<u>\$ 5,086</u>	<u>\$ 3,251</u>	<u>\$ 1,102</u>
Effective income tax rate	224.2%	80.1%	(3.3)%

The ETR was higher in 2018 primarily due to the recording of a valuation allowance against the companies US deferred tax assets and GILTI. This additional tax expense was partially offset by a non-taxable life insurance gain, the

Tax Cuts and Jobs Act which reduced the US federal corporate tax rate to 21%, and tax benefits for the Work Opportunity Tax Credit (WOTC) and Research and Development tax credit (R&D).

The ETR was higher in 2017 primarily due to the effects of the Tax Cuts & Jobs Act and the adoption of ASU 2016-09, "Improvements to Employee Share-Based Payment Accounting," which required the Company to record additional tax expense for shortfalls that would previously have been recorded to capital in excess of par value on the Company's consolidated balance sheet. This additional tax expense was partially offset by tax benefits for the Work Opportunity Tax Credit (WOTC) and Research and Development tax credit (R&D).

The Company's deferred tax assets and liabilities at December 31, 2018 and 2017 consist of the following:

December 31, (amounts in thousands)	2018	2017
<b>Assets</b>		
Deferred compensation	\$ 4,025	\$ 4,348
Loss and credit carryforwards	1,735	1,362
Accruals deductible for tax purposes when paid	189	247
State taxes	558	556
Depreciation	30	15
Unrealized gain	184	—
Other	31	39
Gross deferred tax assets	6,752	6,567
Deferred tax asset valuation allowance	(5,590)	(2,505)
Gross deferred tax assets less valuation allowance	1,162	4,062
<b>Liabilities</b>		
Amortization	(1,433)	—
Depreciation	(393)	(197)
Deferred compensation	(201)	(32)
Gross deferred tax liabilities	(2,027)	(229)
Net deferred tax assets (liabilities)	\$ (865)	\$ 3,833
Net deferred tax assets and liabilities are recorded as follows:		
Net non-current assets	\$ 767	\$ 3,861
Net non-current liabilities	(1,632)	(28)
Deferred tax assets, net of deferred tax liabilities	\$ (865)	\$ 3,833

The significant decrease in net deferred tax assets is due to the Company recording a valuation allowance against its U.S. deferred tax assets of \$4.1 million. In assessing the realizability of deferred tax assets, management considers, within each taxing jurisdiction, whether it is more likely than not that all or some portion of the deferred tax assets will be realized, or that a valuation allowance is required. Management considers all available evidence, both positive and negative, in assessing realizability of its deferred tax assets. A key component of this assessment is management's critical evaluation of current and future impacts of business and economic factors on the Company's ability to generate future taxable income. Factors that may affect the Company's ability to generate taxable income include, but are not limited to: increased competition, a decline in revenue or margins, a loss of market share, the availability of qualified professional staff, and a decrease in demand for the Company's services. Based on the Company's recent history of US losses for tax purposes and uncertain profitability in future years and assessment of the factors discussed above, management has determined that it is more likely than not that it will not realize its U.S. deferred tax assets, and accordingly a full valuation allowance has been recorded against these assets. Additionally, management has determined that a valuation allowance is required against its Netherlands deferred taxes, but are no longer necessary against its U.K. and India deferred tax assets. The total valuation allowance recorded against these deferred tax assets is \$5.6 million, a net increase of \$3.1 million during the year, which was recorded as income tax expense in the consolidated statement of operations.

The Company has various U.S. state net operating loss carryforwards of \$0.3 million, which begin to expire in 2021. The Company has U.S. federal credit carryovers of \$0.7 million, which begin to expire in 2037. The Company has net operating loss carryforwards in the Netherlands, United Kingdom, and Belgium of \$0.5 million, \$3.3 million, and \$0.3 million, respectively. The carryforwards in the Netherlands expire between 2019 and 2025, and the carryforwards in the United Kingdom and Belgium have no expiration date.

The Company files income tax returns in the U.S. federal jurisdiction, and various states and foreign jurisdictions. With few exceptions, the Company is no longer subject to U.S. federal, state and local, or non-U.S. income tax examinations by tax authorities for years prior to 2015.

At December 31, 2018, the Company believes it has adequately provided for its tax-related liabilities, and that no reserve for unrecognized tax benefits is necessary. No significant change in the total amount of unrecognized tax benefits is expected within the next twelve months. The Company recognizes accrued interest and penalties related to unrecognized tax benefits (if any) in tax expense, as applicable. At December 31, 2018, the Company had no accrual for the payment of interest and penalties.

During 2018 and 2017, the Company recorded approximately \$0.1 million of tax benefit and approximately \$0.3 million of additional tax expense, respectively, for tax windfalls and shortfalls that would previously have been recorded in excess of par value. In 2016, the Company recorded approximately \$0.2 million of tax expense to capital in excess of par value. These tax benefits have also been recognized in the consolidated balance sheets as an increase (reduction) of income taxes payable.

Net income tax payments during 2018, 2017, and 2016 totaled \$2.1 million, \$1.6 million, and \$2.1 million, respectively.

## 6. Lease Commitments

At December 31, 2018, the Company was obligated under a number of long-term operating leases, some of which contain renewal options with escalation clauses commensurate with local market fluctuations, however, generally limiting an annual increase to no more than 5.0% of the existing lease payment.

Minimum future obligations under such leases as of December 31, 2018 are summarized as follows:

(amounts in thousands)

2019	\$	5,586
2020		4,420
2021		3,050
2022		2,166
2023		1,411
Later years		1,192
Minimum future obligations	\$	<u>17,825</u>

The operating lease obligations relate to the rental of office space, office equipment, and automobiles leased in Europe. Total rental expense under such operating leases for 2018, 2017, and 2016 was approximately \$6.6 million, \$5.9 million, and \$5.7 million, respectively.

## 7. Deferred Compensation Benefits

The Company maintains a non-qualified defined-benefit Executive Supplemental Benefit Plan (ESBP) that provides certain former key executives with deferred compensation benefits, based on years of service and base compensation, payable during retirement. The plan was amended as of November 30, 1994, to freeze benefits for the participants in the plan at that time.

The Company also retained certain potential obligations related to a contributory defined-benefit plan for its previous employees located in the Netherlands (NDBP) when the Company disposed of its subsidiary, CTG Nederland, B.V. Benefits paid are a function of a percentage of career average pay. This plan was curtailed for additional contributions in January 2003.

The Company also maintains a fully funded pension plan related to Belgium employees (BDBP). This is a plan with active employees and the Company expects to make future contributions.

As a result of the acquisition of Soft Company on February 15, 2018, the Company maintains an unfunded pension plan related to the current Soft Company employees (FDBP). The Company did not make contributions to this plan in

2018 and does not anticipate making contributions to the plan in 2019. No benefit payments were made in 2018 and none are expected to be paid in 2019.

Net periodic pension cost for the years ended December 31, 2018, 2017, and 2016 for the plans is as follows:

Net Periodic Pension Cost (amounts in thousands)	2018	2017	2016
Service cost	\$ 340	\$ 263	\$ -
Interest cost	581	553	483
Expected return on assets	(650)	(597)	(286)
Amortization of actuarial loss	287	328	292
Net periodic pension cost	<u>\$ 558</u>	<u>\$ 547</u>	<u>\$ 489</u>

The change in benefit obligation and reconciliation of fair value of plan assets for the years ended December 31, 2018 and 2017 for the ESBP, NDBP, BDBP, and FDBP plans are as follows:

Changes in Benefit Obligation (amounts in thousands)	2018	2017
Benefit obligation at beginning of period	\$ 29,498	\$ 28,460
Service cost	343	263
Interest cost	580	553
Benefits paid	(711)	(1,066)
Acquisition	350	—
Actuarial loss (gain)	(821)	(1,568)
Effect of exchange rate changes	(1,642)	2,856
Benefit obligation at end of period	27,597	29,498
<b>Reconciliation of Fair Value of Plan Assets</b>		
Fair value of plan assets at beginning of period	17,690	15,379
Actual return on plan assets	365	69
Employer contributions	1,181	1,152
Benefits paid	(1,008)	(1,052)
Effect of exchange rate changes	(825)	2,142
Fair value of plan assets at end of period	<u>17,403</u>	<u>17,690</u>
Accrued benefit cost	<u>\$ 10,194</u>	<u>\$ 11,808</u>

Accrued benefit cost for the ESBP, NDBP, BDBP, and FDBP is included in the consolidated balance sheet as follows:

	ESBP	NDBP	BDBP	FDBP
<b>As of December 31, 2018:</b>				
Non-current assets	\$ —	\$ —	\$ 92	\$ —
Current liabilities	\$ 581	\$ —	\$ —	\$ —
Non-current liabilities	\$ 4,596	\$ 4,747	\$ —	\$ 363
Discount rates:				
Benefit obligation	3.76%	1.90%	1.75%	1.60%
Net periodic pension cost	3.06%	1.80%	1.65%	1.45%
Salary increase rate	—%	—%	1.80%	1.75%
Expected return on plan assets	—%	4.00%	3.25%	—%
<b>As of December 31, 2017:</b>				
Non-current assets	\$ —	\$ —	\$ 96	\$ —
Current liabilities	\$ 659	\$ —	\$ —	\$ —
Non-current liabilities	\$ 5,750	\$ 5,495	\$ —	\$ —
Discount rates:				
Benefit obligation	3.06%	1.80%	1.62%	—%
Net periodic pension cost	3.41%	1.30%	1.65%	—%
Salary increase rate	—%	—%	1.80%	—%
Expected return on plan assets	—%	4.00%	3.25%	—%

For the ESBP, the accumulated benefit obligation at December 31, 2018 and 2017 was \$5.2 million and \$6.4 million, respectively. The amounts included in other comprehensive loss relating to the pension loss adjustment in 2018 and 2017, net of tax, were approximately \$(0.3) million and \$(0.4) million, respectively. The discount rate used in 2018 was 3.76%, which is reflective of a series of bonds that are included in the Moody's Aa long-term corporate bond yield whose cash flow approximates the payments to participants under the ESBP for the remainder of the plan. This rate was an increase of 70 basis points from the rate used in the prior year and resulted in a decrease in the plan's liabilities of \$1.2 million. Benefits paid to participants are funded by the Company as needed, and are expected to total approximately \$0.6 million in 2019. The plan is deemed unfunded as the Company has not specifically identified Company assets to be used to discharge the deferred compensation benefit liabilities. The Company has purchased insurance on the lives of certain plan participants in amounts considered sufficient to reimburse the Company for the costs associated with the plan for those participants. The Company does not anticipate making contributions to the plan other than for current year benefit payments as required in 2019 or future years.

For the NDBP, the accumulated benefit obligation at December 31, 2018 and 2017 was \$12.2 million and \$13.4 million, respectively. The discount rate used in 2018 was 1.90%, which is reflective of a series of corporate bonds whose cash flow approximates the payments to participants under the NDBP for the remainder of the plan. This rate was an increase of 10 basis points from the rate used in the prior year. The increase in the discount rate and foreign currency fluctuations resulted in a decrease in the plan's liabilities of \$1.2 million in 2018.

The assets for the NDBP are held by Aegon, a financial services firm located in the Netherlands. The Company maintains a contract with Aegon to insure future benefit payments of the NDBP; however, due to certain terms of the agreement and potential obligations to the Company, the NDBP has not been settled. The benefit payments to be made in 2019 are expected to be paid by Aegon from plan assets. The assets for the plan are included in a general portfolio of government bonds, a portion of which is allocated to the NDBP based upon the estimated pension liability associated with the plan. The fair market value of the plan's assets equals the contractual value of the NDBP in any given year. The fair value of the assets is determined using a Level 3 methodology (see note 1 "Summary of Significant Accounting Policies—Fair Value"). In 2018 and 2017, the plan investments had a targeted minimum return of 4.0%, which is consistent with historical returns and the 4.0% return guaranteed to the participants of the plan. Aegon intends to maintain the current investment strategy of investing plan assets solely in government bonds in 2019.

For the BDBP, the accumulated benefit obligation at December 31, 2018 and 2017 was \$9.8 million and \$9.7 million, respectively. The discount rate used in 2018 was 1.75%, which is reflective of a series of corporate bonds whose cash flows approximates the payments to participants under the BDBP for the remainder of the plan. This rate was an increase of 13 basis points from the rate used in the prior year. The increase in the discount rate, offset by foreign currency fluctuations, resulted in an increase in the plan's liabilities of \$0.1 million in 2018.

The assets for the BDBP are held by Allianz, a financial services firm located in Belgium. The Company maintains a contract with Allianz to insure future benefit payments of the BDBP. Contributions made by the Company to Allianz are based on employees' current salaries. The benefit payments to be made in 2019 are expected to be paid by Allianz from plan assets. The assets for the plan are included in the overall portfolio of assets held by Allianz. The fair market value of the plan's assets equals the contractual value of the BDBP in any given year (which is the mathematical reserve held by Allianz). The fair value of the assets is determined using a Level 3 methodology (see note 1 "Summary of Significant Accounting Policies—Fair Value"). Allianz does not guarantee a minimum return on the plan investments, whereas Belgian law sets a minimum return to be guaranteed to the participants of the plan.

For the FDBP, the accumulated benefit obligation at December 31, 2018 and 2017 was \$0.4 million and \$0.0 million, respectively. The amounts included in other comprehensive loss relating to the pension loss adjustment in 2018 and 2017, were less than \$(0.1) million and \$(0.0) million, respectively. The discount rate used in 2018 was 1.60%, which is reflective of a series of corporate bonds whose cash flows approximates the payments to participants under the FDBP for the remainder of the plan. This rate was an increase of 15 basis points from the rate used in the prior year. The plan is deemed unfunded as the Company has not specifically identified Company assets to be used to discharge the deferred compensation benefit liabilities.

Anticipated benefit payments for the ESBP, NDBP, BDBP, and FDBP expected to be paid in future years are as follows:

(amounts in thousands)

2019	\$	818
2020		830
2021		967
2022		906
2023		840
2024 - 2028		5,368
Total	\$	<u>9,729</u>

For the ESBP, NDBP, BDBP, and FDBP, the amounts included in accumulated other comprehensive loss, net of tax, that have not yet been recognized as components of net periodic benefit cost as of December 31, 2018 are \$0.9 million, \$5.2 million, \$0.7 million, and less than \$0.1 million, respectively, for unrecognized actuarial losses. The amounts included in accumulated other comprehensive loss, net of tax, that had not yet been recognized as components of net periodic benefit cost as of December 31, 2017 were \$1.4 million, \$6.1 million, \$0.3 million, and \$0.0 million, respectively, also for unrecognized actuarial losses.

The amounts recognized in other comprehensive income (loss), net of tax, for 2018, 2017, and 2016, which primarily consist of an actuarial gain (loss) related to year-over-year changes in the discount rate, totaled \$0.9 million, \$0.6 million, and \$(1.4) million (primarily due to foreign currency fluctuations for the NDBP), respectively. Net periodic pension benefit (cost), and the amounts recognized in other comprehensive loss, net of tax, for the ESBP, NDBP, BDBP, and FDBP for 2018, 2017, and 2016 totaled \$0.3 million, \$0.1 million, and \$(1.8) million, respectively.

The amounts in accumulated other comprehensive loss expected to be recognized as components of net periodic benefit cost during 2018 for the ESBP, NDBP, BDBP, and FDBP for unrecognized actuarial losses total \$0.2 million.

The Company also maintains the Key Employee Non-Qualified Deferred Compensation Plan for certain key executives. Company contributions to this plan, if any, are based on annually defined financial performance objectives. There were no contributions to the plan in 2018 for amounts earned in 2017, \$0.1 million in contributions to the plan in 2017 for amounts earned in 2016, and \$0.2 million in contributions to the plan in 2016 for amounts earned in 2015. The Company does not anticipate making contributions in 2019 to this plan for amounts earned in 2018. The investments in the plan are included in the total assets of the Company, and are discussed in note 1, "Investments." Participants in the plan have the ability to purchase stock units from the Company at current market prices using their available investment balances within the plan. In return for the funds received, the Company releases shares out of treasury stock equivalent to the number of share units purchased by the participants. These shares of common stock are not entitled to any voting rights, but will receive dividends in the event any are paid. The shares are being held by the Company, and will be released to the participants as prescribed by their payment elections under the plan.

The Company maintains the Non-Employee Director Deferred Compensation Plan for its non-employee directors. Cash contributions were made to the plan for certain of these directors totaling approximately \$1.1 million in 2018, \$0.5 million in 2017 and \$0.4 million in 2016. At the time the contributions were made, the non-employee directors elected to purchase stock units from the Company at current market prices using their available investment balance within the plan. Consistent with the Key Employee Non-Qualified Deferred Compensation Plan, in return for funds received, the Company released shares out of treasury stock equivalent to the number of share units purchased by the participants. These shares of common stock are not entitled to any voting rights, but will receive dividends in the event any are paid. The shares are being held by the Company, and will be released to the participants as prescribed by their payment elections under the plan.

## 8. Employee Benefits

### 401(k) Profit-Sharing Retirement Plan

The Company maintains a contributory 401(k) profit-sharing retirement plan covering substantially all U.S. employees. Previously, at the Company's discretion, it may match up to 50% of the first 6% of eligible wages contributed by the participants. This match was indefinitely suspended as of January 1, 2017. Company contributions, net of forfeitures, which currently consist of cash and may include the Company's stock, were funded and charged to operations in the amounts of \$0.0 million in both 2018 and 2017, and \$2.0 million for 2016.



## Other Retirement Plans

The Company maintains various other defined contribution retirement plans covering substantially all of the remaining European employees. Company contributions charged to operations were \$0.2 million in both 2018 and 2017, and \$0.1 million in 2016.

