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

# FORM 10-K

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

**For the fiscal year ended December 31, 2017**

**OR**

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

**Commission file number: 001-35418**

# EPAM SYSTEMS, INC.

(Exact name of registrant as specified in its charter)

| | |
|---|---|
| **Delaware** | **223536104** |
| (State or other jurisdiction of incorporation or organization) | (I.R.S. Employer Identification No.) |

**EPAM Systems, Inc.**
**41 University Drive,**
**Suite 202**
**Newtown, Pennsylvania 18940**
(Address of principal executive offices, including zip code)

**267-759-9000**
(Registrant's telephone number, including area code)

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

| Title of each class | Name of each exchange on which registered |
|---|---|
| Common Stock, par value $0.001 per share | New York Stock Exchange |

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

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

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 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 and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post 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, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act. (Check one):

| | | | |
|---|---|---|---|
| Large accelerated filer | ☒ | Accelerated filer | ☐ |
| Non-accelerated filer | ☐ (Do not check if a smaller reporting company) | Smaller reporting company | ☐ |
| | | Emerging growth company | ☐ |

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

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

As of June 30, 2017 the aggregate market value of the registrant's common stock held by non-affiliates of the registrant was approximately $4,178 million based on the closing sale price as reported on the New York Stock Exchange. Solely for purposes of the foregoing calculation, "affiliates" are deemed to consist of each officer and director of the registrant, and each person known to the registrant to own 10% or more of the outstanding voting power of the registrant.

The number of shares of common stock, $0.001 par value, of the registrant outstanding as of February 12, 2018 was 53,039,832 shares.

**DOCUMENTS INCORPORATED BY REFERENCE**

The registrant intends to file a definitive Proxy Statement for its 2018 annual meeting of stockholders pursuant to Regulation 14A within 120 days of the end of the registrant's fiscal year ended December 31, 2017. Portions of the registrant's Proxy Statement are incorporated by reference into Part III of this Form 10-K. With the exception of the portions of the Proxy Statement expressly incorporated by reference, such document shall not be deemed filed with this Form 10-K.

**EPAM SYSTEMS, INC.**
**FORM 10-K**
**FOR THE YEAR ENDED DECEMBER 31, 2017**

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In this annual report, “EPAM,” “EPAM Systems, Inc.,” the “Company,” “we,” “us” and “our” refer to EPAM Systems, Inc. and its consolidated subsidiaries.

“EPAM” is a trademark of EPAM Systems, Inc. “CMMI” is a trademark of the Software Engineering Institute of Carnegie Mellon University. “ISO 9001:2015” and “ISO 27001:2013” are trademarks of the International Organization for Standardization. “ISAE” is a trademark of the International Federation of Accountants. All other trademarks and servicemarks used herein are the property of their respective owners.

Unless otherwise indicated, information contained in this annual report concerning our industry and the markets in which we operate, including our general expectations and market position, market opportunity and market share, is based on information from various sources (including industry publications, surveys and forecasts and our internal research), on assumptions that we have made, which we believe are reasonable, based on such data and other similar sources and on our knowledge of the markets for our services. The projections, assumptions and estimates of our future performance and the future performance of the industry in which we operate, are subject to a high degree of uncertainty and risk due to a variety of factors, including those described under “Item 1A. Risk Factors” and elsewhere in this annual report. These and other factors could cause results to differ materially from those expressed in the estimates included in this annual report.

## SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This annual report on Form 10-K contains estimates and forward-looking statements, principally in “Item 1. Business,” “Item 1A. Risk Factors” and “Item 7. Management’s Discussion and Analysis of Financial Condition and Results of Operations.” Our estimates and forward-looking statements are mainly based on our current expectations and estimates of future events and trends, which affect or may affect our businesses and operations. Although we believe that these estimates and forward-looking statements are based upon reasonable assumptions, they are subject to several risks and uncertainties and are made in light of information currently available to us. Important factors, in addition to the factors described in this annual report, may adversely affect our results as indicated in forward-looking statements. You should read this annual report and the documents that we have filed as exhibits hereto completely and with the understanding that our actual future results may be materially different from what we expect.

The words “may,” “will,” “should,” “could,” “expect,” “plan,” “anticipate,” “believe,” “estimate,” “predict,” “intend,” “potential,” “might,” “would,” “continue” or the negative of these terms or other comparable terminology and similar words are intended to identify estimates and forward-looking statements. Estimates and forward-looking statements speak only as of the date they were made, and, except to the extent required by law, we undertake no obligation to update, to revise or to review any estimate and/or forward-looking statement because of new information, future events or other factors. Estimates and forward-looking statements involve risks and uncertainties and are not guarantees of future performance. As a result of the risks and uncertainties described above, the estimates and forward-looking statements discussed in this annual report might not occur and our future results, level of activity, performance or achievements may differ materially from those expressed in these forward-looking statements due to, including, but not limited to, the factors mentioned above, and the differences may be material and adverse. Because of these uncertainties, you should not place undue reliance on these forward-looking statements. We undertake no obligation to update or revise any forward-looking statements, whether as a result of new information, future events, or otherwise, except as may be required under applicable law.

## GEOGRAPHICAL REFERENCES

We use the terms “CIS”, “CEE” and “APAC” to describe a portion of our geographic operations and assets. CIS, which stands for the Commonwealth of Independent States, is comprised of constituents of the former U.S.S.R., including Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine and Uzbekistan. CEE, which stands for Central and Eastern Europe, includes Albania, Bosnia and Herzegovina, Bulgaria, Croatia, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Republic of Macedonia, Romania, Serbia, Montenegro, Slovakia and Slovenia. APAC, which stands for Asia Pacific, includes all of Asia (including India) and Australia.

## PART I

***Item 1. Business***

**Company Background**

We are a leading global provider of software product development and digital platform engineering services to clients located around the world, primarily in North America, Europe, Asia and Australia. With a strong focus on innovative and scalable software solutions and a continually evolving mix of advanced capabilities, we leverage industry standard and custom developed technology, tools and platforms to deliver results for the most complex business challenges. We focus on building long-term partnerships with clients in industries such as financial services, travel and consumer, software and hi-tech, media and entertainment, life sciences and healthcare, as well as other emerging industries.

Our work with global leaders in enterprise software platforms and emerging technology companies has allowed us to develop vertical-specific domain expertise. Our culture of innovation, technology leadership, process excellence and high-quality project delivery has helped us continue to build a strong reputation in the marketplace.

Our historical core competency, software development and product engineering services created our foundation for the evolution of our other offerings, which include advanced technology software solutions, intelligent enterprise services and digital engagement. Our strategic acquisitions have further expanded our global footprint and service offering portfolio, including our capabilities in the healthcare and financial services industries, digital strategy and design, consulting and test automation. We expect our strategic acquisitions will continue to enable us to offer a broader range of services to our clients from a wider variety of locations.

**Our Services**

Our service offerings cover the full software product development lifecycle from digital strategy and customer experience design to enterprise application platforms implementation and program management services and from complex software development services to maintenance, support, custom application development, application testing, and infrastructure management. We meet the standards of ISAE 3402 Type 2, ISO 27001:2013 and ISO 9001:2015, and these certifications provide our clients with third-party verification of our information security, quality management and general controls practices.

We also work closely with leading companies in other industries to enable our clients to better leverage technology and address the simultaneous pressures of driving value for the consumer and offering a more engaging experience. Our digital strategy and experience design practice provides strategy, design, creative and program management services for clients looking to improve their customer experience. We offer deep expertise across several domains including business-to-business and business-to-consumer e-commerce, customer/partner self-service, employee portals, online merchandising and sales, web content management, mobile solutions and billing.

Our key service offerings include:

***Software Product Development Services***

We provide a comprehensive set of software product development services including product research, customer experience design and prototyping, program management, component design and integration, full lifecycle software testing, product deployment and end-user customization, performance tuning, product support and maintenance, managed services, as well as porting and cross-platform migration. We focus on software products covering a wide range of business applications as well as product development for multiple mobile platforms and embedded software product services.

***Custom Application Development Services***

We offer complete custom application development services to meet the requirements of businesses with sophisticated needs not adequately supported by packaged applications or by existing custom solutions. Our custom application development services leverage our experience in software product development as well as our industry expertise, prebuilt application solution frameworks and specific software product assets. Our range of services includes business and technical requirements analysis, user experience design, solution architecture creation and validation, development, component design and integration, quality assurance and testing, deployment, performance tuning, support and maintenance, legacy applications re-engineering/refactoring, porting and cross-platform migration and documentation.

*Application Testing Services*

We maintain a dedicated group of testing and quality assurance professionals with experience across a wide range of technology platforms and industry verticals. Our Quality Management System complies with global quality standards such as ISO 9001:2015 and we employ industry-recognized and proprietary defect tracking tools to deliver a comprehensive range of testing services. Our application testing services include: (i) software application testing, including test automation tools and frameworks; (ii) testing for enterprise IT, including test management, automation, functional and non-functional testing, as well as defect management; and (iii) consulting services focused on helping clients improve their existing software testing and quality assurance practices.

*Application Maintenance and Support*

We deliver application maintenance and support services through a dedicated team of IT professionals. Our clients benefit from our proprietary distributed project management processes and tools, which reduce the time and costs related to maintenance, enhancement and support activities. Our services include incident management, fault investigation diagnosis, work-around provision, application bug fixes, release management, application enhancements and third-party maintenance.

*Infrastructure Management Services*

We offer infrastructure management services to address clients' increased need for tighter enterprise integration between software development, testing and maintenance with private, public and mobile infrastructures. We have significant expertise in implementing large infrastructure monitoring solutions, providing real-time notification and control from the low-level infrastructure up to and including applications. Our solutions cover the full lifecycle of infrastructure management including application, database, network, server, storage and systems operations management, as well as incident notification and resolution.

*Enterprise Information Management*

We build enterprise technologies that offer smarter analytics, improve business processes, and result in greater operational excellence. Our global delivery framework and industry-specific blueprints allow us to meet the needs of our clients' enterprises and build business application platforms and their components in areas including customer relationship management, sales automation, enterprise resource planning, enterprise content management, business intelligence and cloud management. We deploy the platforms and services that enable data-driven business decisions by turning data into intelligence. Our agile engineering expertise allows us to offer services around business process management, enterprise content management and more, including requirements analysis and platform selection, deep and complex customization, cross-platform migration, implementation and integration, as well as support and maintenance. We use our experience, custom tools and specialized knowledge to integrate our clients' chosen application platforms with their internal systems and processes and to create custom solutions filling the gaps in their platforms' functionality necessary to address the needs of the clients' users and customers.

**Our Vertical Markets**

Strong vertical-specific knowledge, backed by extensive experience merging technology with the business processes of our clients, allows us to deliver tailored solutions to various industry verticals. We have categorized our customers into five main industry verticals and a group of emerging verticals.

**Financial Services.** We have significant experience working with global investment banks, firms, and brokerages, commercial and retail banks, credit card companies, wealth management institutions, depositories, corporate treasuries, pension funds, and market data providers. We assist these clients with challenges stemming from new regulations, compliance requirements, customer-based needs and risk management. Our financial services domain experts have been recognized with industry awards for engineering and deploying unique applications and business solutions that facilitate growth, competitiveness, and customer loyalty while driving cost efficiency for global financial institutions.

**Travel and Consumer.** Our capabilities span a range of platforms, applications and solutions that businesses in travel and hospitality use to serve their customers, capture management efficiencies, control operating expenses and grow revenues. Some of the world's leading airlines, hotel providers and travel agencies rely on our knowledge in creating high-quality tools for operating and managing their business. Within this vertical, we also serve global, regional and local retailers, online retail brands, consumer goods manufacturers and distributors and online marketplaces. We deliver a wide range of services to retail and eCommerce clients from complex system modernizations to leading edge innovations in multi-channel sales and distribution. We have transformed organizations to use technology to expand and revolutionize their business models. Our services directly impact the consumer experience of our clients' brands, and allow our clients to reach more consumers.

**Software and Hi-Tech.** Our core competency is in providing complex software product development services to meet software and technology companies' constant need for innovation and agility. We help some of the most prominent software brands in the world build, what we believe to be, the best software. Through our extensive experience with many industry leaders in Hi-Tech R&D, software engineering and integration, we have developed proprietary internal processes, methodologies and IT infrastructure, which give us an edge when it comes to serving customers in the Hi-Tech and Software Product markets. Our services span the complete software development lifecycle for software product development using our comprehensive development methodologies, testing, performance tuning, deployment, maintenance and support.

**Media and Entertainment.** We help our media and entertainment clients build products and solutions for all modern platforms including web media streaming and mobile information delivery. Our solutions help clients develop new revenue sources, accelerate the creation, collection, packaging and management of content and reach broader audiences. We serve varied clients in this vertical including search engine providers, entertainment media, news providers, broadcasting companies, financial information providers, content distributors, knowledge management organizations and advertising networks.

**Life Sciences and Healthcare**. We help our customers in the Healthcare industry respond to changing regulatory environments and improve the quality of care while managing the cost of care. Our professionals deliver an end-to-end experience that includes strategy, architecture, development and managed services to clients ranging from the traditional healthcare providers to innovative startups. In the Life Sciences category, we partner with global pharmaceutical, medical technology and biotechnology companies to deliver sophisticated scientific informatics and innovative enterprise technology solutions. Our personnel in Life Sciences leverage their vast technology expertise to offer deep scientific and mathematical knowledge to broad-based initiatives. Our Life Sciences solutions enable clients to speed research and accelerate time-to-market while improving collaboration, knowledge management and operational excellence.

We also serve the diverse technology needs of clients in the energy, telecommunications, automotive and manufacturing industries, as well as government clients. These clients are included in our Emerging verticals which are further discussed in "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II of this annual report.

**Clients**

Our clients primarily consist of Forbes Global 2000 corporations located in North America, Europe, CIS and APAC. We maintain a geographically diverse client base with 58.0% of our 2017 revenues derived from clients located in North America, 35.2% from clients in Europe, 4.7% from clients in the CIS and 2.1% from our clients in APAC. Our sustained growth and increased capabilities are furthered by both organic growth and strategic acquisitions. We continually evaluate potential acquisition targets that can expand our vertical-specific domain expertise, geographic footprint, service portfolio, client base and management expertise.

Our focus on delivering quality to our clients is reflected by an average of 94.9% and 85.7% of our revenues in 2017 coming from clients that had used our services for at least one and two years, respectively. We have long-standing relationships with many of our top customers, however, we remain committed to diversifying our client base and we expect client concentration from our top clients to continue to decrease over the long-term. The following table shows revenues from the top five and ten customers in the respective year as a percentage of revenues for that year:

| | % of Revenues for Year Ended December 31, | | |
|---|---|---|---|
| | 2017 | 2016 | 2015 |
| Top five clients | 24.0% | 28.4% | 32.8% |
| Top ten clients | 33.9% | 38.4% | 44.1% |

The following table shows the distribution of our clients by revenues for the periods presented:

| | Year Ended December 31, | | |
|---|---|---|---|
| Revenues Greater Than or Equal To | 2017 | 2016 | 2015 |
| $0.1 million | 460 | 431 | 365 |
| $0.5 million | 316 | 266 | 211 |
| $1 million | 232 | 182 | 136 |
| $5 million | 63 | 45 | 33 |
| $10 million | 26 | 19 | 14 |
| $20 million | 10 | 7 | 7 |

See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II of this annual report for additional information related to revenue.

See Note 17 "Segment Information" in the notes to our consolidated financial statements in this Annual Report on Form 10-K for information regarding long-lived assets and client revenue by geographic location as well as financial information related to our reportable segments.

**Sales and Marketing**

Our sales and marketing efforts support our business strategy to increase revenues from new and existing clients through our senior management, sales and business development staff, account managers, and technical specialists. We maintain a dedicated sales force and a marketing team, which coordinates corporate-level branding efforts such as participation in and hosting of industry conferences and events and sponsorship of programming competitions.

Given our focus on providing technical solutions to our clients' complex challenges, our IT professionals play an integral role in engaging with clients on potential business opportunities. Our account managers maintain direct client relationships and are tasked with identifying new business opportunities and responding to requests-for-proposals ("RFPs"). Account managers typically engage technical and other specialists when pursuing opportunities. This sales model has been effective in promoting repeat business and growth from within our existing client base.

In addition to effective client management, we believe that our reputation as a premium provider of software engineering solutions and information technology services drives additional business from inbound requests, referrals and RFPs. We enjoy published recognition from third-party industry observers, such as Forrester Research, Forbes Research, Everest Group, Zinnov, CIO Magazine, Information Week, and Software Magazine.

**Our Delivery Model**

We believe the development of a robust global delivery model creates a key competitive advantage, enabling us to better understand and meet our clients' diverse needs and to provide a compelling value proposition. We serve clients through on-site, off-site and offshore locations across the world in Belarus, Ukraine, Russia, Hungary, Poland, India, China, Kazakhstan, Mexico, Bulgaria, Armenia, Czech Republic, Slovakia, the United States, Canada, the United Kingdom, Germany, Sweden, Switzerland, Netherlands, the United Arab Emirates, Singapore, Hong Kong, Austria, Spain, Ireland and Australia. Our delivery centers are located strategically to offer a strong, diversified and cost-effective delivery platform to serve clients across North America, Europe and APAC. Our largest delivery centers are located in Belarus, Russia and Ukraine. We continuously grow our delivery platform both organically and through acquired delivery centers and client management locations. Our revenue generating personnel numbered 22,998 as of December 31, 2017.

As of December 31, 2017 we had 7,372 IT professionals located in Belarus. The majority of these IT professionals are located in Minsk, the capital of Belarus, which is well-positioned to serve as a prime IT outsourcing destination given its strong industrial base and established educational infrastructure. Furthermore, the IT industry in Belarus has been strongly supported by its government, which has taken steps to encourage investment in the IT sector through long-term tax incentives.

Our locations in Ukraine and Russia offer many of the same benefits as Belarus, including educational infrastructure, availability of qualified software engineers and government support of the IT industry. As of December 31, 2017, we had 4,818 IT professionals in Ukraine and 3,802 IT professionals in Russia. Our delivery model has not been materially affected by the political and economic uncertainty in Russia or Ukraine to date.

Our other significant locations with IT professionals are Hungary with 1,460, the United States with 1,316, Poland with 1,167, India with 822 and China with 509 as of December 31, 2017.

**Human Capital**

Attracting and retaining employees is a key factor in our ability to grow our revenues and meet our clients' needs. We have dedicated full-time employees that oversee all aspects of our human capital management process including a professional talent acquisition team whose objective is to locate and attract qualified and experienced IT professionals within various EPAM locations. It is critical that we effectively plan our short-term and long-term recruitment needs and deploy the necessary personnel and processes to optimize utilization and quickly satisfy the demands of our clients. As our business grows, we also focus on hiring and retaining individuals with appropriate skills to fill our executive, finance, legal, HR and other key management positions.

At December 31, 2017, 2016 and 2015, we had a total of 25,962, 22,383 and 18,354 employees, respectively. Of these employees, as of December 31, 2017, 2016 and 2015, respectively, 22,998, 19,670 and 16,078 were revenue generating IT professionals.

In our competitive industry, the ability to hire and retain highly-skilled information technology professionals is critical to our success. We believe the quality of our employees serves as a key point of differentiation in how we deliver a superior value proposition to our clients. To attract, retain and motivate our IT professionals, we offer a challenging work environment, ongoing skills development initiatives, attractive career advancement, and promotion opportunities thus providing an environment and culture that rewards entrepreneurial initiative and performance.

Historically, we developed our base of IT professionals by hiring highly-qualified, experienced IT professionals from the CIS and CEE regions and by recruiting students from the regions' leading universities. The quality and academic prestige of the CIS and CEE educational systems are renowned worldwide and we have strong relationships with the leading institutions in these geographies. We have established EPAM delivery centers near many of these university campuses. Our ongoing involvement with these universities includes supporting EPAM-branded research labs, developing training courses, providing teaching equipment, actively supporting curriculum development and engaging students to identify their talents and interests. Our relationships with these technical institutions provide us access to a highly-qualified talent pool.

We believe that we maintain a good working relationship with our employees and our employees have not entered into any collective bargaining agreements (other than broad industry-wide agreements as required in certain countries in Europe and Mexico) or engaged in any labor disputes.

**Training and Development**

We dedicate significant resources to the training and development of our IT professionals. We believe in the importance of supporting educational initiatives and we sponsor employees' participation in internal and external training and certifications.

We provide training, continuing education and career development programs for both entry-level and experienced IT professionals. Entry-level IT professionals undergo a rigorous training program that consists of approximately three to six months of classroom training, as well as numerous hours of hands-on training through actual engagements. This comprehensive program results in employees who are highly proficient and possess deep technical expertise that enables them to immediately serve our clients' needs. For our mid-level and senior IT professionals, we offer continuing education programs aimed at helping them advance in their careers. We also provide mentoring opportunities, management and soft skills training, intensive workshops and management and technical advancement programs in order to support the development of middle and senior management through formal leadership training, evaluation, development and promotion.

**Quality and Process Management**

We have invested resources in developing a proprietary suite of internal applications and tools to manage all aspects of our delivery process. These applications and tools are targeted to reduce costs and security risks, while providing control and visibility across all project lifecycle stages both internally and to our clients. In addition, these applications, tools, methodologies and infrastructure allow us to seamlessly deliver services and solutions to global clients, further strengthening our relationships with them.

We are an ISAE 3402 Type 2 certified IT services provider. This certification is a widely recognized auditing standard developed by the American Institute of Certified Public Accountants and it serves as additional assurance to our clients regarding the control environment and the security of their sensitive data. Furthermore, this is an important certification for firms in data and information-intensive industries, as well as any organization that is subject to the internal controls certification requirements of the Sarbanes-Oxley Act of 2002, as amended, or the Sarbanes-Oxley Act. Our ISAE 3402 Type 2 certification, in addition to our multiple ISO 27001:2013 and ISO 9001:2015 attestations, underscores our focus on establishing stringent security standards and internal controls.

Our proprietary ISO 9001:2015 and CMMI-certified Quality Management System has been documented, implemented and maintained to ensure the timely delivery of software development services to our clients. We have also developed sophisticated project management techniques facilitated through our Project Management Center, a web-based collaborative environment for software development, which we consider critical to meeting or exceeding the service levels required by our clients.

Our Quality Management System ensures that we provide timely delivery of software development services to enhance client satisfaction by enabling:

- objective valuation of the performed process, work products and services against the client's process descriptions, standards and procedures;
- identification, documentation and timely resolution of noncompliance issues;
- feedback to the client's project staff and managers on the results of quality assurance activities;
- monitoring and improvement of the software development process to ensure adopted standards and procedures are implemented and flaws are detected and resolved in a timely manner; and
- execution of planned and systematic problem prevention activities.

Our proprietary Project Management Center supports our software development delivery model. Our Project Management Center is effective in reducing risks and providing control and visibility across all project lifecycle stages based on the following features:

- multi-site, multi-project capabilities;
- activity-based software development lifecycle, which fully tracks the software development activities through the project documentation;
- project, role-based access control, which can be available to us, clients and third parties;
- fully configurable workflow engine with built-in notification and messaging;
- extensive reporting capabilities and tracking of key performance indicators; and
- integration with Microsoft Project and Outlook.

The transparency and visibility into software development project deliverables, resource management, team messaging and project-related documents and files provided by our Project Management Center promotes collaboration and strengthens our relationships with our clients. Improved traceability enables significant time savings and cost reductions for business users and IT management during change management for the software development lifecycle. The combination of our Project Management Center with our other proprietary internal applications enhances our offering by reducing errors, increasing quality, effectiveness and oversight, and improving maintenance time.

**Competition**

The markets in which we compete are changing rapidly and we face competition from both global technology solutions providers as well as those based primarily in specific geographies with lower cost labor such as CEE, India and China. We believe that the principal competitive factors in our business include technical expertise and industry knowledge, end-to-end solution offerings, reputation and track record for high-quality and on-time delivery of work, effective employee recruiting, training and retention, responsiveness to clients' business needs, scale, financial stability and price.

We face competition primarily from Accenture, Atos Origin, Capgemini, Cognizant Technology Solutions, Deloitte Digital, DXC Technology, Exlservice, Genpact, GlobalLogic, Globant S.A., HCL Technologies, HP Enterprise, IBM Global Services, Infosys Technologies, Luxoft Holding, Inc., Mindtree, Syntel, Inc., Perficient, Tata Consultancy Services, Virtusa Corporation, and Wipro, among others. Additionally, we compete with numerous smaller local companies in the various geographic markets in which we operate.

We believe that our focus on complex software product development solutions, our technical employee base, and the development and continuous improvement in process methodologies, applications and tools position us well to compete effectively in the future.

**Intellectual Property**

Protecting our intellectual property rights is important to our business. We have invested, and will continue to invest, in research and development to enhance our domain knowledge and create complex, specialized solutions for our clients. We rely on a combination of intellectual property laws, trade secrets, confidentiality procedures and contractual provisions to protect our intellectual property. We require our employees, vendors and independent contractors to enter into written agreements upon the commencement of their relationships with us, which assign to us all intellectual property and work product made, developed or conceived by them in connection with their employment with us. These agreements also provide that any confidential or proprietary information disclosed or otherwise made available by us remains confidential.

We also enter into confidentiality and non-disclosure agreements with our clients. These customary agreements cover our use of the clients' software systems and platforms as our clients usually own the intellectual property in the products we develop for them. Furthermore, we usually grant a perpetual, worldwide, royalty-free, nonexclusive, transferable and non-revocable license to our clients to use our preexisting intellectual property, but only to the extent necessary in order to use the software or systems we developed for them.

**Regulations**

Due to the industry and geographic diversity of our operations and services, our operations are subject to a variety of rules and regulations. Several foreign and U.S. federal and state agencies regulate various aspects of our business. See "Item 1A. Risk Factors — Risks Relating to Our Business — We are subject to laws and regulations in the United States and other countries in which we operate, including export restrictions, economic sanctions and the Foreign Corrupt Practices Act, or FCPA, and similar anti-corruption laws. If we are not in compliance with applicable legal requirements, we may be subject to civil or criminal penalties and other remedial measures".

**Corporate Information**

EPAM Systems, Inc. was incorporated in the State of Delaware on December 18, 2002. Our predecessor entity was founded in 1993. Our principal executive offices are located at 41 University Drive, Suite 202, Newtown, Pennsylvania 18940 and our telephone number is 267-759-9000. We maintain a website at *http://www.epam.com.* Our website and the information accessible through our website are not incorporated into this annual report.

We make certain filings with the Securities and Exchange Commission ("SEC"), including our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and all amendments and exhibits to those reports. We make such filings available free of charge through the Investor Relations section of our website, *http://investors.epam.com*, as soon as reasonably practicable after they are filed with the SEC. The filings are also available through the SEC at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549 or by calling 1-800-SEC-0330. In addition, these filings are available on the internet at *http://www.sec.gov*. Our press releases and most recent investor presentation are also available on our website. The information on our website does not constitute a part of this annual report.

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

Our operations and financial results are subject to various risks and uncertainties, including but not limited to those described below, which could adversely affect our business, financial condition, results of operations, cash flows, and the trading price of our common stock. You should carefully review the following discussion of the most significant risk factors applicable to us, which we have listed below and are not necessarily in order of importance or probability of occurrence. Additionally, forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified. See "Special Note Regarding Forward-Looking Statements".

**Risks Relating to Our Business**

***We may be unable to effectively manage our rapid growth or achieve anticipated growth, which could place significant strain on our management personnel, systems and resources.***

We have experienced rapid growth and significantly expanded our business over the past several years, both organically and through acquisitions. Our rapid growth has placed, and will continue to place, significant demands on our management and our administrative, operational and financial infrastructure. Continued expansion increases the challenges we face in:

- recruiting, training and retaining sufficiently skilled IT professionals and management personnel;
- adhering to and further improving our high-quality process execution standards and maintaining high levels of client satisfaction;
- managing a larger number of clients in a greater number of industries and locations;
- maintaining effective oversight of personnel and delivery centers;
- coordinating effectively across geographies and business units to execute our strategic plan; and
- developing and improving our internal administrative, operational and financial infrastructure.

Moreover, we intend to continue our expansion for the foreseeable future and pursue available opportunities. As we introduce new services or enter into new markets, we may face new market, technological, operational, compliance and administrative risks and challenges. As a result of these challenges associated with expansion, we may not be able to achieve our anticipated growth and our business, prospects, financial condition and results of operations could be materially adversely affected.

***Our failure to successfully attract, train and retain new IT professionals with the qualifications necessary to fulfill the needs of our existing and future clients could materially adversely affect our ability to provide high quality services to those clients.***

The ability to hire and retain highly-skilled information technology professionals is critical to our success. To maintain and renew existing engagements and obtain new business, we must attract, train and retain skilled IT professionals, including those with management experience. Competition for IT professionals can be intense in the markets where we operate. If we are unable to hire or retain all of the IT professionals necessary to meet our ongoing and future business needs, we may have to forgo projects due to lack of resources.

A significant increase in the attrition rate among IT professionals with specialized skills could decrease our operating efficiency and productivity and could lead to a decline in demand for our services. In addition, any reductions in headcount for economic or business reasons, however temporary, could negatively affect our reputation as an employer, and our ability to hire IT professionals to meet our business requirements may suffer.

***Increases in wages for our IT professionals and other compensation expense could prevent us from sustaining our competitive advantage and result in dilution to our stockholders.***

Wage costs for IT professionals in CIS, CEE and APAC, and certain other geographies in which we operate are lower than comparable wage costs in more developed countries. However, wage costs in the service industry in these countries may increase at a faster rate than in the past, which ultimately may make us less competitive unless we are able to increase the efficiency and productivity of our IT professionals. Wage inflation may also increase our cost of providing services and reduce our profitability.

Additionally, we have granted certain equity-based awards under our stock incentive plans and entered into other stock-based compensation arrangements in the past, and expect to continue this practice. The expenses associated with stock-based compensation may reduce the attractiveness to us of issuing equity awards under our equity incentive plan. However, if we do not grant equity awards, or if we reduce the value of equity awards we grant, we may not be able to attract and retain key personnel. If we grant more equity awards to attract and retain key personnel, the expenses associated with such additional equity awards could materially adversely affect our results of operations. The issuance of equity-based compensation also results in additional dilution to our stockholders.