## Employee Health Insurance

The Company provides various health insurance plans for its employees, including a self-insured plan for its salaried and hourly employees in the U.S. In 2015, the Company began offering compliant healthcare coverage as required under The Patient Protection and Affordable Care Act (PPACA). Where possible, the Company has passed the cost of this coverage on to its customers where the employees that elect this coverage are engaged.

## 9. Shareholders' Equity

### Employee Stock Purchase Plan

Under the Company's First Employee Stock Purchase Plan (ESPP), employees may apply up to 10% of their compensation to purchase the Company's common stock. Shares are purchased at the closing market price on the business day preceding the date of purchase. As of December 31, 2018, approximately 86,000 shares remain unissued under the ESPP. During 2018, 2017, and 2016, approximately 21,000, 29,000, and 44,000 shares, respectively, were purchased under the ESPP at an average price of \$5.87, \$5.29, and \$4.91 per share, respectively.

### Preferred Stock

At December 31, 2018 and 2017, the Company had 2.5 million shares of par value \$0.01 preferred stock authorized for issuance, but none outstanding.

## 10. Equity-Based Compensation

The Company issues stock options and restricted stock in exchange for employee and director services. In accordance with current accounting standards, the calculated cost of its equity-based compensation awards is recognized in the Company's consolidated statements of operations over the period in which an employee or director is required to provide the services for the award. Compensation cost will not be recognized for employees or directors that do not render the requisite services. The Company recognizes the expense for equity-based compensation in its consolidated income statements on a straight-line basis based upon the number of awards that are ultimately expected to vest.

Equity-based compensation expense, the corresponding tax benefit and net equity-based compensation expense for 2018, 2017, and 2016 are as follows:

	2018	2017	2016
(amounts in thousands)			
Equity-based compensation expense	\$ 2,351	\$ 1,059	\$ 1,626
Tax benefit	—	312	516
Net equity-based compensation expense	<u>\$ 2,351</u>	<u>\$ 747</u>	<u>\$ 1,110</u>

On May 12, 2010, the shareholders approved the Company's 2010 Equity Award Plan (2010 Plan). Under the provisions of the 2010 Plan, stock options, restricted stock, stock appreciation rights, and other awards may be granted or awarded to employees and directors of the Company, as well as non-employees. The compensation committee of the Board of Directors determines the nature, amount, pricing and vesting of the grants or awards. All options and awards remain in effect until the earliest of the expiration, exercise, or surrender date. Options generally become exercisable in three or four equal installments, typically beginning one year from the date of grant, and expire no more than 15 years from the date of grant. A total of 3,750,000 shares may be granted or awarded under the 2010 plan, 1,700,000 of which are available for grant as of December 31, 2018.

On April 26, 2000, the shareholders approved the Company's 2000 Equity Award Plan (Equity Plan). Under the provisions of the Equity Plan, stock options, restricted stock, stock appreciation rights, and other awards could previously be granted or awarded to employees and directors of the Company. The compensation committee of the Board of Directors determined the nature, amount, pricing, and vesting of the grants or awards. All options and awards remain in effect until the earlier of the expiration, exercise, or surrender date. Options generally become exercisable in three or four equal annual installments, typically beginning one year from the date of grant, and expire no more than 15 years from the date of grant. In certain limited instances, options granted at fair market value were expected to vest nine and one-half years from the date of grant. There are no shares or options available for grant under this plan as of December 31, 2018.

Under the Company's 1991 Restricted Stock Plan, a total of 800,000 shares of restricted stock may be granted to certain key employees, 7,000 of which are available for grant as of December 31, 2018.

The Company granted 13,100 stock options during the 2018 first quarter. The options have a fair value of \$1.91 per share using a Black-Scholes valuation model. The assumptions used to calculate that fair value include the price on date of grant of \$6.45, an expected life of 3.7 years, expected volatility of 34.9%, an expected dividend yield of zero, and a risk free rate of 2.4%. The options vest ratably over three years, and are being expensed over that period. The option grant was granted from the 2010 Equity Award Plan. There were no other options granted during 2018.

The Company utilizes the Black-Scholes option-pricing model to estimate the fair value of stock options granted on the date of grant. The per-option weighted-average fair value on the date of grant of stock options granted in 2018, 2017, and 2016 was \$1.91, \$1.64, and \$0.96, respectively.

The fair value of the options at the date of grant was estimated using the following weighted-average assumptions for the years ended December 31, 2018, 2017, and 2016:

	2018	2017	2016
Expected life (years)	3.7	3.9	4.2
Dividend yield	0.0%	0.0%	4.8%
Risk-free interest rate	2.4%	1.9%	1.2%
Expected volatility	34.9%	35.8%	36.2%

The Company used historical volatility calculated using daily closing prices for its common stock over periods that equal the expected term of the options granted to estimate the expected volatility for the grants made in 2018, 2017, and 2016. The risk-free interest rate assumption was based upon U.S. Treasury yields appropriate for the expected term of the Company's stock options based upon the date of grant. The expected term of the stock options granted was based upon the options expected vesting schedule and historical exercise patterns. The Company did not pay a dividend in 2018 or 2017 and does not anticipate paying a dividend in the future. The expected dividend yield in 2016 was based upon the Company's recent history of paying dividends since 2013, and the expectation of paying dividends in the foreseeable future at the time of the grant.

During 2018, 2017, and 2016, the Company issued restricted stock to certain employees. The stock vests over a period of four years, with 25% of the stock issued vesting one year from the date of grant, and another 25% vesting each year thereafter until the stock is fully vested. The Company is recognizing compensation expense for these shares ratably over the expected term of the restricted stock, or four years. In the event the Company issued stock to its independent directors, the stock vests at retirement. As the directors are eligible for retirement from the Company's Board of Directors at any point in time, the Company will recognize the expense associated with these shares on the date of grant. The shares of restricted stock issued are considered outstanding, can be voted, and are eligible to receive dividends, if any are paid. However, the restricted shares do not include a non-forfeitable right for the holder to receive dividends and none will be paid in the event the awards do not vest. Accordingly, only vested shares of outstanding restricted stock are included in the calculation of basic earnings per share.

During 2018, the Company granted 216,600 shares with a market condition to senior management. The closing price of the Company's stock on that day was \$8.18 per share. Under these grant agreements, the Company's stock price must increase 50% to \$12.27 for a 30-day period within a three-year period from the date of grant for 50% of the grants to vest. The Company's stock price must increase 100% to \$16.36 for a 30-day period within a three-year period from the date of grant for the remaining 50% of the grants to vest.

For these performance grants, the price on the date of grants was \$8.18 per share, the expected volatility was 34.5%, the expected dividend yield is zero, and the risk-free rate of return was 2.47%. Given these assumptions, the tranche of the grants that will vest with a 50% increase in the stock price have a value using a binomial model of \$2.30 per share, and a derived service period of 1.26 years. For the tranche of the grants that will vest with a 100% increase in the stock price, the value of the shares is \$1.30 per share and have a derived service period of 1.85 years. The Company is expensing these grants over the derived service period as noted for each tranche of a grant. Of the 216,600 performance shares granted during 2018, zero shares were canceled during 2018, and 216,600 shares were outstanding as of December 31, 2018.

The Company also granted performance share units to one executive during the 2018 first quarter. The performance share units vest over three years and will convert to shares upon vesting. The total number of shares granted to the recipient will be determined based upon the Company's achievement of certain revenue targets. The performance share units have a fair value of less than \$0.1 million and are being expensed ratably over the three-year vesting period.

As of December 31, 2018, total remaining stock-based compensation expense for non-vested equity-based compensation was approximately \$2.0 million, which is expected to be recognized on a weighted-average basis over the next 13 months. Historically, the Company has issued shares out of treasury stock or the SECT to fulfill the share requirements from stock option exercises and restricted stock grants.

A summary of stock option activity under the 2010 Plan and Equity Plan is as follows:

	2010 Plan Options	Weighted- Average Exercise Price	Equity Plan Options	Weighted- Average Exercise Price
<b>Outstanding at December 31, 2015</b>	820,471	\$ 13.21	1,356,375	\$ 4.89
Granted	180,384	\$ 4.95	—	\$ —
Exercised	—	\$ —	(182,500)	\$ 4.27
Canceled or forfeited	—	\$ —	—	\$ —
Expired	—	\$ —	(2,950)	\$ 5.79
<b>Outstanding at December 31, 2016</b>	1,000,855	\$ 11.72	1,170,925	\$ 4.98
Granted	48,500	\$ 5.38	—	\$ —
Exercised	—	\$ —	(232,750)	\$ 4.09
Canceled or forfeited	(17,350)	\$ 9.73	—	\$ —
Expired	(144,950)	\$ 9.73	(203,750)	\$ 5.48
<b>Outstanding at December 31, 2017</b>	887,055	\$ 11.74	734,425	\$ 5.13
Granted	13,100	\$ 6.45	—	\$ —
Exercised	(100,000)	\$ 7.52	(286,875)	\$ 4.67
Canceled or forfeited	—	\$ —	—	\$ —
Expired	—	\$ —	—	\$ —
<b>Outstanding at December 31, 2018</b>	800,155	\$ 12.18	447,550	\$ 5.42
<b>Options Exercisable at December 31, 2018</b>	639,130	\$ 13.85	447,550	\$ 5.42

There were 100,000 shares exercised in 2018 under the 2010 plan and there were no shares exercised under the 2010 plan in 2017 and 2016. For 2018, 2017, and 2016, the intrinsic value of the options exercised under the Equity Plan was \$1.1 million, \$0.3 million, and \$0.3 million, respectively.

A summary of restricted stock activity under the 2010 Plan, the Equity Plan and the 1991 Restricted Stock Plan is as follows:

	2010 Plan Restricted Stock	Weighted- Average Fair Value	Equity Plan Restricted Stock	Weighted- Average Fair Value	1991 Restricted Stock Plan	Weighted- Average Fair Value
<b>Outstanding at Dec. 31, 2015</b>	77,624	\$ 8.44	141,500	\$ 5.04	189,525	\$ 11.48
Granted	537,160	\$ 4.74	—	\$ —	16,371	\$ 4.95
Released	(19,130)	\$ 8.82	(80,000)	\$ 4.97	(66,269)	\$ 13.05
Canceled or forfeited	(188,736)	\$ 4.97	—	\$ —	(55,275)	\$ 8.45
<b>Outstanding at Dec. 31, 2016</b>	406,918	\$ 5.14	61,500	\$ 5.13	84,352	\$ 10.96
Granted	292,342	\$ 5.66	—	—	57,900	\$ 5.75
Released	(101,960)	\$ 5.39	(21,500)	\$ 5.44	(32,823)	\$ 14.41
Canceled or forfeited	(90,264)	\$ 5.11	—	—	(18,975)	\$ 9.10
<b>Outstanding at Dec. 31, 2017</b>	507,036	\$ 5.40	40,000	\$ 4.97	90,454	\$ 6.76
Granted	483,800	\$ 7.61	—	—	—	\$ —
Released	(104,516)	\$ 5.52	—	—	(31,937)	\$ 8.41
Canceled or forfeited	(35,393)	\$ 5.11	—	—	(2,400)	\$ 5.75
<b>Outstanding at Dec. 31, 2018</b>	<u>850,927</u>	<u>\$ 6.65</u>	<u>40,000</u>	<u>\$ 4.97</u>	<u>56,117</u>	<u>\$ 5.87</u>

### Options Outstanding at December 31, 2018

A summary of stock options that were **outstanding** at December 31, 2018 for the 2010 Plan and the Equity Plan is as follows:

Range of Exercise Prices:	Number of Options Outstanding	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life in Years	Aggregate Intrinsic Value
<b>2010 Plan</b>				
\$4.95 - \$7.48	304,684	\$ 5.60	8.6	\$ —
\$12.16 - \$13.75	242,375	\$ 13.37	7.9	—
\$15.04 - \$16.93	105,096	\$ 15.83	5.6	—
\$20.68 - \$21.41	148,000	\$ 21.17	8.7	—
	<u>800,155</u>	\$ 12.18	8.0	<u>\$ —</u>
<b>Equity Plan</b>				
\$3.25 - \$4.90	236,300	\$ 4.34	3.6	\$ 49,800
\$5.25 - \$7.18	211,250	\$ 6.63	5.2	—
	<u>447,550</u>	\$ 5.42	4.3	<u>\$ 49,800</u>

## Options Exercisable at December 31, 2018

A summary of stock options that are **exercisable** at December 31, 2018 for the 2010 Plan and the Equity Plan is as follows:

Range of Exercise Prices:	Number of Options Exercisable	Weighted Average Exercise Price	Weighted Average Remaining Contractual Life in Years	Aggregate Intrinsic Value
<b>2010 Plan</b>				
\$4.95 - \$7.48	143,659	\$ 5.68	8.5	\$ —
\$12.16 - \$13.75	242,375	\$ 13.37	7.9	—
\$15.04 - \$16.93	105,096	\$ 15.83	5.6	—
\$20.68 - \$21.41	148,000	\$ 21.17	8.7	—
	<u>639,130</u>	\$ 13.85	7.8	\$ —
<b>Equity Plan</b>				
\$3.25 - \$4.90	236,300	\$ 4.34	3.6	\$ 49,800
\$5.25 - \$7.18	211,250	\$ 6.63	5.2	—
	<u>447,550</u>	\$ 5.42	4.3	\$ 49,800

The aggregate intrinsic values as calculated in the above charts detailing options that are outstanding and those that are exercisable, respectively, are based upon the Company's closing stock price on December 31, 2018 of \$4.08 per share.

## 11. Significant Customers

In 2018, International Business Machines Corporation (IBM) was the Company's largest customer. During the 2017 third quarter, the NTS Agreement with IBM was extended for two years and now expires on December 31, 2019. In 2018, 2017, and 2016, IBM accounted for \$80.6 million or 22.5%, \$76.4 million or 25.4%, and \$98.4 million or 30.3% of the Company's consolidated revenue, respectively. The Company's accounts receivable from IBM at December 31, 2018 and 2017 amounted to \$22.1 million and \$21.5 million, respectively.

In 2018, SDI was the Company's second largest customer and accounted for \$27.6 million or 7.7%, \$34.2 million or 11.4%, and \$34.5 million or 10.6% of the Company's consolidated revenue in 2018, 2017, and 2016, respectively. SDI acts as a vendor manager for Lenovo, and all of the Company's revenue generated through SDI relates to CTG employees working at Lenovo. The Company's accounts receivable from SDI at December 31, 2018 and 2017 totaled \$3.6 million and \$4.7 million, respectively.

No other customer accounted for more than 10% of revenue in 2018, 2017, or 2016.

## 12. Contingencies

The Company and its subsidiaries are involved from time to time in various legal proceedings and tax audits arising in the ordinary course of business. At December 31, 2018 and 2017, the Company was in discussion with various governmental agencies relative to tax matters, including income, sales and use, and property and franchise taxes. The outcome of these audits and legal proceedings, as applicable, involving the Company and its subsidiaries cannot be predicted with certainty, and the amount of any liability that could arise with respect to such audits cannot be accurately predicted. However, as none of these matters are individually or in the aggregate significant and as management has not recorded an estimate of its potential liability for these audits at December 31, 2018 and 2017, and the Company does not have any open legal proceedings, the Company does not expect the conclusion of these matters to have a material adverse effect on the financial position, results of operations, or cash flows of the Company.

## 13. Enterprise-Wide Disclosures

The Company operates in one industry segment, providing IT services to its clients. The services provided include managed and flexible staffing and the planning, design, implementation, and maintenance of comprehensive IT solutions. All of the Company's revenue is generated from these services.

CTG's reportable information is based on geographical areas. The accounting policies of the individual geographical areas are the same as those described in note 1, "Summary of Significant Accounting Policies."

#### Financial Information About Geographic Areas

(amounts in thousands)

	2018	2017	2016
<b>Revenue from External Customers:</b>			
United States	\$ 232,178	\$ 219,886	\$ 253,955
Belgium <sup>(1)</sup>	48,585	39,347	35,995
Luxembourg <sup>(1)</sup>	44,660	36,954	31,441
Other countries	33,346	5,023	3,502
Total foreign revenue	126,591	81,324	70,938
Total revenue	<u>\$ 358,769</u>	<u>\$ 301,210</u>	<u>\$ 324,893</u>
<b>Long-lived Assets:</b>			
United States	\$ 3,715	\$ 5,206	\$ 4,280
France <sup>(2)</sup>	6,042	—	—
United Kingdom <sup>(3)</sup>	840	1,005	792
Other countries	995	785	791
Total long-lived assets	<u>\$ 11,592</u>	<u>\$ 6,996</u>	<u>\$ 5,863</u>
<b>Deferred Tax Assets, Net of Valuation Allowance:</b>			
United States	\$ —	\$ 3,810	\$ 6,886
Europe	767	51	—
Total deferred tax assets, net	<u>\$ 767</u>	<u>\$ 3,861</u>	<u>\$ 6,886</u>

- (1) Revenue for our Belgium and Luxembourg operations has been disclosed separately as it exceeds 10% of consolidated revenue in at least one of the years presented.
- (2) Long-lived assets for our France operations has been disclosed separately as it exceeds 10% of consolidated long-lived assets in at least one of the years presented.
- (3) Long-lived assets for our United Kingdom operations has been disclosed separately as it exceeds 10% of consolidated long-lived assets in at least one of the years presented.

#### 14. Quarterly Financial Data (Unaudited)

	Quarters				Total
	First <sup>(1)</sup>	Second	Third <sup>(2)</sup>	Fourth <sup>(3)</sup>	
(amounts in thousands, except per-share data)					
<b>2018</b>					
Revenue	\$ 82,713	\$ 92,667	\$ 90,260	\$ 93,129	\$ 358,769
Direct costs	66,874	75,082	72,935	75,391	290,282
Gross profit	15,839	17,585	17,325	17,738	68,487
Selling, general, and administrative expenses	15,256	16,064	16,560	18,527	66,407
Operating income (loss)	583	1,521	765	(789)	2,080
Interest and other income (expense), net	(54)	(218)	630	(169)	189
Income (loss) before income taxes	529	1,303	1,395	(958)	2,269
Provision for income taxes	115	363	307	4,301	5,086
Net income (loss)	<u>\$ 414</u>	<u>\$ 940</u>	<u>\$ 1,088</u>	<u>\$ (5,259)</u>	<u>\$ (2,817)</u>
Basic net income (loss) per share	<u>\$ 0.03</u>	<u>\$ 0.07</u>	<u>\$ 0.09</u>	<u>\$ (0.39)</u>	<u>\$ (0.20)</u>
Diluted net income (loss) per share	<u>\$ 0.03</u>	<u>\$ 0.07</u>	<u>\$ 0.09</u>	<u>\$ (0.39)</u>	<u>\$ (0.20)</u>

	Quarters				Total
	First	Second <sup>(4)</sup>	Third <sup>(5)</sup>	Fourth <sup>(6)</sup>	
(amounts in thousands, except per-share data)					
<b>2017</b>					
Revenue	\$ 77,006	\$ 75,521	\$ 74,039	\$ 74,644	\$ 301,210
Direct costs	62,777	61,864	61,093	59,500	245,234
Gross profit	14,229	13,657	12,946	15,144	55,976
Selling, general, and administrative expenses	12,829	12,845	12,562	13,572	51,808
Operating income	1,400	812	384	1,572	4,168
Interest and other income (expense), net	(123)	(162)	(85)	259	(111)
Income before income taxes	1,277	650	299	1,831	4,057
Provision for income taxes	526	216	259	2,250	3,251
Net income (loss)	\$ 751	\$ 434	\$ 40	\$ (419)	\$ 806
Basic net income (loss) per share	\$ 0.05	\$ 0.03	\$ 0.00	\$ (0.03)	\$ 0.05
Diluted net income (loss) per share	\$ 0.05	\$ 0.03	\$ 0.00	\$ (0.03)	\$ 0.05

- (1) During the 2018 first quarter, the Company acquired Soft Company. The results of operations of Soft Company have been included in the Company's consolidated financial results since the date of acquisition.
- (2) During the 2018 third quarter, the Company recorded a \$0.8 million non-taxable life insurance gain for a former executive that passed away in the 2018 third quarter. The non-taxable life insurance gain is included in other income. The Company also incurred approximately \$0.5 million of selling, general and administrative expense due to the valuation of the contingent consideration related to the Soft Company acquisition.
- (3) During the 2018 fourth quarter, the Company recorded a valuation allowance against its U.S. deferred tax assets of \$4.1 million based on the history of U.S. losses for tax purposes and uncertain profitability in future years. Approximately \$3.8 million of the total U.S. valuation allowance was recorded to income tax expense, partially offset by the reversal of the valuation allowance in the United Kingdom. The Company also recorded severance charges for former executives to selling, general, and administrative expense in the 2018 fourth quarter.
- (4) During the 2017 second quarter, the Company incurred \$0.8 million in severance charges, which reduced net income by \$0.5 million and basic and diluted earnings per share by \$0.03. The Company recorded the severance charges in direct costs (\$0.4 million) and selling, general, and administrative expenses (\$0.4 million).
- (5) During the 2017 third quarter, the Company incurred \$1.2 million of unexpected costs associated with the Company's self-insured medical plan, which reduced net income by \$0.7 million and basic and diluted earnings per share by \$0.05.
- (6) During the 2017 fourth quarter, the Company incurred a \$1.7 million charge due to tax law changes that required the Company to reduce its deferred tax assets. Also included in interest and other income (expense) in the 2017 fourth quarter is a \$0.4 million non-taxable life insurance gain for a former executive that passed away in the 2017 fourth quarter.

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

None.

**Item 9A. Controls and Procedures**

**Evaluation of Disclosure Controls and Procedures**

The Company's management has evaluated, under the supervision and with the participation of the Company's Chief Executive Officer and Chief Financial Officer, the effectiveness of the design and operations of the Company's disclosure controls and procedures (as defined in Rule 13a-15(e) of the Exchange Act) as of the end of the period covered by this annual report. Under Rule 13a-15(e) of the Exchange Act, "disclosure controls and procedures" means controls and other procedures that are designed to ensure that information required to be disclosed by the Company in the reports that it files with the SEC is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by our Company in the reports that it files or submits under the Exchange Act is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure. Based on that evaluation, the Company's Chief Executive Officer and Chief Financial Officer have concluded that the Company's disclosure controls and procedures were effective as of the end of the period covered by this annual report.

**(a) Management's Annual Report on Internal Control Over Financial Reporting**

The Company's management is responsible for establishing and maintaining an adequate system of internal control over financial reporting. 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, a system of internal control over financial reporting can provide only reasonable assurance and may not prevent or detect misstatements. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation. Further, because of changes in conditions, effectiveness of internal control over financial reporting may deteriorate.

Management of the Company conducted an evaluation of the effectiveness of the Company's internal control over financial reporting based on the *Internal Control-Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on that evaluation, the Company's management did not identify any control deficiencies it considered to be material weaknesses under the rules specified by the Public Company Accounting Oversight Board's Auditing Standard No. 5, and therefore concluded that its internal control over financial reporting was effective as of December 31, 2018.

The Company acquired Soft Company on February 15, 2018, and management excluded from its assessment of the effectiveness of internal control over financial reporting as of December 31, 2018, Soft Company's internal control over financial reporting associated with assets representing \$26.7 million of consolidated assets (of which \$17.6 million represents goodwill and intangible assets included in the scope of the assessment), revenues representing \$27.3 million of consolidated revenues, and \$0.3 million in net income included in the consolidated financial statements of the Company as of and for the year ended December 31, 2018.

Our independent registered public accounting firm has issued an attestation report on the Company's effectiveness of internal control over financial reporting. Their report appears in Item 9A(b), Attestation Report of the Registered Public Accounting Firm.



## **(b) Attestation Report of the Registered Public Accounting Firm**

### **Report of Independent Registered Public Accounting Firm**

To the Shareholders and Board of Directors  
Computer Task Group, Incorporated:

#### *Opinion on Internal Control Over Financial Reporting*

We have audited Computer Task Group, Incorporated and subsidiaries' (the Company) internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2018, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of December 31, 2018 and 2017, the related consolidated statements of operations, comprehensive income (loss), cash flows, and shareholders' equity for each of the years in the three-year period ended December 31, 2018, and the related notes and financial statement schedule (collectively, the consolidated financial statements), and our report dated March 15, 2019 expressed an unqualified opinion on those consolidated financial statements.

The Company acquired Soft Company on February 15, 2018, and management excluded from its assessment of the effectiveness of internal control over financial reporting as of December 31, 2018, Soft Company's internal control over financial reporting associated with assets representing \$26.7 million of consolidated assets (of which \$17.6 million represents goodwill and intangible assets included in the scope of the assessment), and revenues representing \$27.3 million of consolidated revenues included in the consolidated financial statements of the Company as of and for the year ended December 31, 2018. Our audit of internal control over financial reporting of Computer Task Group, Incorporated also excluded an evaluation of the internal control over financial reporting of Soft Company.

#### *Basis for Opinion*

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

#### *Definition and Limitations of Internal Control Over Financial Reporting*

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

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

/s/ KPMG LLP

Buffalo, New York  
March 15, 2019

**(c) Changes in Internal Control Over Financial Reporting**

The Company reviews, revises and improves the effectiveness of the Company's internal controls on a continuous basis. The Company's management, including its Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of the Company's internal control over financial reporting as of the end of the period covered by this annual report. There were no changes in the Company's internal control over financial reporting that occurred during the Company's last fiscal quarter, which ended on December 31, 2018, that materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

***Item 9B. Other Information***

None

## PART III

### **Item 10. Directors, Executive Officers and Corporate Governance**

Except as otherwise set forth below, the information required in response to this item is included in this annual report on Form 10-K for the year ended December 31, 2018, except insofar as information with respect to executive officers is presented in Part I, Item 1 of this report pursuant to General Instruction G(3) of Form 10-K. Information regarding the Company's Code of Conduct is incorporated herein by reference to the information set forth under "Available Company Information" in Part I, Item 1 of this annual report on Form 10-K. The Company maintains a separate standing audit committee established in accordance with section 3(a)(58)(A) of the Exchange Act consisting of all independent directors, with James R Helvey, III as the designated audit committee financial expert. Mr. Helvey is independent, as independence for audit committee members is defined in the listing standard applicable to CTG.

**Arthur W. Crumlish.** Mr. Crumlish, 64, was named Chief Executive Officer (CEO) of the Company and appointed to the Company's Board of Directors in July 2016. Mr. Crumlish retired as CEO and resigned as a director effective March 1, 2019. Mr. Crumlish has been with the Company since 1990 and prior to his election to the position of CEO served as Senior Vice President and General Manager of Strategic Staffing Solutions (SSS). As the general manager for SSS, Mr. Crumlish oversaw business development, delivery, sales, and recruiting for many of the Company's largest customers. Prior to assuming the general manager role, Mr. Crumlish served as financial controller for the Company's Strategic Staffing Services division, where he was responsible for business plan development, financial reporting and analysis, pricing, contractual compliance, and policy/procedure implementation. Mr. Crumlish was also manager of the general accounting and financial controller of the Company's IBM national team. Mr. Crumlish earned a master of business administration degree from Canisius College in Buffalo, New York, and a Bachelor of Science degree from Niagara University in Niagara Falls, New York.

**Filip J.L. Gydé.** Mr. Gydé, 58, was named Chief Executive Officer of the Company and appointed to the Company's Board of Directors effective March 1, 2019. Mr. Gydé has been with CTG since October 1990 and most recently served as the Executive Vice President, General Manager, and President for CTG's European operations. Mr. Gydé led the Company's European operations from October 2000 through February 2019, and served as Interim Executive Vice President of Operations of CTG from October 2014 to April 2015, during which time he was responsible for overall company operating activities.

**James R. Helvey III.** Mr. Helvey, 60, was appointed to CTG's Board of Directors in November 2015. Mr. Helvey co-founded Cassia Capital Partners, LLC, a registered investment advisor, in 2011 and has served as a managing partner since its formation. From 2005 to 2011, Mr. Helvey was a partner and the Risk Management Officer for CMT Asset Management Limited, a private investment firm. From 2003 to 2004, Mr. Helvey was a candidate for the United States Congress in the 5th District of North Carolina. Mr. Helvey served as Chairman and Chief Executive Officer of Cygnifi Derivatives Services, LLC, an online derivatives services provider, from 2000 to 2002. From 1985 to 2000, Mr. Helvey was employed by J.P. Morgan & Co., serving in a variety of capacities, including as Vice Chairman of J.P. Morgan's Risk Management Committee, Chair of J.P. Morgan's Liquidity Committee, Global Head of Derivative Counterparty Risk Management, head of the swap derivative trading business in Asia, and head of short-term interest rate derivatives and foreign exchange forward trading in Europe. Mr. Helvey graduated magna cum laude with honors from Wake Forest University. Mr. Helvey was also a Fulbright Scholar at the University of Cologne in Germany and received a Master's degree in international finance and banking from Columbia University, School of International and Public Affairs, where he was an International Fellow. Mr. Helvey is a director and serves on the Audit Committee of Coca-Cola Bottling Co. Consolidated., a publicly traded and independent bottler of Coca-Cola Company products, Verger Capital Management LLC, Piedmont Federal Savings Bank (Audit Chair), and has also served on the board of trustees of Wake Forest University and the Wake Forest Baptist Medical Center. Mr. Helvey was a director of Pike Corporation, an energy solutions provider, from 2005 to 2014, where he served as Lead Independent Director, Chairman of the Audit Committee and Chairman of the Compensation Committee.

Mr. Helvey's experience in international business and finance, executive management and as a director of other organizations brings a valuable and necessary perspective to the Board and qualifies him to serve as a member of the Board.

**David H. Klein.** Mr. Klein, 70, has been a Director since September 2012. He is the President of Klein Solutions Group, LLC, which provides advice on policy, strategy, operations and finance to healthcare delivery and payer organizations. Mr. Klein also serves as: a special advisor to the CEO of the University of Rochester (UR) Medical Center, a professor of public health sciences in the UR School of Medicine and Dentistry and as an executive professor of healthcare management in the UR Simon Business School. Mr. Klein was most recently the Chief Executive Officer of

The Lifetime Healthcare Companies, which was comprised of Excellus BlueCross BlueShield (BCBS), Univera Healthcare, Lifetime Health Medical Group, Lifetime Care (home care agency), EBS-RMSCO Benefit Solutions (benefits consulting firm and third party administration) and MedAmerica (long-term care insurance company). Mr. Klein had been a senior executive with The Lifetime Healthcare Companies and its predecessor companies since 1986, serving as CEO from 2003 until 2012. Mr. Klein previously was an executive with the national BlueCross BlueShield Association and Health Care Service Corporation. He served as Director of the national Blue Cross Blue Shield Association (BCBSA) and America's Health Insurance Plans. Mr. Klein currently serves as a Director of the following privately held companies: Landmark Health (a General Atlantic and Francisco Partners (private equity fund) company which creates and manages home visiting multi-disciplinary medical groups to care for complex, chronically ill patients), Avalon Healthcare Solutions (also a Francisco Partners private equity fund) company that provides laboratory benefits management solutions), Cogito (a Goldman Sachs/ Open View Partner/Romulus Capital funded customer engagement/voice analytics company), NextHealth Technologies (a Norwest Venture Partners patient engagement optimization company), PNT (a claims and clinical information data acquisition company), Excel Partners Venture Fund (a venture capital fund that invests in high-tech startups focused on Upstate New York), Transparent Health Marketplace (a provider network management company using spot pricing and patient navigation to create value), CompanionMx (a behavioral health telemonitoring company) and Orthometrics (a technology enabled musculoskeletal injury risk management company). Mr. Klein is a member of the Cressey & Company private equity fund Distinguished Executives Council. He serves as an advisor to Health Catalyst Capital Management, LLC private equity fund, as non-executive chair of the New York eHealth Collaborative which operates New York State's health information exchange and as a Director of Commonwealth Care Alliance (a health plan that serves high cost high need patients). Mr. Klein is a member of Johns Hopkins University Carey School of Business Health Care Advisory Board and has chaired United Way of Greater Rochester and an American Cancer Society Capital Campaign to establish a new Rochester Hope Lodge. He has also been president of the local Boy Scout Council and Director of Northeast Region, Boy Scouts of America. He is a Boy Scouts' Distinguished Eagle Scout and a recipient of their Silver Beaver and Silver Antelope awards. Mr. Klein received a Bachelor of Science from Rensselaer Polytechnic Institute and his Master of Business Administration from the University of Chicago.

**Valerie Rahmani.** Ms. Rahmani, 61, was appointed to CTG's Board of Directors in November 2015. Ms. Rahmani is a non-executive Director and member of the Risk Committee of the London Stock Exchange Group plc. She is a non-executive Director and member of the Audit Committee of RenaissanceRe Holdings Ltd, a Bermuda-based reinsurance company. She is a non-executive Director and member of the Compensation Committee of Entrust Datacard, a Minneapolis based company. She is also a Board member of a social media startup, Rungway, based in London, and is the part-time CEO of the Innovation Panel of Standard Life Aberdeen plc, a global investment company based in the UK. From 2010 to 2015, Ms. Rahmani was a member of the Board of Directors of Teradici Corporation - a private technology company where she served on the Audit and Compensation Committees. She most recently served as Chief Executive Officer of Damballa, Inc. from 2009 to 2012. Damballa was a venture capital funded cyber-security company headquartered in Atlanta, Georgia. Prior to her role at Damballa, Ms. Rahmani was with IBM in various managerial capacities for 28 years, with latest role was General Manager of IBM Internet Security Systems. Other IBM roles included General Manager of the \$2.7 billion Global Technology Services businesses, head of Sales and Services Strategy unit, General Manager of IBM's \$3.5 billion UNIX server business, General Manager of IBM's Mobile business as well as serving as the Executive Assistant to Louis Gerstner, former Chairman and Chief Executive Officer of IBM. Ms. Rahmani holds an MA and a Doctor of Philosophy degree in Chemistry from Oxford University, England.

**Daniel J. Sullivan.** Mr. Sullivan, 72, has been a Director of CTG since 2002 and was appointed to serve as the non-executive Chairman of the Board of Directors in October 2014. He most recently served as the President and Chief Executive Officer of FedEx Ground from 1998 until 2007. FedEx Ground is a wholly owned subsidiary of FedEx Corporation. From 1996 to 1998, Mr. Sullivan was the Chairman, President and Chief Executive Officer of Caliber System. In 1995, Mr. Sullivan was the Chairman, President and Chief Executive Officer of Roadway Services. Mr. Sullivan is currently a member of the Board of Directors of Schneider National, Inc. (Green Bay, Wisconsin), where he serves as non-executive Chairman of the Board of Directors. Mr. Sullivan is also an Emeritus Director of the Board of Directors of The Medical University of South Carolina Foundation where he serves as Vice Chairman of the Board of Directors. Mr. Sullivan previously served as a member of the Board of Directors of Pike Electric, Inc. from 2007 to 2014 (Pike Electric was sold in December 2014 to Court Square Capital Partners), GDS Express (Akron, Ohio) from 2004 to 2009; and Gevity, Inc. (Bradenton, Florida) from 2008 to 2009. He is a former federal commissioner for the Flight 93 National Memorial project in Somerset County, Pennsylvania.