***Our success depends substantially on the continuing efforts of our senior executives and other key personnel, and our business may be severely disrupted if we lose their services.***

Our future success heavily depends upon the continued services of our senior executives and other key employees. If one or more of our senior executives or key employees are unable or unwilling to continue in their present positions, it could disrupt our business operations, and we may not be able to replace them easily or at all. In addition, competition for senior executives and key personnel in our industry is intense, and we may be unable to retain our senior executives and key personnel or attract and retain new senior executives and key personnel in the future, in which case our business may be severely disrupted. If any of our senior executives or key personnel, such as business development managers, joins a competitor or forms a competing company, we may lose clients, suppliers, know-how and key IT professionals and staff members to them.

***Our profitability will suffer if we are not able to maintain our resource utilization and productivity levels.***

Our profitability is significantly impacted by our utilization and productivity levels of fixed-cost resources, such as our professionals as well as other resources such as computers and office space. Our ability to manage our utilization levels depends significantly on our ability to hire and train high-performing IT professionals, to plan effectively for future needs, to staff projects appropriately, and on the general economy and its effect on our clients and their business decisions regarding the use of our services. If we experience a slowdown or stoppage of work for any client or on any project for which we have dedicated IT professionals or facilities, we may not be able to reallocate these IT professionals and facilities to other clients and projects to keep their utilization and productivity levels high. If we are not able to maintain optimal resource utilization levels without corresponding cost reductions or price increases, our profitability will suffer.

***Our global business exposes us to operational and economic risks.***

We are a global company with substantial international operations. Our revenues from clients outside North America represented 42.0%, 42.2% and 46.4% of our revenues including reimbursable expenses and other revenues for 2017, 2016 and 2015, respectively. The majority of our personnel, along with our development and delivery centers, are located in the CIS and CEE. The global nature of our business creates operational and economic risks.

Risks inherent in conducting international operations include:

- foreign exchange fluctuations;
- application and imposition of protective legislation and regulations relating to import or export, including tariffs, quotas and other trade protection measures;
- difficulties in enforcing intellectual property and/or contractual rights;
- complying with a wide variety of foreign laws;
- potentially adverse tax consequences;
- competition from companies with more experience in a particular country or with international operations; and
- overall foreign policy and variability of foreign economic conditions.

We earn our revenues and incur our expenses in multiple currencies, which exposes us to foreign exchange risks relating to revenues, receivables, compensation, purchases and capital expenditures. Currency exchange volatility caused by political or economic instability or other factors, could materially impact our results. See "Item 7A. Quantitative and Qualitative Disclosures about Market Risk."

The IT services industry is particularly sensitive to the economic environment and the industry tends to decline during general economic downturns. Given our significant revenues from North America and Europe, if those economies weaken or slow, pricing for our services may be depressed and our clients may reduce or postpone their technology spending significantly, which may in turn lower the demand for our services and negatively affect our revenues and profitability.

***War, terrorism, other acts of violence or natural or manmade disasters may affect the markets in which we operate, our clients, and our service delivery.***

Our business may be negatively affected by instability, disruption or destruction in a geographic region in which we operate, regardless of cause, including war, terrorism, riot, civil insurrection or social unrest; and natural or manmade disasters, including famine, flood, fire, earthquake, storm or disease. Such events may cause clients to delay their decisions on spending for IT services and give rise to sudden significant changes in regional and global economic conditions and cycles. These events also pose significant risks to our people and to physical facilities and operations around the world, whether the facilities are ours or those of our clients, which could materially adversely affect our financial results. By disrupting communications and travel, giving rise to travel restrictions, and increasing the difficulty of obtaining and retaining highly-skilled and qualified IT professionals, these events could make it difficult or impossible for us to deliver services to our clients. Travel restrictions could cause us to incur additional unexpected labor costs and expenses or could restrain our ability to retain the skilled IT professionals we need for our operations. In addition, any extended disruptions of electricity, other public utilities or network services at our facilities, as well as system failures at, or security breaches in, our facilities or systems, could also adversely affect our ability to serve our clients.

***Emerging markets are subject to greater risks than more developed markets, including significant legal, economic, tax and political risks.***

We have significant operations in CIS and CEE countries, India and other Asian countries, which are generally considered to be emerging markets. Emerging markets are vulnerable to market downturns and economic slowdowns elsewhere in the world and are subject to greater risks than more developed markets, including those that may result from foreign laws and regulations, the potential imposition of trade or foreign exchange restrictions or sanctions, tax increases, fluctuations in exchange rates, inflation, unstable political and military situations, labor issues, and less established legal systems. The economies of certain countries where we operate have experienced periods of considerable instability and have been subject to abrupt downturns. Such economic instability and any future deterioration in the international economic situation could materially adversely affect our business, financial condition and results of operations.

***Our operations may be adversely affected by ongoing conflict in Ukraine.***

Continuing military activities in Ukraine have combined with Ukraine's weak economic conditions to fuel ongoing economic uncertainty in Ukraine, Russia and other markets. The European Union, United States and other nations have imposed, and may continue imposing further, economic sanctions, including specific sanctions on certain Russian entities (specifically in the energy, defense and financial sectors). Prolonged political instability in Ukraine, sanctions against Russia and Russia's potential response to such sanctions could have a material adverse effect on our operations. We have delivery centers in the Ukraine employing 4,818 IT professionals as of December 31, 2017, none of which are located in the most volatile regions of Eastern Ukraine. We also have delivery centers in Russia, employing 3,802 IT professionals as of December 31, 2017 located in various cities including Moscow and St. Petersburg. To date we have not experienced any interruption in our office infrastructure, utility supply or Internet connectivity needed to support our clients. We continue to monitor the situation closely. Our contingency plans include relocating work and/or personnel to other locations and adding new locations, as appropriate.

***The U.S. Congress and Trump administration may make substantial changes to fiscal, political, regulatory and other federal policies that may adversely affect our business, financial condition, operating results and cash flows.***

Changes in general economic or political conditions in the United States or other regions could adversely affect our business. For example, the administration under President Donald Trump has indicated that it may propose significant changes with respect to a variety of issues, including international trade agreements, import and export regulations, tariffs and customs duties, foreign relations, immigration laws, and corporate governance laws, that could have a positive or negative impact on our business.

***We do not have long-term commitments from our clients, and our clients may terminate contracts before completion or choose not to renew contracts. A loss of business from significant clients could materially affect our results of operations.***

Our ability to maintain continuing relationships with our major clients is essential to the growth and profitability of our business. However, the volume of work performed for any specific client is likely to vary from year to year, especially since we generally are not our clients' exclusive IT services provider and we generally do not have long-term commitments from clients to purchase our services. The ability of our clients to terminate engagements with or without cause makes our future revenues uncertain. Although a substantial majority of our revenues are generated from clients who also contributed to our revenues during the prior year, our engagements with our clients are typically for projects that are singular in nature. Therefore, we must seek to obtain new engagements when our current engagements end.

There are a number of factors relating to our clients that are outside of our control, which might lead them to terminate a contract or project with us, including a client's:

- financial difficulties;
- corporate restructuring, or mergers and acquisitions activity;
- change in strategic priorities, resulting in elimination of the impetus for the project or a reduced level of technology spending;
- change in outsourcing strategy resulting in moving more work to the client's in-house technology departments or to our competitors; and
- replacement of existing software with packaged software supported by licensors.

Termination or non-renewal of a customer contract could cause us to experience a higher than expected number of unassigned employees and thus compress our margins until we are able to reduce or reallocate our headcount. The loss of any of our major clients, or a significant decrease in the volume of work they outsource to us or the price at which we sell our services to them, if not replaced by new client engagements, could materially adversely affect our revenues and results of operations.

***Our revenues are highly dependent on a limited number of industries, and any decrease in demand for outsourced services in these industries could reduce our revenues and adversely affect our results of operations.***

A substantial portion of our clients is concentrated in five specific industry verticals: Financial Services; Software and Hi-Tech; Media and Entertainment; Travel and Consumer; and Life Sciences and Healthcare. Our business growth largely depends on continued demand for our services from clients in these five industry verticals and other industries that we may target in the future, as well as on trends in these industries to outsource IT services.

A downturn in any of our targeted industries, a slowdown or reversal of the trend to outsource IT services in any of these industries or the introduction of regulations that restrict or discourage companies from outsourcing could result in a decrease in the demand for our services and materially adversely affect our business, financial condition and results of operations. Other developments in the industries in which we operate may also lead to a decline in the demand for our services, and we may not be able to successfully anticipate and prepare for any such changes. Decreased demand for our services, or increased pricing pressure on us from our clients in these key industries could adversely affect our results of operations.

***If our pricing structures are based on inaccurate expectations and assumptions regarding the cost and complexity of performing our work, or if we are not able to maintain favorable pricing for our services, then our contracts could be unprofitable.***

We face a number of risks when pricing our contracts and setting terms with our clients. Our pricing is highly dependent on our internal forecasts, assumptions and predictions about our projects, the marketplace, global economic conditions (including foreign exchange volatility), and the coordination of operations and personnel in multiple locations with different skill sets and competencies. Our pricing and cost estimates for the work that we perform may include anticipated long-term cost savings that we expect to achieve and sustain over the life of the contract. Because of these inherent uncertainties, we may underprice our projects (particularly with fixed-price contracts), fail to accurately estimate the costs of performing the work or fail to accurately assess the risks associated with potential contracts. Any increased or unexpected costs, delays or failures to achieve anticipated cost savings, or unexpected risks we encounter in connection with the performance of this work, including those caused by factors outside our control, could make these contracts less profitable or unprofitable. Moreover, if we are not able to pass on to our clients increases in compensation costs (whether driven by competition for talent or ordinary-course pay increases) or charge premium prices when justified by market demand or the type of service, our profitability may suffer.

In addition, a number of our contracts contain pricing terms that condition a portion of the payment of fees by the client on our ability to meet defined performance goals, service levels and completion schedules set forth in the contracts. Our failure to meet such performance goals, service levels or completion schedules or our failure to meet client expectations in such contracts may result in less profitable or unprofitable engagements.

***If we are not successful in managing increasingly large and complex projects, we may not achieve our financial goals and our results of operations could be adversely affected.***

To successfully perform larger and more complex projects, we need to establish and maintain effective, close relationships with our clients, continue high levels of client satisfaction and develop a thorough understanding of our clients' operations. In addition, we may face a number of challenges managing larger and more complex projects, including:

- maintaining high-quality control and process execution standards;
- maintaining planned resource utilization rates on a consistent basis and using an efficient mix of onsite and offshore staffing;
- maintaining productivity levels and implementing necessary process improvements; and
- controlling costs.

Our ability to successfully manage large and complex projects depends significantly on the skills of our management personnel and IT professionals. In addition, large and complex projects may involve multiple engagements or stages, and there is a risk that a client may choose not to retain us for additional stages or may cancel or delay additional planned engagements. Such cancellations or delays may make it difficult to plan our project resource requirements. If we fail to successfully obtain engagements for large and complex projects, we may not achieve our revenue growth and other financial goals. Even if we are successful in obtaining such engagements, failure to effectively manage these large and complex projects could damage our reputation, cause us to lose business, compress our margins and adversely affect our business and results of operations.

***We face risks associated with having a long selling and implementation cycle for our services that require us to make significant resource commitments prior to realizing revenues for those services.***

We have a long selling cycle for our IT services. Before potential clients commit to use our services, they require us to expend substantial time and resources educating them on the value of our services and our ability to meet their requirements. Therefore, our selling cycle is subject to many risks and delays over which we have little or no control, including our clients' decision to select another IT service provider or in-house resources to perform the services and the timing of our clients' budget cycles and approval processes. If our sales cycle unexpectedly lengthens for one or more large projects, it would negatively affect the timing of our revenues and our revenue growth. For certain clients, we may begin work and incur costs prior to executing a contract. A delay in our ability to obtain a signed agreement or other persuasive evidence of an arrangement, or to complete certain contract requirements in a particular quarter, could reduce our revenues in that quarter.

Implementing our services also involves a significant commitment of resources over an extended period of time from both our clients and us. Our current and future clients may not be willing or able to invest the time and resources necessary to implement our services, and we may fail to close sales with potential clients to whom we have devoted significant time and resources. Any significant failure to generate revenues or delays in recognizing revenues after incurring costs related to our sales or services process could materially adversely affect our business.

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

Our business depends on our ability to successfully obtain payment from our clients of the amounts they owe us for work performed. There is no guarantee that we will accurately assess the creditworthiness of our clients. If our clients suffer financial difficulties, it could cause clients to delay payments to us, request modifications to their payment arrangements that could increase our receivables balance, or default on their payment obligations to us. Timely collection of client balances also depends on our ability to complete our contractual commitments and bill and collect our contracted revenues. We usually bill and collect on relatively short cycles. If we are unable to meet our contractual requirements, we might experience delays in collection of and/or be unable to collect our client balances, and if this occurs, our results of operations and cash flows could be materially adversely affected.

***We face intense competition for clients and opportunities from onshore and offshore IT services companies, and increased competition, our inability to compete successfully against competitors, pricing pressures or loss of market share could materially adversely affect our business.***

The market for IT services is highly competitive, and we expect competition to persist and intensify. We face competition from offshore IT services providers in other outsourcing destinations with low wage costs such as India and China, as well as competition from large, global consulting and outsourcing firms and in-house IT departments of large corporations. Clients tend to engage multiple IT services providers instead of using an exclusive IT services provider, which could reduce our revenues to the extent that clients obtain services from other competing IT services providers. Clients may prefer IT services providers that have more locations or that are based in countries more cost-competitive or more stable than some of the emerging markets in which we operate.

Current or prospective clients may elect to perform certain services themselves or may be discouraged from transferring services from onshore to offshore IT services providers, which could seriously harm our ability to compete effectively with competitors that provide services from within the countries in which our clients operate.

Some of our present and potential competitors may have substantially greater financial, marketing or technical resources, therefore, we may be unable to retain our clients while competing against such competitors. Increased competition, our inability to compete successfully, pricing pressures or loss of market share could materially adversely affect our business. Client buying patterns can change if clients become more price sensitive and accepting of low-cost suppliers with less emphasis on quality.

***Our ability to generate and retain business depends on our reputation in the marketplace.***

Our services are marketed to clients and prospective clients based on a number of factors. Since many of our specific client engagements involve unique services and solutions, our corporate reputation is a significant factor in our clients' evaluation of whether to engage our service, and our clients' perception of our ability to add value through our services is critical to the profitability of our engagements. We believe the EPAM brand name and our reputation are important corporate assets that help distinguish our services from those of our competitors and contribute to our efforts to recruit and retain talented employees.

However, our corporate reputation is potentially susceptible to damage by actions or statements made by current or former clients and employees, competitors, vendors, adversaries in legal proceedings, government regulators, as well as members of the investment community and the media. There is a risk that negative information about our company, even if untrue, could adversely affect our business. In particular, damage to our reputation could be challenging to repair, could make potential or existing clients reluctant to select us for new engagements, and could adversely affect our recruitment and retention efforts. Damage to our reputation could also reduce the value and effectiveness of the EPAM brand name and could reduce investor confidence in us.

***If we are unable to adapt to rapidly changing technologies, methodologies and evolving industry standards we may lose clients and our business could be materially adversely affected.***

Rapidly changing technologies, methodologies and evolving industry standards are inherent in the market for our services. Our future success will depend in part upon our ability to anticipate developments in IT services, enhance our existing services and to develop and introduce new services to keep pace with such changes and developments and to meet changing client needs. The process of developing our client solutions is extremely complex and is expected to become increasingly complex and expensive in the future due to the introduction of new platforms, operating systems, technologies and methodologies. Our ability to keep pace with, anticipate or respond to these changes is subject to a number of risks, including that:

- we may find it difficult or costly to update our services, applications, tools and software and to develop new services quickly enough to meet our clients' needs;
- we may find it difficult or costly to make some features of our software work effectively and securely over the Internet or with new or changed operating systems;
- we may find it difficult or costly to update our software and services to keep pace with business, evolving industry standards, methodologies, regulatory and other developments in the industries where our clients operate; and
- we may find it difficult to maintain a high level of quality in implementing new technologies and methodologies.

We may not be successful in anticipating or responding to these developments in a timely manner, or if we do respond, the services, technologies or methodologies we develop or implement may not be successful in the marketplace. Further, services, technologies or methodologies that are developed by our competitors may render our services non-competitive or obsolete. Our failure to enhance our existing services and to develop and introduce new services to promptly address the needs of our clients could materially adversely affect our business.

***Undetected software design defects, errors or failures may result in loss of business or in liabilities that could materially adversely affect our business.***

Our software development solutions involve a high degree of technological complexity, have unique specifications and could contain design defects or software errors that are difficult to detect and correct. Errors or defects may result in the loss of current clients and loss of, or delay in, revenues, loss of market share, loss of client data, a failure to attract new clients or achieve market acceptance, diversion of development resources and increased support or service costs. We cannot provide assurance that, despite testing by our clients and us, errors will not be found in new software product development solutions, which could result in litigation, other claims for damages against us, as well as reputational harm and thus could materially adversely affect our business.

***Security breaches and other disruptions to network security could compromise our information and expose us to liability, which would cause our business and reputation to suffer.***

In the ordinary course of business, we have access to collect, store, process, and transmit sensitive or confidential data, including intellectual property, our proprietary business information and that of our clients, and personally identifiable information of our clients and employees, in our data centers and on our networks. Physical security and the secure processing, maintenance and transmission of this information is critical to our operations and business strategy. Despite our security measures, our information technology and infrastructure may be vulnerable to attacks by hackers or breached due to human error, malfeasance or other disruptions. Any such breach could compromise our networks and the information stored there could be accessed, publicly disclosed, misappropriated, lost or stolen. Such a breach or disruption could also disrupt our operations and the services we provide to customers, damage our reputation, and cause a loss of confidence in our products and services, as well as require us to expend significant resources to protect against further breaches and to rectify problems caused by these events. Any such access, disclosure or other loss of information could result in legal claims or proceedings, liability under applicable laws, and regulatory penalties and could adversely affect our business, revenues and competitive position.

***We may be liable to our clients for damages caused by the disclosure of confidential information, system failures or errors.***

If any person, including any of our personnel, misappropriates sensitive or confidential client information, including personally identifiable information, we could be subject to significant liability from our clients or from our clients' customers for breaching contractual confidentiality provisions or privacy laws. Some of our client agreements do not limit our potential liability for certain occurrences, including breaches of confidentiality and infringement indemnity. Furthermore, breaches of confidentiality may entitle the aggrieved party to equitable remedies, including injunctive relief. Any such breach or misappropriation resulting in unauthorized disclosure of sensitive or confidential client information, or a violation of intellectual property rights, whether through employee misconduct, breach of our computer systems, systems failure or otherwise, may subject us to liabilities, damage our reputation and cause us to lose clients.

***If we cause disruptions to our clients' businesses or provide inadequate service, our clients may have claims for substantial damages against us, which could cause us to lose clients, have a negative effect on our reputation and adversely affect our results of operations.***

If our IT professionals make errors in the course of delivering services to our clients or fail to consistently meet the service requirements of a client, these errors or failures could disrupt the client's business, which could result in a reduction in our revenues or a claim for substantial damages against us, and could also result in a client terminating our engagement. Any failure in a client's system or breach of security relating to the services we provide to the client could damage our reputation or result in a claim for substantial damages against us, regardless of our responsibility for such failure. The assertion of one or more large claims against us, whether or not successful, could materially adversely affect our reputation, business, financial condition and results of operations.

***A significant failure in our telecommunications or IT infrastructure or systems could harm our service model, which could result in a reduction of our revenue and otherwise disrupt our business.***

Part of our service model is to maintain active voice and data communications, financial control, accounting, customer service and other data processing systems between our clients' offices, our delivery centers and our client management locations. Moreover, many of our key systems for corporate operations are internally-developed applications. Our business activities may be materially disrupted in the event of a partial or complete failure of any of these internet, IT or communication systems, which could be caused by, among other things, software malfunction, computer virus attacks, conversion errors due to system upgrading, damage from fire, earthquake, power loss, telecommunications failure, unauthorized entry, demands placed on internet infrastructure by growing numbers of users and time spent online or increased bandwidth requirements or other events beyond our control. Loss of all or part of the infrastructure or systems for a period of time could hinder our performance or our ability to complete client projects on time which, in turn, could lead to a reduction of our revenue or otherwise materially adversely affect our business and business reputation.

***We may invest substantial cash in new facilities and physical infrastructure, and our profitability could be reduced if our business does not grow proportionately.***

As our business grows, we may invest in new facilities and physical infrastructure. We may encounter cost overruns or project delays in connection with new facilities. These expansions will likely increase our fixed costs and if we are unable to grow our business and revenues proportionately, our profitability may be reduced.

***If we fail to integrate or manage acquired companies efficiently, or if the acquired companies do not perform to our expectations, our overall profitability and growth plans could be materially adversely affected.***

Part of our expansion strategy includes strategic acquisitions. These transactions involve significant challenges, including the risk that an acquisition does not advance our business strategy, that we do not achieve a satisfactory return on our investment, that we are unable to successfully integrate an acquired company's employees, client relationships and operations, and that the transactions divert significant management attention and financial resources from our ongoing business. These challenges could disrupt our ongoing business and increase our expenses, including causing us to incur significant one-time expenses and write-offs, and making it more difficult and complex for our management to effectively manage our operations. If we are not able to successfully integrate an acquired entity and its operations and to realize the benefits envisioned for such acquisition, our overall growth and profitability plans may be adversely affected.

***Our effective tax rate could be materially adversely affected by several factors.***

We conduct business globally and file income tax returns in multiple jurisdictions. Our effective tax rate could be materially adversely affected by several factors, including changes in the amount of income taxed by or allocated to the various jurisdictions in which we operate that have differing statutory tax rates; changing tax laws, regulations and interpretations of such tax laws in multiple jurisdictions; and the resolution of issues arising from tax audits or examinations and any related interest or penalties.

The determination of our provision for income taxes and other tax liabilities requires estimation, judgment and calculations where the ultimate tax determination may not be certain. Our determination of tax liability is always subject to review or examination by authorities in various jurisdictions. If a tax authority in any jurisdiction reviews any of our tax returns and proposes an adjustment, including, but not limited to, a determination that the transfer prices and terms we have applied are not appropriate, such an adjustment could have a negative impact on our business.

***The ongoing effects of the U.S. Tax Cuts and Jobs Act ("U.S. Tax Act") and the refinement of provisional estimates could make our results difficult to predict.***

Our effective tax rate may fluctuate in the future as a result of the U.S. Tax Act, which was enacted on December 22, 2017. The U.S. Tax Act introduces significant changes to U.S. income tax law that will have a meaningful impact on our provision for income taxes. Accounting for the income tax effects of the U.S. Tax Act requires significant judgments and estimates in the interpretation and calculations of the provisions of the U.S. Tax Act.

Due to the timing of the enactment and the complexity involved in applying the provisions of the U.S. Tax Act, we made reasonable estimates of the effects and recorded provisional amounts in our financial statements for the year ended December 31, 2017. The U.S. Treasury Department, the Internal Revenue Service ("IRS"), and other standard-setting bodies may issue guidance on how the provisions of the U.S. Tax Act will be applied or otherwise administered that is different from our interpretation. As we collect and prepare necessary data, and interpret the U.S. Tax Act and any additional guidance issued by the IRS or other standard-setting bodies, we may make adjustments to the provisional amounts that could materially affect our financial position and results of operations as well as our effective tax rate in the period in which the adjustments are made.

***Our operating results may be negatively impacted by the loss of certain tax benefits provided by the governments of Belarus and other countries to companies in our industry.***

Our subsidiary in Belarus is a member of the Belarus Hi-Tech Park, in which member technology companies are 100% exempt from Belarusian income tax (which as of the date of this annual report was 18%) and from the value added tax until 2049 and taxed at other reduced rates on a variety of other taxes. Our subsidiary in Russia benefits from a substantially reduced rate on social contributions and an exemption on value added tax in certain circumstances, which is a benefit to qualified IT companies in Russia. If these tax benefits are changed, terminated, not extended or comparable new tax incentives are not introduced, we expect that our effective income tax rate and/or our operating expenses would increase significantly, which could materially adversely affect our financial condition and results of operations. See "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations — Provision for Income Taxes."

***There may be adverse tax and employment law consequences if the independent contractor status of some of our personnel or the exempt status of our employees is successfully challenged.***

Certain of our personnel are retained as independent contractors in several countries. The criteria to determine whether an individual is considered an independent contractor or an employee are typically fact sensitive and vary by jurisdiction, as can the interpretation of the applicable laws. If a government authority or court makes any adverse determination with respect to some or all of our independent contractors, we could incur significant costs, including for prior periods, in respect of tax withholding, social security taxes or payments, workers' compensation and unemployment contributions, and recordkeeping, or we may be required to modify our business model, any of which could materially adversely affect our business, financial condition and results of operations. In addition, we classify our U.S. employees as "exempt" or "non-exempt" under the Federal Labor Standards Act ("FLSA"), and the FLSA criteria for these classifications are subject to change from time to time. If it were determined that any of our U.S. employees should be classified as "non-exempt" under the FLSA, we may incur costs and liabilities for back wages, unpaid overtime, fines or penalties and/or be subject to employee litigation.

***Our insurance coverage may be inadequate to protect us against losses.***

Although we maintain some insurance coverage, including professional liability insurance, property insurance coverage for certain of our facilities and equipment and business interruption insurance coverage for certain of our operations, we do not insure for all risks in our operations. If any claims for injury are brought against us, or if we experience any business disruption, litigation or natural disaster, we might incur substantial costs and diversion of resources.

Most of the agreements we have entered into with our clients require us to purchase and maintain specified insurance coverage during the terms of the agreements, including commercial general insurance or public liability insurance, umbrella insurance, product liability insurance, and workers' compensation insurance. Some of these types of insurance are not available on reasonable terms or at all in some countries in which we operate.

***The banking and financial systems in less developed markets where we hold funds remain less developed than those in some more developed markets, and a banking crisis could place liquidity constraints on our business and materially adversely affect our business and financial condition.***

Banking and other financial systems in the CIS are less developed and regulated than in some more developed markets, and legislation relating to banks and bank accounts is subject to varying interpretations and inconsistent application. Banks in the CIS generally do not meet the banking standards of more developed markets, and the transparency of the banking sector lags behind international standards. Furthermore, in Russia, Belarus and other CIS countries, bank deposits made by corporate entities generally are not insured. As a result, the banking sector remains subject to periodic instability. A banking crisis, or the bankruptcy or insolvency of banks through which we receive or with which we hold funds, particularly in Belarus, may result in the loss of our deposits or adversely affect our ability to complete banking transactions in that region, which could materially adversely affect our business and financial condition.

***Our business could be negatively affected if we incur legal liability, including with respect to our indemnification obligations, in connection with providing our solutions and services.***

If we fail to meet our contractual obligations or otherwise breach obligations to our clients, we could be subject to legal liability. If we cannot or do not perform our obligations, we could face legal liability and our contracts might not always protect us adequately through limitations on the scope and/or amount of our potential liability. As a result, we might face significant legal liability and payment obligations, and our financial condition and results of operations could be materially adversely affected.

***We may not be able to prevent unauthorized use of our intellectual property, and our intellectual property rights may not be adequate to protect our business and competitive position.***

We rely on a combination of copyright, trademark, unfair competition and trade secret laws, as well as intellectual property assignment and confidentiality agreements and other methods to protect our intellectual property rights. Protection of intellectual property rights and confidentiality in some countries in which we operate may not be as effective as that in the United States or other countries with more mature legal systems.

We require our employees and independent contractors to enter into written agreements with us upon the commencement of their relationship with us, which assign to EPAM all intellectual property and work product made, developed or conceived by them in connection with their employment or engagement with us. These agreements also provide that any confidential or proprietary information disclosed or otherwise made available by us be kept confidential. We also enter into confidentiality and non-disclosure agreements with our clients and certain vendors; however, these agreements may not fully protect our trade secrets, know-how or other proprietary information in the event of any unauthorized use, misappropriation or disclosure. Reverse engineering, unauthorized copying or other misappropriation of our and our clients' proprietary technologies, tools and applications could enable third parties to benefit from our or our clients' technologies, tools and applications without paying us for doing so, and our clients may hold us liable for that act and seek damages and compensation from us, which could harm our business and competitive position.

We rely on our trademarks, trade names, service marks and brand names to distinguish our services and solutions from the services of our competitors, and have registered or applied to register many of these trademarks. Third parties may oppose our trademark applications, or otherwise challenge our use of our trademarks. In the event that our trademarks are successfully challenged, we could be forced to rebrand our services and solutions, which could result in loss of brand recognition, and could require us to devote resources to advertising and marketing new brands. Further, we cannot provide assurance that competitors will not infringe our trademarks, or that we will have adequate resources to enforce our trademarks.

We may need to enforce our intellectual property rights through litigation. Litigation relating to our intellectual property may not prove successful and might result in substantial costs and diversion of resources and management attention.

***We may face intellectual property infringement claims that could be time-consuming and costly to defend. If we fail to defend ourselves against such claims, we may lose significant intellectual property rights and may be unable to continue providing our existing services.***

Our success largely depends on our ability to use and develop our technology, tools, code, methodologies and services without infringing the intellectual property rights of third parties, including patents, copyrights, trade secrets and trademarks. We may be subject to litigation involving claims of patent infringement or violation of other intellectual property rights of third parties.

We typically indemnify clients who purchase our services and solutions against potential infringement of intellectual property rights, which subjects us to the risk of indemnification claims. These claims may require us to initiate or defend protracted and costly litigation on behalf of our clients, regardless of the merits of these claims and are often not subject to liability limits or exclusion of consequential, indirect or punitive damages. If any of these claims succeed, we may be forced to pay damages on behalf of our clients, redesign or cease offering our allegedly infringing services or solutions, or obtain licenses for the intellectual property that such services or solutions allegedly infringe. If we cannot obtain all necessary licenses on commercially reasonable terms, our clients may be forced to stop using our services or solutions.

The holders of patents and other intellectual property rights potentially relevant to our service offerings may make it difficult for us to acquire a license on commercially acceptable terms. In addition, we may be unaware of intellectual property registrations or applications relating to our services that may give rise to potential infringement claims against us. There may also be technologies licensed to and relied on by us that are subject to infringement or other corresponding allegations or claims by third parties, which may damage our ability to rely on such technologies.

Further, our current and former employees and/or subcontractors could challenge our exclusive rights in the software they have developed in the course of their employment. In Russia and certain other countries in which we operate, an employer is deemed to own the copyright in works created by its employees during the course, and within the scope, of their employment, but the employer may be required to satisfy additional legal requirements in order to make further use and dispose of such works. While we believe that we have complied with all such requirements, and have fulfilled all requirements necessary to acquire all rights in software developed by our independent contractors and/or subcontractors, these requirements are often ambiguously defined and enforced. As a result, we cannot assure that we would be successful in defending against any claim by our current or former employees, independent contractors and/or subcontractors challenging our exclusive rights over the use and transfer of works those employees, independent contractors and/or subcontractors created or requesting additional compensation for such works.