**Owen J. Sullivan.** Mr. Sullivan, 61, was appointed to the Board of Directors in February 2017. Mr. Sullivan is Chief Operating Officer of NCR, a position he has held since July 2018. Mr. Sullivan was most recently an independent consultant, providing strategic planning, consulting and executive mentoring, and working with and investing alongside private equity firms and other investor groups. Prior to that, Mr. Sullivan was with ManpowerGroup, a workforce and talent management solutions company, from 2003 to 2013. At ManpowerGroup, he served as President of the Specialty

Brands and Experis units from 2010 to 2013, and he served as the Chief Executive Officer of the Right Management and Jefferson Wells International, Inc. subsidiaries from 2004 to 2013 and from 2003 to 2010, respectively. Before joining ManpowerGroup, Mr. Sullivan was with Sullivan Advisors, LLC, a provider of strategic planning, consulting and executive mentoring for small to medium-sized businesses from 2001-2003. Prior to that, Mr. Sullivan was with Metavante Technologies, Inc., a bank technology processing company from 1993 to 2001, where he served in various management roles including as the President of Metavante's Financial Services Group and Enterprise Solutions Group. Mr. Sullivan is a member of the Board of Directors of Johnson Financial Group and serves as a member of its Wealth Management, Risk and Succession Committees. In addition, Mr. Sullivan is a member of the Board of Directors at Marquette University and serves as Chairman of the Board and a member of its Executive and Nominating and Governance Committees.

The Nominating and Corporate Governance Committee and the Board of Directors focuses on the experience, qualifications, attributes and skills discussed in each of the director's biographies set forth above. In each case, the Committee and the Board of Directors considered the achievements of the individual in the successful career described.

With regard to Mr. Crumlish, the Committee noted that Mr. Crumlish has been with the Company since September 1990 and prior to his election to the position of CEO served as Senior Vice President and General Manager of Strategic Staffing Solutions (SSS). As the general manager for SSS, Mr. Crumlish oversaw business development, delivery, sales, and recruiting for many of the Company's largest customers. Prior to assuming the general manager role, Mr. Crumlish served as financial controller for the Company's Strategic Staffing Services division, where he was responsible for business plan development, financial reporting and analysis, pricing, contractual compliance, and policy/procedure implementation. With regard to Mr. Gydé, the Committee noted that Mr. Gydé has been with the Company since October 1990 and had served as the Executive Vice President, General Manager and President for the Company's European operations. Mr. Gydé led the Company's European operations since October 2000 and served as Interim Executive Vice President of Operations of CTG from October 15, 2014 until April 5, 2015, during which time he was responsible for overall company operating activities. With regard to Mr. Helvey, the Committee considered his extensive financial experience and prior audit committee experience. With regard to Mr. Klein, the Committee considered his extensive experience managing health plan entities and his knowledge of the healthcare industry. With regard to Ms. Rahmani, the Committee considered her experience in cybersecurity and her management experience within the IT Services industry. With regard to Mr. Daniel J. Sullivan, the Committee considered the broad perspective resulting from his diverse experience in managing and serving as an officer for a large, public company. With regard to Mr. Owen J. Sullivan, the Committee considered his extensive experience in the staffing solutions and professional resourcing industry, including his roles at ManpowerGroup.

### ***Executive Officers of the Company***

The following individuals are executive officers of the Company:

<b>Name</b>	<b>Age</b>	<b>Office</b>	<b>Period During Which Served as Executive Officer</b>	<b>Other Positions and Offices with Registrant</b>
Filip J. L. Gydé	58	President and Chief Executive Officer Executive Vice President, President and General Manager of Europe	March 1, 2019 to date	Director
		Senior Vice President	May 8, 2018 to Feb. 28, 2019	
		Interim Executive Vice President of Operations	April 6, 2015 to May 7, 2018	
		Senior Vice President	Oct. 15, 2014 to April 5, 2015	
			Oct. 1, 2000 to Oct. 14, 2014	
John M. Laubacker	52	Executive Vice President, Chief Financial Officer	April 21, 2017 to date	Treasurer
		Interim Chief Financial Officer	Oct. 15, 2014 to April 5, 2015	
Peter P. Radetich	64	Senior Vice President, General Counsel	April 28, 1999 to date	Secretary
Jeffrey D. Gerkin	52	Executive Vice President, General Manager of North America	December 11, 2017 to date	None

Mr. Gydé was promoted to President and Chief Executive Officer on March 1, 2019. Previously, Mr. Gydé served as an Executive Vice President, and President and General Manager for the Company's European operations. Mr. Gydé was Interim Executive Vice President of Operations from October 15, 2014 until April 5, 2015, responsible for operating activities of the overall Company. Previously he was Senior Vice President and General Manager of CTG Europe from October 1, 2000 through October 14, 2014. Prior to that, Mr. Gydé was Managing Director of the Company's operations in Belgium. Mr. Gydé has been with the Company since May 1987.

Mr. Laubacker currently serves as an Executive Vice President, Chief Financial Officer (CFO) and Treasurer. Mr. Laubacker was promoted to CFO on April 21, 2017. Previously, Mr. Laubacker was promoted to Vice President in February 2017 and has served as Treasurer since 2006. Prior to that, Mr. Laubacker was the Director of Audit and Treasury Services and the Manager of External Reporting. Mr. Laubacker joined the Company in 1996.

Mr. Radetich currently serves as Senior Vice President, General Counsel and Secretary. Mr. Radetich was promoted to General Counsel and Secretary in April 1999, and joined the Company in June 1988 as Associate General Counsel.

Mr. Gerkin served as an Executive Vice President, and General Manager of the Company's North American operations. Mr. Gerkin resigned from the Company effective March 8, 2019. Mr. Gerkin joined the Company in December 2017. Prior to joining CTG, Mr. Gerkin served as the Senior Vice President, North American Sales for ManpowerGroup from January 2015 until December 2017. He has also held sales and marketing leadership roles as Senior Vice President and General Manager for Right Management from November 2011 until January 2015 and Vice President of Metro Marketing and Director of Marketing, both for Manpower, Inc. from December 2009 until November 2011. He also served as a Client Sales Director for Accenture Information Management Services and has also held sales and strategic alliance leadership positions at Cognos, Adaytum Software, and Lawson.

Arthur W. Crumlish, the Company's former CEO, retired as CEO and resigned as a director effective March 1, 2019.

## **Item 11. Executive Compensation**

### **COMPENSATION DISCUSSION AND ANALYSIS**

#### **Compensation Committee Composition and Primary Purposes**

The Compensation Committee of the Board of Directors consists of Valerie Rahmani, Chair, James R. Helvey III, David H. Klein, Daniel J. Sullivan, and Owen J. Sullivan. The Compensation Committee is responsible for overseeing the administration of the Company's employee stock and benefit plans, establishing policies relating to the compensation of employees and setting the terms and conditions of employment for executive officers. During 2018, the Compensation Committee held a total of 6 meetings. The Board of Directors has determined that the members of the Compensation Committee are independent.

The Compensation Committee has a charter that is available on our Company's website as described above under "Available Company Information" in Part I, Item 1 of this annual report on Form 10-K. The Compensation Committee reviews the charter annually and updates the charter as necessary.

The primary purposes of the Compensation Committee are to:

- (1) review and approve corporate goals and objectives relevant to the Company's compensation philosophy,
- (2) evaluate the CEO's performance and determine the CEO's compensation in light of those goals and objectives,
- (3) review and approve executive officer compensation, incentive compensation plans and equity-based plans, and
- (4) produce an annual report on executive compensation, and approve the Compensation Discussion and Analysis, for inclusion in the Company's annual proxy statement or this annual report on Form 10-K for the year ended December 31, 2018.

#### **Effect of Say-on-Pay Vote**

At the July 2018 annual meeting, shareholders were asked to approve the Company's fiscal 2017 executive compensation programs. Of those who voted, over 66% voted to approve the proposal. In light of these results, and in consideration of shareholder input obtained from outreach efforts taken in connection with the 2018 meeting, the Compensation Committee carefully reviewed the Company's executive compensation practices. The Committee concluded that the Company's existing executive compensation programs continue to be the most appropriate for the Company and effective in rewarding executives commensurate with business results. The Committee believes that the best way to align the CEO's compensation with shareholder interests is to place the majority of his compensation at-risk in the form of long-term performance based equity awards and annual incentive opportunity.

## Compensation Philosophy and Executive Compensation Objectives

Given the exceptionally competitive nature of the IT Industry, the Compensation Committee and management believe it is strategically critical to attract, retain and motivate the most talented employees possible by providing competitive total compensation packages. This general philosophy on compensation applies to all employees of the Company. With regard to executive officer compensation, the Company seeks to accomplish the following high-level objectives:

- *Offer a Competitive Total Compensation Package.* To attract the most talented executive officers possible, the Company should tailor each executive officer's total compensation plan to reflect average total compensation offered at similar organizations. This is accomplished by means of routine compensation surveying, the process for which is described further below.
- *Tie Total Compensation to Performance in a Meaningful Manner.* To promote the Company's overall annual and long-term financial and operating objectives, a significant portion of total compensation should be based upon the accomplishment of specific Company objectives within an executive officer's purview. This is accomplished by means of various performance-based incentive plans described further below.
- *Encourage Executives to Think Like Shareholders.* To promote the best interests of shareholders, executive officers should be encouraged to maintain a significant equity interest in the Company. This is accomplished by means of various equity award plans described further below.

## How Executive Compensation is Determined

In order to promote the Company's objective of tying total compensation to performance in a meaningful manner, the Company has adopted a uniform approach to compensation planning. In short, once the Board of Directors has reviewed and approved the corporate goals and objectives for the entire Company, the Compensation Committee begins the process of setting compensation for the executive officers. Once compensation has been set for the executive officers, they in turn are able to set performance-based objectives for their direct reports. This approach to compensation planning continues throughout the organization. In this manner, the compensation planning process seeks to optimize shareholder value by integrating appropriate employee responsibilities with corporate objectives.

In an effort to accomplish the Company's objective of offering competitive total compensation packages, the Compensation Committee routinely surveys total compensation packages for all executive officers. In 2018, as has been the practice for several years, the Compensation Committee retained the services of Pay Governance LLC ("Pay Governance"), a highly regarded independent compensation consulting firm, to undertake an annual compensation review for each of the Company's executive officers. Pay Governance reports to, and acts solely at the direction of, the Compensation Committee. Pay Governance does not provide any other services to the Company or any of the Company's executive officers individually, aside from those services provided to the Compensation Committee. Pay Governance has provided the Committee with appropriate assurances and confirmation of its independent status. Furthermore, the Committee has considered the factors set forth in 17 C.F.R. §240.10C-1(b) (4) (i)-(vi) and believes that Pay Governance has been independent throughout its services to the Committee. Prior to conducting the study, Pay Governance was provided with job descriptions for each of the executive officers and was specifically instructed to provide the Compensation Committee with a Competitive Market Analysis, a written report for each executive officer reflecting the competitive range of total compensation for comparable positions.

*Surveying Methodology Used.* Pay Governance used a Towers Watson executive compensation database to create the report. This database contains compensation data from approximately 750 companies. From this data, Pay Governance performed regression analyses designed to identify a competitive range for jobs in similar companies by revenue size, and in similar business units or with similar position-specific revenue responsibilities. Pay Governance's competitive range is based solely on external competitive data and does not take individual performance or internal pay equity into account. The competitive range identified in the Pay Governance report approximates the statistical mean within one standard deviation. As such, the competitive range tends to fall within approximately fifteen percent (15%) of either side of the median. Deviation within this range is usually explained by differences in experience, length of service and/or differences in responsibilities.

For 2018, the Pay Governance report observed that total compensation for all named executive officers, except Mr. Crumlish, was within the competitive range. The total compensation for Mr. Crumlish was within the competitive range prior to his promotion to CEO in July 2016.



To further assess the Company's overall compensation practices versus the market, Pay Governance collected pay data for the CFO position from the most recent proxy statements for a number of peer companies selected by the Compensation Committee.<sup>1</sup> Pay Governance selected only the CFO position because all companies are required to report data on this position, and the duties are generally comparable. The results of this comparison indicated that the compensation level for the CFO fell between the 25<sup>th</sup> and 50<sup>th</sup> percentiles of the peer companies.

Upon completion of the report, the Compensation Committee met personally with a representative of Pay Governance to review the document. The Compensation Committee used a separate Pay Governance study, in conjunction with the Company's overall long-term financial and operating objectives for 2018, to set total compensation for the Company's current CEO. The Company's CEO did not have a direct role in establishing the terms of his compensation. The details of CEO total compensation for 2018 are discussed below.

The CEO used the Pay Governance Competitive Market Analysis, in conjunction with the Company's overall long-term financial and operating objectives for 2018, to make compensation recommendations to the Board for each executive officer. It has been the practice of the Board to approve total compensation packages that contain a significant portion of tailored, performance-based incentives within the executive officer's purview. The executive officers have no direct role in establishing the terms of their compensation. The details of each named executive officer's total compensation for 2018 are discussed below.

## Components of Executive Compensation

The compensation paid to the Company's executive officers, as reflected in the tables set forth in this annual report on Form 10-K for the year ended December 31, 2018, can be broken down into the following three general categories: (i) Baseline Compensation, (ii) Performance-Based Incentives, and (iii) Equity-Based Incentives.

### Baseline Compensation

Baseline Compensation includes annual base salary, standard employee benefits generally available to all employees and participation in certain executive-level employee benefit programs. Once awarded, compensation payments made under this component are provided during the course of the year without regard to achievement of specific performance-based objectives. The Company chooses to pay this component of compensation because it comprises the foundation of executive compensation. As such, the Company considers maintaining competitive levels of baseline compensation essential to attracting and retaining talented personnel.

*Annual Base Salary*—In an effort to stay competitive, annual salaries for executive officers are reviewed by the Compensation Committee on a yearly basis. With respect to determining the base salary of executive officers, the Committee takes into consideration the compensation report prepared by Pay Governance, the executive's individual performance as well as internal equity considerations. Of these factors, the Pay Governance report is generally given the most weight. In addition, if circumstances warrant, such as a change in role or responsibility, the Compensation Committee may grant discretionary bonuses from time to time to executive officers. The Compensation Committee granted no discretionary bonuses in 2018.

*Standard Employee Benefits*—Executive officers are entitled to participate in the same benefit programs afforded generally to all other employees of the Company. Such benefits generally include a 401(k) program, Medical/Dental/Vision Health Plans, Employee Stock Purchase Plan, Short-Term and Long-Term Disability Plans, and a Flexible Spending Account Plan.

*Executive-Level Benefits*—In addition to the benefits afforded to employees generally, executive officers are also eligible to participate in or receive the benefit of the following Company sponsored Executive-Level Benefits: Long-Term Executive Disability Plan, Executive Life Insurance Plan, Accidental Death & Dismemberment and Travel Accident Plan, Income Tax Preparation and Advice program, and the Company's change in control agreements. Mr. Gyde does not have a change in control agreement as Belgian law designates the calculation of separation benefits. A synopsis of these executive-level benefits is provided below:

- *Long-Term Executive Disability Plan.* The Company will pay, on the executive's behalf, the premiums associated with maintaining a long-term disability policy with approximately seventy percent (70%) salary replacement up to \$29,000 per month. The benefits provided under the Long-Term Executive Disability Plan are provided in lieu of the Long-Term Disability Plan afforded to employees generally.

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<sup>1</sup> The companies selected were: Allscripts Healthcare Solutions, Inc., Atos Syntel, BG Staffing, Inc., Huron Consulting Group, Inc., Kforce Inc., Leidos Holdings, Inc., Mastech Digital, Inc., Navigant Consulting, Inc., and Volt Information Services, Inc.

- *Executive Life Insurance Plan.* The Company will pay, on the executive's behalf, the premiums associated with maintaining a life insurance policy with coverage equal to three times current annual base salary.
- *Accidental Death & Dismemberment & Travel Accident Plan.* The Company will pay, on the executive's behalf, the premiums associated with maintaining an accidental death and dismemberment policy with coverage equal to four times current annual base salary.
- *Income Tax Preparation and Advice Program.* The Company will generally reimburse executives for out-of-pocket fees expended, up to \$2,000 (2,000 Euro for Mr. Gydé, increased to 11,000 Euro for 2019 in light of the increased complexity of his tax reporting obligations triggered by his promotion to CEO, and 6,000 thereafter) on tax preparation, financial planning or advice.
- *Change in Control Agreements.* All executive officers' change in control agreements contain double trigger mechanisms. Pursuant to the terms of these agreements, executives are generally entitled to the following benefits in the event of a change in control (as defined in the agreements): (a) immediate vesting of all stock-related awards granted under the 2010 Equity Award Plan, the 2000 Equity Award Plan, or the 1991 Restricted Stock Plan; (b) immediate vesting and cash payout of any deferred compensation accruing pursuant to the Company's Nonqualified Key Employee Deferred Compensation Plan; and (c) to the extent that the executive's stock option rights are impeded or adversely affected by the resulting change in control (i.e., no comparable conversion options offered), an executive is entitled to an immediate lump sum payout of the built-in gain on all unexercised stock options, calculated as of the date of the change in control. Further, additional severance benefits apply in the event the executive's employment is terminated for Good Reason by the executive or without Cause by the Company within six (6) months before or twenty-four (24) months after the date of change in control. These additional severance benefits include: a lump sum payment of two times the executive's annual rate of salary, a lump sum payment of two times the executive's average annual Incentive (calculated from the preceding three years), a lump sum payout (in lieu of continued healthcare coverage) equal to twenty-five percent (25%) of current salary and highest annual Incentive (from the preceding three years), indemnification coverage for a period of sixty (60) months, a cash-out of equity-based compensation; and payout of any and all deferred compensation accruing up to the date of termination. For more information on Potential change in control related payments, see "Potential Payments upon Termination or Change in Control."

## Performance-Based Incentives

Performance-Based Incentives include an annual cash incentive ("Incentive"). Compensation payments provided under this program are conditional upon the accomplishment of specific performance-based goals. The Company chooses to pay this component of compensation because it believes this compensation program is critical to motivating executive officers in a manner that directly impacts shareholder value.