Parties making infringement claims may be able to obtain an injunction to prevent us from delivering our services or using technology involving the allegedly infringing intellectual property. Intellectual property litigation is expensive, time-consuming and could divert management's attention from our business. Protracted litigation could also result in existing or potential clients deferring or limiting their purchase or use of our software product development services or solutions until resolution of such litigation, or could require us to indemnify our clients against infringement claims in certain instances. Any of these actions, regardless of the outcome of litigation or merits of the claim, could damage our reputation and materially adversely affect our business, financial condition and results of operations.

***We are subject to laws and regulations in the United States and other countries in which we operate, including export restrictions, economic sanctions and the Foreign Corrupt Practices Act, or FCPA, and similar anti-corruption laws. If we are not in compliance with applicable legal requirements, we may be subject to civil or criminal penalties and other remedial measures.***

As a company with international operations, we are subject to many laws and regulations restricting our operations, including activities involving restricted countries, organizations, entities and persons that have been identified as unlawful actors or that are subject to U.S. sanctions imposed by the Office of Foreign Assets Control, or OFAC, or other international sanctions that prohibit us from engaging in trade or financial transactions with certain countries, businesses, organizations and individuals. We are subject to the FCPA, which prohibits U.S. companies and their intermediaries from bribing foreign officials for the purpose of obtaining or keeping business or otherwise obtaining favorable treatment, and anti-bribery and anti-corruption laws in other countries. We operate in many parts of the world that have experienced governmental corruption to some degree, and, in certain circumstances, strict compliance with anti-bribery laws may conflict with local customs and practices, although adherence to local customs and practices is generally not a defense under U.S. and other anti-bribery laws.

We have a compliance program with controls and procedures designed to ensure our compliance with the FCPA, OFAC sanctions, and other sanctions, laws and regulations. The continuing implementation and ongoing development and monitoring of such program may be time consuming and expensive, and could result in the discovery of issues or violations with respect to the foregoing by us or our employees, independent contractors, subcontractors or agents of which we were previously unaware.

Any violations of these or other laws, regulations and procedures by our employees, independent contractors, subcontractors and agents could expose us to administrative, civil or criminal penalties, fines or business restrictions, which could have a material adverse effect on our results of operations and financial condition and would adversely affect our reputation and the market for shares of our common stock and may require certain of our investors to disclose their investment in our company under certain state laws.

***Changes in the European regulatory environment regarding privacy and data protection regulations could expose us to risks of noncompliance and costs associated with compliance***

In Europe, we are subject to the 1995 European Union Directive on Data Protection ("1995 Data Protection Directive"), which requires European Union member states to impose minimum restrictions on the collection and use of personal data that, in some respects, are more stringent, and impose more significant burdens on subject businesses, than current privacy standards in the United States. We may also face audits or investigations by one or more foreign government agencies relating to our compliance with these regulations that could result in the imposition of penalties or fines. The European Union member state regulations establish several obligations that organizations must follow with respect to use of personal data, including a prohibition on the transfer of personal information from the European Union to other countries whose laws do not protect personal data to an adequate level of privacy or security. On December 15, 2015, the European Parliament and the Council of the European Union reached a political agreement on the future European Union data protection legal framework referred to as the General Data Protection Regulation ("GDPR"), which will replace the 1995 Data Protection Directive. The GDPR will have significant impacts on how businesses can collect and process the personal data of European Union individuals. The GDPR will become effective in May 2018.

The Company is undertaking measures to seek to comply with the GDPR by the effective date. The costs of compliance with, and other burdens imposed by, such laws, regulations and policies that are applicable to us may limit the use and adoption of our products and solutions, alter the way we conduct business and/or could otherwise have a material adverse impact on our results of operations. We may be unsuccessful in establishing legitimate means of transferring data from the European Economic Area, we may experience hesitancy, reluctance, or refusal by European or multi-national customers to continue to use our services due to the potential risk exposure to such customers as a result of the implementation of GDPR, and we and our customers are at risk of enforcement actions taken by the European Union data protection authority until such point in time that we ensure that all data transfers to us from the European Economic Area are legitimized. We may find it necessary to establish systems to maintain EU-origin data in the European Economic Area, which may involve substantial expense and distraction from other aspects of our business. Further, the costs of compliance with, and other burdens imposed by, such laws, regulations and policies that are applicable to us, may limit the use and adoption of our products and solutions and could have a material adverse impact on our results of operations.

***Anti-outsourcing legislation and restrictions on immigration, if adopted, may affect our ability to compete for and provide services to clients in the United States or other countries, which could hamper our growth and cause our revenues to decline.***

The majority of our employees are nationals of CIS and CEE countries. Some of our projects require a portion of the work to be undertaken at our clients' facilities, which are sometimes located outside the CIS and CEE. The ability of our employees to work in necessary locations around the world depends on their ability to obtain the required visas and work permits, and this process can be lengthy and difficult. Immigration laws are subject to legislative change, as well as to variations in standards of application and enforcement due to political forces and economic conditions.

In addition, the issue of companies outsourcing services to organizations operating in other countries is a topic of political discussion in many countries, including the United States, which is our largest source of revenues. It is possible that pending legislation in the United States regarding offshore outsourcing may impose restrictions on our ability to deploy employees holding U.S. work visas to client locations, which could adversely impact our business. It is generally difficult to predict the political and economic events that could affect immigration laws, or the restrictive impact they could have on obtaining or maintaining business visas for our employees. However, if enacted, such measures may broaden restrictions on outsourcing by federal and state government agencies and on government contracts with firms that outsource services directly or indirectly, impact private industry with measures such as tax disincentives or intellectual property transfer restrictions, and/or restrict the use of certain work visas.

Our reliance on visas for a number of employees makes us vulnerable to such changes and variations as it affects our ability to staff projects with employees who are not citizens of the country where the work is to be performed. We may not be able to obtain a sufficient number of visas for our employees or we may encounter delays or additional costs in obtaining or maintaining such visas, in which case we may not be able to provide services to our clients on a timely and cost-effective basis or manage our sales and delivery centers as efficiently as we otherwise could, any of which could hamper our growth and cause our revenues to decline.

The 2017, U.S. executive order, "Protecting the Nation From Foreign Terrorist Entry Into the United States," restricts entry into the United States of non-U.S. nationals from a number of enumerated countries in the Middle East and suspends a visa interview waiver program that was in place at U.S. consulates worldwide. While the travel restrictions do not extend to nationals of CIS and CEE countries, it is possible that there could be delays in visa processing before CIS and CEE nationals can enter the United States and their wait times for visa interviews may increase significantly. Delays in the process to obtain visas may result in delays in the ability of our personnel to travel to meet with our clients, provide services to our clients or to continue to provide services on a timely basis, which could have a material adverse effect on our business, results of operations, financial condition and cash flows.

Similarly, legislation enacted in certain European jurisdictions and any future legislation in European jurisdictions or any other country in which we have clients restricting the performance of services from an offshore location could also materially adversely affect our business, financial condition and results of operations. For example, legislation enacted in the United Kingdom, based on the 1977 EC Acquired Rights Directive, has been adopted in some form by many European Union countries. This legislation creates a risk that companies outsourcing their business in whole or in part to an IT services provider effectively give the affected employees of the company or its previous IT services provider, whose positions have been impacted, the right to become employees of the new IT services provider, generally on the same terms and conditions as their original employment. There is also a related risk of unfair dismissal claims arising from dismissals of employees who were employed by the company or the previous IT services provider immediately prior to the outsourcing. This risk could materially affect our ability to obtain new business and provide outsourced services to companies in the United Kingdom and European Union in a cost-effective manner.

***Our CIS subsidiaries can be forced into liquidation on the basis of formal noncompliance with certain legal requirements.***

We operate in CIS countries primarily through locally organized subsidiaries. Certain provisions of Russian law and the laws of other CIS countries may allow a court to order liquidation of a locally organized legal entity on the basis of its formal noncompliance with certain requirements during formation, reorganization or during its operations. If the company fails to comply with certain requirements including those relating to minimum net assets, governmental or local authorities can seek the involuntary liquidation of such company in court, and the company's creditors will have the right to accelerate their claims or demand early performance of the company's obligations as well as demand compensation for any damages. If involuntary liquidation of any of our subsidiaries were to occur, such liquidation could materially adversely affect our financial condition and results of operations.

***We may need additional capital, and a failure by us to raise additional capital on terms favorable to us, or at all, could limit our ability to grow our business and develop or enhance our service offerings to respond to market demand or competitive challenges.***

We believe that our current cash, cash flow from operations and revolving line of credit are sufficient to meet our anticipated cash needs for at least the next 12 months. We may, however, require additional cash resources due to changed business conditions or other future developments, including any investments or acquisitions we may decide to pursue. If these resources are insufficient to satisfy our cash requirements, we may seek to sell additional equity or debt securities or obtain another credit facility, and we cannot be certain that such additional financing would be available on terms acceptable to us. The sale of additional equity securities could result in dilution to our stockholders, and additional indebtedness would result in increased debt service obligations and could impose operating and financial covenants that would restrict our operations.

***Our stock price is volatile.***

Our common stock has at times experienced substantial price volatility as a result of variations between our actual and anticipated financial results, announcements by our competitors and us, projections or speculation about our business or that of our competitors by the media or investment analysts or uncertainty about current global economic conditions. The stock market, as a whole, also has experienced price and volume fluctuations that have affected the market price of many technology companies in ways that may have been unrelated to these companies' operating performance. Furthermore, we believe our stock price should reflect future growth and profitability expectations and, if we fail to meet these expectations, our stock price may significantly decline.

Our liability-classified restricted stock units, which are subject to mark-to-market accounting, and the calculation of weighted-average diluted shares outstanding in accordance with the treasury method are both affected by our stock price. Any fluctuations in the price of our stock will affect our future operating results.

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

None.

### *Item 2. Properties*

Our headquarters are located in Newtown, Pennsylvania with delivery centers in Belarus, Ukraine, Russia, Hungary, Poland, India, China, Kazakhstan, Mexico, Bulgaria, Armenia, Czech Republic, Slovakia, the United States, Canada, the United Kingdom, Germany, Sweden, Switzerland, Netherlands, the United Arab Emirates, Singapore, Hong Kong, Austria, Spain, Ireland and Australia. We have office and building space in more than 47 cities and 25 countries around the world. The majority of our office space is leased under long-term leases with varying expiration dates. We own one office building in Minsk, Belarus with a capacity of 21,669 square meters, which is used by both administrative and IT personnel. Our facilities are used interchangeably among all of our segments. We believe that our existing facilities are adequate to meet our current requirements, and that suitable additional or substitute space will be available, if necessary.

### *Item 3. Legal Proceedings*

From time to time, we are involved in litigation and claims arising out of our operations in the normal course of business. We are not currently a party to any material legal proceeding. In addition, we are not aware of any material legal or governmental proceedings against us, or contemplated to be brought against us.

### *Item 4. Mine Safety Disclosures*

None.

## PART II

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

#### Market Information

Our common stock is traded on the New York Stock Exchange ("NYSE") under the symbol "EPAM."

The price range per share of common stock presented below represents the highest and lowest intraday sales prices for the Company's common stock on the NYSE during each quarter of the two most recent years.

| **2017**<br>**Quarter Ended** | High | | Low | |
|---|---|---|---|---|
| December 31 | $ | 109.07 | $ | 86.53 |
| September 30 | $ | 88.18 | $ | 77.96 |
| June 30 | $ | 86.98 | $ | 73.49 |
| March 31 | $ | 76.16 | $ | 63.32 |

| **2016**<br>**Quarter Ended** | High | | Low | |
|---|---|---|---|---|
| December 31 | $ | 69.20 | $ | 54.53 |
| September 30 | $ | 71.79 | $ | 61.47 |
| June 30 | $ | 78.40 | $ | 61.32 |
| March 31 | $ | 78.04 | $ | 54.88 |

As of February 12, 2018, we had approximately 17 stockholders of record of our common stock. The number of record holders does not include holders of shares in "street name" or persons, partnerships, associations, corporations or other entities identified in security position listings maintained by depositories.

**Dividend Policy**

We have not declared or paid any cash dividends on our common stock and currently do not anticipate paying any cash dividends in the foreseeable future. Instead, we intend to retain all available funds and any future earnings for use in the operation and expansion of our business. Any future determination relating to our dividend policy will be made at the discretion of our Board of Directors and will depend on our future earnings, capital requirements, financial condition, future prospects, applicable Delaware law, which provides that dividends are only payable out of surplus or current net profits, and other factors that our Board of Directors deems relevant. In addition, our revolving credit facility restricts our ability to make or pay dividends (other than certain intercompany dividends) unless no potential or actual event of default has occurred or would be triggered thereby.

**Equity Compensation Plan Information**

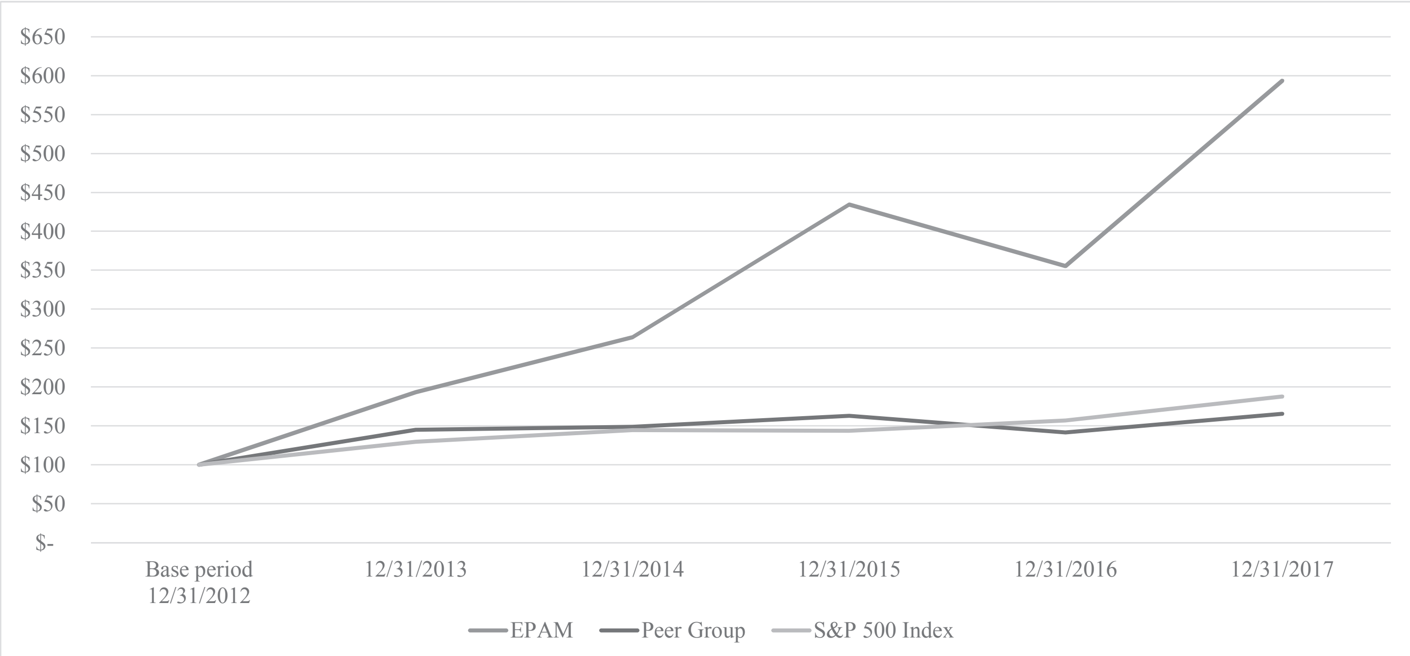
See "Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters" in Part III of this Annual Report for our equity compensation plan information.

**Performance Graph**

The following graph compares the cumulative total stockholder return on our common stock with the cumulative total return on the S&P 500 Index and a Peer Group Index (capitalization weighted) for the period beginning December 31, 2012 and ending December 31, 2017. The stock performance shown on the graph below is not indicative of future price performance. The following performance graph and related information shall not be deemed "soliciting material" or to be "filed" with the SEC, nor shall information be incorporated by reference into any future filing under the Securities Act of 1933 or Securities Exchange Act of 1934, each as amended, except to the extent that we specifically incorporate it by reference into such filing.

**COMPARISON OF CUMULATIVE TOTAL RETURN [1][2]**

**Among EPAM, the S&P 500 Index and a Peer Group Index[3] (Capitalization Weighted)**




| Company/Index | Base period 12/31/2012 | 12/31/2013 | 12/31/2014 | 12/31/2015 | 12/31/2016 | 12/31/2017 |
|---|---|---|---|---|---|---|
| EPAM Systems, Inc. | $ 100.00 | $ 193.04 | $ 263.81 | $ 434.36 | $ 355.30 | $ 593.54 |
| Peer Group Index | $ 100.00 | $ 144.62 | $ 148.77 | $ 162.90 | $ 141.32 | $ 165.33 |
| S&P 500 Index | $ 100.00 | $ 129.60 | $ 144.36 | $ 143.31 | $ 156.98 | $ 187.47 |

(1) Graph assumes $100 invested on December 31, 2012, in our common stock, the S&P 500 Index, and the Peer Group Index (capitalization weighted).

(2) Cumulative total return assumes reinvestment of dividends.

(3) We have constructed a Peer Group Index of other information technology consulting firms consisting of Virtusa Corporation (NASDAQ:VRTU), Cognizant Technology Solutions Corp. (NASDAQ:CTSH), Globant S.A. (NASDAQ:GLOB), Infosys Ltd ADR (NYSE:INFY), Luxoft Holding, Inc (NASDAQ:LXFT), Syntel, Inc. (NASDAQ:SYNT), and Wipro Ltd. (ADR) (NYSE:WIT).

### Unregistered Sales of Equity Securities

There were no unregistered sales of equity securities by the Company during the year ended December 31, 2017.

**Purchases of Equity Securities by the Issuer and Affiliated Purchasers**

Under our equity-based compensation plans, on the date of vesting of stock-based compensation awards to our personnel, the Company withholds a number of shares of vested stock to satisfy tax withholding obligations arising on that date. The number of shares of stock to be withheld is calculated based on the closing price of the Company's common stock on the vesting date. The following table provides information about shares withheld by the Company during the year ended December 31, 2017:

| 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 of Shares That May Yet Be Purchased Under the Program |
|---|---|---|---|---|
| March 1, 2017 to March 31, 2017 | 36,629 | $ 73.54 | — | — |
| June 1, 2017 to June 30, 2017 | 93 | $ 83.56 | — | — |
| July 1, 2017 to July 30, 2017 | 2,889 | $ 84.33 | — | — |
| August 1, 2017 to August 31, 2017 | 2,010 | $ 81.76 | — | — |
| October 1, 2017 to October 30, 2017 | 406 | $ 90.80 | — | — |
| November 1, 2017 to November 30, 2017 | 460 | $ 103.61 | — | — |
| December 1, 2017 to December 30, 2017 | 992 | $ 106.70 | — | — |
| **Total** | **43,479** | **$ 75.89** | **—** | **—** |

### *Item 6. Selected Financial Data*

The following table represents selected financial data for each of the last five years. Our historical results are not necessarily indicative of the results to be expected for any future period. The following selected financial data should be read in conjunction with "Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" and our consolidated financial statements and related notes included elsewhere in this annual report.

| | Year Ended December 31, | | | | |
|---|---|---|---|---|---|
| | 2017 | 2016 | 2015 | 2014 | 2013 |
| | (in thousands, except per share data) | | | | |
| **Consolidated Statement of Income Data:** | | | | | |
| Revenues | $ 1,450,448 | $ 1,160,132 | $ 914,128 | $ 730,027 | $ 555,117 |
| Operating expenses: | | | | | |
| Cost of revenues (exclusive of depreciation and amortization) | 921,352 | 737,186 | 566,913 | 456,530 | 347,650 |
| Selling, general and administrative expenses | 324,855 | 264,658 | 222,759 | 163,666 | 116,497 |
| Depreciation and amortization expense | 28,562 | 23,387 | 17,395 | 17,483 | 15,120 |
| Goodwill impairment loss | — | — | — | 2,241 | — |
| Other operating expenses/(income), net | 2,733 | 1,205 | 1,094 | 3,924 | (643) |
| Income from operations | 172,946 | 133,696 | 105,967 | 86,183 | 76,493 |
| Interest and other income, net | 4,601 | 4,848 | 4,731 | 4,769 | 3,077 |
| Change in fair value of contingent consideration | — | — | — | (1,924) | — |
| Foreign exchange loss | (3,242) | (12,078) | (4,628) | (2,075) | (2,800) |
| Income before provision for income taxes | 174,305 | 126,466 | 106,070 | 86,953 | 76,770 |
| Provision for income taxes | 101,545 | 27,200 | 21,614 | 17,312 | 14,776 |
| Net income | $ 72,760 | $ 99,266 | $ 84,456 | $ 69,641 | $ 61,994 |
| Net income per share of common stock: | | | | | |
| Basic | $ 1.40 | $ 1.97 | $ 1.73 | $ 1.48 | $ 1.35 |
| Diluted | $ 1.32 | $ 1.87 | $ 1.62 | $ 1.40 | $ 1.28 |
| Shares used in calculation of net income per share: | | | | | |
| Basic | 52,077 | 50,309 | 48,721 | 47,189 | 45,754 |
| Diluted | 54,984 | 53,215 | 51,986 | 49,734 | 48,358 |

| | As of December 31, | | | | |
|---|---|---|---|---|---|
| | 2017 | 2016 | 2015 | 2014 | 2013 |
| | (in thousands) | | | | |
| **Consolidated Balance Sheet Data:** | | | | | |
| Cash and cash equivalents | $ 582,585 | $ 362,025 | $ 199,449 | $ 220,534 | $ 169,207 |
| Accounts receivable, net | $ 265,639 | $ 199,982 | $ 174,617 | $ 124,483 | $ 95,431 |
| Unbilled revenues | $ 86,500 | $ 63,325 | $ 95,808 | $ 55,851 | $ 43,108 |
| Property and equipment, net | $ 86,419 | $ 73,616 | $ 60,499 | $ 55,134 | $ 53,315 |
| Total assets | $ 1,250,256 | $ 925,811 | $ 778,536 | $ 594,026 | $ 432,877 |
| Long-term debt | $ 25,033 | $ 25,048 | $ 35,000 | $ — | $ — |
| Total liabilities | $ 275,309 | $ 144,399 | $ 165,313 | $ 129,976 | $ 56,776 |
| Total stockholders' equity | $ 974,947 | $ 781,412 | $ 613,223 | $ 464,050 | $ 376,101 |

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

*You should read the following discussion and analysis of our financial condition and results of operations together with our audited consolidated financial statements and the related notes included elsewhere in this annual report. In addition to historical information, this discussion contains forward-looking statements that involve risks, uncertainties and assumptions that could cause actual results to differ materially from management's expectations. Factors that could cause such differences are discussed in the sections entitled "Special Note Regarding Forward-Looking Statements" and "Item 1A. Risk Factors." We assume no obligation to update any of these forward-looking statements.*

**Executive Summary**

We are a leading global provider of product development and software engineering solutions offering specialized technological consulting to many of the world's leading organizations.

Our clients depend on us to solve their complex technical challenges and rely on our expertise in core engineering, advanced technology, digital engagement and intelligent enterprise development. We are continuously venturing into new industries to expand our core industry client base in software and technology, financial services, media and entertainment, travel and consumer, retail and distribution and life sciences and healthcare. Our teams of developers, architects, strategists, engineers, designers, and product experts have the capabilities and skill sets to deliver business results.

Our global delivery model and centralized support functions, combined with the benefits of scale from the shared use of fixed-cost resources, enhance our productivity levels and enable us to better manage the efficiency of our global operations. As a result, we have created a delivery base whereby our applications, tools, methodologies and infrastructure allow us to seamlessly deliver services and solutions from our delivery centers to global clients across all geographies, further strengthening our relationships with them.

Leveraging our roots in software engineering, along with our vertical expertise and strong strategic partnerships, we have become a recognized brand in software development and end-to-end digital transformation services for our clients. We are confident that our strategy of combining our traditional technology and engineering advantage with proven capabilities in digital transformation, design, and emerging consultancy should enable us to navigate considerable market, geo-political and economic uncertainties.

**Overview of 2017 and Financial Highlights**

The following table presents a summary of our results of operations for the years ended December 31, 2017, 2016 and 2015:

| | Year Ended December 31, | | | | | |
|---|---|---|---|---|---|---|
| | 2017 | | 2016 | | 2015 | |
| | | % of revenues | | % of revenues | | % of revenues |
| | (in millions, except percentages and per share data) | | | | | |
| Revenues | $1,450.4 | 100.0% | $1,160.1 | 100.0% | $ 914.1 | 100.0% |
| Income from operations | $ 172.9 | 11.9% | $ 133.7 | 11.5% | $ 106.0 | 11.6% |
| Net income | $ 72.8 | 5.0% | $ 99.3 | 8.6% | $ 84.5 | 9.2% |
| Effective tax rate | 58.3% | | 21.5% | | 20.4% | |
| Diluted earnings per share | $ 1.32 | | $ 1.87 | | $ 1.62 | |

The key highlights of our consolidated results for 2017 were as follows:

- We recorded revenues of $1.45 billion, or a 25.0% increase from $1.16 billion last year.
- Income from operations grew 29.4% to $172.9 million from $133.7 million in 2016. Expressed as a percentage of revenues, income from operations was 11.9% compared to 11.5% last year. The slight increase was primarily driven by improvements in utilization.
- Our effective tax rate was 58.3% compared to 21.5% last year. This increase is principally due to the provisional $74.6 million charge related to U.S. Tax Reform in 2017.

- Net income decreased 26.7% to $72.8 million compared to $99.3 million in 2016. Expressed as a percentage of revenues, net income decreased 3.6% compared to last year, which was largely driven by the higher effective tax rate in 2017.

- Diluted earnings per share decreased 29.4% to $1.32 for the year ended December 31, 2017 from $1.87 in 2016.

- Cash provided by operations increased $30.5 million, or 18.5%, to $195.4 million during 2017.

The operating results in any period are not necessarily indicative of the results that may be expected for any future period.

**Critical Accounting Policies**

We prepare our consolidated financial statements in accordance with U.S. generally accepted accounting principles ("GAAP"), which require us to make judgments, estimates and assumptions that affect: (i) the reported amounts of assets and liabilities, (ii) disclosure of contingent assets and liabilities at the end of each reporting period and (iii) the reported amounts of revenues and expenses during each reporting period. We evaluate these estimates and assumptions based on historical experience, knowledge and assessment of current business and other conditions, and expectations regarding the future based on available information and reasonable assumptions, which together form a basis for making judgments about matters not readily apparent from other sources. Since the use of estimates is an integral component of the financial reporting process, actual results could differ from those estimates. Some of our accounting policies require higher degrees of judgment than others in their application. When reviewing our audited consolidated financial statements, you should consider (i) our selection of critical accounting policies, (ii) the judgment and other uncertainties affecting the application of such policies and (iii) the sensitivity of reported results to changes in conditions and assumptions. We consider the policies discussed below to be critical to an understanding of our consolidated financial statements as their application places significant demands on the judgment of our management.

An accounting policy is considered critical if it requires an accounting estimate to be made based on assumptions about matters that are highly uncertain at the time the estimate is made, and if different estimates that reasonably could have been used, or changes in the accounting estimates that are reasonably likely to occur periodically, could materially impact the consolidated financial statements. We believe that the following critical accounting policies are the most sensitive and require more significant estimates and assumptions used in the preparation of our consolidated financial statements. You should read the following descriptions of critical accounting policies, judgments and estimates in conjunction with our audited consolidated financial statements and other disclosures included elsewhere in this annual report.

**Revenues** — We recognize revenue when realized or realizable and earned, which is when the following criteria are met: persuasive evidence of an arrangement exists; delivery has occurred; the sales price is fixed or determinable; and collectability is reasonably assured. Determining whether and when some of these criteria have been satisfied often involves assumptions and judgments that can have a significant impact on the timing and amount of revenue we report. If there is uncertainty about the project completion or receipt of payment for the services, revenues are deferred until the uncertainty is sufficiently resolved. At the time revenues are recognized, we provide for any contractual deductions and reduce revenues accordingly. We defer amounts billed to our clients for revenues not yet earned. Such amounts are anticipated to be recorded as revenues as services are performed in subsequent periods. Unbilled revenues represent services provided which are billed subsequent to the period end in accordance with the contract terms.

We derive our revenues from a variety of service offerings, which represent specific competencies of our IT professionals. Contracts for these services have different terms and conditions based on the scope, deliverables, and complexity of the engagement, which require management to make judgments and estimates in determining appropriate revenue recognition. Fees for these contracts may be in the form of time-and-materials or fixed-price arrangements.

The majority of our revenues (90.3% of revenues in 2017, 88.2% in 2016 and 85.8% in 2015) are generated under time-and-material contracts whereby revenues are recognized as services are performed with the corresponding cost of providing those services reflected as cost of revenues. The majority of such revenues are billed using hourly, daily or monthly rates by which actual time incurred is charged directly to the client. We expect time-and-material arrangements to continue to comprise the majority of our revenues in the future.

Revenues from fixed-price contracts (8.3% of revenues in 2017, 10.4% in 2016 and 12.8% in 2015) include fixed-price maintenance and support arrangements, which may exceed one year in duration, as well as fixed-price application development arrangements. Revenues from maintenance and support arrangements are generally recognized ratably over the expected service period. Revenues from fixed-price application development arrangements are determined using the proportional performance method. In instances where final acceptance of the product, system, or solution is specified by the client, revenue is deferred until all acceptance criteria have been met. In the absence of a sufficient basis to measure progress towards completion, revenue is recognized upon receipt of final acceptance from the client. Assumptions, risks and uncertainties inherent in the estimates used in the application of the proportional performance method of accounting could affect the amount of revenues, receivables and deferred revenues at each reporting period.

**Business Combinations** — We account for our business combinations using the acquisition accounting method, which requires us to determine the fair value of net assets acquired and the related goodwill and other intangible assets in accordance with the FASB ASC Topic 805, "Business Combinations." We identify and attribute fair values and estimated lives to the intangible assets acquired and allocate the total cost of an acquisition to the underlying net assets based on their respective estimated fair values. Determining the fair value of assets acquired and liabilities assumed requires management's judgment and involves the use of significant estimates, including projections of future cash inflows and outflows, discount rates, asset lives and market multiples. There are different valuation models for each component, the selection of which requires considerable judgment. These determinations will affect the amount of amortization expense recognized in future periods. We base our fair value estimates on assumptions we believe are reasonable, but recognize that the assumptions are inherently uncertain.

If initial accounting for the business combination has not been completed by the end of the reporting period in which the business combination occurs, provisional amounts are reported to present information about facts and circumstances that existed as of the acquisition date. Once the measurement period ends, which in no case extends beyond one year from the acquisition date, revisions of the accounting for the business combination are recorded in earnings.

**Goodwill and Other Intangible Assets** — We assess goodwill for impairment on an annual basis as of October 31st, and more frequently if events or changes in circumstances indicate that the fair value of a reporting unit has been reduced below its carrying value. Effective January 1, 2017, we early-adopted ASU 2017-04 which simplifies the subsequent measurement of goodwill by removing the requirement to calculate the implied fair value of goodwill when measuring an impairment. As a result, when conducting our annual goodwill impairment assessment, we use a two-step process. The first step is to perform an optional qualitative evaluation as to whether it is more likely than not that the fair value of a reporting unit is less than its carrying value using an assessment of relevant events and circumstances. In performing this assessment, we are required to make assumptions and judgments including but not limited to an evaluation of macroeconomic conditions as they relate to our business, industry and market trends, as well as the overall future financial performance of a reporting unit and future opportunities in the markets in which it operates. If we determine that it is not more likely than not that the fair value of our reporting unit is less than its carrying value, we are not required to perform any additional tests in assessing goodwill for impairment. However, if we conclude otherwise or elect not to perform the qualitative assessment, we perform a second step consisting of a quantitative assessment of goodwill impairment. This quantitative assessment requires us to estimate impairment by comparing the fair value of a reporting unit with its carrying amount. An impairment charge should be recognized for the amount by which the carrying amount exceeds the reporting unit's fair value; however, the loss recognized should not exceed the total amount of goodwill allocated to that reporting unit.

Historically, a significant portion of the purchase consideration related to our acquisitions was allocated to customer relationships. In valuing customer relationships, we typically utilize the multi-period excess earnings method, a form of the income approach. The principle behind this method is that the value of the intangible asset is equal to the present value of the after-tax cash flows attributable to the intangible asset only. We amortize our intangible assets that have finite lives on a straight-line basis or, if reliably determinable, the pattern in which the economic benefit of the asset is expected to be consumed utilizing expected discounted future cash flows. Amortization is recorded over the estimated useful lives that predominantly range from five to ten years. We do not have any intangible assets with indefinite useful lives.

We review our intangible assets subject to amortization to determine if any adverse conditions exist or a change in circumstances has occurred that would indicate impairment or a change in the remaining useful life. If the carrying value of an asset exceeds its undiscounted cash flows, we will write down the carrying value of the intangible asset to its fair value in the period identified. In assessing fair value, we must make assumptions regarding estimated future cash flows and discount rates. If these estimates or related assumptions change in the future, we may be required to record impairment charges. If the estimate of an intangible asset's remaining useful life is changed, we will amortize the remaining carrying value of the intangible asset prospectively over the revised remaining useful life.

**Accounting for Income Taxes** — We estimate our income taxes based on the various jurisdictions where we conduct business and we use estimates in determining our provision for income taxes. We estimate separately our deferred tax assets, related valuation allowances, current tax liabilities and deferred tax liabilities. The calculation of our tax liabilities involves dealing with uncertainties in the application of complex tax rules and the potential for future adjustment of our uncertain tax positions by the U.S. Internal Revenue Service or other taxing jurisdictions.

The provision for income taxes includes federal, state, local and foreign taxes. Deferred tax assets and liabilities are recognized for the estimated future tax consequences of temporary differences between the consolidated financial statement carrying amounts and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the year in which the temporary differences are expected to be reversed. Changes to enacted tax rates would result in either increases or decreases in the provision for income taxes in the period of change. We evaluate the realizability of deferred tax assets and recognize a valuation allowance when it is more likely than not that all or a portion of deferred tax assets will not be realized.

The realization of deferred tax assets is primarily dependent on future earnings. Any reduction in estimated forecasted results may require that we record valuation allowances against deferred tax assets. Once a valuation allowance has been established, it will be maintained until there is sufficient positive evidence to conclude that it is more likely than not that the deferred tax assets will be realized. A pattern of sustained profitability will generally be considered as sufficient positive evidence to reverse a valuation allowance. If the allowance is reversed in a future period, the income tax provision will be correspondingly reduced. Accordingly, the increase and decrease of valuation allowances could have a significant negative or positive impact on future earnings.

On December 22, 2017, the United States enacted the Tax Cuts and Jobs Act ("U.S. Tax Act"). The U.S. Tax Act significantly changes U.S. corporate income tax laws including a reduction of the U.S. corporate income tax rate from 35.0% to 21.0% effective January 1, 2018 and the creation of a territorial tax system with a one-time transition tax on accumulated foreign subsidiary earnings not previously subject to U.S. income tax. In addition, the Tax Act creates new taxes on certain foreign-sourced earnings and certain related party payments, which are referred to as the global intangible low-taxed income tax and the base erosion anti-abuse tax, respectively.

Due to the timing of the enactment and the complexity involved in applying the provisions of the U.S. Tax Act, we have made reasonable estimates of the effects and recorded provisional amounts in our financial statements as of December 31, 2017. As we collect and prepare necessary data and interpret the U.S. Tax Act and any additional guidance issued by the U.S Treasury Department, the IRS, and other standard-setting bodies, and further refine our calculations, we may make adjustments to the provisional amounts recorded. We will complete our analysis over a one-year measurement period ending in the second half of 2018. Any adjustments during this measurement period will be included in the provision for income taxes in the reporting period when such adjustments are determined.

**Stock-Based Compensation** — Stock-based compensation expense relating to the issuance of equity-classified share-based awards to employees is based on the fair value of the award at the date of grant, which is expensed over the requisite service period, net of estimated forfeitures. Equity-based awards that do not require future service are expensed immediately.

Adjusting stock-based compensation expense for estimated forfeitures requires judgment. If we change our assumptions, stock-based compensation expense may differ significantly from what we have recorded in the past.

Stock-based compensation expense in a period could be impacted, favorably or unfavorably, by differences between forfeiture estimates and actual forfeitures. If there are any modifications or cancellations of the underlying unvested securities, we may be required to accelerate, increase or cancel any remaining unvested stock-based compensation expense.

Equity-based awards that do not meet the criteria for equity classification are recorded as liabilities and adjusted to fair value based on the closing price of our stock at the end of each reporting period. Future stock-based compensation expense related to our liability-classified awards may increase or decrease as a result of changes in the market price for our stock, adding to the volatility in our operating results.

Our adoption of ASU 2016-09 effective January 1, 2017 increased income tax expense volatility. Our future operating results will depend on the fluctuations in the stock price on the dates the awards vest or options are exercised and the magnitude of transactions occurring in each reporting period, among other factors.

**Change in Presentation of Certain Financial Information** — As part of our discussion and analysis, we analyze revenues by client location and by vertical. Prior to the first quarter of 2017, management did not include reimbursable expenses and other revenues in its discussion of revenue performance across locations and verticals. Effective in the first quarter of 2017, we have allocated reimbursable expenses and other revenues (which primarily include travel and entertainment costs chargeable to clients) to corresponding geographies and verticals. We believe this change allows us to more effectively analyze our verticals and geographies by streamlining the presentation of revenues, both internally and externally, using a standardized approach. These changes did not result in any adjustments to our previously issued financial statements and were applied retrospectively beginning on January 1, 2015. Comparative information for the years ended December 31, 2016 and 2015 is presented in the following tables:

| | Year Ended December 31, 2016 | | | |
|---|---|---|---|---|
| | As Reported | | After Reclassification | |
| **Client Location** | (in thousands except percentages) | | | |
| North America | $ 664,598 | 57.3 % | $ 670,581 | 57.8 % |
| Europe | 412,075 | 35.5 % | 417,813 | 36.0 % |
| CIS | 46,033 | 4.0 % | 46,115 | 4.0 % |
| APAC | 24,905 | 2.1 % | 25,623 | 2.2 % |
| Reimbursable expenses and other revenues | 12,521 | 1.1 % | — | — % |
| **Revenues** | **$ 1,160,132** | **100.0%** | **$ 1,160,132** | **100.0%** |

| | Year Ended December 31, 2015 | | | |
|---|---|---|---|---|
| | As Reported | | After Reclassification | |
| **Client Location** | (in thousands except percentages) | | | |
| North America | $ 485,075 | 53.1 % | $ 490,311 | 53.6 % |
| Europe | 352,489 | 38.6 % | 356,518 | 39.0 % |
| CIS | 43,043 | 4.7 % | 43,124 | 4.8 % |
| APAC | 24,010 | 2.6 % | 24,175 | 2.6 % |
| Reimbursable expenses and other revenues | 9,511 | 1.0 % | — | — % |
| **Revenues** | **$ 914,128** | **100.0%** | **$ 914,128** | **100.0%** |

| | Year Ended December 31, 2016 | | | |
|---|---|---|---|---|
| | As Reported | | After Reclassification | |
| **Vertical** | (in thousands except percentages) | | | |
| Financial Services | $ 291,845 | 25.2 % | $ 295,419 | 25.5 % |
| Travel & Consumer | 259,420 | 22.4 % | 262,282 | 22.6 % |
| Software & Hi-Tech | 237,437 | 20.5 % | 239,316 | 20.6 % |
| Media & Entertainment | 174,017 | 15.0 % | 176,325 | 15.2 % |
| Life Sciences & Healthcare | 105,072 | 9.1 % | 105,943 | 9.1 % |
| Emerging Verticals | 79,820 | 6.7 % | 80,847 | 7.0 % |
| Reimbursable expenses and other revenues | 12,521 | 1.1 % | — | — % |
| **Revenues** | **$ 1,160,132** | **100.0%** | **$ 1,160,132** | **100.0%** |

| Vertical | Year Ended December 31, 2015 | | | |
|---|---|---|---|---|
| | As Reported | | After Reclassification | |
| | (in thousands except percentages) | | | |
| Financial Services | $ 248,526 | 27.2 % | $ 250,218 | 27.4 % |
| Travel & Consumer | 215,303 | 23.6 % | 218,338 | 23.9 % |
| Software & Hi-Tech | 192,989 | 21.1 % | 194,575 | 21.3 % |
| Media & Entertainment | 120,616 | 13.2 % | 122,098 | 13.4 % |
| Life Sciences & Healthcare | 73,327 | 8.0 % | 74,279 | 8.1 % |
| Emerging Verticals | 53,856 | 5.9 % | 54,620 | 5.9 % |
| Reimbursable expenses and other revenues | 9,511 | 1.0 % | — | — % |
| **Revenues** | **$ 914,128** | **100.0%** | **$ 914,128** | **100.0%** |

### Recent Accounting Pronouncements

See Note 2 “Recent Accounting Pronouncements” in the notes to our consolidated financial statements in this Annual Report on Form 10-K for information regarding recent accounting pronouncements.

### Results of Operations

The following table sets forth a summary of our consolidated results of operations for the periods indicated. This information should be read together with our consolidated financial statements and related notes included elsewhere in this annual report. The operating results in any period are not necessarily indicative of the results that may be expected for any future period.

| | Year Ended December 31, | | | | | |
|---|---|---|---|---|---|---|
| | 2017 | | 2016 | | 2015 | |
| | (in thousands, except percentages and per share data) | | | | | |
| **Revenues** | **$1,450,448** | **100.0%** | **$1,160,132** | **100.0%** | **$ 914,128** | **100.0%** |
| Operating expenses: | | | | | | |
| Cost of revenues (exclusive of depreciation and amortization)(1) | 921,352 | 63.5 | 737,186 | 63.6 | 566,913 | 62.0 |
| Selling, general and administrative expenses(2) | 324,855 | 22.4 | 264,658 | 22.8 | 222,759 | 24.4 |
| Depreciation and amortization expense | 28,562 | 2.0 | 23,387 | 2.0 | 17,395 | 1.9 |
| Other operating expenses, net | 2,733 | 0.2 | 1,205 | 0.1 | 1,094 | 0.1 |
| **Income from operations** | **172,946** | **11.9** | **133,696** | **11.5** | **105,967** | **11.6** |
| Interest and other income, net | 4,601 | 0.3 | 4,848 | 0.4 | 4,731 | 0.5 |
| Foreign exchange loss | (3,242) | (0.2) | (12,078) | (1.0) | (4,628) | (0.5) |
| **Income before provision for income taxes** | **174,305** | **12.0** | **126,466** | **10.9** | **106,070** | **11.6** |
| Provision for income taxes | 101,545 | 7.0 | 27,200 | 2.3 | 21,614 | 2.4 |
| **Net income** | **$ 72,760** | **5.0%** | **$ 99,266** | **8.6%** | **$ 84,456** | **9.2%** |
| **Effective tax rate** | **58.3%** | | **21.5%** | | **20.4%** | |
| **Diluted earnings per share** | **$ 1.32** | | **$ 1.87** | | **$ 1.62** | |

(1) Included $20,868, $16,619 and $13,695 of stock-based compensation expense for the years ended December 31, 2017, 2016 and 2015, respectively;
(2) Included $31,539, $32,625 and $32,138 of stock-based compensation expense for the years ended December 31, 2017, 2016 and 2015, respectively.

***Revenues***

Our revenues are derived primarily from providing software development services to our clients. Revenues include revenue from services as well as license revenues, reimbursable expenses and other revenues.

During the year ended December 31, 2017, our revenues were $1.45 billion, growing 25.0% over last year. Total revenues in 2017 and 2016 included $17.1 million and $12.5 million of reimbursable expenses and other revenues, respectively, which increased 36.9% in 2017 as compared to 2016, but remained relatively flat as a percentage of total revenues. Growth in revenue is attributable to both the expansion of existing business with current clients and deeper penetration into verticals where we have an established and increasing presence.

During 2016, our revenues grew 26.9% over 2015, from $914.1 million to $1.16 billion. Total revenues in 2016 and 2015 included $12.5 million and $9.5 million of reimbursable expenses and other revenues, respectively, which increased by 31.6% in 2016 as compared to 2015, but remained relatively flat as a percentage of total revenues.

We discuss below the breakdown of our revenue by client location, service offering, vertical, contract type, and client concentration.

*Revenues by Vertical*

We analyze our revenue by separating our clients into five main industry sectors, or verticals, as detailed in the following table. Also, we serve clients in other industries such as oil and gas, telecommunications and several others, which are reported in the aggregate under Emerging Verticals.

Prior to the first quarter of 2017, we did not include reimbursable expenses and other revenues in our revenue results across locations and verticals. Effective in the first quarter of 2017, we have allocated reimbursable expenses and other revenues (which primarily include travel and entertainment costs chargeable to clients) to corresponding geographies and verticals. We believe this change allows us to more effectively analyze our verticals and geographies by streamlining the presentation of revenues, both internally and externally, using a standardized approach. These changes did not result in any adjustments to our previously issued financial statements and were applied retrospectively effective January 1, 2015. Our revenues by vertical and as a percentage of revenue for the periods presented are as follows:

| | Year Ended December 31, | | | | | |
|---|---|---|---|---|---|---|
| | 2017 | | 2016 | | 2015 | |
| Financial Services | $ 338,899 | 23.4 % | $ 295,419 | 25.5 % | $ 250,218 | 27.4 % |
| Travel and Consumer | 317,415 | 21.9 | 262,282 | 22.6 | 218,338 | 23.9 |
| Software & Hi-Tech | 287,633 | 19.8 | 239,316 | 20.6 | 194,575 | 21.3 |
| Media & Entertainment | 256,267 | 17.7 | 176,325 | 15.2 | 122,098 | 13.4 |
| Life Sciences & Healthcare | 120,591 | 8.3 | 105,943 | 9.1 | 74,279 | 8.1 |
| Emerging Verticals | 129,643 | 8.9 | 80,847 | 7.0 | 54,620 | 5.9 |
| **Revenues(1)** | **$1,450,448** | **100.0%** | **$1,160,132** | **100.0%** | **$ 914,128** | **100.0%** |

(1) Includes reimbursable expenses of $17,138, $12,521 and $9,511 for the years ended December 31, 2017, 2016 and 2015, respectively.

*Revenues by Client Location*

Our revenues are sourced from four geographic markets: North America, Europe, CIS, and APAC. We present and discuss our revenues by client location based on the location of the specific client site that we serve, irrespective of the location of the headquarters of the client or the location of the delivery center where the work is performed. Revenue by client location is different from the revenue by reportable segment in our consolidated financial statements included elsewhere in this annual report. Segments are not based on the geographic location of the clients, but instead they are based on the location of the Company's management responsible for a particular client.

The following table sets forth revenues by client location by amount and as a percentage of our revenues for the periods indicated:

| | Year Ended December 31, | | | | | |
|---|---|---|---|---|---|---|
| | 2017 | | 2016 | | 2015 | |
| | (in thousands, except percentages) | | | | | |
| North America | $ 840,692 | 58.0 % | $ 670,581 | 57.8 % | $ 490,311 | 53.6 % |
| Europe | 511,319 | 35.2 | 417,813 | 36.0 | 356,518 | 39.0 |
| CIS | 68,390 | 4.7 | 46,115 | 4.0 | 43,124 | 4.8 |
| APAC | 30,047 | 2.1 | 25,623 | 2.2 | 24,175 | 2.6 |
| **Revenues[(1)]** | **$ 1,450,448** | **100.0%** | **$ 1,160,132** | **100.0%** | **$ 914,128** | **100.0%** |

(1) Includes reimbursable expenses of $17,138, $12,521 and $9,511 for the years ended December 31, 2017, 2016 and 2015, respectively.

*2017 compared to 2016*

During the year ended December 31, 2017, revenues in our largest geography, North America, closed at $840.7 million growing $170.1 million, or 25.4%, from $670.6 million reported for the year ended December 31, 2016. Revenues from this geography accounted for 58.0% of total revenues in 2017, a level consistent with the prior year.

Within North America, we experienced strong growth across all verticals with the Media and Entertainment vertical contributing 31.7% of total growth in the North American geography. In addition, our traditionally strong Software & Hi-Tech portfolio grew 19.6% year over year. We saw continued growth in Emerging Verticals with 44.2% growth in revenues with 29.7% of the growth coming from customers who have been with us less than one year.

Revenues in our Europe geography were $511.3 million, an increase of $93.5 million, or 22.4% over $417.8 million last year. Revenues in this geography accounted for 35.2% of consolidated revenues in 2017 as compared to 36.0% last year. Europe experienced strong growth in the Media and Entertainment, Life Sciences and Healthcare, and Emerging Verticals, each of which grew over 55% during 2017. Over 70% of the growth in our Europe geography in 2017 came from customers who have been with us less than two years. Financial Services remained our largest vertical in this geography accounting for 41.1% of the Europe geography's revenues in 2017 as compared to 47.7% in 2016.

Revenues in the CIS geography increased $22.3 million, or 48.3%, from last year. The increase in CIS revenues came predominantly from customers within the Financial Services and Emerging verticals. Revenues in this geography benefited by $5.9 million from the appreciation of the Russian ruble relative to the U.S. dollar.

*2016 compared to 2015*

During the year ended December 31, 2016, revenues in our largest geography, North America, closed at $670.6 million growing $180.3 million, or 36.8%, from $490.3 million reported for the year ended December 31, 2015. Revenues from this geography accounted for 57.8% of total revenues in 2016, an increase of 4.2% from 53.6% reported in 2015.

Within North America, we experienced strong growth across all verticals despite considerable market, geo-political, and economic uncertainties: each of the two verticals, Media and Entertainment and Life Sciences and Healthcare, grew above 40%; while Emerging Verticals and Financial Services grew 59.6% and 94.9%, respectively. In addition, our traditionally strong Software & Hi-Tech portfolio grew 27.3%, which allowed us to keep this important segment at our strategic target of 20% of consolidated revenues.

We saw continued traction with customers in the pharmaceutical segment of our Life Sciences and Healthcare vertical, and significantly grew our portfolio of customers in Emerging Verticals with over 30% growth in revenues there coming from customers who have been with us less than one year. Combined growth in our Software & Hi-Tech and Media & Entertainment verticals accounted for 48.6% of the overall growth in the North America geography, of which $19.6 million, or 22.4%, was attributable to the expansion of existing relationship with certain long-standing customers within our Media and Entertainment vertical.

Revenues in our Europe geography were $417.8 million, an increase of $61.3 million, or 17.2% over $356.5 million reported in 2015. Revenues in this geography accounted for 36.0% of consolidated revenues in 2016 as compared to 39.0% in 2015. The slowdown in revenue growth in 2016 was largely attributable to decelerated growth in revenues from our top customer in this geography, coupled with increased internal and external pressures on customers within our Travel and Consumer vertical, and currency headwinds, primarily due to the depreciation of the British pound relative to the U.S. dollar.

Consistent with results in our North America geography, Europe experienced strong growth in the Media and Entertainment, Life Sciences and Healthcare, and Emerging Verticals, each of which grew over 48% during 2016. Over 40% of growth in Life Sciences and Healthcare and Emerging Verticals came from customers who have been with us less than one year. Financial Services remained our largest vertical in this geography and accounted for 34.0% of the overall growth in 2016.

Revenues in the CIS geography showed an increase of $3.0 million, or 6.9%, from 2015. The increase in CIS revenues came predominantly from customers within the Financial Services and Travel and Consumer verticals.

*Revenues by Client Concentration*

While we seek to grow revenues from our existing clients by continually expanding the scope and size of our engagements, we expect client concentration from our top clients to continue to decrease over the long-term. The following table sets forth revenues including reimbursable expenses contributed by our top one, top five, top ten and top twenty clients by amount and as a percentage of our revenues for the periods indicated:

| | Year Ended December 31, | | | | | |
|---|---|---|---|---|---|---|
| | 2017 | | 2016 | | 2015 | |
| | (in thousands, except percentages) | | | | | |
| Top client | See (1) | See (1) | $ 137,599 | 11.9% | $ 130,221 | 14.2% |
| Top five clients | $ 348,219 | 24.0% | $ 329,324 | 28.4% | $ 299,655 | 32.8% |
| Top ten clients | $ 491,742 | 33.9% | $ 445,814 | 38.4% | $ 403,052 | 44.1% |
| Top twenty clients | $ 648,786 | 44.7% | $ 563,057 | 48.5% | $ 500,186 | 54.7% |

(1) No single client comprises more than 10% of the Company's revenues including reimbursable expenses for the year ended December 31, 2017.

During the year ended December 31, 2017, our revenue growth outside the top twenty accounts was $204,587 or 34.3%.

We have long-standing relationships with many of our customers, and revenues derived from these customers may fluctuate as these accounts mature or upon completion of multi-year projects. Our focus on delivering quality to our clients is reflected by an average of 94.9% and 85.7% of our revenues in 2017 coming from clients that had used our services for at least one and two years, respectively. While we believe there's a significant potential for future growth as we expand our capabilities and offerings within specific domains and verticals, we continue to focus on diversification of our client concentration and building up a portfolio of accounts that we believe have significant revenue potential. We anticipate the contribution of these accounts to our total revenues to increase in the mid- to long-term and offset the slower growth rate of some of our largest customers as those accounts mature.

*Revenues by Service Offering*

Our end-to-end service offerings are grouped into five main categories with software development representing our core competency and a substantial majority of our business. The following table sets forth revenues by service offering by amount and as a percentage of our revenues for the periods indicated:

| | Year Ended December 31, | | | | | |
|---|---|---|---|---|---|---|
| | 2017 | | 2016 | | 2015 | |
| | (in thousands, except percentages) | | | | | |
| Software development | $ 1,060,286 | 73.2 % | $ 841,916 | 72.6 % | $ 644,732 | 70.6 % |
| Application testing services | 276,270 | 19.0 | 223,010 | 19.2 | 174,259 | 19.1 |
| Application maintenance and support | 92,630 | 6.4 | 74,475 | 6.4 | 70,551 | 7.7 |
| Licensing | 3,529 | 0.2 | 3,141 | 0.3 | 3,764 | 0.4 |
| Infrastructure services | 595 | — | 5,069 | 0.4 | 11,311 | 1.2 |
| Reimbursable expenses and other revenues | 17,138 | 1.2 | 12,521 | 1.1 | 9,511 | 1.0 |
| **Revenues** | **$ 1,450,448** | **100.0%** | **$ 1,160,132** | **100.0%** | **$ 914,128** | **100.0%** |

*Revenues by Contract Type*

Our engagement models are based on the type of services provided to a client, the mix and locations of professionals involved and the business outcomes our clients are looking to achieve. Our two types of service arrangements are time-and-material and fixed-price contracts. Historically, the majority of our revenues have been generated under time-and-material contracts and we expect time-and-material arrangements to continue to comprise the majority of our revenues in the future.

Under time-and-material contracts, we are compensated for actual time incurred by our IT professionals at negotiated hourly, daily or monthly rates. Fixed-price contracts require us to perform services throughout the contractual period and we are paid in installments on agreed intervals.

The following table sets forth revenues by contract type by amount and as a percentage of our revenues for the periods indicated:

| | Year Ended December 31, | | | | | |
|---|---|---|---|---|---|---|
| | 2017 | | 2016 | | 2015 | |
| | (in thousands, except percentages) | | | | | |
| Time-and-material | $ 1,309,762 | 90.3 % | $ 1,023,781 | 88.2 % | $ 784,153 | 85.8 % |
| Fixed-price | 120,019 | 8.3 | 120,689 | 10.4 | 116,700 | 12.8 |
| Licensing | 3,529 | 0.2 | 3,141 | 0.3 | 3,764 | 0.4 |
| Reimbursable expenses and other revenues | 17,138 | 1.2 | 12,521 | 1.1 | 9,511 | 1.0 |
| **Revenues** | **$ 1,450,448** | **100.0%** | **$ 1,160,132** | **100.0%** | **$ 914,128** | **100.0%** |

***Cost of Revenues (Exclusive of Depreciation and Amortization)***

The principal components of our cost of revenues (exclusive of depreciation and amortization) are salaries, bonuses, fringe benefits, stock-based compensation expense, project related travel costs and fees for subcontractors who are assigned to client projects. Salaries and other compensation expenses of our revenue generating professionals are reported as cost of revenues regardless of whether the employees are actually performing client services during a given period. Our employees are a critical asset, necessary for our continued success and therefore we expect to continue hiring talented employees and providing them with competitive compensation programs.

We manage the utilization levels of our professionals through strategic hiring and efficient staffing of projects. Some of our IT professionals are hired and trained to work for specific clients or on specific projects and some of our offshore development centers are dedicated to specific clients or projects. Our staff utilization also depends on the general economy and its effect on our clients and their business decisions regarding the use of our services.

*2017 compared to 2016*

During the year ended December 31, 2017, cost of revenues (exclusive of depreciation and amortization) was $921.4 million, representing an increase of 25.0% from $737.2 million reported last year. The increase was primarily due to an increase in compensation costs as a result of a 15.0% growth in the average number of production headcount for the year as well as a 2.3% impact from appreciation of foreign currencies.

Expressed as a percentage of revenues, cost of revenues (exclusive of depreciation and amortization) was 63.5% and 63.6% during the years ended December 31, 2017 and 2016, respectively. Our utilization in 2017 improved by 3.8% as compared to 2016 which was offset by higher compensation expense and the unfavorable impact of appreciation of the Russian ruble, Hungarian forint and Polish zloty as compared to the U.S. dollar.

*2016 compared to 2015*

During the year ended December 31, 2016, cost of revenues (exclusive of depreciation and amortization) was $737.2 million, representing an increase of 30.0% from $566.9 million reported in 2015. The increase was primarily due to an increase in compensation costs as a result of a 34.2% growth in the average number of production headcount for the year.

Expressed as a percentage of revenues, cost of revenues (exclusive of depreciation and amortization) was 63.6% and 62.0% during the years ended December 31, 2016 and 2015, respectively. Of this increase, 1.5% was attributable to a decrease in utilization during the year ended December 31, 2016, as compared to the same period in 2015.

***Selling, General and Administrative Expenses***

Selling, general and administrative expenses represent expenses associated with promoting and selling our services and general administrative functions of our business. These expenses include the costs of salaries, bonuses, fringe benefits, stock-based compensation expense, commissions, travel, legal and audit services, insurance, operating leases, advertising and other promotional activities. In addition, we pay a membership fee of 1% of revenues generated in Belarus to the administrative organization of the Belarus Hi-Tech Park.

*2017 compared to 2016*

As a result of our expanding operations, acquisitions, and the hiring of a number of senior managers to support our growth, our selling, general and administrative expenses have been increasing. During the year ended December 31, 2017, selling, general and administrative expenses were $324.9 million, representing an increase of 22.7% as compared to $264.7 million reported last year. The increase in selling, general and administrative expenses in 2017 was driven by a $27.6 million increase in personnel-related costs, a $16.6 increase related to investments in facilities and infrastructure to support the increased headcount, and $7.0 million of higher spending related to talent acquisition and development.

Expressed as a percentage of revenue, selling, general and administrative expenses decreased 0.4% to 22.4% for the year ended December 31, 2017. We expect our selling, general and administrative expenses to continue to increase in absolute terms as our business expands but generally to remain steady or slightly decrease as a percentage of our revenues over time.

*2016 compared to 2015*

During the year ended December 31, 2016, selling, general and administrative expenses were $264.7 million, representing an increase of 18.8% as compared to $222.8 million reported in 2015. The increase in selling, general and administrative expenses in 2016 was primarily driven by a $14.6 million increase in personnel-related costs, coupled with a $16.5 million increase in general and administrative expenses related to investments in facilities and infrastructure to support the increased headcount, and $4.0 million higher spending related to talent acquisition and development.

Expressed as a percentage of revenue, selling, general and administrative expenses decreased 1.6% to 22.8% for the year ended December 31, 2016. The decrease was primarily attributable to higher revenue growth as compared to the growth in compensation driven by the increased headcount and wage inflation, coupled with relatively limited growth in stock-based compensation.

### *Depreciation and Amortization Expense*

*2017 compared to 2016*

During the year ended December 31, 2017, depreciation and amortization expense was $28.6 million, representing an increase of $5.2 million from $23.4 million reported last year. The increase in depreciation and amortization expense is primarily due to an increase in computer equipment to support headcount growth. Depreciation and amortization expense includes amortization of acquired finite-lived intangible assets. Expressed as a percentage of revenues, depreciation and amortization expense remained consistent during the year ended December 31, 2017 as compared to 2016.