*Annual Cash Incentive Compensation*—Each executive officer's total annual compensation includes a potential Incentive award. Incentive payments are contingent upon the accomplishment of certain performance-based objectives selected by the Compensation Committee annually. In selecting objectives, the Compensation Committee seeks to individually tailor performance criteria for each executive officer. The amounts of the Incentive, and the formula for calculating actual payments, are regularly reviewed and surveyed in conjunction with the Pay Governance study discussed earlier. In 2018, the Compensation Committee established performance objectives for the executive officers based on targeted levels of revenue and operating income. To the extent an executive officer has specific operational responsibilities, performance objectives were split between: (i) consolidated revenue and operating income for the entire Company and (ii) business unit revenue and gross profit for that executive officer's focus of operation. Targets for non-operational executive officers, including the CEO, were based solely on consolidated revenue and operating income for the entire Company. In 2018, the planned consolidated revenue and consolidated operating income targets for all executive officer incentive plans were \$357,984,000 and \$7,644,000, respectively.

The formula for calculating each executive officer's Incentive, except Mr. Gydé, provides that at least ninety percent (90%) of the stipulated plan target ("Threshold") must be achieved before any remuneration is awarded for that objective. If the Threshold is achieved, the executive officer receives seventy-five percent (75%) of the designated plan award for that objective. Then, for each additional percentage point (1%) achieved above the Threshold, up to one hundred percent (100%) of the plan target ("Objective Goal"), the executive officer receives another two and one-half percent (2.5%) of the designated plan award for that objective. For each additional percentage point (1%) achieved above the Objective Goal, the executive officer receives another five percent (5%) of the designated plan award for that objective. Each plan prohibits the receipt of amounts in excess of two hundred percent (200%) of the designated plan award for that objective. For Mr. Gydé, the formula for calculating his incentive requires that eighty percent (80%) of the Threshold must be achieved before any remuneration is awarded for that objective. If the Threshold is achieved, Mr. Gydé would receive fifty

percent (50%) of the designated plan award for that objective. Then, for each additional percentage point (1%) achieved above the Threshold, up to one hundred percent (100%) of the plan target (“Objective Goal”), Mr. Gydé receives another two and one-half percent (2.5%) of the designated plan award for that objective. For each additional percentage point (1%) achieved above the Objective Goal, Mr. Gydé receives another five percent (5%) of the designated plan award for that objective, with a limit of two hundred percent (200%) of the designated plan award for that objective.

The plan award is generally calculated as a percentage of annual base salary. In 2018, the plan awards were: (i) for Mr. Crumlish, CEO, approximately one hundred seven (107%) of base salary actually paid, (ii) for Mr. Laubacker, CFO, approximately sixty-six (66%) of base salary actually paid, (iii) for Mr. Gydé, EVP, fifty-one percent (51%) of base salary actually paid, (iv) for Mr. Gerkin, EVP, approximately sixty-two percent (62%) of base salary actually paid, and (v) for Mr. Radetich, SVP, approximately seventy-two percent (72%) of base salary actually paid.

The Compensation Committee believes that each executive officer’s Incentive plan targets for 2018 involved a reasonably challenging degree of difficulty that considers current economic challenges and reflects the Board’s desire to maintain flexibility in enhancing the executive officer’s focus, motivation and enthusiasm. In exceptional circumstances, the Compensation Committee exercises discretion to award Incentive compensation absent achievement of the specified thresholds or to reduce or increase the size of any award or payout. In this manner, the Compensation Committee believes that each executive officer’s Incentive plan targets are reasonably tailored to promote the Company’s overall annual and long-term financial goals.

*Deferred Compensation*—This component of executive compensation consists of contributions made under the Deferred Compensation Plan by those executives that choose to defer all or a part of their compensation under plan. Executives chosen to participate in the plan are eligible to elect to defer a percentage of their annual cash compensation. Effective as of January 1, 2017 the Company has elected to stop making Company contributions under the plan.

### **Equity-Based Incentives**

This component of executive compensation consists of grants of restricted stock and stock options under the Company’s 2010 Equity Award Plan. In making such grants, the Compensation Committee considers an executive’s past contributions and expected future contributions towards Company performance. Grants are made to key employees of the Company who, in the opinion of the Compensation Committee, have had and are expected to continue to have a significant impact on the long-term performance of the Company. The awards are designed to reward individuals who remain with the Company and to further align employee interests with those of the Company’s shareholders. The Company chooses to pay this component of compensation because it believes that stock ownership by management is beneficial in aligning management’s activities and decisions with shareholders’ interests of maximizing share value.

Except in circumstances of new or recently promoted executive officers, the Compensation Committee generally grants equity compensation on a set date each year. The Company does not time or plan the release of material non-public information for the purpose of affecting the value of compensation. Equity awards may also be granted at other meetings of the Compensation Committee to individuals who become executive officers, are given increased responsibilities during the year or in recognition of special accomplishments. The Company has adopted stock ownership guidelines for senior executive officers requiring: (i) the CEO to own Company shares valued at five (5) times his or her own base salary, and (ii) the CFO, Executive Vice Presidents, and Senior Vice Presidents with oversight of operating segments, to own Company shares valued at three (3) times his or her own base salary.

*Restricted Stock Grants During 2018*—The Compensation Committee granted restricted stock awards under the 2010 Equity Award Plan to various executive officers as identified in the tables below. In general, recipients of restricted stock awards receive a specified number of non-transferable restricted shares to be held by the Company, in the name of the grantee, until satisfaction of stipulated vesting requirements. Upon satisfaction of such vesting requirements, restrictions prohibiting transferability will be removed from the vested shares. In determining whether to grant an individual restricted stock, the Compensation Committee considers an executive’s contribution toward Company performance, expected future contribution and the number of options and shares of common stock presently held by the executive. For awards of restricted stock granted in 2018 to executive officers, shares vest over a three-year period as follows: (i) 50% of the amount of an award will vest only if the thirty-trading-day average closing price of the Company’s common stock equals or exceeds a 50% increase in its stock price in the three-year period from the date of grant, and (ii) the remaining 50% of the amount of an award will vest only if the thirty-trading-day average closing price of the Company’s common stock equals or exceeds a 100% increase in its stock price in the three-year period from the date of grant.

## Compensation Committee Report

The Compensation Committee has reviewed and discussed the Compensation Discussion and Analysis required by Item 402(b) of Regulation S-K with management and, based on such review and discussions, the Compensation Committee recommended to the Board that the Compensation Discussion and Analysis be included in this annual report on Form 10-K for the year ended December 31, 2018.

### Submitted by the Compensation Committee

**Valerie Rahmani, Chairman**  
**James R. Helvey III**  
**David H. Klein**  
**Daniel J. Sullivan**  
**Owen J. Sullivan**

### Compensation Committee Interlocks and Insider Participation

During the last completed fiscal year, the Compensation Committee was comprised entirely of independent directors. The Compensation Committee of the Board of Directors is composed of Valerie Rahmani, Chair, James R. Helvey III, David H. Klein, Daniel J. Sullivan, and Owen J. Sullivan.

### 2018 SUMMARY COMPENSATION TABLE

Name and Principal Position (a)	Year (b)	Salary (c) (\$)	Stock Awards (e) (\$) (1)	Option Awards (f) (\$) (2)	Non-Equity Incentive Plan Compensation (g) (\$)	All Other Compensation (i) (\$) (5)	Total (j) (\$)
Arthur W. Crumlish President and CEO (July 2016 to present)	2018	\$ 410,000	\$ 158,940	\$ —	\$ 222,413 (3) \$ \$ — (4) \$	16,380 (9) \$	\$ 807,733
	2017	\$ 410,000	\$ 91,977	\$ —	\$ 155,680 (3) \$ \$ — (4)	19,121 (9) \$	\$ 676,778
SVP and GM, Strategic Staffing Solutions	2016	\$ 314,293	\$ 210,402	\$ 173,908	\$ 124,963 (3) \$ \$ 21,963 (4)	36,880 (9) \$	\$ 882,409
John M. Laubacker EVP, CFO and Treasurer (April 2017 to present)	2018	\$ 320,000	\$ 71,640	\$ —	\$ 106,152 (3) \$ \$ — (4)	30,323 (6) \$	\$ 528,115
	2017	\$ 260,411	\$ 66,866	\$ 45,991	\$ 67,069 (3) \$ \$ — (4)	22,543 (6) \$	\$ 462,880
Filip J.L. Gydé EVP, President and GM, CTG Europe	2018	\$ 356,971	\$ 45,000	\$ —	\$ 229,406 (3) \$ \$ — (4)	113,268 (7) \$	\$ 744,645
	2017	\$ 271,891	\$ 28,715	\$ —	\$ 279,667 (3) \$ \$ — (4)	107,855 (7) \$	\$ 688,128
	2016	\$ 258,129	\$ 128,420	\$ —	\$ 120,916 (3) \$ \$ — (4)	124,419 (7) \$	\$ 631,884
Jeffrey D. Gerkin SVP and GM, CTG North America	2018	\$ 325,000	\$ —	\$ —	\$ 141,609 (3) \$ \$ — (4)	19,134 (8) \$	\$ 485,743
Peter P. Radetich SVP and General Counsel	2018	\$ 283,000	\$ 50,400	\$ —	\$ 102,689 (3) \$ \$ — (4)	20,018 (10) \$	\$ 456,107
	2017	\$ 283,000	\$ 29,167	\$ —	\$ 71,878 (3) \$ \$ — (4)	34,359 (10) \$	\$ 418,404
	2016	\$ 278,000	\$ 129,366	\$ —	\$ 21,977 (3) \$ \$ 14,999 (4)	43,573 (10) \$	\$ 487,915

- (1) The amounts in column (e) reflect the aggregate grant date fair value for the awards granted in the fiscal years ended December 31, 2018, 2017, and 2016 as applicable, as computed in accordance with FASB ASC Topic 718. The assumptions used in the calculation of these amounts are included in footnote 10 to the Company's audited financial statements for the fiscal year ended December 31, 2018 included in Item 8, "Financial Statements and Supplementary Data."
- (2) The amounts in column (f) reflect the aggregate grant date fair value for the options granted in the fiscal years ended December 31, 2018, 2017, and 2016 as applicable, as computed in accordance with FASB ASC Topic 718. The assumptions used in the calculation of these amounts are included in footnote 10 to the Company's audited financial statements for the fiscal year ended December 31, 2018 included in Item 8, "Financial Statements and Supplementary Data."
- (3) Represents cash payments earned under the respective executive's annual cash incentive plan.
- (4) Represents amounts contributed by the Company under the Computer Task Group, Incorporated Nonqualified Deferred Compensation Plan in 2016. Contributions to this plan were eliminated in 2017.

- (5) **Life Insurance.** During 2018, 2017, and 2016, the Company provided life insurance benefits for Messrs. Crumlish, Laubacker and Radetich. The premiums paid by the Company in 2018 for this benefit included \$0, \$13,268, and \$0, respectively. The premiums paid by the Company for this benefit in 2017 for Messrs. Crumlish, Laubacker, and Radetich totaled \$0, \$11,759, and \$20,000, respectively. The premiums paid for this benefit in 2016 for Messrs. Crumlish and Radetich totaled \$0 and \$20,000, respectively.
- 401(k) Contributions.** The Company may match up to 3% of the contributions made by Messrs. Crumlish, Laubacker, Gerkin, and Radetich to the Computer Task Group, Incorporated 401(k) Retirement Plan. There were no contributions made by the Company to the executives in 2018 or 2017. Contributions made by the Company during 2016 for Messrs. Crumlish and Radetich totaled \$7,950 and \$0, respectively.
- (6) In addition to life insurance premiums (as further disclosed in footnote 5), during 2018, Mr. Laubacker received a total value of \$17,055 in Other Compensation for the following Executive-Level Benefits (which are further described beginning on page 70): Long-Term Executive Disability Plan, Accidental Death & Dismemberment & Travel Accident Plan, and the Executive Medical and Dental Plan.
- (7) In accordance with Belgian law the Company is required to pay Mr. Gydé: (i) 92% of one month's pay as vacation pay and (ii) a year-end premium equal to one month's base salary. Together, these legal obligations totaled \$63,005 in 2018, \$56,673 in 2017, and \$72,896 in 2016. The Company also makes contributions towards Mr. Gydé's cafeteria plan account, which is a plan generally available to all Belgium employees. Contributions to Mr. Gydé's cafeteria plan totaled \$30,773 in 2018, \$34,794 in 2017, and \$33,260 in 2016. The Company also leases an automobile for Mr. Gydé's use, as is done for all Belgium employees with a likelihood of traveling. The cost to the Company for leasing Mr. Gydé's automobile was \$17,128 in 2018, \$16,388 in 2017, and \$16,050 in 2016. Mr. Gydé also received \$2,362, \$2,001 and \$2,213 for the Income Tax Preparation and Financial Advice Program in 2018, 2017, and 2016, respectively. Mr. Gydé is paid in Euros and amounts are converted to United States Dollars based on the average foreign currency exchange rate for 2018.
- (8) In 2018, Mr. Gerkin received a total of \$19,134 for executive-level benefits, which are further discussed on page 71.
- (9) In addition to life insurance premiums and 401(k) contributions (as further disclosed in footnote 5), during 2018 Mr. Crumlish received a total value of \$16,380 for the following executive-level benefits (which are further described beginning on page 70): Long-Term Executive Disability Plan, Accidental Death & Dismemberment & Travel Accident Plan, the Executive Medical and Dental Plan, and the Income Tax Preparation and Advice Program. In 2017 and 2016, Mr. Crumlish received a total value of \$19,121 and \$28,930 for these benefits, respectively.
- (10) In addition to life insurance premiums (as further disclosed in footnote 5), during 2018 Mr. Radetich received a total value of \$20,018 for the following executive-level benefits (which are further described beginning on page 70): Long-Term Executive Disability Plan, Accidental Death & Dismemberment & Travel Accident Plan, the Executive Medical and Dental Plan, and the Income Tax Preparation and Advice Program. During 2017 and 2016, Mr. Radetich received a total value of \$34,359 and \$24,026 from these Executive Level Benefits, respectively.

## Specific Executive Officer Compensation Plans and Employment Agreements

**Arthur W. Crumlish, CEO.** In 2018, Mr. Crumlish's total compensation included annual base salary payments of \$410,000, an Incentive of \$222,413, and a grant of 88,300 restricted shares with a performance condition. In setting baseline compensation and the performance standards for Mr. Crumlish's compensation, the Compensation Committee considered the Pay Governance report. The total amount of compensation that Mr. Crumlish received was based on a combination of his baseline compensation and the extent to which the thresholds for compensation were achieved under his performance based incentives.

Mr. Crumlish is currently the only executive officer with a written Employment Agreement ("Agreement") addressing compensation terms. This Agreement provides that:

- compensation would be reviewed and adjusted annually by the Compensation Committee as appropriate;
- either party may terminate the employment relationship upon sixty (60) days prior written notice to the other;
- competitive activities, and other activities adverse to the Company's interests, are prohibited during the term of the employment relationship and for a six-(6) month period after any termination thereof.

The Agreement also provides severance compensation in the event of termination. In the event of termination by Mr. Crumlish for Good Reason (as defined in the Agreement), or by the Company other than for Cause (as defined in the Agreement), or if he dies or becomes disabled, Mr. Crumlish would receive a lump-sum cash payment equal to his current base salary plus the average annual cash Incentive paid to him in the three (3) years leading up to the actual date of termination. Mr. Crumlish would also continue to receive medical and dental benefits for a period of twelve (12) months.

**John M. Laubacker, CFO.** In 2018, Mr. Laubacker's total compensation included annual salary payments of \$320,000, an Incentive of \$106,152, and a grant of 39,800 restricted shares with a performance condition. In setting baseline compensation and the performance standards for Mr. Laubacker's compensation, the Compensation Committee considered the Pay Governance report. The total amount of compensation that Mr. Laubacker received was based on a combination of his baseline compensation and the extent to which the thresholds for compensation were achieved under his performance based incentives.

**Filip J.L. Gydé, EVP.** In 2018, Mr. Gydé's compensation included annual base salary payments of \$356,971,<sup>2</sup> an Incentive of \$229,406, and a grant of 25,000 restricted shares with a performance condition. In setting baseline compensation and the performance standards for Mr. Gydé, the Compensation Committee considered the Pay Governance report. The total amount of compensation that Mr. Gydé received was based on a combination of his

<sup>2</sup>In accordance with Belgian law, the Company is required to pay Mr. Gydé: (i) 92% of one month's pay as vacation pay and (ii) a year-end premium equal to one month's pay. These amounts are not reflected in Mr. Gydé's salary.

baseline compensation and the extent to which the thresholds for compensation were achieved under his performance based incentives. Pursuant to Belgian law, the Company is required to pay Mr. Gydé certain additional benefits that are generally afforded to all Belgian employees. These statutory benefits totaled \$113,268 (“2018 Summary Compensation Table”) in 2018.

**Jeffry D. Gerkin, EVP.** In 2018, Mr. Gerkin’s compensation included annual base salary payments of \$325,000, and an Incentive of \$141,609. In setting baseline compensation and the performance standards for Mr. Gerkin’s compensation, the Compensation Committee considered the Pay Governance report and his past performance. The total amount of compensation that Mr. Gerkin received was based on a combination of his baseline compensation and the extent to which the thresholds for compensation were achieved under his performance-based incentives.

**Peter P. Radetich, SVP.** In 2018, Mr. Radetich’s compensation included annual base salary payments of \$283,000, an Incentive of \$102,689, and a grant of 28,000 restricted shares with a performance condition. In setting baseline compensation and the performance standards for Mr. Radetich’s compensation, the Compensation Committee considered the Pay Governance report and his past performance. The total amount of compensation that Mr. Radetich received was based on a combination of his baseline compensation and the extent to which the thresholds for compensation were achieved under his performance-based incentives.

We believe executive pay must be internally consistent and equitable to motivate our employees to create shareholder value. We are committed to internal pay equity, and the Compensation Committee monitors the relationship between the pay our executive officers receive and the pay our non-managerial employees receive. The compensation for our CEO in 2018 was approximately 17 times the median pay of our employees.

Our CEO to median employee pay ratio is calculated in accordance with the SEC’s rules and regulations under item 402(u) of Regulation S-K. We identified the median employee by examining the 2018 total cash compensation for all individuals, excluding our CEO, who were actively employed by us on December 31, 2018, the last day of our fiscal year. We included full-time, part-time, and seasonal employees. For employees that were not located in the US, we converted their total cash compensation from local currencies to US dollars by using the 2018 average currency exchange rates per [www.irs.gov](https://www.irs.gov) (<https://www.irs.gov/individuals/international-taxpayers/yearly-average-currency-exchange-rates>). We did not make any other assumptions, adjustments, or estimates with respect to the total cash compensation, and we did not annualize the compensation for any employees that were not employed by us for all of 2018. We believe the use of total cash compensation for all employees is a consistently applied compensation measure because we do not widely distribute annual equity awards to employees.

After identifying the median employee based on total cash compensation, we calculated the annual total compensation for such employee using the same methodology we use for our named executive officers as set forth in the 2018 Summary Compensation Table in our Proxy Statement.

As illustrated in the table below, our 2018 CEO to median employee pay ratio is 17:1:

	<b>Arthur W. Crumlish, President and CEO</b>	<b>Median CTG Employee</b>
Salary	\$ 410,000	\$ 48,269
Overtime Pay	—	—
Stock Awards	158,940	—
Non-Equity Incentive	222,413	—
All Other Compensation	16,380	—
	<u>\$ 807,733</u>	<u>\$ 48,269</u>
Ratio	16.73	1.00

## 2018 GRANTS OF PLAN-BASED AWARDS

Name	Grant Date	Estimated Future Payouts Under Non-Equity Incentive Plan Awards (1)			Estimated Future Payouts Under Equity Incentive Plan Awards			All Other Stock Awards: Number of Shares or Units	All Other Option Awards: Number of Securities Underlying Options	Exercise or Base Price of Option Awards (k)	Grant Date Fair Value of Stock and Option Awards (l) (\$)
		Threshold	Target	Maximum	Threshold	Target	Maximum				
(a)	(b)	(c) (\$)	(d) (\$)	(e) (\$)	(f) #	(g) #	(h) #	(i) #	(j) #	(k) (\$/sh)	(l) (\$)
Arthur W. Crumlish	3/20/2018	\$ 330,000	\$ 440,000	\$ 880,000	44,150	88,300	88,300	—	—	\$ —	\$ 158,940
John M. Laubacker	3/20/2018	\$ 157,500	\$ 210,000	\$ 420,000	19,900	39,800	39,800	—	—	\$ —	\$ 71,640
Filip J. L. Gydé	3/20/2018	\$ 91,028	\$ 182,055	\$ 364,110	12,500	25,000	25,000	—	—	\$ —	\$ 45,000
Jeffrey D. Gerkin		\$ 150,000	\$ 200,000	\$ 400,000	—	—	—	—	—	\$ —	\$ —
Peter P. Radetich	3/20/2018	\$ 101,575	\$ 203,149	\$ 406,298	14,000	28,000	28,000	—	—	\$ —	\$ 50,400

(1) The amounts shown in column (c) reflect Incentives that would be paid for achieving 90% of all stipulated plan targets, except for Mr. Gyde, whose would be paid the reflected amounts for achieving 80% of his stipulated plan targets. The amounts shown in column (d) reflect Incentives that would be paid for achieving 100% of all stipulated plan targets. The amounts shown in column (e) reflect the maximum Incentives that would be paid under the stipulated plan. Further discussion of Incentive plan calculations is provided under the section entitled “Annual Cash Incentive Compensation,” found earlier in this annual report on Form 10-K for the year ended December 31, 2018 under the heading “Performance-Based Incentives.”

### Grants of Plan-Based Awards

Each of the Non-Equity Incentive Plan Awards represented in the table above were Incentive awards granted to the named executive officers during 2018. Such Incentive awards are described earlier in this report under the heading “Performance-Based Incentives.” The formula for calculating each executive officer’s Incentive provides that at least ninety percent (90%) of the stipulated plan target (“Threshold”) (eight percent (80%) for Mr. Gyde) must be achieved before any remuneration is awarded for that objective. If the Threshold is achieved, the executive officer receives seventy-five percent (75%) (fifty percent (50%) for Mr. Gyde) of the designated plan award<sup>3</sup> for that objective. Then, for each additional percentage point achieved above the Threshold, up to one hundred percent (100%) of the plan target (“Objective Goal”), the executive officer receives another two and one-half percent (2.5%) of the designated plan award for that objective. For each additional percentage point (1%) achieved above the Objective Goal, the executive officer receives another five percent (5%) of the designated plan award for that objective. Each plan prohibits the receipt of amounts in excess of two hundred percent (200%) of the designated plan award for that objective.

Pursuant to Company policies, an Incentive is only earned by and payable to an individual who remains in the Company’s employ on the date of Incentive distribution. Incentive payments for 2018 were made on February 22, 2019. Pursuant to his Retirement Agreement, Mr. Crumlish received his incentive for 2018.

Each of the equity awards represented in the table above were granted pursuant to the 2010 Equity Award Plan. The restricted stock awards represented in the table above were granted by the Board to the named executive officers on March 20, 2018 and include a performance condition. Under the grants, the stock price of the Company’s common shares must increase by an average of fifty percent (50%) for thirty consecutive days, from \$8.18 to \$12.27, within three years from the date of grant for fifty percent (50%) of the shares of restricted stock to vest. The remaining shares of restricted stock will vest to the named executive officers if the stock price increases by an average of one hundred percent (100%) for thirty consecutive days, from \$8.18 to \$16.36, within three years from the date of grant. If the stock price targets are not met within three years from the date of grant, the shares of restricted stock represented by the grants will expire.

Recipients of restricted stock awards were required to enter into agreements with the Company governing the vesting, exercise and/or transferability (as applicable) of such awards. Vesting requirements for restricted stock awards are based solely on continued employment.

<sup>3</sup> The designated plan award is generally calculated as a percentage of annual base salary. In 2018, the designated plan awards were: (i) for Mr. Crumlish, CEO, one hundred seven.three-tenths percent (107.3%) of base salary actually paid, (ii) for Mr. Laubacker, CFO, sixty-five and six-tenths (65.6%) of base salary actually paid, (iii) for Mr. Gydé, EVP, fifty-one percent (51%) of base salary actually paid, (v) for Mr. Gerkin, EVP, sixty-one and five-tenths (61.5%), and (v) for Mr. Radetich, SVP, seventy-one and eight-tenths percent (71.8%) of base salary actually paid

## 2018 OUTSTANDING EQUITY AWARDS AT FISCAL YEAR-END

Name (a)	Option Awards						Stock Awards		Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested (\$)
	Number of Securities Underlying Unexercised Options Exercisable (#) (b)	Number of Securities Underlying Unexercised Options Unexercisable (#) (c)	Equity Incentive Plan Awards: Number of Securities Underlying Unexercised Options (#) (d)	Option Exercise Price (\$) (e)	Option Expiration Date (f)	Number of Shares or Units of Stock That Have Not Vested (#) (g)	Market Value of Shares or Units of Stock That Have Not Vested (\$) (h)	Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested (#) (i)	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested (\$) (j)
Arthur W. Crumlish	20,000	—	—	\$ 4.90	5/12/2019	—	—	—	—
	20,000	—	—	\$ 7.18	2/16/2020	—	—	—	—
	10,000	—	—	\$ 12.16	2/15/2021	—	—	—	—
	9,000	—	—	\$ 15.04	2/14/2022	—	—	—	—
	9,000	—	—	\$ 20.68	2/12/2023	—	—	—	—
	9,000	—	—	\$ 16.93	2/19/2024	—	—	—	—
	10,875	3,625 (ca)	—	\$ 7.48	11/10/2025	—	—	—	—
	90,192	90,192 (cb)	—	\$ 4.95	8/9/2026	—	—	—	—
	—	—	—	—	—	184,736	\$ 753,723	—	—
John M. Laubacker	5,000	—	—	\$ 4.90	5/12/2019	—	—	—	—
	5,000	—	—	\$ 7.18	2/16/2020	—	—	—	—
	7,500	—	—	\$ 12.16	2/15/2021	—	—	—	—
	7,000	—	—	\$ 15.04	2/14/2022	—	—	—	—
	7,000	—	—	\$ 20.68	2/12/2023	—	—	—	—
	7,000	—	—	\$ 16.93	2/19/2024	—	—	—	—
	7,800	2,600 (la)	—	\$ 7.48	11/10/2025	—	—	—	—
	6,225	18,675 (lb)	—	\$ 5.75	5/15/2027	—	—	—	—
	—	—	—	—	—	74,150	\$ 302,532	—	—
Filip J.L. Gydé	20,000	—	—	\$ 7.18	2/16/2020	—	—	—	—
	10,000	—	—	\$ 12.16	2/15/2021	—	—	—	—
	9,000	—	—	\$ 15.04	2/14/2022	—	—	—	—
	9,000	—	—	\$ 20.68	2/12/2023	—	—	—	—
	9,000	—	—	\$ 16.93	2/19/2024	—	—	—	—
	2,550	11,050 (ga)	—	\$ 7.48	11/10/2025	—	—	—	—
	—	—	—	—	—	64,111	\$ 261,573	—	—
	—	—	—	—	—	—	—	—	—
Jeffrey D. Gerkin	7,867	15,733 (gna)	—	\$ 4.98	12/11/2027	—	—	—	—
	—	—	—	—	—	12,766	\$ 52,085	—	—
Peter P. Radetich	15,000	—	—	\$ 4.90	5/12/2019	—	—	—	—
	15,000	—	—	\$ 7.18	2/16/2020	—	—	—	—
	10,000	—	—	\$ 12.16	2/15/2021	—	—	—	—
	9,000	—	—	\$ 15.04	2/14/2022	—	—	—	—
	9,000	—	—	\$ 20.68	2/12/2023	—	—	—	—
	9,000	—	—	\$ 16.93	2/19/2024	—	—	—	—
	10,875	3,625 (ra)	—	\$ 7.48	11/10/2025	—	—	—	—
	—	—	—	—	—	67,560	275,645	—	—
	—	—	—	—	—	—	—	—	—

- (ca) 3,625 vest on 11/10/2019
- (cb) 45,096 each vest on 8/9/2019 and 8/9/2020
- (la) 2,600 vest on 11/10/2019
- (lb) 6,225 each vest on 5/15/2019, 5/15/2020, and 5/15/2021
- (ga) 10,200 vest on 1/1/2019 and 850 vest on 11/10/2019
- (gna) 7,866 vest on 12/11/2019 and 7,867 vest of 12/11/2020
- (ra) 3,625 vest on 11/10/2019



## 2018 OPTION EXERCISES AND STOCK VESTED

The following table provides information for each of the Company's named executive officers regarding stock option exercises and vesting of stock awards during 2018.

Name of Executive Officer	Option Awards		Stock Awards	
	Number of Shares Acquired on Exercise (#) (1)	Value Realized on Exercise (\$) (1)	Number of Shares Acquired on Vesting (#) (1)	Value Realized on Vesting (\$) (1)
Arthur W. Crumlish	20,000	\$ 86,400	15,256	\$ 99,138
John M. Laubacker	5,000	\$ 21,600	9,963	\$ 67,063
Filip J. L. Gydé	40,000	\$ 138,123	11,114	\$ 74,764
Jeffrey D. Gerkin	—	\$ —	2,259	\$ 9,601
Peter P. Radetich	15,000	\$ 64,800	11,163	\$ 75,153

(1) For Option Awards, the value realized is the difference between the fair market value of the underlying stock at the time of exercise and the exercise price. For Stock Awards, the value realized is based on the fair market value of the underlying stock on the vest date.

### Pension Benefits

The Company maintains an Executive Supplemental Benefit Plan (Supplemental Plan) which provides certain former executives with deferred compensation benefits. The Supplemental Plan was amended as of December 1, 1994 in order to freeze the then-current benefits, provide no additional benefit accruals for participants and to admit no new participants. None of the named executive officers participates in the Supplemental Plan.

Generally, the Supplemental Plan provides for retirement benefits of up to 50% of a participating employee's base compensation at termination or as of December 1, 1994, whichever is earlier, and pre-retirement death benefits calculated using the same formula that is used to calculate normal and early retirement benefits. Benefits are based on service credits earned each year of employment prior to and subsequent to admission to the Supplemental Plan through December 1, 1994. Retirement benefits and pre-retirement death benefits are paid during the 180 months following retirement or death, respectively, while disability benefits are paid until normal retirement age. Normal retirement is age 60. For any participant who is also a participant in the Deferred Compensation Plan, the normal retirement age is increased to 65.

## 2018 NONQUALIFIED DEFERRED COMPENSATION

Name of Executive Officer	Executive Contributions in Last FY (\$) (a)	Registrant Contributions in Last FY (\$) (c)	Aggregate Earnings in Last FY (\$) (d)	Aggregate Withdrawals / Distributions (\$) (e)	Aggregate Balance at Last FYE (\$) (f)
Arthur W. Crumlish	—	—	\$ (65,024)	—	\$ 272,836
John M. Laubacker	—	—	\$ (7,336)	—	\$ 135,719
Filip J. L. Gydé	—	—	\$ —	—	\$ —
Jeffrey D. Gerkin	—	—	\$ —	—	\$ —
Peter P. Radetich	—	—	\$ (49,665)	—	\$ 215,837

(1) During 2017, the Company discontinued contributions under the Deferred Compensation Plan. Mr. Gydé does not have an account under the Deferred Compensation Plan as he is not eligible to participate in the plan, and Mr. Gerkin does not have a balance as he joined the Company in 2017 subsequent to the contributions being discontinued, and he did not make any contributions to the Plan himself during 2018.

On February 2, 1995, the Compensation Committee approved the creation of a Nonqualified Key Employee Deferred Compensation Plan ("Deferred Compensation Plan"). The Deferred Compensation Plan is a successor plan to the Supplemental Plan. Participants in the Deferred Compensation Plan are eligible to elect to defer a percentage of their annual cash compensation. Prior to 2017, participants were eligible to receive a Company contribution of a percentage of their base compensation and annual Incentive if the Company attained annual defined performance objectives for the year. These performance objectives were on an annual basis for the upcoming year. The contribution to the Deferred Compensation Plan by the Company was discontinued during 2017.

Plan participants have a 100% non-forfeitable right to the value of their corporate contribution account after the fifth anniversary of employment with the Company. If a participant terminates employment due to death, disability, retirement at age 65, or upon the occurrence of a Change in Control Event (as defined in the plan), the participant or his or her estate will be entitled to receive the benefits accrued for the participant as of the date of such event. Company

contributions will be forfeited in the event a participant incurs a separation from service for cause. Participants are 100% vested in their own contributions. All amounts in the Deferred Compensation Plan, including elective deferrals, are held as general assets of the Company and are subject to the claims of creditors of the Company.

### **Potential Payments upon Termination or Change in Control**

**Agreements with Mr. Crumlish.** On October 8, 2001, the Company entered into a change in control agreement with Mr. Crumlish, which was amended and restated effective January 1, 2009. Upon the occurrence of a change in control, Mr. Crumlish would become fully vested in, and entitled to exercise immediately, all stock-related awards granted under any plans or agreements of the Company. The agreement further provides that upon the termination of Mr. Crumlish's employment without cause by the Company, or by him with Good Reason, within a period beginning six months before a change in control and ending 24 months following a change in control, Mr. Crumlish will receive a lump sum payment equal to two times his full salary and two times his average annual Incentive over the last three years as well as an additional lump sum to cover fringe benefits. Under his agreement, a change in control occurs if (1) the Company's stockholders approve (a) the dissolution or liquidation of the Company, (b) the merger or consolidation or other reorganization of the Company with any other entity other than a subsidiary of the Company, or (c) the sale of all or substantially all of the Company's business or assets, or (2) any person other than the Company or its subsidiaries or employee benefit plans becomes the beneficial owner of more than 20% of the combined voting power of the Company's then-outstanding securities, or (3) during any period not longer than two consecutive years, individuals who at the beginning of such period constituted the Board cease to constitute at least a majority thereof, unless the election of each new Board member was approved by a vote of at least three-quarters of the Board members then still in office who were Board members at the beginning of such period.

If a change in control had occurred on Monday, December 31, 2018, all of Mr. Crumlish's unvested stock options and restricted stock awards would have become fully vested as of that date.<sup>4</sup> If the Company's stock price was \$4.08 (which was the closing price of the stock on December 31, 2018), Mr. Crumlish could potentially have realized gains, before tax, from the sale of securities that had vested solely as a result of a change in control in the following amounts: (i) \$753,723 from the sale of restricted stock and (ii) \$0 from the exercise of those stock options.

In the event of a qualifying termination of employment, Mr. Crumlish would have been entitled to receive a lump-sum cash payment from the Company totaling \$1,313,474 following his termination. This payment equals two times the sum of Mr. Crumlish's current base salary<sup>5</sup> and his average annual Incentive payment from the last three years and includes an amount equal to twenty-five percent (25%) of Mr. Crumlish's current base salary and his highest annual Incentive payment from the last three years.<sup>6</sup>

Mr. Crumlish is the only executive officer with an employment agreement affording severance benefits upon termination. Pursuant to the terms of such agreement, in the event of termination by Mr. Crumlish for Good Reason (as that term is defined in the agreement), or by the Company other than for Cause (as that term is defined in the agreement), Mr. Crumlish would receive a lump-sum cash payment equal to his current base salary plus an amount equal to the average annual Incentive paid to Mr. Crumlish during the most recent three-year period. Mr. Crumlish would also continue to receive medical and dental benefits for a period of twelve (12) months. Had Mr. Crumlish's employment been terminated<sup>7</sup> on December 31, 2018, he would have been eligible to receive an initial lump-sum cash payment equal to \$577,685. Mr. Crumlish would also receive, for a period of twelve months, continuing medical and dental coverage under any plans he participates in as of the effective date of such termination. Continued medical and dental benefits would likely total approximately \$16,380.<sup>8</sup> Pursuant to the terms of Mr. Crumlish's employment agreement, the termination benefits afforded under the change in control agreement will supersede in the event his termination triggers payments under that agreement.