*2016 compared to 2015*

During the year ended December 31, 2016, depreciation and amortization expense was $23.4 million, representing an increase of $6.0 million from $17.4 million reported in 2015. The increase was predominantly driven by depreciation of computer equipment and infrastructure related to increased headcount and amortization of intangible assets purchased with the acquisitions of businesses completed in 2015. Expressed as a percentage of revenues, depreciation and amortization expense was 2.0%, a slight increase from 1.9% reported in the same period in 2015.

### *Other Operating Expenses, Net*

There were no material changes in other operating expenses, net during the year ended December 31, 2017 as compared to 2016 and 2015.

### *Interest and Other Income, Net*

Interest and other income, net is comprised of interest earned on cash accounts in Belarus, interest earned on employee housing loans, and other income and is partially offset by interest expense related to our revolving credit facility. There were no material changes in interest and other income, net in 2017 as compared to 2016 and 2015.

### *Provision for Income Taxes*

Determining the consolidated provision for income tax expense, deferred income tax assets and liabilities and related valuation allowances, if any, involves judgment. As a global company, we are required to calculate and provide for income taxes in each of the jurisdictions in which we operate. During 2017, 2016 and 2015, we had $180.9 million, $135.8 million and $113.8 million, respectively, in income before provision for income taxes attributed to our foreign jurisdictions. Changes in the geographic mix or level of annual pre-tax income can affect our overall effective income tax rate.

Our provision for income taxes also includes the impact of provisions established for uncertain income tax positions, as well as the related net interest expense. Tax exposures can involve complex issues and may require an extended period to resolve. Although we believe we have adequately reserved for our uncertain tax positions, we cannot provide assurance that the final tax outcome of these matters will not be different from our current estimates. We adjust these reserves in light of changing facts and circumstances, such as the closing of a tax audit, statute of limitation lapse or the refinement of an estimate. To the extent that the final tax outcome of these matters differs from the amounts recorded, such differences will impact the provision for income taxes in the period in which such determination is made.

In Belarus, member technology companies of High-Technologies Park have a full exemption from Belarus income tax. This tax holiday was recently extended through January 2049. The aggregate dollar benefits derived from this tax holiday approximated $15.5 million, $13.6 million and $20.8 million for the years ended December 31, 2017, 2016 and 2015, respectively. The benefit the tax holiday had on diluted net income per share approximated $0.28, $0.26 and $0.40 for the years ended December 31, 2017, 2016 and 2015, respectively.

As we continue to grow our onsite presence and expand the geographic footprint of our delivery centers, this may result in volatility in our effective tax rate. Other factors that may contribute, favorably or unfavorably, to the overall effective tax rate in 2018 and beyond must be considered as well. These factors include statutory tax rate changes in the countries that are part of our geographic footprint and excess tax benefits upon vesting or exercise of equity awards.

*2017 compared to 2016*

The provision for income taxes was $101.5 million in 2017 and $27.2 million in 2016. The increase in the effective tax rate from 21.5% in 2016 to 58.3% in 2017 was primarily due to a provisional $74.6 million charge as a result of the United States Tax Cuts and Jobs Act ("U.S. Tax Act") enacted on December 22, 2017. The U.S. Tax Act significantly changes U.S. corporate income tax laws including a reduction of the U.S. corporate income tax rate from 35.0% to 21.0% effective January 1, 2018 and the creation of a territorial tax system with a one-time transition tax on accumulated foreign subsidiary earnings not previously subject to U.S. income tax. In addition, the U.S. Tax Act creates new taxes on certain foreign-sourced earnings and certain related party payments, which are referred to as the global intangible low-taxed income tax and the base erosion tax, respectively. The charge was comprised of a $64.3 million provisional charge due to a one-time transition tax on accumulated foreign subsidiary earnings not previously subject to U.S. income tax as well as a $10.3 million provisional charge due to the impact of the change in the U.S. statutory tax rate from 35.0% to 21.0% in the periods in which the net deferred tax assets are expected to be realized as a result of the U.S. Tax Act.

In 2017, we also reassessed our accumulated foreign earnings in light of the U.S. Tax Act and determined $97.0 million of our accumulated earnings in Belarus are no longer indefinitely reinvested. As a result, we recorded a charge of $4.9 million in the provision for income taxes during the year ended December 31, 2017 for the withholding tax that will be payable to Belarus when the earnings are expatriated.

These charges were partially offset by the adoption of a new accounting standard in the first quarter of 2017 whereby excess tax benefits of $9.3 million were recognized for the year ended December 31, 2017 in the income tax provision rather than additional paid-in-capital.

Other factors include changes in the geographic mix of our earnings attributable to foreign operations toward jurisdictions with lower statutory income tax rates as well as small decreases in statutory tax rates in Hungary, Ukraine and the United Kingdom.

*2016 compared to 2015*

Provision for income taxes was $27.2 million in 2016 and $21.6 million in 2015. The increase in the effective tax rate from 20.4% in 2015 to 21.5% in 2016 was predominantly caused by the changes in the geographic mix of our earnings, including:

- higher earnings attributable to our U.S. operations in 2016 driven by the growth in onsite presence in the U.S. and lower earnings attributable to foreign jurisdictions due to currency headwinds, among other factors;
- changes in the geographic mix of our earnings attributable to foreign operations toward jurisdictions with higher statutory income tax rates;
- full-year impact of inclusion of operating results of AGS, a 2015 acquisition with its primary delivery centers in India, which has a significantly higher tax rate.

***Foreign Exchange Gain / Loss***

For discussion of the impact of foreign exchange fluctuations see "Item 7A. Quantitative and Qualitative Disclosures About Market Risk — Foreign Exchange Risk."

**Effects of Inflation**

Economies in CIS countries, particularly Belarus, Russia, Kazakhstan and Ukraine, have periodically experienced high rates of inflation. Periods of higher inflation may slow economic growth in those countries and as a result negatively impact the business of our existing clients and decrease demand for our services. We do not rely on borrowed funds for operations in those locations; therefore, increases in interest rates typical for inflationary environments do not currently pose a risk to our business. Inflation may increase some of our expenses such as wages.

While inflation may impact our results of operations and financial condition and it is difficult to accurately measure the impact of inflation, we believe the effects of inflation on our results of operations and financial condition are not significant.

***Results by Business Segment***

Our operations consist of four reportable segments: North America, Europe, Russia and Other. There were no operations in the Other segment for 2017 and 2016. The segments represent components of EPAM for which separate financial information is available and is used on a regular basis by our chief executive officer, who is also our chief operating decision maker ("CODM"), to determine how to allocate resources and evaluate performance. Our CODM makes business decisions based on segment revenues and operating profit. Segment operating profit is defined as income from operations before unallocated costs. Expenses included in segment operating profit consist principally of direct selling and delivery costs as well as an allocation of certain shared services expenses and facilities costs. These shared expenses include Delivery, Recruitment and Development, Sales and Marketing, and support functions such as IT, Finance, Legal, and Human Resources. Generally, shared expenses are allocated based on measurable drivers of expense, e.g., recorded hours or headcount. Certain expenses that are not controllable at the segment level are not allocated to specific segments.

Our reportable segments are based on managerial responsibility for a particular client. Because managerial responsibility for a particular client relationship generally correlates with the client's geographic location, there is a high degree of similarity between client locations and the geographic boundaries of our reportable segments. However, in some specific cases, managerial responsibility for a particular client is assigned to a management team in another region, usually based on the strength of the relationship between client executives and particular members of our senior management team. In such cases, the client's activity would be reported through that management team's reportable segment.

Segment revenues from external clients and segment operating profit, before unallocated expenses, for the North America, Europe, Russia and Other reportable segments for the years ended December 31, 2017, 2016 and 2015 were as follows:

| | Year Ended December 31, | | |
|---|---|---|---|
| | **2017** | **2016** | **2015** |
| | | **(in thousands)** | |
| Segment revenues: | | | |
| North America | $ 796,126 | $ 642,216 | $ 471,603 |
| Europe | 593,167 | 474,988 | 400,460 |
| Russia | 62,994 | 43,611 | 37,992 |
| Other | — | — | 4,911 |
| **Total segment revenues** | **$ 1,452,287** | **$ 1,160,815** | **$ 914,966** |
| Segment operating profit/(loss): | | | |
| North America | $ 169,340 | $ 143,021 | $ 112,312 |
| Europe | 92,080 | 67,545 | 68,717 |
| Russia | 13,906 | 7,555 | 5,198 |
| Other | — | — | (94) |
| **Total segment operating profit** | **$ 275,326** | **$ 218,121** | **$ 186,133** |

***North America Segment***

*2017 compared to 2016*

North America segment revenues increased $153.9 million, or 24.0%, over last year and remained consistent at 54.8% and 55.3% of total revenues for 2017 and 2016, respectively. The North America segment's operating profits increased $26.3 million, or 18.4%, as compared to 2016, to $169.3 million. North America's operating profit represented 21.3% of North America segment revenues as compared to 22.3% in 2016. The Media & Entertainment, Financial Services & Emerging verticals each grew over 30% as compared to 2016 and in total represented 60.8% of the growth in North America segment revenues from 2016.

*2016 compared to 2015*

North America segment revenues were 55.3% and 51.5% of total revenues representing an increase of $170.6 million, or 36.2%, over 2015. The North America segment's operating profits increased $30.7 million, or 27.3%, as compared to 2015, to $143.0 million net operating profit. North America remains our most profitable segment with operating profit composing 22.3% of North America segment's revenues. Strong performance of our North America segment was predominantly driven by continued expansion of existing top customer relationships across all our key verticals, as well as strong performance of the U.S. dollar against foreign currencies.

***Europe Segment***

Our Europe segment includes the business in the APAC region, which is managed by the same management team.

*2017 compared to 2016*

Europe segment revenues were $593.2 million, representing an increase of $118.2 million, or 24.9%, from last year. During the years ended December 31, 2017 and 2016, revenues from our Europe segment were 40.8% and 40.9% of total segment revenues, respectively. During 2017, this segment's operating profits increased $24.5 million, or 36.3% as compared to last year, to $92.1 million net operating profit. The Financial Services vertical remained our largest vertical in this segment and grew 5.8% in 2017 as compared to 2016. Over half of the growth in the Europe segment was attributable to the Travel & Consumer and Media & Entertainment verticals.

*2016 compared to 2015*

Europe segment revenues were $475.0 million, representing an increase of $74.5 million, or 18.6%, from 2015. During the years ended December 31, 2016 and 2015, revenues from our Europe segment were 40.9% and 43.8% of total segment revenues, respectively. During 2016, this segment's operating profits decreased $1.2 million, or 1.7%, as compared to 2015, to $67.5 million net operating profit.

During 2016, the segment's operating results were adversely affected by a slowdown in growth of our top customer, significantly increasing pressures on operating margins and overall profitability of the segment. In January 2017, we announced a multi-year arrangement with this customer, which extended our nine-year relationship and established a minimum revenue commitment of at least $300 million over the next three years.

The segment's operating results were adversely affected by exchange rate fluctuations, and particularly, the depreciation of the British pound relative to the U.S. dollar, which is the primary currency for the majority of the delivery centers that service our U.K. accounts. The Financial Services vertical remained our largest vertical in this segment and accounted for 30.8% of the overall growth of this segment in 2016.

***Russia and Other Segments***

*2017 compared to 2016*

Revenues from our Russia reportable segment increased $19.4 million relative to 2016. Operating profits of our Russia segment increased $6.4 million when compared to 2016. Expressed as a percentage of revenues, the Russia segment's operating profits were 22.1% and 17.3% in 2017 and 2016, respectively. This growth is partially attributable to the strengthening of the Russian ruble against the U.S. dollar during 2017 as compared to 2016. Ongoing economic and geo-political uncertainty in this region as well as significant volatility of the Russian ruble impact this segment.

*2016 compared to 2015*

During 2016, we completed multi-year engagements with certain customers, which significantly decreased the portfolio of accounts in our Other reportable segment. As a result, managerial responsibility for the remaining accounts in the Other reportable segment was transferred to our Russia segment. This change does not represent a change in our reportable segments, but is rather a movement in responsibility for a number of customers, accounting for less than 1% of total segment revenue.

Revenues from our Russia reportable segment increased $0.7 million relative to the revenues of our Russia and Other segments in 2015. Operating profits of our Russia segment increased $2.5 million when compared to the operating profits of our Russia and Other segments in 2015. Expressed as a percentage of the Russia and Other segments' revenues, operating profits were 17.3% and 11.9% in 2016 and 2015, respectively.

## Liquidity and Capital Resources

### *Capital Resources*

Historically, cash generated from operations has been our primary source of liquidity to fund operations and investments to support the growth of our business. At December 31, 2017, our principal sources of liquidity were cash and cash equivalents totaling $582.6 million and $273.7 million of available borrowings under our revolving credit facility.

Many of our operations are conducted outside the United States and as of December 31, 2017, $433.5 million of our total cash, including time deposits and restricted cash, was held internationally. Of this amount, $240.1 million was held in CIS countries, and $196.7 million of this total was located in Belarus. Banking and other financial systems in the CIS region are less developed and regulated than in some more developed markets, and bank deposits made by corporate entities in the CIS region are not insured. Our subsidiaries in the CIS and APAC regions do not maintain significant balances denominated in currencies other than U.S. dollars.

All cash and cash equivalents held at locations outside of the United States, except for $97.0 million held in Belarus, are for future operating needs and we have no intention of repatriating those funds. As part of our ongoing liquidity assessments, we regularly monitor the mix of domestic and international cash flows and cash balances and we may decide to repatriate some or all of our funds to the United States. If we decide to remit funds to the United States in the form of dividends, $324.5 million, including all of the total cash held in Belarus, would be subject to foreign withholding taxes. We believe that our available cash and cash equivalents held in the United States and cash flow to be generated from domestic operations will be sufficient to fund our domestic operations and obligations for the foreseeable future.

On May 24, 2017, we entered into a revolving credit facility with PNC Bank, National Association; PNC Capital Markets LLC; Wells Fargo Bank, National Association; Santander Bank, N.A.; Fifth Third Bank and Citibank N.A. to replace the former revolving credit facility. The revolving credit facility provides for a borrowing capacity of $300.0 million with potential to increase the credit facility up to $400.0 million if certain conditions are met. The revolving credit facility will mature and all amounts outstanding thereunder will be due and payable on May 24, 2022. Borrowings under the credit facility may be denominated in United States dollars or, up to a maximum of $100.0 million equivalent in British pounds sterling, Canadian dollars, euros or Swiss francs (or other currencies as may be approved by the administrative agent and the lenders). Borrowings under the 2017 Credit Facility bear interest at either a base rate or Euro-rate plus a margin based on the Company's leverage ratio. At December 31, 2017, we had outstanding debt of $25.0 million and unused letters of credit issued under the revolving credit facility totaling $1.3 million, primarily for securing collateral requirements under certain insurance programs and office rent, with the balance of the credit limit of $273.7 million remaining available for borrowing.

We were in compliance with all covenants in the revolving credit facility as of December 31, 2017, and anticipate being in compliance with all covenants for the foreseeable future.

Our ability to expand and grow our business in accordance with current plans and to meet our long-term capital requirements will depend on many factors, including the rate at which our cash flows increase or decrease and the availability of public and private debt and equity financing. We may require additional cash resources due to changed business conditions or other future developments, including any investments or acquisitions we may decide to pursue. If our resources are insufficient to satisfy our cash requirements, we may seek to sell additional equity or debt securities or obtain another credit facility.

*Cash Flows*

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

| | Year Ended December 31, | | |
|---|---|---|---|
| | 2017 | 2016 | 2015 |
| | | (in thousands) | |
| **Consolidated Statements of Cash Flow Data:** | | | |
| Net cash provided by operating activities | $ 195,364 | $ 164,817 | $ 76,393 |
| Net cash used in investing activities | (36,173) | (9,322) | (125,494) |
| Net cash provided by financing activities | 49,746 | 10,467 | 33,764 |
| Effect of exchange rate changes on cash and cash equivalents | 11,623 | (3,386) | (5,748) |
| Net increase/(decrease) in cash and cash equivalents | $ 220,560 | $ 162,576 | $ (21,085) |
| Cash and cash equivalents, beginning of period | 362,025 | 199,449 | 220,534 |
| **Cash and cash equivalents, end of period** | **$ 582,585** | **$ 362,025** | **$ 199,449** |

***Operating Activities***

*2017 Compared to 2016*

Net cash provided by operating activities during the year ended December 31, 2017 increased $30.5 million, or 18.5%, to $195.4 million, as compared to 2016 primarily driven by the $39.3 million increase in income from operations. The $74.3 million increase in the provision for income taxes had minimal impact on cash flow as it was offset by a $70.5 million increase in Taxes payable primarily attributable to the U.S. Tax Act which are expected to be paid over the next 8 years.

*2016 Compared to 2015*

Net cash provided by operating activities during the year ended December 31, 2016 increased $88.4 million, or 115.7%, to $164.8 million, as compared to 2015. The increase in operating cash flows was primarily attributable to higher customer collections as we made substantial progress in managing our billed and unbilled trade receivables, and decreased the ratio of billed and unbilled trade receivables to revenues over the course of 2016.

***Investing Activities***

*2017 Compared to 2016*

Net cash used in investing activities during the year ended December 31, 2017 was $36.2 million compared to $9.3 million used in the same period in 2016. During 2017, the investing cash outflow was primarily attributed to capital expenditures of $29.8 million and was consistent with capital expenditures of $29.3 million in 2016. Our capital expenditures during 2017 were driven by our continuous investment in facilities and computer equipment to support our increased headcount. Cash inflows during 2016 included a $30.0 million increase in cash upon maturity of certain time deposits, while there were no material time deposit maturities during 2017.

*2016 Compared to 2015*

Net cash used in investing activities during the year ended December 31, 2016 was $9.3 million compared to $125.5 million used in the same period in 2015. During 2016, cash spent on capital expenditures increased by $11.4 million which was more than offset by a $71.4 million decrease in cash spent on acquisitions of businesses in 2016 and a $59.5 million increase in net cash inflows as a result of movements in restricted cash and time deposits.

***Financing Activities***

*2017 Compared to 2016*

During the year ended December 31, 2017, net cash provided by financing activities was $49.7 million, representing a $39.3 million increase from $10.5 million cash provided by financing activities in 2016. The increase was primarily attributable to higher proceeds from increased exercises of stock options issued under our long-term incentive plans. During 2017, stock option exercises contributed $54.0 million of cash compared to $18.0 million during 2016.

*2016 Compared to 2015*

During the year ended December 31, 2016, net cash provided by financing activities was $10.5 million, representing a $23.3 million decrease from $33.8 million cash provided by financing activities in 2015. The decrease was primarily attributable to a $45.1 million decrease related to borrowings under our revolving credit facility coupled with lower proceeds related to our long-term incentive plans. This was partially offset by lower payments of deferred consideration related to acquisitions of businesses which decreased $28.0 million in 2016 compared to last year.

**Contractual Obligations and Future Capital Requirements**

***Contractual Obligations***

Set forth below is information concerning our significant fixed and determinable contractual obligations as of December 31, 2017.

| | Total | Less than 1 Year | 1-3 Years | 3-5 Years | More than 5 Years |
|---|---|---|---|---|---|
| | | | (in thousands) | | |
| Operating lease obligations | $ 138,501 | $ 39,359 | $ 47,914 | $ 25,628 | $ 25,600 |
| Cash-settled restricted stock units(1) | 33,822 | 9,836 | 19,568 | 4,418 | — |
| Long-term debt obligations(2) | 27,459 | 564 | 1,110 | 25,785 | — |
| **Total contractual obligations** | **$ 199,782** | **$ 49,759** | **$ 68,592** | **$ 55,831** | **$ 25,600** |

(1) We estimate our future obligations for cash-settled restricted stock units issued under our long-term incentive plan by assuming the price per share of our common stock in effect at December 31, 2017 remains constant into the future. This is an estimate and ultimate payout will vary as our stock price varies over time.

(2) We estimate our future obligations for interest on our floating rate 2017 Credit Facility by assuming the weighted average interest rates in effect on each floating rate debt obligation at December 31, 2017 remain constant into the future. This is an estimate, as actual rates will vary over time. In addition, for the 2017 Credit Facility, we assume that the balance outstanding as of December 31, 2017 remains the same for the remaining term of the agreement. The actual balance outstanding under our 2017 Credit Facility may fluctuate significantly in future periods, depending on the availability of cash flow from operations and future investing and financing considerations.

***Letters of credit***

At December 31, 2017, we had two irrevocable standby letters of credit totaling $1.3 million under the 2017 Credit Facility, which are required to secure commitments for certain insurance policies and office rent. The letters of credit expire on April 27, 2018 and August 20, 2018, respectively with a possibility of automatic extension for an additional period of one year from the present or any future expiration date.

***Future Capital Requirements***

We believe that our existing cash and cash equivalents combined with our expected cash flow from operations will be sufficient to meet our projected operating and capital expenditure requirements for at least the next twelve months and that we possess the financial flexibility to execute our strategic objectives, including the ability to make acquisitions and strategic investments in the foreseeable future. However, our ability to generate cash is subject to our performance, general economic conditions, industry trends and other factors. To the extent that existing cash and cash equivalents and operating cash flow are insufficient to fund our future activities and requirements, we may need to raise additional funds through public or private equity or debt financing. If we issue equity securities in order to raise additional funds, substantial dilution to existing stockholders may occur. If we raise cash through the issuance of additional indebtedness, we may be subject to additional contractual restrictions on our business. There is no assurance that we would be able to raise additional funds on favorable terms or at all.

**Off-Balance Sheet Commitments and Arrangements**

We do not have any obligations under guarantee contracts or other contractual arrangements other than as disclosed in Note 15 “Commitments and Contingencies” in the notes to our consolidated financial statements in this Annual Report on Form 10-K. We have not entered into any transactions with unconsolidated entities where we have financial guarantees, subordinated retained interests, derivative instruments, or other contingent arrangements that expose us to material continuing risks, contingent liabilities, or any other obligation under a variable interest in an unconsolidated entity that provides financing, liquidity, market risk, or credit risk support to us, or engages in leasing, hedging, or research and development services with us.

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

We are exposed to certain market risks in the ordinary course of our business. These risks result primarily from concentrations of credit, changes in foreign currency exchange rates and interest rates. In addition, our international operations are subject to risks related to differing economic conditions, changes in political climate, differing tax structures, and other regulations and restrictions.

**Concentration of Credit and Other Credit Risks**

Financial instruments that potentially subject us to significant concentrations of credit risk consist primarily of cash and cash equivalents, trade accounts receivable and unbilled revenues.

We maintain our cash and cash equivalents and short-term investments with financial institutions. We believe that our credit policies reflect normal industry terms and business risk. We do not anticipate non-performance by the counterparties. We hold a significant balance of cash in banks in the CIS countries where banking and other financial systems generally do not meet the banking standards of more developed markets and bank deposits made by corporate entities in the CIS region are not insured. As of December 31, 2017, $240.1 million of total cash was held in banks in CIS countries, of which $196.7 million was held in Belarus. The CIS banking sector remains subject to periodic instability and the transparency of the banking sector lags behind international standards. Particularly in Belarus, a banking crisis, bankruptcy or insolvency of banks that process or hold our funds, may result in the loss of our deposits or adversely affect our ability to complete banking transactions in the region, which could have a material adverse impact on our business and financial condition. Cash in other CIS locations is used for short-term operational needs and cash balances in those banks move with the needs of the entities.

Accounts receivable and unbilled revenues are generally dispersed across many clients operating in different industries; therefore, concentration of credit risk is limited. As of December 31, 2017 there were no customers individually exceeding 10% of our billed trade receivables. As of December 31, 2017, unbilled trade receivables from one customer individually exceeded 10% and accounted for 13.0% of our total unbilled trade receivables.

There were no customers individually exceeding 10% of our total revenues as of December 31, 2017. During the years ended December 31, 2016 and 2015, the Company had one customer, UBS AG, which contributed revenues including reimbursable expenses and other revenues of $137.6 million and $130.2 million, respectively, which accounted for more than 10% of total revenues in the periods indicated.

During the year ended December 31, 2017, our top five customers accounted for 24.0% of our total revenues, and our top ten customers accounted for 33.9% of our total revenues. During the year ended December 31, 2016, our top five customers accounted for 28.4% of our total revenues, and our top ten customers accounted for 38.4% of our total revenues.

Historically, credit losses and write-offs of trade accounts receivable balances have not been material to our consolidated financial statements. However, our results of operations depend on our ability to successfully collect payment from our clients for work performed.

**Interest Rate Risk**

Our exposure to market risk is influenced by the changes in interest rates on our cash and cash equivalent deposits and paid on any outstanding balance on our borrowings, mainly under our 2017 Credit Facility, which is subject to a variety of rates depending on the type and timing of funds borrowed. We do not believe we are exposed to material direct risks associated with changes in interest rates related to these borrowings and deposits and we have not been exposed to material risks due to changes in market interest rates and, therefore, we do not use derivative financial instruments to hedge our risk of interest rate volatility.

**Foreign Exchange Risk**

Our global operations are conducted predominantly in U.S. dollars. Other than U.S. dollars, we generate a significant portion of our revenues in various currencies, principally, euros, British pounds, Canadian dollars, Swiss francs and Russian rubles and incur expenditures principally in Hungarian forints, Russian rubles, Polish zlotys, Swiss francs, British pounds, Indian rupees and Chinese yuan renminbi associated with the location of our delivery centers.

Our international operations expose us to foreign currency exchange rate changes that could impact translations of foreign denominated assets and liabilities into U.S. dollars and future earnings and cash flows from transactions denominated in different currencies. We are exposed to fluctuations in foreign currency exchange rates primarily on accounts receivable and unbilled revenues from sales in foreign currencies and cash outflows for expenditures in foreign currencies. Our results of operations, primarily revenues and expenses denominated in foreign currencies, can be affected if any of the currencies which we use materially in our business appreciate or depreciate against the U.S. dollar. Additionally, to the extent that we need to convert U.S. dollars into foreign currencies for our operations, appreciation of such foreign currencies against the U.S. dollar would adversely affect the amount of such foreign currencies we receive from the conversion.

During the year ended December 31, 2017, foreign exchange losses decreased $8.8 million to $3.2 million compared to a $12.1 million loss reported last year. The improvement in foreign exchange impact was primarily driven by movements in exchange rates relative to local currencies in our foreign operations, particularly Russian rubles and British pounds.

Management supplements results reported in accordance with United States generally accepted accounting principles, referred to as GAAP, with non-GAAP financial measures. Management believes these measures help illustrate underlying trends in our business and uses the measures to establish budgets and operational goals, communicated internally and externally, for managing our business and evaluating its performance. When important to management's analysis, operating results are compared on the basis of "constant currency", which is a non-GAAP financial measure. This measure excludes the effect of foreign currency exchange rate fluctuations by translating the current period revenues and expenses into U.S. dollars at the weighted average exchange rates of the prior period of comparison.

During the year ended December 31, 2017, we reported revenue growth of 25.0%. Had our consolidated revenues been expressed in constant currency terms using the exchange rates in effect during 2016, we would have reported revenue growth of 23.9%. During 2017, revenues have benefited from the appreciation of the Russian ruble and euro relative to the U.S. dollar which was partially offset by the overall depreciation in British pounds relative to the U.S. dollar. During the year ended December 31, 2017, foreign currency fluctuation did not have a significant impact on our net income expressed in constant currency terms as we continue to be naturally diversified across locations and currencies in which we operate.

During the year ended December 31, 2017, approximately 36.0% of consolidated revenues and 41.7% of operating expenses were denominated in currencies other than the U.S. dollar.

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

The information required is included in this Annual Report on Form 10-K beginning on page F-1.

### *Item 9. Changes In and Disagreements with Accountants on Accounting and Financial Disclosure*

None.

### *Item 9A. Controls and Procedures*

#### Conclusion Regarding the Effectiveness of Disclosure Controls and Procedures

Based on management's evaluation, with the participation of our Chief Executive Officer and Chief Financial Officer, as of the end of the period covered by this report, these officers have concluded that our disclosure controls and procedures, as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act"), are effective to provide reasonable assurance that information required to be disclosed by us in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms, and is accumulated and communicated to management, including our principal executive officer and principal financial officer, as appropriate, to allow timely decisions regarding required disclosure.

#### Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting during the quarter ended December 31, 2017 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

**Management's Report on Internal Control Over Financial Reporting**

Our management is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles.

Under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Based on this assessment, management concluded that our internal control over financial reporting was effective as of December 31, 2017 to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with U.S. generally accepted accounting principles.

The effectiveness of our internal control over financial reporting as of December 31, 2017 has been audited by Deloitte & Touche LLP, an independent registered public accounting firm, as stated in their report, which appears in "Part IV. Item 15 Exhibits, Financial Statement Schedule" of this Annual Report on Form 10-K.

**Inherent Limitations on Effectiveness of Controls**

Our management, including the CEO and CFO, does not expect that our disclosure controls or our internal control over financial reporting will prevent or detect all errors and all fraud. A control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. The design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Further, because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that misstatements due to error or fraud will not occur or that all control issues and instances of fraud, if any, have been detected. The design of any system of controls is based in part on certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Projections of any evaluation of the effectiveness of controls to future periods are subject to risks. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with policies or procedures.

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

None.

## PART III

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

We incorporate by reference the information required by this Item from the information set forth under the captions "Board of Directors", "Corporate Governance", "Our Executive Officers", and "Section 16(a) Beneficial Ownership Reporting Compliance" in our definitive proxy statement for our 2018 annual meeting of stockholders, to be filed within 120 days after the end of the year covered by this Annual Report on Form 10-K, pursuant to Regulation 14A under the Securities Exchange Act of 1934, as amended ( our "2018 Proxy Statement").

### *Item 11. Executive Compensation*

We incorporate by reference the information required by this Item from the information set forth under the captions "Executive Compensation" and "Compensation Committee Interlocks and Insider Participation" in our 2018 Proxy Statement.

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

We incorporate by reference the information required by this Item from the information set forth under the caption "Security Ownership of Certain Beneficial Owners and Management" in our 2018 Proxy Statement.

### Equity Compensation Plan Information

The following table sets forth information about awards outstanding as of December 31, 2017 and securities remaining available for issuance under our 2015 Long-Term Incentive Plan (the "2015 Plan"), our 2012 Long-Term Incentive Plan (the "2012 Plan"), the Amended and Restated 2006 Stock Option Plan (the "2006 Plan") and the 2012 Non-Employee Directors Compensation Plan (the "2012 Directors Plan") as of December 31, 2017.

| Plan Category | Number of securities to be issued upon exercise of outstanding options, warrants and rights | Weighted average exercise price of outstanding options, warrants and rights | Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) |
|---|---|---|---|
| Equity compensation plans approved by security holders: (1) | | | 6,358,394 (2) |
| Stock options | 4,901,748 (3) | $ 40.91 (4) | — |
| Restricted stock unit and restricted stock awards | 689,852 (5) | $ — | — |
| Equity compensation plans not approved by security holders | — | $ — | — |
| Total | 5,591,600 | $ 40.91 | — |

(1) This table includes the following stockholder approved plans: the 2015 Plan, 2012 Plan, the 2006 Plan and the 2012 Directors Plan.

(2) Represents the number of shares available for future issuance under our stockholder approved equity compensation plans and is comprised of 5,818,622 shares available for future issuance under the 2015 Plan and 539,772 shares available for future issuances under the 2012 Directors Plan.

(3) Represents the number of underlying shares of common stock associated with outstanding options under our stockholder approved plans and is comprised of 573,474 shares underlying options granted under our 2015 Plan; 3,937,077 shares underlying options granted under our 2012 Plan; and 391,197 shares underlying options granted under our 2006 Plan.

(4) Represents the weighted-average exercise price of stock options outstanding under the 2015 Plan, the 2012 Plan and the 2006 Plan.

(5) Represents the number of underlying shares of common stock associated with outstanding restricted stock units and restricted stock awards under our stockholder approved plans and is comprised of 648,099 shares underlying restricted stock units granted under our 2015 Plan; 32,125 shares underlying restricted stock units granted under our 2012 Plan; and 9,628 restricted stock and shares underlying restricted stock units granted under our 2012 Directors Plan.

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

We incorporate by reference the information required by this Item from the information set forth under the caption "Certain Relationships and Related Transactions and Director Independence" in our 2018 Proxy Statement.

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

We incorporate by reference the information required by this Item from the information set forth under the caption "Independent Registered Public Accounting Firm" in our 2018 Proxy Statement.

## PART IV

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

(a) We have filed the following documents as part of this annual report:

1. Audited Consolidated Financial Statements



2. Financial Statement Schedules

Schedule II Valuation and Qualifying Accounts is filed as part of this Annual Report on Form 10-K and should be read in conjunction with our audited consolidated financial statements and the related notes.

3. Exhibits

A list of exhibits required to be filed as part of this Annual Report is set forth in the Exhibit Index.

## EXHIBIT INDEX

| Exhibit Number | Description |
|---|---|
| 3.1 | Certificate of incorporation (incorporated herein by reference to Exhibit 3.1 to the Company's Form 10-K for the fiscal year ended December 31, 2011, SEC File No. 001-35418, filed March 30, 2012 (the "2011 Form 10-K")) |
| 3.2 | Amended and Restated Bylaws (incorporated by reference to Exhibit 3.2 to the Company's Current Report on Form 8-K filed September 15, 2017, SEC file No. 001-35418) |
| 4.1 | Form of Common Stock Certificate (incorporated herein by reference to Exhibit 4.1 to Amendment No. 6 to Form S-1, SEC File No. 333-174827, filed January 23, 2012 ("Amendment No. 6")) |
| 4.2 | Amended and Restated Registration Rights Agreement dated February 19, 2008 (incorporated herein by reference to Exhibit 4.2 to Form S-1, SEC File No. 333-174827, filed June 10, 2011 (the "Registration Statement")) |
| 4.3 | Registration Rights Agreement dated April 26, 2010 (incorporated herein by reference to Exhibit 4.3 to the Registration Statement) |
| 10.1† | EPAM Systems, Inc. Amended and Restated 2006 Stock Option Plan (incorporated herein by reference to Exhibit 10.6 to Amendment No. 6) |
| 10.2† | Form of EPAM Systems, Inc. 2006 Stock Option Plan Award Agreement (under the EPAM Systems, Inc. Amended and Restated 2006 Stock Option Plan) (incorporated herein by reference to Exhibit 10.7 to Amendment No. 6) |
| 10.3† | EPAM Systems, Inc. 2012 Long-Term Incentive Plan (incorporated herein by reference to Exhibit 10.12 to Amendment No. 6) |
| 10.4† | Form of Senior Management Non-Qualified Stock Option Award Agreement (under the EPAM Systems, Inc. 2012 Long-Term Incentive Plan) (incorporated herein by reference to Exhibit 10.13 to Amendment No. 6) |
| 10.5† | Restricted Stock Award Agreement by and between Karl Robb and EPAM Systems, Inc. dated January 16, 2012 (incorporated herein by reference to Exhibit 10.14 to Amendment No. 6) |
| 10.6† | Form of Chief Executive Officer Restricted Stock Unit Award Agreement (under the EPAM Systems, Inc. 2012 Long-Term Incentive Plan) (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2014, SEC File No. 001-35418, filed May 7, 2014 (the "Q1 2014 Form 10-Q") |
| 10.7† | Form of Senior Management Restricted Stock Unit Award Agreement (under the EPAM Systems, Inc. 2012 Long-Term Incentive Plan) (incorporated by reference to Exhibit 10.2 to the Q1 2014 Form 10-Q) |
| 10.8† | Form of Chief Executive Officer Non-Qualified Stock Option Award Agreement (under the EPAM Systems, Inc. 2012 Long-Term Incentive Plan) (incorporated by reference to Exhibit 10.3 to the Q1 2014 Form 10-Q) |
| 10.9† | Form of Chief Executive Officer Restricted Stock Unit Award Agreement (under the EPAM Systems, Inc. 2012 Long-Term Incentive Plan) (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report on Form 10-Q for the quarter ended March 31, 2015, SEC File No. 001-35418, filed May 7, 2015 (the "Q1 2015 Form 10-Q") |
| 10.10† | Form of Senior Management Restricted Stock Unit Award Agreement (under the EPAM Systems, Inc. 2012 Long-Term Incentive Plan) (incorporated by reference to Exhibit 10.2 to the Q1 2015 Form 10-Q) |
| 10.11† | EPAM Systems, Inc. 2015 Long-Term Incentive Plan (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K, SEC File No. 001-35418, filed June 15, 2015) |
| 10.12† | Form of Chief Executive Officer Non-Qualified Stock Option Award Agreement (incorporated by reference to Exhibit 10.12 to the Company's Form 10-K for the fiscal year ended December 31, 2015, SEC File No. 001-35418, filed February 23, 2016 (the "2015 Form 10-K")) |
| 10.13† | Form of Chief Executive Officer Restricted Stock Unit Award Agreement (incorporated by reference to Exhibit 10.13 of the 2015 Form 10-K) |
| 10.14† | Form of Senior Management Non-Qualified Stock Option Award Agreement (incorporated by reference to Exhibit 10.14 of the 2015 Form 10-K) |
| 10.15† | Form of Senior Management Restricted Stock Unit Award Agreement (incorporated by reference to Exhibit 10.15 of the 2015 Form 10-K) |
| 10.16† | Amended and Restated EPAM Systems, Inc. Non-Employee Directors Compensation Plan (incorporated herein by reference to Exhibit 10.3 to the Q1 2015 Form 10-Q) |
| 10.17† | Form of Non-Employee Director Restricted Stock Award Agreement (under the EPAM Systems, Inc. 2012 Non-Employee Directors Compensation Plan) (incorporated herein by reference to Exhibit 10.16 to Amendment No. 6) |
| 10.18† | Amended and Restated Non-Employee Director Compensation Policy (incorporated herein by reference to Exhibit 10.4 to the Q1 2015 Form 10-Q) |
| 10.19† | Form of Director Offer Letter (incorporated herein by reference to Exhibit 10.18 to Amendment No. 6) |

| | |
|---|---|
| 10.20† | Executive Employment Agreement by and between Arkadiy Dobkin and EPAM Systems, Inc. dated January 20, 2006 (expired except with respect to Section 8) (incorporated herein by reference to Exhibit 10.19 to Amendment No. 6) |
| 10.21† | Offer Letter by and between Ginger Mosier and EPAM Systems, Inc. dated February 24, 2010 (incorporated herein by reference to Exhibit 10.20 to Amendment No. 6) |
| 10.22† | Employment Contract by and between Balazs Fejes and EPAM Systems (Switzerland) GmbH. dated June 15, 2009 (incorporated herein by reference to Exhibit 10.21 to Amendment No. 6) |
| 10.23† | Consultancy Agreement by and between Landmark Business Development Limited, Balazs Fejes and EPAM Systems, Inc. dated January 20, 2006 (expired except with respect to Section 8) (incorporated herein by reference to Exhibit 10.22 to Amendment No. 6) |
| 10.24† | Form of nondisclosure, noncompete and nonsolicitation agreement (incorporated herein by reference to Exhibit 10.24 to Amendment No. 6) |
| 10.25† | Form of Indemnification Agreement (incorporated herein by reference to Exhibit 10.25 to Amendment No. 6) |
| 10.26† | Offer Letter by and between Boris Shnayder and EPAM Systems, Inc. dated June 20, 2015 (incorporated by reference to Exhibit 10.28 to the Company's Form 10-K for the year ended December 31, 2016 (the "2016 10-K") |
| 10.27† | Transition Agreement by and between Anthony Conte and EPAM Systems, Inc. dated February 23, 2017 (incorporated by reference to Exhibit 10.30 to the 2016 10-K) |
| 10.28† | Offer Letter by and between Jason Peterson and EPAM Systems, Inc. dated March 16, 2017 (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed March 29, 2017, SEC file No. 001-35418) |
| 10.29† | EPAM Systems, Inc. Amended Non-Employee Directors Compensation Policy (incorporated by reference to Exhibit 10.1 to the Company's Quarterly Report for the quarter ended March 31, 2017, SEC File No., 001-35418, filed May 8, 2017 (the "Q1 2017 Form 10-Q")) |
| 10.30† | EPAM Systems, Inc. 2017 Non-Employee Directors Deferral Plan (incorporated by reference to Exhibit 10.2 to the Q1 2017 Form 10-Q) |
| 10.31† | Form of Non-Employee Director Restricted Stock Unit Award Agreement (incorporated by reference to Exhibit 10.3 to the Q1 2017 Form 10-Q) |
| 10.32† | Form of Director Deferral Election Form (incorporated by reference to Exhibit 10.4 to the Q1 2017 Form 10-Q) |
| 10.33 | Credit Agreement dated as of May 24, 2017 by and among EPAM Systems, Inc. (as borrower), the lenders and guarantors party thereto, and PNC Bank, National Association, as Administrative Agent (incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed on May 26, 2017, SEC File No. 001-35418) |
| 21.1* | Subsidiaries of the Registrant |
| 23.1* | Consent of Independent Registered Public Accounting Firm |
| 31.1* | Certification of the Chief Executive Officer pursuant to Rule 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934 |
| 31.2* | Certification of the Chief Financial Officer pursuant to Rule 13a-14(a)/15d-14(a) of the Securities Exchange Act of 1934 |
| 32.1* | Certification of the Chief Executive Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 |
| 32.2* | Certification of the Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 |
| 101.INS** | XBRL Instance Document |
| 101.SCH** | XBRL Taxonomy Extension Schema Document |
| 101.CAL** | XBRL Taxonomy Extension Calculation Linkbase Document |
| 101.DEF** | XBRL Taxonomy Extension Definition Linkbase Document |
| 101.LAB** | XBRL Taxonomy Extension Label Linkbase Document |
| 101.PRE** | XBRL Taxonomy Extension Presentation Linkbase Document |

† Indicates management contracts or compensatory plans or arrangements

* Exhibits filed herewith

** As provided in Rule 406T of Regulation S-T, this information is furnished and not filed for purposes of Section 11 and 12 of the Securities Act of 1933, as amended, and Section 18 of the Securities Exchange Act of 1934, as amended.

## 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.

Date: February 27, 2018

EPAM SYSTEMS, INC.

By: /s/ Arkadiy Dobkin

Name: Arkadiy Dobkin

Title: Chairman, Chief Executive Officer and President (principal executive officer)

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 |
|---|---|---|
| /s/ Arkadiy Dobkin<br>Arkadiy Dobkin | Chairman, Chief Executive Officer and President<br>(principal executive officer) | February 27, 2018 |
| /s/ Jason Peterson<br>Jason Peterson | Senior Vice President, Chief Financial Officer and Treasurer<br>(principal financial officer) | February 27, 2018 |
| /s/ Gary Abrahams<br>Gary Abrahams | Vice President, Corporate Controller, Chief Accounting Officer<br>(principal accounting officer) | February 27, 2018 |
| /s/ Jill B. Smart<br>Jill B. Smart | Director | February 27, 2018 |
| /s/ Karl Robb<br>Karl Robb | Director | February 27, 2018 |
| /s/ Peter Kuerpick<br>Peter Kuerpick | Director | February 27, 2018 |
| /s/ Richard Michael Mayoras<br>Richard Michael Mayoras | Director | February 27, 2018 |
| /s/ Robert E. Segert<br>Robert E. Segert | Director | February 27, 2018 |
| /s/ Ronald P. Vargo<br>Ronald P. Vargo | Director | February 27, 2018 |

**EPAM SYSTEMS, INC.**
**FORM 10-K**
**FOR THE YEAR ENDED DECEMBER 31, 2017**

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## INDEX TO CONSOLIDATED FINANCIAL STATEMENTS

## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and the Board of Directors of EPAM Systems, Inc.

**Opinion on the Financial Statements**

We have audited the accompanying consolidated balance sheets of EPAM Systems, Inc. and subsidiaries (the “Company”) as of December 31, 2017 and 2016, the related consolidated statements of income and comprehensive income, changes in stockholders’ equity, and cash flows, for each of the three years in the period ended December 31, 2017, and the related notes and the schedule listed in the Index at Item 15 (collectively referred to as the “financial statements”). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2017 and 2016, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2017, in conformity with accounting principles generally accepted in the United States of America.

We have also 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, 2017, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 27, 2018, expressed an unqualified opinion on the Company’s internal control over financial reporting.

**Basis for Opinion**

These financial statements are the responsibility of the Company’s management. Our responsibility is to express an opinion on the Company’s financial statements based on our audits. We are a public accounting firm registered with the 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 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 financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the financial statements. We believe that our audits provide a reasonable basis for our opinion.

*/s/ DELOITTE & TOUCHE LLP*

Philadelphia, Pennsylvania
February 27, 2018

We have served as the Company’s auditor since 2006.

## REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and Board of Directors of EPAM Systems, Inc.

**Opinion on Internal Control over Financial Reporting**

We have audited the internal control over financial reporting of EPAM Systems, Inc. and subsidiaries (the "Company") as of December 31, 2017, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2017, based on criteria established in *Internal Control — Integrated Framework (2013)* issued by COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the consolidated financial statements and financial statement schedule as of and for the year ended December 31, 2017, of the Company and our report dated February 27, 2018, expressed an unqualified opinion on those financial statements and financial statement schedule.

**Basis for Opinion**

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

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and 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/ DELOITTE & TOUCHE LLP*

Philadelphia, Pennsylvania
February 27, 2018

**EPAM SYSTEMS, INC. AND SUBSIDIARIES**
**CONSOLIDATED BALANCE SHEETS**
**(U.S. dollars in thousands, except share and per share data)**

| | As of December 31, 2017 | As of December 31, 2016 |
|---|---|---|
| **Assets** | | |
| Current assets | | |
| Cash and cash equivalents | $ 582,585 | $ 362,025 |
| Accounts receivable, net of allowance of $1,186 and $1,434, respectively | 265,639 | 199,982 |
| Unbilled revenues | 86,500 | 63,325 |
| Prepaid and other current assets, net of allowance of $45 and $644, respectively | 23,196 | 18,493 |
| Employee loans, current, net of allowance of $0 and $0, respectively | 2,113 | 2,726 |
| Total current assets | 960,033 | 646,551 |
| Property and equipment, net | 86,419 | 73,616 |
| Employee loans, noncurrent, net of allowance of $0 and $0, respectively | 2,097 | 3,252 |
| Intangible assets, net | 44,511 | 51,260 |
| Goodwill | 119,531 | 109,289 |
| Deferred tax assets | 24,974 | 31,005 |
| Other noncurrent assets, net of allowance of $140 and $132, respectively | 12,691 | 10,838 |
| **Total assets** | **$ 1,250,256** | **$ 925,811** |
| **Liabilities** | | |
| Current liabilities | | |
| Accounts payable | $ 5,574 | $ 3,213 |
| Accrued expenses and other current liabilities | 89,812 | 49,895 |
| Due to employees | 38,757 | 32,203 |
| Deferred compensation due to employees | 5,964 | 5,900 |
| Taxes payable, current | 40,860 | 25,008 |
| Total current liabilities | 180,967 | 116,219 |
| Long-term debt | 25,033 | 25,048 |
| Taxes payable, noncurrent | 59,874 | — |
| Other noncurrent liabilities | 9,435 | 3,132 |
| **Total liabilities** | **275,309** | **144,399** |
| **Commitments and contingencies (Note 15)** | | |
| **Stockholders' equity** | | |
| Common stock, $0.001 par value; 160,000,000 authorized; 53,003,420 and 51,117,422 shares issued, 52,983,685 and 51,097,687 shares outstanding at December 31, 2017 and December 31, 2016, respectively | 53 | 50 |
| Additional paid-in capital | 473,874 | 374,907 |
| Retained earnings | 518,820 | 444,320 |
| Treasury stock | (177) | (177) |
| Accumulated other comprehensive loss | (17,623) | (37,688) |
| **Total stockholders' equity** | **974,947** | **781,412** |
| **Total liabilities and stockholders' equity** | **$ 1,250,256** | **$ 925,811** |

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

## EPAM SYSTEMS, INC. AND SUBSIDIARIES
## CONSOLIDATED STATEMENTS OF INCOME AND COMPREHENSIVE INCOME
## (U.S. dollars in thousands, except per share data)

| | For the Years Ended December 31, | | |
|---|---|---|---|
| | **2017** | **2016** | **2015** |
| **Revenues** | **$ 1,450,448** | **$ 1,160,132** | **$ 914,128** |
| **Operating expenses:** | | | |
| Cost of revenues (exclusive of depreciation and amortization) | 921,352 | 737,186 | 566,913 |
| Selling, general and administrative expenses | 324,855 | 264,658 | 222,759 |
| Depreciation and amortization expense | 28,562 | 23,387 | 17,395 |
| Other operating expenses, net | 2,733 | 1,205 | 1,094 |
| **Income from operations** | **172,946** | **133,696** | **105,967** |
| Interest and other income, net | 4,601 | 4,848 | 4,731 |
| Foreign exchange loss | (3,242) | (12,078) | (4,628) |
| **Income before provision for income taxes** | **174,305** | **126,466** | **106,070** |
| Provision for income taxes | 101,545 | 27,200 | 21,614 |
| **Net income** | **$ 72,760** | **$ 99,266** | **$ 84,456** |
| Foreign currency translation adjustments | 20,065 | (2,538) | (13,096) |
| **Comprehensive income** | **$ 92,825** | **$ 96,728** | **$ 71,360** |
| | | | |
| **Net income per share:** | | | |
| Basic | $ 1.40 | $ 1.97 | $ 1.73 |
| Diluted | $ 1.32 | $ 1.87 | $ 1.62 |
| **Shares used in calculation of net income per share:** | | | |
| Basic | 52,077 | 50,309 | 48,721 |
| Diluted | 54,984 | 53,215 | 51,986 |

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

**EPAM SYSTEMS, INC. AND SUBSIDIARIES**
**CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY**
**(U.S. dollars in thousands, except share data)**

| | Common Stock | | Additional Paid-in Capital | Retained Earnings | Treasury Stock | | Accumulated Other Comprehensive (Loss)/ Income | Total Stockholders' Equity |
|---|---|---|---|---|---|---|---|---|
| | Shares | Amount | | | Shares | Amount | | |
| **Balance, January 1, 2015** | **48,303,811** | **$ 48** | **$ 229,501** | **$ 260,598** | **444,487** | **$ (4,043)** | **$ (22,054)** | **$ 464,050** |
| Stock issued in connection with acquisitions (Note 3) | 435,462 | — | 1,118 | — | (435,462) | 3,963 | — | 5,081 |
| Forfeiture of stock issued in connection with acquisitions | (1,482) | — | 13 | — | 1,482 | (13) | — | — |
| Stock issued under the 2012 Non-Employee Directors Compensation Plan (Note 13) | 5,295 | — | — | — | — | — | — | — |
| Restricted stock units vested | 17,625 | — | 574 | — | — | — | — | 574 |
| Stock-based compensation expense | — | — | 43,120 | — | — | — | — | 43,120 |
| Proceeds from stock option exercises | 1,405,826 | 1 | 20,674 | — | — | — | — | 20,675 |
| Excess tax benefits | — | — | 8,363 | — | — | — | — | 8,363 |
| Foreign currency translation adjustments | — | — | — | — | — | — | (13,096) | (13,096) |
| Net income | — | — | — | 84,456 | — | — | — | 84,456 |
| **Balance, December 31, 2015** | **50,166,537** | **$ 49** | **$ 303,363** | **$ 345,054** | **10,507** | **$ (93)** | **$ (35,150)** | **$ 613,223** |
| Forfeiture of stock issued in connection with acquisitions | (9,228) | — | 84 | — | 9,228 | (84) | — | — |
| Stock issued under the 2012 Non-Employee Directors Compensation Plan (Note 13) | 6,510 | — | — | — | — | — | — | — |
| Restricted stock units vested, net of shares withheld for employee taxes | 38,064 | — | 2,069 | — | — | — | — | 2,069 |
| Stock-based compensation expense | — | — | 46,100 | — | — | — | — | 46,100 |
| Proceeds from stock option exercises | 895,804 | 1 | 18,027 | — | — | — | — | 18,028 |
| Excess tax benefits | — | — | 5,264 | — | — | — | — | 5,264 |
| Foreign currency translation adjustments | — | — | — | — | — | — | (2,538) | (2,538) |
| Net income | — | — | — | 99,266 | — | — | — | 99,266 |
| **Balance, December 31, 2016** | **51,097,687** | **$ 50** | **$ 374,907** | **$ 444,320** | **19,735** | **$ (177)** | **$ (37,688)** | **$ 781,412** |

**EPAM SYSTEMS, INC. AND SUBSIDIARIES**
**CONSOLIDATED STATEMENTS OF CHANGES IN STOCKHOLDERS' EQUITY**
**(Continued)**
**(U.S. dollars in thousands, except share data)**

| | Common Stock | | Additional Paid-in Capital | Retained Earnings | Treasury Stock | | Accumulated Other Comprehensive (Loss)/ Income | Total Stockholders' Equity |
|---|---|---|---|---|---|---|---|---|
| | Shares | Amount | | | Shares | Amount | | |
| **Balance, December 31, 2016** | **51,097,687** | **$ 50** | **$ 374,907** | **$ 444,320** | **19,735** | **$ (177)** | **$ (37,688)** | **$ 781,412** |
| Restricted stock units vested | 140,043 | — | — | — | — | — | — | — |
| Restricted stock units withheld for employee taxes | (43,479) | — | (3,300) | — | — | — | — | (3,300) |
| Stock-based compensation expense | — | — | 48,173 | — | — | — | — | 48,173 |
| Proceeds from stock options exercises | 1,789,434 | 3 | 54,094 | — | — | — | — | 54,097 |
| Foreign currency translation adjustments | — | — | — | — | — | — | 20,065 | 20,065 |
| Cumulative effect of the adoption of ASU 2016-09 | — | — | — | 1,740 | — | — | — | 1,740 |
| Net income | — | — | — | 72,760 | — | — | — | 72,760 |
| **Balance, December 31, 2017** | **52,983,685** | **$ 53** | **$ 473,874** | **$ 518,820** | **19,735** | **$ (177)** | **$ (17,623)** | **$ 974,947** |

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

## EPAM SYSTEMS, INC. AND SUBSIDIARIES
## CONSOLIDATED STATEMENTS OF CASH FLOWS
**(U.S. dollars in thousands)**

| | For the Years Ended December 31, | | |
|---|---|---|---|
| | **2017** | **2016** | **2015** |
| **Cash flows from operating activities:** | | | |
| Net income | $ 72,760 | $ 99,266 | $ 84,456 |
| Adjustments to reconcile net income to net cash provided by operating activities: | | | |
| Depreciation and amortization | 28,562 | 23,387 | 17,395 |
| Bad debt expense | 51 | 1,539 | 1,407 |
| Deferred taxes | 12,561 | (3,304) | (15,328) |
| Stock-based compensation expense | 52,407 | 49,244 | 45,833 |
| Impairment charges and acquisition related adjustments | — | — | (1,183) |
| Excess tax benefit on stock-based compensation plans | — | (5,264) | (8,363) |
| Other | (4,010) | 6,228 | 3,883 |
| **Changes in operating assets and liabilities:** | | | |
| (Increase)/decrease in operating assets: | | | |
| Accounts receivable | (58,745) | (30,612) | (47,694) |
| Unbilled revenues | (22,743) | 34,777 | (38,076) |
| Prepaid expenses and other assets | 3,605 | (4,791) | (574) |
| Increase/(decrease) in operating liabilities: | | | |
| Accounts payable | 1,221 | 741 | (2,781) |
| Accrued expenses and other liabilities | 37,282 | (13,926) | 25,694 |
| Due to employees | 1,933 | 5,261 | 2,752 |
| Taxes payable | 70,480 | 2,271 | 8,972 |
| **Net cash provided by operating activities** | **195,364** | **164,817** | **76,393** |
| **Cash flows used in investing activities:** | | | |
| Purchases of property and equipment | (29,806) | (29,317) | (13,272) |
| Payment for construction of corporate facilities | — | — | (4,692) |
| Employee housing loans issued | (648) | (2,006) | (2,054) |
| Proceeds from repayments of employee housing loans | 2,565 | 2,177 | 2,249 |
| Restricted cash and time deposits, net | 8 | 29,595 | (29,944) |
| Acquisition of businesses, net of cash acquired (Note 3) | (6,840) | (5,500) | (76,908) |
| Other investing activities, net | (1,452) | (4,271) | (873) |
| **Net cash used in investing activities** | **(36,173)** | **(9,322)** | **(125,494)** |
| **Cash flows from financing activities:** | | | |
| Proceeds related to stock option exercises | 53,984 | 17,996 | 20,675 |
| Excess tax benefit on stock-based compensation plans | — | 5,264 | 8,363 |
| Payments of withholding taxes related to net share settlements of restricted stock units | (3,194) | (539) | — |
| Proceeds from debt (Note 12) | 25,000 | 20,000 | 35,000 |
| Repayment of debt (Note 12) | (25,103) | (30,129) | — |
| Acquisition of businesses, deferred consideration (Note 3) | — | (2,260) | (30,274) |
| Other financing activities, net | (941) | 135 | — |
| **Net cash provided by financing activities** | **49,746** | **10,467** | **33,764** |
| Effect of exchange rate changes on cash and cash equivalents | 11,623 | (3,386) | (5,748) |
| Net increase/(decrease) in cash and cash equivalents | 220,560 | 162,576 | (21,085) |
| Cash and cash equivalents, beginning of period | 362,025 | 199,449 | 220,534 |
| **Cash and cash equivalents, end of period** | **$ 582,585** | **$ 362,025** | **$ 199,449** |

**EPAM SYSTEMS, INC. AND SUBSIDIARIES**
**CONSOLIDATED STATEMENTS OF CASH FLOWS**
**(U.S. dollars in thousands)**
**(Continued)**

| | For the Years Ended December 31, | | |
|---|---|---|---|
| | 2017 | 2016 | 2015 |
| **Supplemental disclosures of cash flow information:** | | | |
| Cash paid during the year for: | | | |
| Income taxes | $ 26,669 | $ 37,488 | $ 25,071 |
| Bank interest | $ 548 | $ 566 | $ 124 |
| **Supplemental disclosure of non-cash operating activities** | | | |
| Prepaid and other current assets write-off related to vendor advance | $ — | $ — | $ 741 |
| **Supplemental disclosure of non-cash investing and financing activities** | | | |
| Deferred consideration payable | $ — | $ — | $ 603 |

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

## 1. NATURE OF BUSINESS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

EPAM is a leading global provider of digital platform engineering and software development services to clients located around the world, primarily in North America, Europe, Asia and Australia. The Company has expertise in various industries, including software and hi-tech, financial services, media and entertainment, travel and hospitality, retail and distribution and life sciences and healthcare. The Company is incorporated in Delaware with headquarters in Newtown, PA.

**Principles of Consolidation** — The consolidated financial statements include the financial statements of EPAM Systems, Inc. and its subsidiaries. All intercompany balances and transactions have been eliminated.

**Use of Estimates** — The preparation of financial statements in conformity with accounting principles generally accepted in the United States requires management to make estimates and assumptions. These estimates and assumptions affect reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements, as well as revenues and expenses during the reporting period. The Company bases its estimates and judgments on historical experience, knowledge of current conditions and its beliefs of what could occur in the future, given available information. Actual results could differ from those estimates, and such differences may be material to the financial statements.