Payments made to Mr. Crumlish pursuant to this agreement are contingent upon his adherence to certain restrictive covenants, which were effective from the date of the agreement and would continue until one year after his separation from the Company. These restrictive covenants generally prohibited Mr. Crumlish from, directly or indirectly: (i) engaging in any business activity which competes with the Company, (ii) soliciting or hiring any of the Company's employees, (iii) canvassing or soliciting customers of the Company, (iv) willfully dissuading or encouraging any person from conducting business with the Company or (v) intentionally disrupting any supplier relationship. Mr. Crumlish retired effective March 1, 2019 and the terms of his retirement agreement are outlined in the Form 8-K filed on December 20, 2018.

<sup>4</sup> Such awards are more fully described in the table entitled "Outstanding Equity Awards at Fiscal Year-End."

<sup>5</sup> Mr. Crumlish's salary was \$410,000 as of December 31, 2018.

<sup>6</sup> This amount is intended to cover fringe benefits such as 401(k), health, medical, dental, disability and similar benefits for a period of twenty-four months.

<sup>7</sup> The severance trigger requires that the termination be made either by Mr. Crumlish for Good Reason or by the Company other than for Cause.

<sup>8</sup> This amount reflects the total costs paid for medical, dental and disability insurance during 2018.

**Agreements with Other Executive Officers.** Except for Mr. Gydé,<sup>9</sup> each of the named executive officers has entered into a change in control agreement with the Company. These agreements contain provisions generally similar to those of Mr. Crumlish's change in control agreement. All executive officers Change in Control agreements contain double trigger mechanisms.

If a change in control occurred on Monday, December 31, 2018, then each of the named executive officers (excluding Mr. Gydé) would have immediately become fully vested in any stock option or restricted stock awards previously granted.<sup>10</sup> If the stock price of the Company was \$4.08, which was the closing price of the stock on December 31, 2018, then the named executive officers could potentially have realized gains, before tax, from the sale of vested securities in the following amounts:

Name of Executive Officer	Restricted Stock	Stock Options
John M. Laubacker	\$ 302,532	\$ —
Filip J. L. Gydé	\$ 261,573	\$ —
Jeffrey D. Gerkin	\$ 52,085	\$ —
Peter P. Radetich	\$ 275,645	\$ —

Had the abovementioned executive officers' employment been terminated without cause by the Company or by themselves with good reason within 6 months prior to or 24 months following such a change in control, they would also have been entitled to receive, by the tenth day following their termination, lump-sum cash payments from the Company in the following amounts:

- Mr. Laubacker would have received a lump-sum payment of \$872,179;
- Mr. Gerkin would have received a lump-sum payment of \$1,049,870; and
- Mr. Radetich would have received a lump-sum payment of \$793,452.

These payments equal two (2) times the sum of each individual's current annual salary<sup>11</sup> and their average annual Incentive payment from the last three years; and also include an amount equal to twenty-five percent (25%) of each individual's current base salary and the highest annual incentive payment from the last three years.<sup>12</sup>

## 2018 DIRECTOR COMPENSATION

Name of Director (a)	Fees Earned or Paid in Cash (\$) (b)	Stock Awards (\$) (c) (1)	Option Awards (\$) (d)	Non-Equity Incentive Plan Compensation (\$) (e)	Change in Pension Value and Nonqualified Deferred Compensation Earnings (\$) (f)	All Other Compensation (\$) (g)	Total (\$) (h)
James R. Helvey III	\$ —	\$ 165,000	\$ —	\$ —	\$ —	\$ —	\$ 165,000
David H. Klein	\$ —	\$ 160,000	\$ —	\$ —	\$ —	\$ —	\$ 160,000
Valerie Rahmani	\$ —	\$ 160,000	\$ —	\$ —	\$ —	\$ —	\$ 160,000
Daniel J. Sullivan	\$ —	\$ 250,000	\$ —	\$ —	\$ —	\$ —	\$ 250,000
Owen J. Sullivan	\$ —	\$ 150,000	\$ —	\$ —	\$ —	\$ —	\$ 150,000

(1) At the election of the directors, the director fees for 2018 were paid in the form of deferred stock units granted under the 2010 Equity Award Plan and deposited into the Director Deferred Compensation Plan.

As of December 31, 2018, Mr. Daniel J. Sullivan had been granted 40,000 shares of Company restricted stock. This restricted stock vests upon retirement from the Board. Mr. Klein, who was appointed to the Board in September 2012, Mr. Helvey and Ms. Rahmani, who were appointed to the board in November 2015, and Mr. Owen Sullivan, who was appointed in February 2017, have not received any grants of restricted shares.

As of December 31, 2018, the directors had the following number of stock options outstanding: Helvey (0), Klein (33,096), Rahmani (0), Daniel J. Sullivan (200,000), and Owen J. Sullivan (0).

<sup>9</sup> Since Belgian law mandates certain separation benefits, the Company does not maintain a change in control agreement with Mr. Gydé.

<sup>10</sup> Such awards are more fully described in the table entitled "Outstanding Equity Awards at Fiscal Year-End."

<sup>11</sup> Salaries as of December 31, 2018 were \$320,000 for Mr. Laubacker, \$325,000 for Mr. Gerkin, and \$283,000 for Mr. Radetich.

<sup>12</sup> This amount is intended to cover fringe benefits such as 401(k), health, medical, dental, disability and similar benefits for a period of twenty-four months.

In 2010, the Company's shareholders approved the Non-Employee Director Deferred Compensation Plan ("Director Deferred Compensation Plan"). Although no set benefits or amounts were granted under this Plan in 2018, the Director Deferred Compensation Plan allows non-employee directors the ability to defer up to 100% of their total director compensation. Beginning January 1, 2018, the Board elected to eliminate cash payments and take their compensation wholly in deferred stock units, which are granted under the 2010 Equity Award Plan and deposited into the Director Deferred Compensation Plan. Grants were made quarterly throughout 2018, each equal to one-quarter of the total fees due to each director.

For 2018, base compensation for each board member totaled \$150,000. The chairman of the Board of Directors (Mr. Daniel J. Sullivan) also received a \$100,000 annual fee. The chairman of the Audit Committee (Mr. Helvey) received a \$15,000 annual fee, and the Chairman of the Compensation Committee (Ms. Rahmani) received a \$10,000 annual fee, while the Chairman of the Nominating and Governance Committee (Mr. Klein) received an annual fee of \$10,000. Directors are reimbursed for expenses they incur while attending Board and committee meetings. As previously noted, all fees for 2018 were paid in the form of deferred stock units. Mr. Crumlish did not receive any additional compensation for his services as a director.

The Company has adopted stock ownership guidelines requiring each independent director to own Company shares valued at five (5) times the director's annual cash retainer.

The Director Deferred Compensation Plan is administered by the Compensation Committee in accordance with Section 409A of the Internal Revenue Code. All amounts credited to the participant are invested, as approved by the Compensation Committee, and the participant is credited with the actual earnings of the investments. Company contributions, including investment earnings, may be in cash or the stock of the Company. Plan participants have an immediate 100% non-forfeitable right to the value of their contributions. If a participant does not make an election in the time and manner specified in the Plan, payment of the vested value of his or her account will be paid in shares for share units owned, and in cash for the cash balance in their account. A participant's eligibility terminates upon retirement or resignation from service.

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

### **Security Ownership of Certain Beneficial Owners**

As of March 1, 2019, the following persons were beneficial owners of more than five percent of the Company's common stock. The beneficial ownership information presented is based upon information furnished by each person or contained in filings made with the Securities and Exchange Commission. Except as otherwise indicated, each holder has sole voting and investment power with respect to the shares indicated. The following table shows the nature and amount of their beneficial ownership.

<b>Title of Class</b>	<b>Name and Address of Beneficial Owner</b>	<b>Amount and Nature of Ownership</b>	<b>Percent of Class</b>
Common Stock	Neil S. Subin 3300 South Dixie Highway, Suite 1-365 West Palm Beach, FL 33405	1,331,761 (1)	9.3%
Common Stock	Minerva Advisors LLC, and related parties 50 Monument Road, Suite 201 Bala Cynwyd, PA 19004	1,233,160 (2)	8.6%
Common Stock	Dimensional Fund Advisors LP Building One 6300 Bee Cave Road Austin, TX 78746	986,590 (3)	6.9%
Common Stock	Renaissance Technologies LLC, and related parties 800 Third Avenue New York, NY 10022	939,700 (4)	6.6%

(1) Based solely on information contained in a Schedule 13G filed January 23, 2018, indicating that Neil S. Subin has sole voting and dispositive power over 1,297,033 shares; and shared voting and dispositive power over 34,728 shares.

(2) Based solely on information contained in a Schedule 13G filed on January 31, 2019, indicating that Minerva Advisors LLC, Minerva Group, LP, Minerva GP, LP, Minerva GP, Inc. and David P. Cohen have sole voting power and sole dispositive power over 861,799 shares; and that Minerva Advisors LLC and David P. Cohen have shared voting power and share dispositive power over 371,361 shares.

- (3) Based solely on information contained in a Schedule 13G filed February 8, 2019, indicating that Dimensional Fund Advisors LP has sole voting and dispositive power over 931,488 shares and sole dispositive power over 986,590 shares.
- (4) Based solely on information contained in a Schedule 13G filed February 12, 2019, indicating that Renaissance Technologies LLC and Renaissance Technologies Holdings Corporation beneficially own 939,700 shares, have sole voting power over 760,400 shares, sole dispositive power over 867,162 shares, and shared dispositive power over 72,538 shares.

### Security Ownership by Management

The table below sets forth, as of February 28, 2019, the beneficial ownership of the Company's common stock by (i) each director and nominee for director individually, (ii) each executive officer named in the summary compensation table individually, and (iii) all directors and executive officers of the Company as a group.

Name of Individual or Number in Group	Shares Owned	Shares Beneficially Owned (1)	Total Ownership (2)	Percent of Class
Arthur W. Crumlish	311,142	178,067	489,209	3.4%
James R. Helvey III	98,427	—	98,427	0.7%
David H. Klein	111,060	33,096	144,156	1.0%
Valerie Rahmani	96,543	—	96,543	0.7%
Daniel J. Sullivan	268,257	200,000	468,257	3.3%
Owen J. Sullivan	73,876	—	73,876	0.5%
Filip J.L. Gydé	156,337	69,750	226,087	1.6%
Jeffrey D. Gerkin	7,558	7,867	15,425	0.1%
John M. Laubacker	109,931	52,525	162,456	1.1%
Peter P. Radetich	131,312	77,875	209,187	1.5%
All directors and executive officers as a group (10 persons)	1,364,443	619,180	1,983,623	13.9%

- (1) Amounts represent number of shares available to purchase through the exercise of options that were exercisable on or within 60 days after February 28, 2019.
- (2) The beneficial ownership information presented is based upon information furnished by each person or contained in filings made with the Securities and Exchange Commission. Except as otherwise indicated, each holder has sole voting and investment power with respect to the shares indicated.

The following table sets forth, as of December 31, 2018, certain information related to the Company's compensation plans under which shares of its common stock are authorized for issuance:

	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted-average exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities listed in column (a)) (c)
<i>Equity compensation plans approved by security holders:</i>			
2010 Equity Award Plan	800,155	\$ 12.18	1,700,000
2000 Equity Award Plan	447,550	\$ 5.42	—
1991 Restricted Stock Plan	—	\$ —	7,000
<i>Equity compensation plans not approved by security holders:</i>			
None			
<b>Total</b>	<b>1,247,705</b>		<b>1,707,000</b>

At December 31, 2018, the Company did not have any outstanding rights or warrants. All outstanding awards are either stock options or restricted stock.

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

The Board of Directors affirmatively determined in February 2019 that each of the Company's five non-management directors, which include James R. Helvey III, David H. Klein, Valerie Rahmani, Daniel J. Sullivan, and Owen J. Sullivan, is an independent director in accordance with our corporate governance policies and the standards of the NASDAQ Stock Market ("NASDAQ"). Messrs. Daniel J. Sullivan and Owen J. Sullivan are not related. As a result of these five directors being independent, a majority of our Company's Board of Directors is currently independent as so defined. The Board of Directors has determined that there are no relationships between the Company and the directors classified as independent other than service on our Company's Board of Directors.

The foregoing independence determination also included the conclusions of the Board of Directors that:

- each member of the Audit Committee, Nominating and Corporate Governance Committee, and Compensation Committee described in this annual report on Form 10-K is respectively independent under the standards listed above for purposes of membership on each of these committees; and
- each of the members of the Audit Committee also meets the additional independence requirements under Rule 10A-3(b) of the Securities and Exchange Act of 1934, as amended (the “Exchange Act”).

Mr. Daniel J. Sullivan serves as the Chairman of the Board of Directors and is responsible for scheduling and setting the agenda for the executive sessions of the independent directors. Such executive sessions are expected to occur at regularly scheduled times during the fiscal year ending December 31, 2019, typically in conjunction with a regularly scheduled Board meeting, in addition to the separate meetings of the standing committees of the Board of Directors.

In accordance with the charter of the Audit Committee, the Audit Committee reviews related person transactions. It is the Company’s policy that it will not enter into transactions that are considered related person transactions that are required to be disclosed under Item 404 of Regulation S-K unless the Audit Committee or another independent body of the Board of Directors first reviews and approves the transactions.

#### **Item 14. Principal Accounting Fees and Services**

##### **Appointment of Auditors and Fees**

The Audit Committee appointed KPMG LLP (KPMG) as the independent registered public accounting firm to audit the Company’s financial statements for fiscal 2018.

To the best of the Company’s knowledge, no member of that firm has any past or present interest, financial or otherwise, direct or indirect, in the Company or any of its subsidiaries. Matters involving auditing and related functions are considered and acted upon by the Audit Committee.

*Audit Fees* —The aggregate fees billed for professional services rendered by KPMG for the audit of the Company’s annual financial statements for the last two fiscal years, including the Company’s foreign subsidiaries, the reviews of the financial statements included in the Company’s Form 10-Qs, and services rendered in connection with the Company’s obligations under Section 404 of the Sarbanes-Oxley Act of 2002 and related regulations were approximately \$752,691 and \$615,400 in 2018 and 2017, respectively.

*Audit-Related Fees* —The aggregate fees billed for assurance and related services rendered by KPMG for the last two fiscal years that are reasonably related to the performance of the audit or review of the Company’s financial statements were \$0 in both 2018 and 2017.

*Tax Fees* —The Company was billed \$0 for fees in both 2018 and 2017 for professional services rendered by KPMG for tax compliance, tax advice and tax planning.

*All Other Fees* — No other fees were paid to KPMG in 2018 or 2017.

The Audit Committee pre-approves all fees paid to and all services performed by the Company’s independent registered public accounting firm, including the nature, type and scope of service to be performed during the year. Any services to be performed during the year that are outside the scope of the initial services and fees approved by the Audit Committee must be approved prior to being performed. In addition, the independent accounting firm is required to confirm that such services does not impair its independence.