**Change in Presentation of Certain Financial Information** — During the first quarter of 2017, the Company changed the presentation of geographic area information about its consolidated revenues. Historically, information about geographic location of revenues excluded reimbursable expenses and other revenues, which primarily consist of travel and entertainment costs that are chargeable to clients. Effective January 1, 2017, the Company began reporting reimbursable expenses and other revenues based on location of clients to which these costs are chargeable and allocating them to respective geographic locations. These changes did not result in adjustments to previously reported consolidated revenues in the Company's financial statements and were applied retrospectively effective January 1, 2015. Comparative information for the years ended December 31, 2016 and 2015 follows:

| | Year Ended December 31, 2016 | | | |
|---|---|---|---|---|
| | As Reported | | After Reclassification | |
| | (in thousands except percentages) | | | |
| United States | $ 605,856 | 52.2 % | $ 611,392 | 52.7 % |
| United Kingdom | 174,719 | 15.1 % | 177,194 | 15.3 % |
| Switzerland | 122,399 | 10.6 % | 122,919 | 10.6 % |
| Canada | 58,742 | 5.1 % | 59,189 | 5.1 % |
| Germany | 43,216 | 3.7 % | 43,621 | 3.8 % |
| Russia | 40,866 | 3.5 % | 40,944 | 3.5 % |
| Sweden | 22,945 | 2.0 % | 23,838 | 2.1 % |
| Hong Kong | 20,333 | 1.8 % | 21,010 | 1.8 % |
| Netherlands | 16,762 | 1.4 % | 17,521 | 1.5 % |
| Belgium | 8,505 | 0.7 % | 8,627 | 0.7 % |
| Ireland | 5,152 | 0.4 % | 5,167 | 0.4 % |
| China | 4,445 | 0.4 % | 4,479 | 0.4 % |
| Italy | 3,970 | 0.3 % | 4,052 | 0.3 % |
| United Arab Emirates | 3,486 | 0.3 % | 3,615 | 0.3 % |
| Other locations | 16,215 | 1.4 % | 16,564 | 1.5 % |
| Reimbursable expenses and other revenues | 12,521 | 1.1 % | — | — % |
| **Total** | **$ 1,160,132** | **100.0%** | **$ 1,160,132** | **100.0%** |

| | Year Ended December 31, 2015 | | | |
|---|---|---|---|---|
| | As Reported | | After Reclassification | |
| | (in thousands except percentages) | | | |
| United States | $ 427,433 | 46.8 % | $ 431,992 | 47.3 % |
| United Kingdom | 164,301 | 18.0 % | 166,418 | 18.2 % |
| Switzerland | 111,353 | 12.2 % | 111,686 | 12.2 % |
| Canada | 57,643 | 6.3 % | 58,319 | 6.4 % |
| Germany | 36,089 | 3.9 % | 36,403 | 4.0 % |
| Russia | 36,506 | 4.0 % | 36,585 | 4.0 % |
| Sweden | 10,589 | 1.2 % | 10,775 | 1.2 % |
| Hong Kong | 23,117 | 2.5 % | 23,285 | 2.5 % |
| Netherlands | 9,989 | 1.1 % | 10,373 | 1.1 % |
| Belgium | 7,916 | 0.9 % | 8,113 | 0.9 % |
| Ireland | 5,437 | 0.6 % | 5,536 | 0.6 % |
| Italy | 2,318 | 0.3 % | 2,342 | 0.3 % |
| China | 817 | 0.1 % | 817 | 0.1 % |
| Other locations | 11,109 | 1.1 % | 11,484 | 1.2 % |
| Reimbursable expenses and other revenues | 9,511 | 1.0 % | — | — % |
| **Total** | **$ 914,128** | **100.0%** | **$ 914,128** | **100.0%** |

**Revenue Recognition —** The Company recognizes revenue when the following criteria are met: (1) persuasive evidence of an arrangement exists; (2) delivery has occurred; (3) the sales price is fixed or determinable; and (4) collectability is reasonably assured. Determining whether and when some of these criteria have been satisfied often involves assumptions and judgments that can have a significant impact on the timing and amount of revenue reported.

The Company derives its revenues from a variety of service offerings, which represent specific competencies of its IT professionals. Contracts for these services have different terms and conditions based on the scope, deliverables, and complexity of the engagement, which require management to make judgments and estimates in determining the appropriate revenue recognition. Fees for these contracts may be in the form of time-and-materials or fixed-price arrangements. If there is an uncertainty about the project completion or receipt of payment for the services, revenue is deferred until the uncertainty is sufficiently resolved. At the time revenue is recognized, the Company provides for any contractual deductions and reduces the revenue accordingly. The Company reports gross reimbursable “out-of-pocket” expenses incurred as both revenues and cost of revenues in the condensed consolidated statements of income and comprehensive income.

The Company defers amounts billed to its clients for revenues not yet earned. Such amounts are anticipated to be recorded as revenues when services are performed in subsequent periods. Unbilled revenue is recorded when services have been provided but billed subsequent to the period end in accordance with the contract terms.

The majority of the Company’s revenues (90.3% of revenues in 2017, 88.2% in 2016 and 85.8% in 2015) are generated under time-and-material contracts where revenues are recognized as services are performed with the corresponding cost of providing those services reflected as cost of revenues. The majority of such revenues are billed using hourly, daily or monthly rates as actual time is incurred on the project.

Revenues from fixed-price contracts (8.3% of revenues in 2017, 10.4% in 2016 and 12.8% in 2015) include fixed-price maintenance and support arrangements, which may exceed one year in duration, as well as fixed-price application development arrangements. Revenues from maintenance and support arrangements are generally recognized ratably over the expected service period. Revenues from fixed-price application development arrangements are primarily determined using the proportional performance method. In cases where final acceptance of the product, system, or solution is specified by the client, and the acceptance criteria are not objectively determinable to have been met as the services are provided, revenues are deferred until all acceptance criteria have been met. In the absence of a sufficient basis to measure progress towards completion, revenue is recognized upon receipt of final acceptance from the client. Assumptions, risks and uncertainties inherent in the estimates used in the application of the proportional performance method of accounting could affect the amount of revenues, receivables and deferred revenues at each reporting period.

**Cost of Revenues (Exclusive of Depreciation and Amortization)** — Consists principally of salaries, bonuses, fringe benefits, stock-based compensation expense, project related travel costs and fees for subcontractors that are assigned to client projects. Salaries and other compensation expenses of our revenue generating professionals are reported as cost of revenues regardless of whether the employees are actually performing client services during a given period.

**Selling, General and Administrative Expenses** — Consists of expenses associated with promoting and selling our services and general and administrative functions of the business. These expenses include the costs of salaries, bonuses, fringe benefits, stock-based compensation expense, commissions, travel, legal and audit services, insurance, operating leases, advertising and other promotional activities. In addition, we pay a membership fee of 1% of revenues generated in Belarus to the administrative organization of the Belarus Hi-Tech Park. Furthermore, the Company has issued stock to the sellers and/or personnel in connection with business acquisitions and has been recognizing stock-based compensation expense in the periods after the closing of these acquisitions as part of selling, general and administrative expenses.

**Fair Value of Financial Instruments** — The Company makes assumptions about fair values of its financial assets and liabilities in accordance with the Financial Accounting Standards Board ("FASB") Accounting Standards Codification ("ASC") Topic 820, "Fair Value Measurement," and utilizes the following fair value hierarchy in determining inputs used for valuation:

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

Level 2 — Inputs other than quoted prices within Level 1 that are observable either directly or indirectly, including quoted prices in markets that are not active, quoted prices in active markets for similar assets or liabilities, and observable inputs other than quoted prices such as interest rates or yield curves.

Level 3 — Unobservable inputs reflecting management's view about the assumptions that market participants would use in pricing the asset or liability.

Where the fair values of financial assets and liabilities recorded in the consolidated balance sheets cannot be derived from an active market, they are determined using a variety of valuation techniques. These valuation techniques include a net present value technique, comparison to similar instruments with market observable inputs, option pricing models and other relevant valuation models. To the extent possible, observable market data is used as inputs into these models but when it is not feasible, a degree of judgment is required to establish fair values.

The Company's contingent liabilities measured at fair value on a recurring basis are comprised of performance-based awards issued to certain former owners of acquired businesses in exchange for future services. During a performance measurement period, performance-based awards are valued using significant inputs that are not observable in the market, which are defined as Level 3 inputs according to fair value measurement accounting. The Company estimates the fair value of contingent liabilities based on certain performance milestones of the acquired businesses and estimated probabilities of achievement, then discounts the liabilities to present value using the Company's cost of debt for the cash component of contingent consideration, and a risk-free rate for the stock component of a contractual contingency. The Company believes its estimates and assumptions are reasonable, however, there is significant judgment involved. Changes in the fair value of contingent consideration liabilities primarily result from changes in the timing and amount of specific milestone estimates and changes in probability assumptions with respect to the likelihood of achieving the various earnout criteria.

Changes in the fair value of these liabilities could cause a material impact to, and volatility in the Company's operating results. See Note 16 "Fair Value Measurements."

**Employee Loans** — The Company issues employee housing loans in Belarus, relocation loans to assist employees with relocation needs in connection with intra-company transfers and loans for the purchase of automobiles in India. There are no loans issued to principal officers, directors, and their affiliates. The Company intends to hold all employee loans until their maturity. Interest income is reported using the effective interest method. Where applicable, loan origination fees, net of direct origination costs, are deferred and recognized in interest income over the life of the loan.

The Employee Housing Program (the "Housing Program") provides employees with loans to purchase housing in Belarus. The housing loans are measured using the Level 3 inputs within the fair value hierarchy because they are valued using significant unobservable inputs. These housing loans are measured at fair value upon initial recognition through the market approach under ASC Topic 820, "Fair Value Measurement" and subsequently carried at amortized cost less allowance for loan losses, if any. Any difference between the carrying value and the fair value of a loan upon initial recognition is charged to expense.

**Business Combinations** — The Company accounts for its business combinations using the acquisition accounting method, which requires it to determine the fair value of net assets acquired and the related goodwill and other intangible assets in accordance with the FASB ASC Topic 805, "Business Combinations." The Company identifies and attributes fair values and estimated lives to the intangible assets acquired and allocates the total cost of an acquisition to the underlying net assets based on their respective estimated fair values. Determining the fair value of assets acquired and liabilities assumed requires management's judgment and involves the use of significant estimates, including projections of future cash inflows and outflows, discount rates, asset lives and market multiples. There are different valuation models for each component, the selection of which requires considerable judgment. These determinations will affect the amount of amortization expense recognized in future periods. The Company bases its fair value estimates on assumptions it believes are reasonable, but recognizes that the assumptions are inherently uncertain.

All acquisition-related costs, other than the costs to issue debt or equity securities, are accounted for as expenses in the period in which they are incurred. Changes in fair value of contingent consideration arrangements that are not measurement period adjustments are recognized in earnings. Payments to settle contingent consideration, if any, are reflected in cash flows from financing activities and the changes in fair value are reflected in cash flows from operating activities in the Company's consolidated statements of cash flows.

The acquired assets typically consist of customer relationships, trade names, non-competition agreements, and workforce and as a result, a substantial portion of the purchase price is allocated to goodwill and other intangible assets.

**Cash and Cash Equivalents** — Cash equivalents are short-term, highly liquid investments that are readily convertible into cash, with maturities of three months or less at the date acquired. As of December 31, 2017 and 2016 the Company had no cash equivalents.

**Accounts Receivable** — Accounts receivable are stated net of allowance for doubtful accounts. Outstanding accounts receivable are reviewed periodically and allowances are provided when management believes it is probable that such balances will not be collected within a reasonable time. The allowance for doubtful accounts is determined by evaluating the relative creditworthiness of each client, historical collections experience and other information, including the aging of the receivables. Accounts receivable are generally written off when they are deemed uncollectible. Bad debts are recorded based on historical experience and management's evaluation of accounts receivable.

**Property and Equipment** — Property and equipment acquired in the ordinary course of the Company's operations are stated at cost, net of accumulated depreciation. Depreciation is calculated on a straight-line basis over the estimated useful lives of the assets generally ranging from two to fifty years. Leasehold improvements are amortized on a straight-line basis over the shorter of the term of the lease or the estimated useful life of the improvement. Maintenance and repairs are expensed as incurred.

**Long-Lived Assets** — Long-lived assets, such as property and equipment and finite-lived intangible assets, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. When the carrying value of an asset is more than the sum of the undiscounted expected future cash flows, an impairment is recognized. An impairment loss is measured as the excess of the asset's carrying amount over its fair value. Intangible assets that have finite useful lives are amortized over their estimated useful lives on a straight-line basis. Property and equipment held for disposal are carried at the lower of the current carrying value or fair value less estimated costs to sell. The Company did not incur any impairment of long-lived assets during the years ended December 31, 2017, 2016 and 2015.

**Goodwill and Other Indefinite-Lived Intangible Assets** — Goodwill and other intangible assets that have indefinite useful lives are accounted for in accordance with the FASB ASC 350, "Intangibles — Goodwill and Other." The Company conducts its evaluation of goodwill impairment at the reporting unit level on an annual basis as of October 31st, and more frequently if events or circumstances indicate that the carrying value of a reporting unit exceeds its fair value. A reporting unit is an operating segment or one level below. The Company does not have intangible assets other than goodwill that have indefinite useful lives.

**Income Taxes** — The provision for income taxes includes federal, state, local and foreign taxes. Deferred tax assets and liabilities are recognized for the estimated future tax consequences of temporary differences between the financial statement carrying amounts and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the year in which the temporary differences are expected to be reversed. Changes to enacted tax rates would result in either increases or decreases in the provision for income taxes in the period of changes.

The realizability of deferred tax assets is primarily dependent on future earnings. The Company evaluates the realizability of deferred tax assets and recognizes a valuation allowance when it is more likely than not that all, or a portion of, deferred tax assets will not be realized. Any reduction in estimated forecasted results may require that we record valuation allowances against deferred tax assets. Once a valuation allowance has been established, it will be maintained until there is sufficient positive evidence to conclude that it is more likely than not that the deferred tax assets will be realized. A pattern of sustained profitability will generally be considered as sufficient positive evidence to reverse a valuation allowance. If the allowance is reversed in a future period, the income tax provision will be correspondingly reduced. Accordingly, the increase and decrease of valuation allowances could have a significant negative or positive impact on future earnings. See Note 10 "Income Taxes" for further information.

**Earnings per Share ("EPS") —** Basic EPS is computed by dividing income available to common shareholders by the weighted-average number of shares of common stock outstanding during the period. Diluted earnings per share is computed by dividing income available to common shareholders by the weighted-average number of shares of common stock outstanding during the period increased to include the number of additional shares of common stock that would have been outstanding if the potentially dilutive securities had been issued. Potentially dilutive securities include outstanding stock options, unvested restricted stock and unvested restricted stock units ("RSUs"). The dilutive effect of potentially dilutive securities is reflected in diluted earnings per share by application of the treasury stock method.

**Stock-Based Compensation** — The Company recognizes the cost of its equity-classified stock-based incentive awards based on the fair value of the award at the date of grant, net of estimated forfeitures. The cost is expensed evenly over the service period. The service period is the period over which the employee performs the related services, which is normally the same as the vesting period. Quarterly, the forfeiture assumption is adjusted to the actual forfeiture rate and such change may affect the timing of the total amount of expense recognized over the vesting period. Equity-based awards that do not require future service are expensed immediately. Equity-based awards that do not meet the criteria for equity classification are recorded as liabilities and adjusted to fair value at the end of each reporting period.

**Off-Balance Sheet Financial Instruments** — The Company uses the FASB ASC Topic 825, "Financial Instruments." to identify and disclose off-balance sheet financial instruments, which include credit instruments, such as commitments to make employee loans and related guarantees, standby letters of credit and certain guarantees issued under customer contracts. The face amount for these items represents the exposure to loss, before considering available collateral or the borrower's ability to repay. Loss contingencies arising from off-balance sheet financial instruments are recorded as liabilities when the likelihood of loss is probable and an amount or range of loss can be reasonably estimated. The Company does not believe such matters exist that would have a material effect on the financial statements.

**Foreign Currency Translation** — Assets and liabilities of consolidated foreign subsidiaries whose functional currency is not the U.S. dollar are translated into U.S. dollars at period-end exchange rates and revenues and expenses are translated into U.S. dollars at daily exchange rates. The adjustment resulting from translating the financial statements of such foreign subsidiaries into U.S. dollars is reflected as a cumulative translation adjustment and reported as a component of accumulated other comprehensive income (loss).

For consolidated foreign subsidiaries whose functional currency is the U.S. dollar, transactions and balances denominated in the local currency are foreign currency transactions. Foreign currency transactions and balances related to non-monetary assets and liabilities are remeasured to the functional currency of the subsidiary at historical exchange rates while monetary assets and liabilities are remeasured to the functional currency of the subsidiary at current exchange rates. Foreign currency exchange gains or losses from remeasurement are included in income in the period in which they occur.

**Risks and Uncertainties** — As a result of its global operations, the Company may be subject to certain inherent risks.

*Concentration of Credit* — Financial instruments that potentially subject the Company to concentration of credit risk consist primarily of cash and cash equivalents, trade accounts receivable and unbilled revenues. The Company maintains cash and cash equivalents and short-term deposits with financial institutions. The Company determined that the Company's credit policies reflect normal industry terms and business risk and there is no expectation of non-performance by the counterparties. As of December 31, 2017, $240,148 of total cash, including time deposits and restricted cash, was held in CIS countries, with $196,656 of that total in Belarus. Banking and other financial systems in the CIS region are less developed and regulated than in some more developed markets, and bank deposits made by corporate entities in the CIS region are not insured.

Changes in the market behavior or decisions of the Company's clients could adversely affect the Company's results of operations. During the years ended December 31, 2017, 2016 and 2015, revenues including reimbursable expenses and other revenues from our top five customers were $348,219, $329,324 and $299,655, respectively, representing 24.0%, 28.4% and 32.8%, respectively, of total revenues in the corresponding periods. Revenues including reimbursable expenses and other revenues from our top ten customers were $491,742, $445,814 and $403,052 in 2017, 2016 and 2015, respectively, representing 33.9%, 38.4% and 44.1%, respectively, of total revenues in the corresponding periods.

*Foreign currency risk* — The Company's global operations are conducted predominantly in U.S. dollars. Other than U.S. dollars, the Company generates a significant portion of revenues in various currencies, principally, euros, British pounds sterling, Canadian dollars, Swiss francs and Russian rubles and incurs expenditures principally in Hungarian forints, Russian rubles, Polish zlotys, Swiss francs, British pounds, Indian rupees and China yuan renminbi associated with its delivery centers.

The Company's international operations expose it to foreign currency exchange rate changes that could impact translations of foreign denominated assets and liabilities into U.S. dollars and future earnings and cash flows from transactions denominated in different currencies. The Company is exposed to fluctuations in foreign currency exchange rates primarily related to accounts receivable and unbilled revenues from sales in foreign currencies and cash outflows for expenditures in foreign currencies. The Company's results of operations, primarily revenues and expenses denominated in foreign currencies, can be affected if any of the currencies, which we use materially in our business, appreciate or depreciate against the U.S. dollar.

*Interest rate risk* — The Company's exposure to market risk is influenced primarily by changes in interest rates received on cash and cash equivalent deposits and paid on any outstanding balance on the Company's revolving line of credit, which is subject to a variety of rates depending on the type and timing of funds borrowed (See Note 12 "Long-Term Debt"). The Company does not use derivative financial instruments to hedge the risk of interest rate volatility.

## 2. RECENT ACCOUNTING PRONOUNCEMENTS

### Adoption of New Accounting Standards

Unless otherwise discussed below, the adoption of new accounting standards did not have an impact on the Company's consolidated financial position, results of operations, and cash flows.

**Stock-Based Compensation** — Effective January 1, 2017, the Company adopted Accounting Standard Update ("ASU") No. 2016-09, *Compensation — Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting*. The provisions of the new guidance affecting the Company require excess tax benefits and tax deficiencies to be recorded in the income statement when stock-based awards vest or are settled; remove the requirement to include hypothetical excess tax benefits in the application of the treasury stock method when computing earnings per share; and provide for a new policy election to either: (1) continue applying forfeiture rate estimates in the determination of compensation cost, or (2) account for forfeitures as a reduction of share-based compensation cost as they occur. The new guidance also requires cash flows related to excess tax benefits to be classified as an operating activity in the statement of cash flows and now requires shares withheld for tax withholding purposes to be classified as a financing activity.

As a result of this adoption:

- the Company recognized a $1,740 increase in retained earnings as of January 1, 2017 for previously unrecognized tax benefits using the modified retrospective method of transition, as required by the standard;
- the Company recognized discrete tax benefits of $9,307 in the provision for income taxes within the consolidated statement of income and comprehensive income during the year ended December 31, 2017, related to excess tax benefits upon vesting and exercise of stock-based awards;
- the Company elected to adopt the cash flow presentation of the excess tax benefits prospectively where these benefits are classified along with other income tax cash flows as operating cash flows. Accordingly, prior period information has not been restated;
- the Company elected to continue to estimate the number of stock-based awards expected to forfeit, rather than electing to account for forfeitures as they occur to determine the amount of compensation cost to be recognized in each period; and
- the Company excluded the excess tax benefits from the assumed proceeds available to repurchase shares in the computation of diluted earnings per share for the year ended December 31, 2017.

**Simplifying the Measurement for Goodwill** — Effective January 1, 2017, the Company early adopted the new accounting guidance simplifying the accounting for goodwill impairment. The guidance removes Step 2 of the goodwill impairment test, which requires a hypothetical purchase price allocation. A goodwill impairment will now be the amount by which a reporting unit's carrying value exceeds its fair value, not to exceed the carrying amount of goodwill. The new guidance is adopted on a prospective basis. The adoption of this amended guidance did not have an impact on the Company's financial results.

**Pending Accounting Standards**

From time to time, new accounting pronouncements are issued by the FASB or other standards-setting bodies that the Company will adopt according to the various timetables the FASB specifies. Unless otherwise discussed below, the Company believes the impact of recently issued standards that are not yet effective will not have a material impact on its consolidated financial position, results of operations and cash flows upon adoption.

**Revenue Recognition** — In May 2014, the FASB issued ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)*. The core principle of Topic 606 is that an entity should recognize revenue to depict the transfer of promised goods or services in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. Topic 606 as amended, will replace most existing revenue recognition guidance in GAAP and requires expanded disclosure about the nature, amount, timing and uncertainty of revenue and cash flows arising from customer contracts, including significant judgments and changes in judgments. The standard allows for two methods of adoption: the full retrospective method, which requires the standard to be applied to each prior period presented, or the modified retrospective method, which requires the cumulative effect of adoption to be recognized as an adjustment to opening retained earnings in the period of adoption as well as incremental disclosure comparing results presented under Topic 606 to results that would have been presented utilizing current accounting. The Company adopted Topic 606 as amended on January 1, 2018 using the modified retrospective method.

The Company completed its assessment of the impact of Topic 606 and implemented its transition plan, which included making necessary changes to policies, processes, internal controls and system enhancements to generate the information necessary to comply with the new standard. Based on the assessment procedures completed, the Company recognized a one-time immaterial adjustment to retained earnings as of January 1, 2018 and does not expect a significant change in the timing or pattern of revenue recognition after adoption. Due to the complexity of certain of the Company's contracts, actual revenue recognition treatment required under the new standard depends on contract-specific terms and may vary from the accounting under the current guidance in some instances. For most of the Company's time-and-materials contracts, EPAM expects to continue to recognize revenues as services are performed consistent with the Company's current policy. For fixed-price contracts, the Company generally expects to continue to recognize revenues over time based on the measured progress of satisfaction of the performance obligations which is consistent with the Company's current proportional performance method. The most impactful changes upon adoption included a delay in revenue recognition related to (1) cash collections on contracts when collectability is uncertain and (2) earlier recognition of revenue from certain software licenses. Beginning in the first quarter of 2018, EPAM expects to provide incremental disclosure in its consolidated financial statements related to revenue recognition including disaggregated information related to the Company's key verticals, contract balances, remaining performance obligations, and significant judgments and estimates.

**Leases** — Effective January 1, 2019, the Company will be required to adopt the new guidance of ASC Topic 842, *Leases* (with early adoption permitted effective January 1, 2018). This amendment supersedes previous accounting guidance (Topic 840) and requires all leases, with the exception of leases with a term of twelve months or less, to be recorded on the balance sheet as lease assets and lease liabilities. The standard requires lessees and lessors to recognize and measure leases at the beginning of the earliest period presented using a modified retrospective approach. The modified retrospective approach includes a number of optional practical expedients that entities may elect to apply. These practical expedients relate to the identification and classification of leases that commenced before the effective date, initial direct costs for leases that commenced before the effective date, and the ability to use hindsight in evaluating lessee options to extend or terminate a lease or to purchase the underlying asset. An entity that elects to apply the practical expedients will, in effect, continue to account for leases that commence before the effective date in accordance with previous GAAP unless the lease is modified, except that lessees are required to recognize a right-of-use asset and a lease liability for all operating leases at each reporting date based on the present value of the remaining minimum rental payments that were tracked and disclosed under previous GAAP. The transition guidance in Topic 842 also provides specific guidance for the amounts previously recognized in accordance with the business combinations guidance for leases. The Company expects to adopt this standard on January 1, 2019. The Company has not yet completed its assessment of the impact of the new guidance on its consolidated financial statements or concluded on whether it will elect to apply practical expedients.

**Derivatives and Hedging** — Effective January 1, 2019, with early adoption permitted in any interim or annual period, the Company will be required to adopt ASU 2017-12, *Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities*. The new guidance is intended to simplify and amend hedge accounting and reporting to better align and disclose the economic results of an entity's risk management activities in its financial statements. The ASU makes more financial and non-financial hedging strategies eligible for hedge accounting. It also changes how companies assess effectiveness and amends the presentation and disclosure requirements by eliminating the requirement to separately measure and report hedge ineffectiveness and generally requires companies, for qualifying hedges, to present the entire change in the fair value of a hedging instrument in the same income statement line as the hedged item. The guidance also eases documentation and assessment requirements and modifies the accounting for components excluded from the assessment of hedge effectiveness. The standard requires entities to apply the amended presentation and disclosure guidance only prospectively as of the period of adoption. Currently, the Company does not apply hedge accounting and has not yet concluded on when it will adopt the standard.

**Measurement of Credit Losses on Financial Instruments** — Effective January 1, 2020, the Company will be required to adopt the amended guidance of ASC Topic 326, *Financial Instruments — Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments*, (with early adoption permitted effective January 1, 2019.) The amendments in this update change how companies measure and recognize credit impairment for many financial assets. The new expected credit loss model will require companies to immediately recognize an estimate of credit losses expected to occur over the remaining life of the financial assets (including trade receivables) that are in the scope of the update. The update also made amendments to the current impairment model for held-to-maturity and available-for-sale debt securities and certain guarantees. Entities are required to adopt the standard using a modified-retrospective approach through a cumulative effect adjustment to retained earnings as of the beginning of the period of adoption. The Company has not yet completed its assessment of the impact of the new guidance on its consolidated financial statements or concluded on when it will adopt the standard.

## 3. ACQUISITIONS

The Company's acquisitions allow it to expand into desirable geographic locations, complement its existing vertical markets, increase revenue and create new service offerings. Acquisitions were settled in cash and/or stock where a portion of the settlement price may have been deferred. For some transactions, purchase agreements contain contingent consideration in the form of an earnout obligation. During the years ended December 31, 2017 and 2016, the Company completed acquisitions with aggregated purchase prices of $6,980 and $5,580, respectively. These acquisitions individually and in the aggregate are not material to the Company's consolidated financial statements.

**NavigationArts** — On July 10, 2015, the Company acquired all of the outstanding equity of NavigationArts, Inc. and its subsidiary, NavigationArts, LLC (collectively "NavigationArts"). The U.S.-based NavigationArts provided digital consulting, architecture and content solutions and was regarded as a leading user-experience agency. The acquisition of NavigationArts added approximately 90 design consultants to the Company's headcount. In connection with the NavigationArts acquisition the Company paid $28,747 as cash consideration. In the first quarter of 2016, the Company made a 338(h)(10) election to treat the NavigationArts acquisition as an asset purchase for tax purposes. As a result, during the second quarter of 2016 the Company paid an additional $1,797 to the sellers of NavigationArts, as provided for in the stock purchase agreement. The acquired goodwill that is deductible for tax purposes was $23,794 as of the date of the acquisition.

**AGS** — On November 16, 2015, the Company acquired all of the outstanding equity of Alliance Consulting Global Holdings, Inc including its wholly-owned direct and indirect subsidiaries Alliance Global Services, Inc., Alliance Global Services, LLC, companies organized under the laws of the U.S., and Alliance Global Services IT India, a company organized under the laws of India (collectively "AGS"). AGS provided software product development services and test automation solutions and had multiple locations in the United States and India. The acquisition of AGS added 1,151 IT professionals to the Company's headcount in the United States and India. In connection with the AGS acquisition the Company paid $51,717 as cash consideration.

The following is a summary of the fair values of the net assets acquired through each respective acquisition during the year ended December 31, 2015:

| | NavigationArts | AGS | Total |
|---|---|---|---|
| Cash and cash equivalents | $ 1,317 | $ 1,727 | $ 3,044 |
| Accounts receivable and other current assets | 3,920 | 9,934 | 13,854 |
| Property and equipment and other long-term assets | 230 | 1,600 | 1,830 |
| Deferred tax assets | — | 5,722 | 5,722 |
| Acquired intangible assets | 2,800 | 22,700 | 25,500 |
| Goodwill | 23,794 | 24,454 | 48,248 |
| Total assets acquired | 32,061 | 66,137 | 98,198 |
| Accounts payable and accrued expenses | 871 | 2,760 | 3,631 |
| Bank loans and other long-term liabilities | — | 295 | 295 |
| Deferred revenue | 50 | 1,049 | 1,099 |
| Due to employees | 596 | 2,342 | 2,938 |
| Deferred tax liabilities | — | 7,974 | 7,974 |
| Total liabilities assumed | 1,517 | 14,420 | 15,937 |
| **Net assets acquired** | **$ 30,544** | **$ 51,717** | **$ 82,261** |

The following table presents the fair values and useful lives of intangible assets acquired through each respective acquisition during the year ended December 31, 2015:

| | NavigationArts | | AGS | |
|---|---|---|---|---|
| | **Weighted Average Useful Life (in years)** | **Amount** | **Weighted Average Useful Life (in years)** | **Amount** |
| Customer relationships | 10 | $ 2,800 | 10 | $ 22,700 |
| **Total** | | **$ 2,800** | | **$ 22,700** |

## 4. GOODWILL AND INTANGIBLE ASSETS — NET

Goodwill by reportable segment was as follows:

| | North America | Europe | Total |
|---|---|---|---|
| **Balance as of January 1, 2016** | **$ 81,464** | **$ 34,466** | **$ 115,930** |
| NavigationArts purchase accounting adjustments | 2,030 | — | 2,030 |
| AGS purchase accounting adjustments | (9,361) | — | (9,361) |
| Other acquisitions | 2,404 | 177 | 2,581 |
| Other acquisitions purchase accounting adjustments | 395 | 87 | 482 |
| Effect of currency translation | (120) | (2,253) | (2,373) |
| **Balance as of December 31, 2016** | **76,812** | **32,477** | **109,289** |
| Other acquisitions | 199 | 4,533 | 4,732 |
| Other acquisitions purchase accounting adjustments | (285) | 2,100 | 1,815 |
| Effect of currency translation | 564 | 3,131 | 3,695 |
| **Balance as of December 31, 2017** | **$ 77,290** | **$ 42,241** | **$ 119,531** |

Excluded from the table above are the Russia and Other segments for which the allocated goodwill was fully impaired for the periods presented. The Russia segment had accumulated goodwill impairment losses of $2,241 as of December 31, 2017, 2016 and 2015. The Other segment had accumulated goodwill impairment losses of $1,697 as of December 31, 2017, 2016 and 2015. There were no accumulated goodwill impairment losses in the North America or Europe reportable segments as of December 31, 2017, 2016 or 2015.