## PART IV

### **Item 15. Exhibits, Financial Statement Schedules**

(a)	Index to Consolidated Financial Statements and Financial Statement Schedule	
(1)	Financial Statements:	
	Consolidated Statements of Operations	31
	Consolidated Statements of Comprehensive Income (Loss)	32
	Consolidated Balance Sheets	33
	Consolidated Statements of Cash Flows	34
	Consolidated Statements of Shareholders' Equity	35
	Notes to Consolidated Financial Statements	37
(2)	Index to Consolidated Financial Statement Schedule	
	Financial statement schedule:	
	Schedule II—Valuation and Qualifying Accounts	88
(b)	Exhibits	
	The Exhibits to this annual report on Form 10-K are listed on the attached Exhibit Index	

**EXHIBIT INDEX**

<b>Exhibit</b>	<b>Description</b>	<b>Reference</b>
2.	(a) Share Purchase Agreement, dated as of February 15, 2018, by and between Computer Task Group IT Solutions S.A. and Soft Company SAS	(12)
	(b) Share Purchase Agreement, dated as of January 3, 2019, by and between Computer Task Group PSF S.A. and Mr. Hamid Kaddour and Karp-Kneip Participations S.A.	(16)
3.	(a) Restated Certificate of Incorporation of Registrant	(3)
	(b) Restated By-laws of Registrant	(10)
4.	(a) Restated Certificate of Incorporation of Registrant	(3)
	(b) Restated By-laws of Registrant	(10)
	(c) Specimen Common Stock Certificate	(3)
10.	(a) Computer Task Group, Incorporated Non-Qualified Key Employee Deferred Compensation Plan 2007 Restatement	(2) +
	(b) Computer Task Group, Incorporated 1991 Restricted Stock Plan	(3) +
	(c) Computer Task Group, Incorporated 2000 Equity Award Plan	(4) +
	(d) Computer Task Group, Incorporated Executive Supplemental Benefit Plan 1997 Restatement	(3) +
	(e) First Amendment to the Computer Task Group, Incorporated Executive Supplemental Benefit Plan 1997 Restatement	(3) +
	(f) Compensation Arrangements for the Named Executive Officers	# +
	(g) Employment Agreement, signed February 8, 2017, between the Registrant and Arthur W. Crumlish	(8) +
	(h) Officer Change in Control Agreement	(5) +
	(i) Computer Task Group, Incorporated First Employee Stock Purchase Plan (Ninth Amendment and Restatement)	(7) +
	(j) Computer Task Group, Incorporated 1991 Employee Stock Option Plan	(1) +
	(k) Restated Computer Task Group, Incorporated 2010 Equity Award Plan	(10) +
	(l) Computer Task Group, Incorporated Non-Employee Director Deferred Compensation Plan	(6) +
	(m) Computer Task Group, Incorporated Indemnification Agreement (Directors)	(9) +
	(n) Computer Task Group, Incorporated Indemnification Agreement (Executive Officers)	(9) +
	(o) Change in Control Agreement, 2017	(9) +
	(p) Credit Agreement, dated as of December 21, 2017, among Computer Task Group, Incorporated as Borrower, with KeyBank National Association as Administrative Agent, Swing Line Lender and Issuing Lender and KeyBanc Capital Markets Inc. as Lead Arranger and Sole Book Runner	(11)
	(q) First Amendment Agreement dated as of April 13, 2018 to the Credit Agreement dated as of December 21, 2017 by and among Computer Task Group, Incorporated as Borrower, with KeyBank National Association as Administrative Agent, Swing Line Lender and Issuing Lender and KeyBanc Capital Markets Inc. as Lead Arranger and Sole Book Runner.	(13)
	(r) Second Amendment Agreement dated as of October 10, 2018 to the Credit Agreement dated as of December 21, 2017 by and among Computer Task Group, Incorporated as Borrower, with KeyBank National Association as Administrative Agent, Swing Line Lender and Issuing Lender and KeyBanc Capital Markets Inc. as Lead Arranger and Sole Book Runner	(14)
	(s) Retirement Agreement dated December 19, 2018 between Computer Task Group, Incorporated and Arthur Crumlish.	(15)
	(t) Employment Agreement, dated March 1, 2019, between Computer Task Group, Incorporated, Computer Task Group Belgium NV and Filip J.L. Gydé.	(17) +
	(u) Annex to Employment Agreement dated March 1, 2019, between Computer Task Group, Incorporated, Computer Task Group Belgium NV and Filip J.L. Gydé.	(17) +
21.	Subsidiaries of the Registrant	#
23.	Consent of Experts and Counsel	#
31.	(a) Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	#
	(b) Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	#
32.	Certification Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	##
101.INS	XBRL Instance Document	#
101.SCH	XBRL Taxonomy Extension Schema Document	#
101.CAL	XBRL Taxonomy Extension Calculation Linkbase	#



101.LAB	XBRL Taxonomy Extension Label Linkbase	#
101.PRE	XBRL Taxonomy Extension Presentation Linkbase	#
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document	#

## References

- # Filed herewith
- ## Furnished herewith
- + Management contract or compensatory plan or arrangement
- (1) Filed as an Exhibit to the Registrant's Annual Report on Form 10-K for the year ended December 31, 1996, and incorporated herein by reference (file No. 001-09410 filed on March 28, 1997)
- (2) Filed as an Exhibit to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2006, and incorporated herein by reference (file No. 001-09410 filed on March 7, 2007)
- (3) Filed as an Exhibit to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2007, and incorporated herein by reference (file No. 001-09410 filed on March 10, 2008)
- (4) Filed as an Exhibit to the Registrant's Form 8-K on November 18, 2008, and incorporated herein by reference (file No. 001-09410)
- (5) Filed as an Exhibit to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2008, and incorporated herein by reference (file No. 001-09410 filed on February 26, 2009)
- (6) Filed as Appendix A to the Registrant's Proxy Statement on Schedule 14A, dated April 2, 2010, for its Annual Meeting of Shareholders held on May 12, 2010 (file No. 001-09410 filed on March 31, 2010)
- (7) Filed as Exhibit A to the Registrant's Proxy Statement on Schedule 14A dated April 4, 2012, for its Annual Meeting of Shareholders held on May 9, 2012 (file No. 001-09410 filed on April 4, 2012)
- (8) Filed as an Exhibit to the Registrant's Form 8-K on February 13, 2017, and incorporated herein by reference (file No. 001-09410)
- (9) Filed as an Exhibit to the Registrant's Annual Report on Form 10-K for the year ended December 31, 2016, and incorporated herein by reference (file No. 001-09410 filed on February 24, 2017)
- (10) Filed as an Exhibit to the Registrant's Quarterly Report on Form 10-Q for the quarterly period ended September 29, 2017, and incorporated herein by reference (file No. 001-09410 filed on October 26, 2017)
- (11) Filed as an Exhibit to the Registrant's Form 8-K on December 26, 2017, and incorporated herein by reference (file No. 001-09410)
- (12) Filed as an Exhibit to the Registrant's Form 8-K on February 15, 2018, and incorporated herein by reference (file No. 001-09410)
- (13) Filed as an Exhibit to the Registrant's Form 8-K on April 13, 2018, and incorporated herein by reference (file No. 001-09410).
- (14) Filed as an Exhibit to the Registrant's Form 8-K on October 15, 2018, and incorporated herein by reference (file No. 001-09410).
- (15) Filed as an Exhibit to the Registrant's Form 8-K on December 20, 2018, and incorporated herein by reference (file No. 001-09410).
- (16) Filed as an Exhibit to the Registrant's Form 8-K on January 3, 2019, and incorporated herein by reference (file No. 001-09410).
- (17) Filed as an Exhibit to the Registrant's Form 8-K on March 4, 2019, and incorporated herein by reference (file No. 001-09410).

## **Item 16. Form 10-K Summary**

None.

**COMPUTER TASK GROUP, INCORPORATED**  
**SCHEDULE II—VALUATION AND QUALIFYING ACCOUNTS**  
(amounts in thousands)

	Balance at January 1	Additions	Deductions	Balance at December 31
<b>2018</b>				
Accounts deducted from accounts receivable -				
Allowance for doubtful accounts	\$ 133	91 <sup>A</sup>	(120) <sup>A</sup>	\$ 104
Accounts deducted from deferred tax assets -				
Deferred tax asset valuation allowance	\$ 2,505	4,118 <sup>B</sup>	(1,033) <sup>B</sup>	\$ 5,590
<b>2017</b>				
Accounts deducted from accounts receivable -				
Allowance for doubtful accounts	\$ 469	96 <sup>A</sup>	(432) <sup>A</sup>	\$ 133
Accounts deducted from deferred tax assets -				
Deferred tax asset valuation allowance	\$ 2,650	469 <sup>B</sup>	(614) <sup>B</sup>	\$ 2,505
<b>2016</b>				
Accounts deducted from accounts receivable -				
Allowance for doubtful accounts	\$ 377	276 <sup>A</sup>	(184) <sup>A</sup>	\$ 469
Accounts deducted from deferred tax assets -				
Deferred tax asset valuation allowance	\$ 2,349	518 <sup>B</sup>	(217) <sup>B</sup>	\$ 2,650

- A These balances primarily reflect additions to the allowance charged to expense resulting from the normal course of business, less deductions for recovery of accounts that were previously reserved, and additions and deductions for foreign currency translation
- B These balances primarily reflect additions or deductions to the valuation allowance associated with the U.S. deferred tax assets, reversal of the valuation allowance against the U.K. and India deferred tax assets, changes in foreign currency exchange rates, and deductions for expiring net operating loss carryforwards

## 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.

COMPUTER TASK GROUP, INCORPORATED

By                     /s/ Filip J.L. Gydé                      
                     Filip J.L. Gydé  
                     President and Chief Executive Officer

Dated: March 15, 2019

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

	Signature	Title	Date
(i)	Principal Executive Officer  <u>                    /s/ Filip J.L. Gydé                    </u> Filip J.L. Gydé	President and Chief Executive Officer	March 15, 2019
(ii)	Principal Accounting and Principal Financial Officer  <u>                    /s/ John M. Laubacker                    </u> John M. Laubacker	Chief Financial Officer	March 15, 2019
(iii)	Directors		
	<u>                    /s/ Filip J.L. Gydé                    </u> Filip J.L. Gydé	Director	March 15, 2019
	<u>                    /s/ James R. Helvey III                    </u> James R. Helvey III	Director	March 15, 2019
	<u>                    /s/ David H. Klein                    </u> David H. Klein	Director	March 15, 2019
	<u>                    /s/ Valerie Rahmani                    </u> Valerie Rahmani	Director	March 15, 2019
	<u>                    /s/ Daniel J. Sullivan                    </u> Daniel J. Sullivan	Chairman of the Board of Directors	March 15, 2019
	<u>                    /s/ Owen J. Sullivan                    </u> Owen J. Sullivan	Director	March 15, 2019

COMPUTER TASK GROUP, INCORPORATEDSUBSIDIARIES OF COMPUTER TASK GROUP, INCORPORATED

The following is a list of all of the subsidiaries of the Registrant as of December 31, 2018. All financial statements of such subsidiaries are included in the consolidated financial statements of the Registrant, and all of the voting securities of each subsidiary are wholly-owned by the Registrant:

<u>Subsidiary</u>	<u>State/Country or Jurisdiction of Incorporation</u>
Computer Task Group of Delaware, Inc.	Delaware
CTG of Buffalo, Inc.	New York
Computer Task Group (Holdings) Limited	United Kingdom
Computer Task Group of Canada, Inc.	Canada
Computer Task Group International, Inc.	Delaware
Computer Task Group Europe B.V. (a subsidiary of Computer Task Group International, Inc.)	The Netherlands
Computer Task Group (U.K.) Limited (a subsidiary of Computer Task Group Europe B.V.)	United Kingdom
Computer Task Group Belgium N.V. (a subsidiary of Computer Task Group Europe B.V.)	Belgium
Computer Task Information Technology Services Private (a subsidiary of Computer Task Group International, Inc.)	India
CTG ITS S.A. (a subsidiary of Computer Task Group IT Solutions, S.A.)	Belgium
Soft Company SAS (a subsidiary of Computer Task Group IT Solutions, S.A.)	France
Computer Task Group of Luxembourg PSF (a subsidiary of Computer Task Group, Incorporated)	Luxembourg
Computer Task Group IT Solutions, S.A. (a subsidiary of Computer Task Group Luxembourg PSF.)	Luxembourg
CTG Health Solutions N.V. (a subsidiary of Computer Task Group Belgium N.V.)	Belgium

**Consent of Independent Registered Public Accounting Firm**

The Board of Directors  
Computer Task Group, Incorporated:

We consent to the incorporation by reference in the registration statements No. 333-39936, 333-51162, 333-66766, 333-91148, 333-118314, 333-143080, 333-152827, 333-167461, 333-167462, 333-183206, 333-197925, 333-206219, and 333-219911 on Form S-8 of Computer Task Group, Incorporated of our report dated March 15, 2019, with respect to the consolidated balance sheets of Computer Task Group, Incorporated as of December 31, 2018 and 2017, the related consolidated statements of operations, comprehensive income(loss), stockholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2018, and the related notes and financial statement schedule and the effectiveness of internal control over financial reporting as of December 31, 2018, which reports appear in the December 31, 2018 annual report on Form 10-K of Computer Task Group, Incorporated.

Our report dated March 15, 2019, on the effectiveness of internal control over financial reporting as of December 31, 2018, contains an explanatory paragraph that states the Company acquired Soft Company on February 15, 2018, and management excluded from its assessment of the effectiveness of internal control over financial reporting as of December 31, 2018, Soft Company's internal control over financial reporting associated with assets representing \$26.7 million of consolidated assets (of which \$17.6 million represents goodwill and intangible assets included in the scope of the assessment), and revenues representing \$27.3 million of consolidated revenues included in the consolidated financial statements of the Company as of and for the year ended December 31, 2018. Our audit of internal control over financial reporting of Computer Task Group, Incorporated also excluded an evaluation of the internal control over financial reporting of Soft Company.

/s/ KPMG LLP

Buffalo, New York

March 15, 2019

**CERTIFICATION**

I, Filip J.L. Gydé, certify that:

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

Date: March 15, 2019

*/s/ Filip J.L. Gydé*  
**Filip J.L. Gydé**  
**Chief Executive Officer**

## CERTIFICATION

I, John M. Laubacker, certify that:

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

Date: March 15, 2019

*/s/ John M. Laubacker*

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**John M. Laubacker**  
**Chief Financial Officer**

**CERTIFICATION**  
**PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**  
**(Subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code)**

Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of Section 1350, Chapter 63 of Title 18, United States Code), each of the undersigned officers of Computer Task Group, Incorporated, a New York corporation (the "Company"), does hereby certify with respect to the Annual Report of the Company on Form 10-K for the year ended December 31, 2018 as filed with the Securities and Exchange Commission (the "Form 10-K") that:

- (1) the Form 10-K fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) the information contained in the Form 10-K fairly presents, in all material respects, the financial condition and results of operations of the Company.

A signed original of this written statement required by Section 906 has been provided to Computer Task Group, Incorporated and will be retained by Computer Task Group, Incorporated and furnished to the Securities and Exchange Commission or its staff upon request.

Date: March 15, 2019

*/s/ Filip J.L. Gydé*

**Filip J.L. Gydé**  
**Chief Executive Officer**

Date: March 15, 2019

*/s/ John M. Laubacker*

**John M. Laubacker**  
**Chief Financial Officer**



## Corporate Information

### Stock Market Information

The Company's common stock is traded on The NASDAQ Stock Market LLC under the symbol CTG.

### Annual Meeting

The annual meeting of shareholders has been scheduled for July 25, 2019 in Buffalo, New York, for shareholders of record on June 7, 2019.

### Corporate Headquarters

CTG  
800 Delaware Avenue  
Buffalo, NY 14209-2094  
(716) 882-8000  
(800) 992-5350

### CTG Europe Headquarters

CTG Europe BV  
c/o Woluwelaan 140A  
1831 Diegem, Belgium  
+32 (0)2 720 51 70

### Company Certifications

The Company's executive officers have filed all certifications required by the Sarbanes-Oxley Act of 2002.

### Independent Registered Public Accounting Firm

KPMG LLP  
500 Seneca Street, Suite 600  
Buffalo, NY 14204

### Transfer Agent and Registrar

Computershare is CTG's transfer agent and registrar, responsible for the Company's shareholder records, issuance of stock certificates, and distribution of dividends, if any are paid, and the IRS Form 1099.

### Forward-looking Statements

This annual report contains forward-looking statements made by the management of Computer Task Group, Incorporated (CTG, the Company or the Registrant) that are subject to a number of risks and uncertainties. These forward-looking statements are based on information as of June 18, 2019, the approximate date this report was mailed to shareholders. The Company assumes no obligation to update these statements based on information from and after the date of this report. Generally, forward looking statements include words or phrases such as "anticipates," "believes," "estimates," "expects," "intends," "plans," "projects," "could," "may," "might," "should," "will" and words and phrases of similar impact. The forward-looking statements include, but are not limited to, statements regarding future operations, industry trends or conditions and the business environment, and statements regarding future levels of or trends in business strategy and expectations, new business opportunities, cost control initiatives, business wins, market demand, revenue, operating expenses, capital expenditures, and financing. The forward-looking statements are made pursuant to safe harbor provisions of the Private Securities Litigation Reform Act of 1995. Numerous factors could cause actual results to differ materially from those in the forward-looking statements, including the following: (i) the availability to CTG of qualified professional staff, (ii) domestic and foreign industry competition for clients and talent, including technical, sales and management personnel, (iii) increased bargaining power of large clients, (iv) the Company's ability to protect confidential client data, (v) the partial or complete loss of the revenue the Company generates from International Business Machines Corporation (IBM) and SDI International (SDI), (vi) the uncertainty of clients' implementations of cost reduction projects, (vii) the effect of healthcare reform and initiatives, (viii) the mix of work between staffing and solutions, (ix) currency exchange risks, (x) risks associated with operating in foreign jurisdictions, (xi) renegotiations, nullification, or breaches of contracts with clients, vendors, subcontractors or other parties, (xii) the impact of current and future laws and government regulation, as well as repeal or modification of such, affecting the information technology (IT) solutions and staffing industry, taxes and the Company's operations in particular, (xiii) industry and economic conditions, including fluctuations in demand for IT services, (xiv) consolidation among the Company's competitors or clients, (xv) the need to supplement or change our IT services in response to new offerings in the industry or changes in client requirements for IT products and solutions, (xvi) the risks associated with acquisitions, (xvii) the ability to integrate Soft Company SAS and Tech-IT PSF S.A., (xviii) actions of activist shareholders, and (xix) the risks described in Item 1A of this annual report and from time to time in the Company's reports filed with the Securities and Exchange Commission (SEC).

Your requests, as shareholders, concerning these matters are most efficiently answered by corresponding directly with Computershare:

Shareholder Services Number: (800) 730-4001  
Investor Center portal: [www.computershare.com/investor](http://www.computershare.com/investor)

#### U.S. mail:

Computershare Investor  
Services  
P.O. Box 505000  
Louisville, KY  
40233-5000

#### Overnight delivery:

Computershare Investor  
Services  
462 South 4<sup>th</sup> Street  
Suite 1600  
Louisville, KY 40202

### Form 10-K and Company Code of Ethics, Committee Charters, and Governance Policies Available

Copies of the Company's Form 10-K Annual Report, quarterly reports on Form 10-Q, current reports on Form 8-K, and all amendments to those reports including the Company's code of ethics, committee charters, and governance policies, which are filed with the Securities and Exchange Commission, may be obtained without charge either through its website at [www.ctg.com/investors](http://www.ctg.com/investors) or upon written or verbal request to:

Computer Task Group, Incorporated  
Investor Relations Department  
800 Delaware Avenue  
Buffalo, NY 14209-2094  
(716) 882-8000

## Board of Directors and Officers

### Directors

**Daniel J. Sullivan**

*Chairman and Independent Director*

**Filip J.L. Gydé**

*President and Chief Executive Officer, CTG*

**James R. Helvey III**

*Independent Director*

**David H. Klein**

*Independent Director*

**Valerie Rahmani**

*Independent Director*

**Owen J. Sullivan**

*Independent Director*

### Officers

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