Intangible assets other than goodwill as of December 31, 2017 and 2016 were as follows:

| | As of December 31, 2017 | | | |
|---|---|---|---|---|
| | Weighted average life at acquisition (in years) | Gross carrying amount | Accumulated amortization | Net carrying amount |
| Customer relationships | 10 | $ 66,646 | $ (22,200) | $ 44,446 |
| Trade names | 5 | 4,099 | (4,034) | 65 |
| **Total** | | **$ 70,745** | **$ (26,234)** | **$ 44,511** |

| | As of December 31, 2016 | | | |
|---|---|---|---|---|
| | Weighted average life at acquisition (in years) | Gross carrying amount | Accumulated amortization | Net carrying amount |
| Customer relationships | 10 | $ 65,409 | $ (15,133) | $ 50,276 |
| Trade names | 5 | 5,622 | (4,661) | 961 |
| Non-competition agreements | 4 | 756 | (733) | 23 |
| **Total** | | **$ 71,787** | **$ (20,527)** | **$ 51,260** |

All of the intangible assets other than goodwill have finite lives and as such are subject to amortization. Recognized amortization expense for each of the years ended December 31 is presented in the table below:

| | For the Years Ended December 31, | | |
|---|---|---|---|
| | 2017 | 2016 | 2015 |
| Customer relationships | $ 6,643 | $ 6,858 | $ 3,961 |
| Trade names | 896 | 1,139 | 1,280 |
| Non-competition agreements | 23 | 173 | 175 |
| **Total** | **$ 7,562** | **$ 8,170** | **$ 5,416** |

Estimated amortization expense related to the Company's existing intangible assets for the next five years ending December 31 and thereafter is as follows:

| | Amount |
|---|---|
| 2018 | $ 6,661 |
| 2019 | 6,661 |
| 2020 | 6,661 |
| 2021 | 6,661 |
| 2022 | 6,508 |
| Thereafter | 11,359 |
| **Total** | **$ 44,511** |

## 5. PREPAID AND OTHER CURRENT ASSETS

Prepaid and other current assets consisted of the following:

| | December 31, 2017 | December 31, 2016 |
|---|---|---|
| Taxes receivable | $ 12,172 | $ 6,054 |
| Prepaid expenses | 5,939 | 5,462 |
| Other current assets, net of allowance of $45 and $644, respectively | 5,085 | 6,977 |
| **Total** | **$ 23,196** | **$ 18,493** |

## 6. EMPLOYEE LOANS AND ALLOWANCE FOR LOAN LOSSES

In 2012, the Board of Directors of the Company approved the Employee Housing Program (the "Housing Program"), which provides employees with loans to purchase housing in Belarus. The housing is sold directly to employees by independent third parties. The Housing Program was designed as a retention mechanism for the Company's employees in Belarus and is available to full-time qualified employees who have been with the Company for at least three years. The aggregate maximum lending limit of the program is $10,000, with no individual outstanding loans exceeding $50. In addition to the housing loans, the Company issues relocation loans in connection with intra-company transfers, as well as certain other individual loans.

During the year ended December 31, 2017, loans issued by the Company under the Housing Program were denominated in U.S. dollars with a 5-year term and carried an interest rate of 7.5%.

As of December 31, 2017 and 2016, categories of employee loans included in the loan portfolio were as follows:

| | December 31, 2017 | December 31, 2016 |
|---|---|---|
| Housing loans | $ 3,513 | $ 5,448 |
| Relocation and other loans | 697 | 530 |
| Total employee loans | 4,210 | 5,978 |
| Less: | | |
| Allowance for loan losses | — | — |
| **Total loans, net of allowance for loan losses** | **$ 4,210** | **$ 5,978** |

Movement of employee loans balances during the years ended December 31, 2017, 2016 and 2015 was as follows:

| | Amount |
|---|---|
| **Employee loans at January 1, 2015** | **$ 6,515** |
| Employee loans issued | 3,427 |
| Employee loans repaid | (3,547) |
| Employee loans written-off | (7) |
| Changes in interest and penalties accrued | (32) |
| Effect of net foreign currency exchange rate changes | (18) |
| **Employee loans at December 31, 2015** | **$ 6,338** |
| Employee loans issued | 2,960 |
| Employee loans repaid | (3,273) |
| Changes in interest and penalties accrued | (35) |
| Effect of net foreign currency exchange rate changes | (12) |
| **Employee loans at December 31, 2016** | **$ 5,978** |
| Employee loans issued | 1,875 |
| Employee loans repaid | (3,615) |
| Employee loans written-off | (22) |
| Changes in interest and penalties accrued | (18) |
| Effect of net foreign currency exchange rate changes | 12 |
| **Employee loans at December 31, 2017** | **$ 4,210** |

## 7. PROPERTY AND EQUIPMENT — NET

Property and equipment, net consisted of the following:

| | Weighted Average Useful Life (in years) | December 31, 2017 | December 31, 2016 |
|---|---|---|---|
| Computer hardware | 3 | $ 62,132 | $ 49,599 |
| Building | 49 | 34,058 | 34,012 |
| Furniture and fixtures | 7 | 18,071 | 13,178 |
| Leasehold improvements | 6 | 13,186 | 7,944 |
| Office equipment | 7 | 10,825 | 9,416 |
| Purchased computer software | 3 | 8,379 | 4,601 |
| Land improvements | 20 | 1,474 | 1,467 |
| | | 148,125 | 120,217 |
| Less accumulated depreciation and amortization | | (61,706) | (46,601) |
| **Total** | | **$ 86,419** | **$ 73,616** |

Depreciation and amortization expense related to property and equipment was $21,000, $15,217 and $11,979 during the years ended December 31, 2017, 2016 and 2015, respectively.

## 8. ACCRUED EXPENSES AND OTHER CURRENT LIABILITIES

Accrued expenses and other current liabilities consisted of the following:

| | December 31, 2017 | December 31, 2016 |
|---|---|---|
| Accrued compensation expense and related costs | $ 67,034 | $ 33,404 |
| Deferred revenue | 4,498 | 3,319 |
| Other current liabilities and accrued expenses | 18,280 | 13,172 |
| **Total** | **$ 89,812** | **$ 49,895** |

## 9. TAXES PAYABLE

Current taxes payable consisted of the following:

| | December 31, 2017 | December 31, 2016 |
|---|---|---|
| Income taxes payable | $ 9,488 | $ 4,000 |
| Value added taxes payable | 16,696 | 10,644 |
| Payroll, social security, and other taxes payable | 14,676 | 10,364 |
| **Total** | **$ 40,860** | **$ 25,008** |

As a result of the U.S. Tax Cuts and Jobs Act enacted on December 22, 2017, the Company recorded income taxes payable of $64,321 to be paid over the next 8 years. Of this amount, $59,175 is classified as Taxes payable, noncurrent as of December 31, 2017. See Note 10 “Income Taxes” for additional discussion of the impact of the Act.

There were no noncurrent taxes payable as of December 31, 2016.

## 10. INCOME TAXES

**Income/(loss) before provision for income taxes**

Income before provision for income taxes included losses from domestic operations and income from foreign operations based on geographic location as disclosed in the table below:

| | For the Years Ended December 31, | | |
|---|---|---|---|
| | **2017** | **2016** | **2015** |
| Income/(loss) before provision for income taxes: | | | |
| Domestic | $ (6,595) | $ (9,300) | $ (7,687) |
| Foreign | 180,900 | 135,766 | 113,757 |
| **Total** | **$ 174,305** | **$ 126,466** | **$ 106,070** |

**Provision for income taxes**

The provision for income taxes consists of the following:

| | For the Years Ended December 31, | | |
|---|---|---|---|
| | **2017** | **2016** | **2015** |
| Current | | | |
| Federal | $ 65,571 | $ 13,324 | $ 19,851 |
| State | (204) | (63) | 2,563 |
| Foreign | 23,617 | 17,243 | 14,528 |
| Deferred | | | |
| Federal | 7,235 | (3,581) | (13,361) |
| State | (90) | 312 | (1,891) |
| Foreign | 5,416 | (35) | (76) |
| **Total** | **$ 101,545** | **$ 27,200** | **$ 21,614** |

On December 22, 2017, the United States enacted the Tax Cuts and Jobs Act ("U.S. Tax Act"). The U.S. Tax Act significantly changes U.S. corporate income tax laws including a reduction of the U.S. corporate income tax rate from 35.0% to 21.0% effective January 1, 2018 and the creation of a territorial tax system with a one-time transition tax on accumulated foreign subsidiary earnings not previously subject to U.S. income tax. In addition, the U.S. Tax Act creates new taxes on certain foreign-sourced earnings and certain related party payments, which are referred to as the global intangible low-taxed income tax ("GILTI") and the base erosion and anti-abuse tax, respectively.

Due to the timing of the enactment and the complexity involved in applying the provisions of the U.S. Tax Act, we have made reasonable estimates of the effects and recorded provisional amounts in our financial statements as of December 31, 2017. As we collect and prepare necessary data and interpret the U.S. Tax Act and any additional guidance issued by the U.S. Treasury Department, the IRS, and other standard-setting bodies, and further refine our calculations, we may make adjustments to the provisional amounts recorded. We expect to complete our analysis during the second half of 2018. Any adjustments during this measurement period will be included in the provision for income taxes in the reporting period when such adjustments are determined.

The one-time transition tax on accumulated foreign subsidiary earnings not previously subject to U.S. income tax requires us to pay U.S. income tax at a rate of 15.5% to the extent of foreign cash and certain other net current assets and 8.0% on the remaining earnings. As a result, the Company recorded a provisional income tax expense and corresponding income taxes payable of $64,321 to be paid over the next 8 years. Of this amount, $59,175 is classified as Taxes payable, noncurrent as of December 31, 2017. In addition, the Company provisionally reduced its net deferred tax assets by $10,311 reflecting the impact of the change in the U.S. statutory tax rate from 35.0% to 21.0% in the periods in which the net deferred tax assets are expected to be realized as a result of the U.S. Tax Act.

The U.S. Tax Act subjects a U.S. shareholder to GILTI earned by certain foreign subsidiaries. The FASB Staff Q&A, Topic 740, No. 5, *Accounting for Global Intangible Low-Taxed Income*, states that an entity can make an accounting policy election to either recognize deferred taxes for temporary basis differences expected to reverse as GILTI in future years or provide for the tax expense related to GILTI in the year the tax is incurred. Given the complexity of the GILTI provisions, we are still evaluating the effects of the GILTI provisions and have not yet determined our accounting policy. At December 31, 2017, because we are still evaluating the GILTI provisions and our analysis of future taxable income that is subject to GILTI, we are unable to make a reasonable estimate and have not reflected any adjustments related to GILTI in our financial statements.

As of December 31, 2017 and in light of the U.S. Tax Act, the Company reassessed its accumulated foreign earnings and determined $97,000 of its accumulated earnings in Belarus are no longer indefinitely reinvested. As a result, the Company recorded a charge of $4,850 in its provision for income taxes during the year ended December 31, 2017 reflecting the withholding tax that will be payable to Belarus when the earnings are expatriated. As of December 31, 2017, the Company has determined that all other accumulated foreign earnings of $642,149 are expected to be indefinitely reinvested. Due to the enactment of the U.S. Tax Act and the one-time transition tax on accumulated foreign subsidiary earnings, these accumulated foreign earnings are no longer expected to be subject to U.S. federal income tax if repatriated but could be subject to state and foreign income and withholding taxes.

**Effective tax rate reconciliation**

The reconciliation of the provision for income taxes at the federal statutory income tax rate to our effective income tax rate is as follows:

| | For the Years Ended December 31, | | |
|---|---|---|---|
| | **2017** | **2016** | **2015** |
| Provision for income taxes at federal statutory rate | $ 61,007 | $ 44,263 | $ 37,125 |
| Increase/ (decrease) in taxes resulting from: | | | |
| Impact from U.S. Tax Act | 74,632 | — | — |
| Foreign tax expense and tax rate differential | (39,997) | (33,477) | (31,094) |
| Effect of change in accounting for excess tax benefits relating to stock-based compensation (Note 2) | (9,307) | — | — |
| Stock-based compensation expense | 6,908 | 9,535 | 7,591 |
| Subsidiary withholding tax liability | 4,850 | — | — |
| Effect of permanent differences | 3,205 | 5,042 | 7,314 |
| Change in valuation allowance | 783 | — | — |
| Change in foreign tax rates | 29 | — | 9 |
| State taxes, net of federal benefit | (116) | 1,192 | 341 |
| Other | (449) | 645 | 328 |
| **Provision for income taxes** | **$ 101,545** | **$ 27,200** | **$ 21,614** |

The Company's worldwide effective tax rate for years ended December 31, 2017, 2016 and 2015 was 58.3%, 21.5% and 20.4%, respectively. The income tax in 2017 was unfavorably impacted by U.S. Tax Reform which was partially offset by the recognition of excess tax benefits following the adoption of ASU No. 2016-09 on January 1, 2017. See Note 2 "Recent Accounting Pronouncements" for further information.

In Belarus, member technology companies of High-Technologies Park have a full exemption from Belarus income tax. This tax holiday was recently extended through January 2049. The aggregate dollar benefits derived from this tax holiday approximated $15.5 million, $13.6 million and $20.8 million for the years ended December 31, 2017, 2016 and 2015, respectively. The benefit the tax holiday had on diluted net income per share approximated $0.28, $0.26 and $0.40 for the years ended December 31, 2017, 2016 and 2015, respectively.

**Deferred Income Taxes**

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

| | December 31, 2017 | December 31, 2016 |
|---|---|---|
| **Deferred tax assets:** | | |
| Property and equipment | $ 170 | $ 203 |
| Intangible assets | 1,456 | 1,525 |
| Accrued expenses | 4,392 | 9,172 |
| Net operating loss carryforward | 5,069 | 5,368 |
| Deferred revenue | 1,280 | 1,165 |
| Stock-based compensation | 16,197 | 19,701 |
| Other assets | 1,415 | 17 |
| Deferred tax assets | $ 29,979 | $ 37,151 |
| Less: valuation allowance | (924) | — |
| Total deferred tax assets | $ 29,055 | $ 37,151 |
| **Deferred tax liabilities:** | | |
| Property and equipment | $ 1,868 | $ 1,735 |
| Intangible assets | 3,077 | 4,969 |
| Accrued revenue and expenses | 1,352 | 500 |
| Subsidiary withholding tax liability | 4,850 | — |
| Stock-based compensation | 1,498 | 1,606 |
| Other liabilities | 239 | 314 |
| Total deferred tax liabilities | $ 12,884 | $ 9,124 |
| **Net deferred tax assets** | **$ 16,171** | **$ 28,027** |

As of December 31, 2017 and 2016 the Company classified $8,803 and $2,979, respectively, of deferred tax liabilities as Other noncurrent liabilities in the consolidated balance sheet.

Included in the stock-based compensation expense deferred tax asset at December 31, 2017 and 2016 is $8,512 and $11,471, respectively that is related to acquisitions and is amortized for tax purposes over a 10 to 15-year period.

As of December 31, 2017, our domestic and foreign net operating loss ("NOL") carryforwards for income tax purposes were approximately $6,264 and $14,792, respectively. If not utilized, the domestic NOL carryforwards will begin to expire in 2021. Our foreign NOL carryforwards include $2,454 from jurisdictions with no expiration date, $5,338 that will expire in various countries by 2026, as well as $1,183 and $5,817, for which the Company has recorded a valuation allowance and will expire in 2021 and 2022, respectively. The valuation allowance maintained by the Company as of December 31, 2017 relates primarily to net operating loss carryforwards in certain non-U.S. jurisdictions that we believe are not likely to be realized. The net change in the valuation allowance in the current year was $924.

**Uncertain Tax Positions**

The liability for unrecognized tax benefits is included in noncurrent taxes payable, within the consolidated balance sheets at December 31, 2017 and 2016. At December 31, 2017 and 2016, the total amount of gross unrecognized tax benefits (excluding the federal benefit received from state tax positions) was $699 and $66, respectively. These amounts represent the amount of unrecognized tax benefits that, if recognized, would favorably affect the effective tax rate in future periods.

The Company's policy is to recognize interest and penalties related to uncertain tax positions as a component of its provision for income taxes. The Company accrued $148 of interest and penalties resulting from such unrecognized tax benefits at December 31, 2017. There was no accrued interest and penalties resulting from such unrecognized tax benefits at December 31, 2016 and December 31, 2015.

The beginning to ending reconciliation of the gross unrecognized tax benefits is as follows:

| | For the Years Ended December 31, | | |
|---|---|---|---|
| | 2017 | 2016 | 2015 |
| **Balance at January 1** | **$ 66** | **$ 62** | **$ 200** |
| Increases in tax positions in current year | 240 | 4 | — |
| Increases in tax positions in prior year | 459 | — | — |
| Decreases due to settlement | (66) | — | (138) |
| **Balance at December 31** | **$ 699** | **$ 66** | **$ 62** |

There were no tax positions for which it was reasonably possible that unrecognized tax benefits will significantly increase or decrease within twelve months of the reporting date.

The Company files income tax returns in the United States and in various state, local and foreign jurisdictions. The Company's significant tax jurisdictions are the United States, Canada, Russia, Denmark, Germany, Ukraine, the United Kingdom, Hungary, Switzerland, and India. The tax years subsequent to 2014 remain open to examination by the Internal Revenue Service and generally, the tax years subsequent to 2014 remain open to examination by various state and local taxing authorities and various foreign taxing authorities.

## 11. EMPLOYEE BENEFITS

The Company offers a 401(k) retirement plan, which is a tax-qualified self-funded retirement plan covering substantially all of the Company's U.S. employees. Under this plan, employees may elect to defer their current compensation up to the statutory limit defined by the Internal Revenue Service. The Company provides discretionary matching contributions to the plan of up to 2% of the employee's eligible compensation as defined by the plan. Employer contributions are subject to a two-year vesting schedule. Employer contributions charged to expense for the years ended December 31, 2017, 2016 and 2015, were $2,331, $1,934 and $740, respectively.

The Company does not maintain any defined benefit pension plans or any non-qualified deferred compensation plans.

## 12. LONG-TERM DEBT

**Revolving Line of Credit** — On September 12, 2014, the Company entered into a revolving loan agreement (the "2014 Credit Facility") with PNC Bank, National Association; Santander Bank, N.A; and Silicon Valley Bank (collectively the "Lenders"). Under the 2014 Credit Facility, the Company's borrowing capacity was set at $100,000, with potential to increase it to $200,000 if certain conditions were met.

Borrowings under the 2014 Credit Facility were denominated in U.S. dollars or, up to a maximum of $50,000 in British pounds sterling, Canadian dollars, euros or Swiss francs (or other currencies as may be approved by the Lenders). Borrowings under the 2014 Credit Facility bore interest at either a base rate or Euro-rate plus a margin based on the Company's leverage ratio. The base rate was equal to the highest of (a) the Federal Funds Open Rate, plus 0.5%, (b) the Prime Rate, and (c) the Daily LIBOR Rate, plus 1.0%.

On May 24, 2017, the Company terminated the 2014 Credit Facility and entered into a new unsecured credit facility (the "2017 Credit Facility") with PNC Bank, National Association; PNC Capital Markets LLC; Wells Fargo Bank, National Association; Santander Bank, N.A.; Fifth Third Bank and Citibank N.A. (collectively the "Lenders"). The 2017 Credit Facility provides for a borrowing capacity of $300,000, with potential to increase the credit facility up to $400,000 if certain conditions are met. The 2017 Credit Facility matures on May 24, 2022.

Borrowings under the 2017 Credit Facility may be denominated in U.S. dollars or up to a maximum of $100,000 in British pounds sterling, Canadian dollars, euros or Swiss francs or other currencies as may be approved by the administrative agent and the lenders. Borrowings under the 2017 Credit Facility bear interest at either a base rate or Euro-rate plus a margin based on the Company's leverage ratio. The base rate is equal to the highest of (a) the Overnight Bank Funding Rate, plus 0.5%, (b) the Prime Rate, or (c) the Daily LIBOR Rate, plus 1.0%.

The 2017 Credit Facility includes customary business and financial covenants that may restrict the Company's ability to make or pay dividends (other than certain intercompany dividends) if a potential or an actual event of default has occurred or would be triggered. As of December 31, 2017, the Company was in compliance with all covenants contained in the 2017 Credit Facility.

As of December 31, 2017, the outstanding debt of the Company under the 2017 Credit Facility was $25,000 at an interest rate of 2.6%. As of December 31, 2016, the outstanding debt of the Company under the 2014 Credit Facility was $25,000. Both borrowings are subject to a LIBOR-based interest rate, which resets regularly at issuance, based on lending terms.

As of December 31, 2017 and 2016, the Company had $1,294 and $942 irrevocable standby letters of credit, respectively.

As of December 31, 2017, the borrowing capacity of the Company under the 2017 Credit Facility was $273,706. As of December 31, 2016, the borrowing capacity of the Company under the 2014 Credit Facility was $74,058.

## 13. STOCK-BASED COMPENSATION

The following costs related to the Company's stock compensation plans were included in the consolidated statements of income and comprehensive income:

| | For the Years Ended December 31, | | |
|---|---|---|---|
| | 2017 | 2016 | 2015 |
| Cost of revenues | $ 20,868 | $ 16,619 | $ 13,695 |
| Selling, general and administrative expenses — Acquisition related | 8,139 | 12,884 | 18,690 |
| Selling, general and administrative expenses — All other | 23,400 | 19,741 | 13,448 |
| **Total** | **$ 52,407** | **$ 49,244** | **$ 45,833** |

### Equity Plans

***2015 Long-Term Incentive Plan*** — On June 11, 2015, the Company's stockholders approved the 2015 Long-Term Incentive Plan ("2015 Plan") to be used to issue equity awards to company personnel. As of December 31, 2017, 5,818,622 shares of common stock remained available for issuance under the 2015 Plan. All of the awards issued pursuant to the 2015 Plan expire 10 years from the date of grant.

***2012 Non-Employee Directors Compensation Plan*** — On January 11, 2012, the Company approved the 2012 Non-Employee Directors Compensation Plan ("2012 Directors Plan") to be used to issue equity grants to its non-employee directors. The Company authorized 600,000 shares of common stock to be reserved for issuance under the plan. As of December 31, 2017, 539,772 shares of common stock remained available for issuance under the 2012 Directors Plan. The 2012 Directors Plan will expire after 10 years and is administered by the Company's Board of Directors.

***2012 Long-Term Incentive Plan*** — On January 11, 2012, the Company approved the 2012 Long-Term Incentive Plan ("2012 Plan") to be used to issue equity grants to Company personnel. In June 2015, the 2012 Plan was discontinued; however, outstanding awards remain subject to the terms of the 2012 Plan and any shares that are subject to an award that was previously granted under the 2012 Plan and that expire or terminate for any reason prior to exercise will become available for issuance under the 2015 Plan. All of the awards issued pursuant to the 2012 Plan expire 10 years from the date of grant.

***2006 Stock Option Plan*** — Effective May 31, 2006, the Board of Directors of the Company adopted the 2006 Stock Option Plan (the "2006 Plan") to grant stock options to directors, employees, and certain independent contractors. In January 2012, the 2006 Plan was discontinued; however, outstanding awards remain subject to the terms of the 2006 Plan and any shares that are subject to an option award that was previously granted under the 2006 Plan and that expire or terminate for any reason prior to exercise will become available for issuance under the 2015 Plan. All of the awards issued pursuant to the 2006 Plan expire 10 years from the date of grant.

**Stock Options**

Stock option activity under the Company's plans is set forth below:

| | Number of Options | Weighted Average Exercise Price | Aggregate Intrinsic Value | Weighted Average Remaining Contractual Term (in years) |
|---|---|---|---|---|
| **Options outstanding at January 1, 2015** | **6,838,746** | **$ 20.98** | **$ 183,073** | |
| Options granted | 2,219,725 | $ 62.18 | | |
| Options exercised | (1,405,826) | $ 14.70 | | |
| Options forfeited/cancelled | (201,731) | $ 34.48 | | |
| **Options outstanding at December 31, 2015** | **7,450,914** | **$ 34.07** | **$ 331,938** | |
| Options granted | 313,088 | $ 70.27 | | |
| Options exercised | (895,804) | $ 20.13 | | |
| Options forfeited/cancelled | (227,759) | $ 47.89 | | |
| Options expired | (3,200) | $ 1.52 | | |
| **Options outstanding at December 31, 2016** | **6,637,239** | **$ 37.20** | **$ 179,936** | |
| Options granted | 261,373 | $ 73.40 | | |
| Options exercised | (1,789,434) | $ 30.23 | | |
| Options forfeited/cancelled | (200,210) | $ 57.09 | | |
| Options expired | (7,220) | $ 4.63 | | |
| **Options outstanding at December 31, 2017** | **4,901,748** | **$ 40.91** | **$ 326,064** | 6.2 |
| Options vested and exercisable at December 31, 2017 | 3,068,917 | $ 31.49 | $ 233,054 | 5.5 |
| Options expected to vest | 1,764,538 | $ 56.35 | $ 90,133 | 7.3 |

The fair value of each option award is estimated on the date of grant using the Black-Scholes option valuation model. The Company recognizes the fair value of each option as compensation expense on a straight-line basis over the requisite service period (generally the vesting period). The Company estimates the volatility of its common stock at the date of grant using historical volatility of peer public companies. During 2014, the Company began including the historical volatility for the Company in conjunction with peer public companies to formulate estimated volatility regarding stock options. The expected term of the option is calculated using the simplified method of determining expected term as outlined in SEC Staff Accounting Bulletin 107 as the Company does not have sufficient history in order to develop a more precise estimate. The risk-free rate is based on the U.S. Treasury yield curve for periods equal to the expected term of the options in effect at the time of grant. The Company has not declared or paid any dividends on its common stock. The Company intends to retain any earnings to fund operations and future growth of its business and, therefore, does not anticipate paying any cash dividends in the foreseeable future.

The grant-date fair value for stock options granted was determined using a Black-Scholes model incorporating the following average assumptions:

| | For the Years Ended December 31, | | |
|---|---|---|---|
| | 2017 | 2016 | 2015 |
| Expected volatility | 30.5% | 31.9% | 34.1% |
| Expected term (in years) | 6.25 | 6.24 | 6.25 |
| Risk-free interest rate | 2.1% | 1.5% | 1.8% |
| Expected dividends | —% | —% | —% |

Additionally, the Company records share-based compensation expense only for those awards that are expected to vest. The Company applies an estimated forfeiture rate at the time of grant and adjusts those estimated forfeitures to reflect actual forfeitures quarterly.

The weighted-average grant-date fair value of stock options granted during the years ended December 31, 2017, 2016 and 2015 was $25.29, $24.26 and $24.21, respectively. The total intrinsic value of options exercised during the years ended December 31, 2017, 2016 and 2015 was $91,148, $39,577 and $89,860, respectively.

The options are typically scheduled to vest over four years from the time of grant, subject to the terms of the applicable plan and stock option agreement. In general, in the event of a participant's termination of service for any reason, unvested options are forfeited as of the date of such termination without any payment to the participant.

As of December 31, 2017, total remaining unrecognized compensation cost related to unvested stock options, net of estimated forfeitures, was approximately $24,354. The expense is expected to be recognized over a weighted-average period of 1.4 years. As of December 31, 2017, a total of 4,354 shares underlying options exercised through December 31, 2017, were in transfer with the Company's transfer agent.

**Restricted Stock and Restricted Stock Units**

The Company grants restricted stock units ("RSUs") to Company personnel and non-employee directors under the Company's 2015 Plan (and prior to its approval, under the 2012 Plan) and 2012 Directors Plan, respectively. Prior to 2017, awards to non-employee directors were in the form of restricted stock. In addition, the Company has issued in the past, and may issue in the future, its equity securities to compensate employees of acquired businesses for future services. Equity-based awards granted in connection with acquisitions of businesses are generally issued in the form of service-based awards (dependent on continuing employment only) and performance-based awards, which are granted and vest only if certain specified performance conditions are met. The awards issued in connection with acquisitions of businesses are subject to the terms and conditions contained in the applicable award agreement and acquisition documents with typical vesting period of three years, with 33.3% of the awards granted vesting in equal installments on the first, second and third anniversaries of the grant.

*Service-Based Awards*

The table below summarizes activity related to the Company's equity-classified and liability-classified service-based awards for the years ended December 31, 2017, 2016 and 2015:

| | Equity-Classified Equity-Settled Restricted Stock | | Equity-Classified Equity-Settled Restricted Stock Units | | Liability-Classified Cash-Settled Restricted Stock Units | |
|---|---|---|---|---|---|---|
| | Number of Shares | Weighted Average Grant Date Fair Value Per Share | Number of Shares | Weighted Average Grant Date Fair Value Per Share | Number of Shares | Weighted Average Grant Date Fair Value Per Share |
| **Unvested service-based awards outstanding at January 1, 2015** | **562,942** | **$ 37.42** | **70,500** | **$ 32.55** | **—** | **$ —** |
| Awards granted | 5,295 | $ 70.79 | 108,319 | $ 67.21 | — | $ — |
| Awards vested | (261,504) | $ 33.74 | (17,625) | $ 32.55 | — | $ — |
| Awards forfeited/cancelled | 106 | $ 36.57 | (11,922) | $ 34.49 | — | $ — |
| **Unvested service-based awards outstanding at December 31, 2015** | **306,839** | **$ 41.14** | **149,272** | **$ 57.55** | **—** | **$ —** |
| Awards granted | 6,510 | $ 73.00 | 408,629 | $ 70.39 | 207,586 | $ 70.53 |
| Awards vested | (156,535) | $ 42.64 | (41,015) | $ 55.60 | — | $ — |
| Awards forfeited/cancelled | (2,689) | $ 45.32 | (31,698) | $ 70.44 | (3,085) | $ 70.52 |
| **Unvested service-based awards outstanding at December 31, 2016** | **154,125** | **$ 40.89** | **485,188** | **$ 67.69** | **204,501** | **$ 70.53** |
| Awards granted | — | $ — | 424,623 | $ 73.89 | 170,295 | $ 74.21 |
| Awards modified | — | $ — | (2,570) | $ 26.85 | 2,570 | $ 73.27 |
| Awards vested | (152,285) | $ 43.39 | (140,043) | $ 66.54 | (52,004) | $ 70.56 |
| Awards forfeited/cancelled | — | $ — | (79,186) | $ 70.30 | (10,533) | $ 71.72 |
| **Unvested service-based awards outstanding at December 31, 2017** | **1,840** | **$ 54.37** | **688,012** | **$ 71.60** | **314,829** | **$ 72.50** |

The fair value of vested service-based awards (measured at the vesting date) for the years ended December 31, 2017, 2016 and 2015 was as follows:

| | For the Years Ended December 31, | | |
|---|---|---|---|
| | 2017 | 2016 | 2015 |
| **Equity-classified equity-settled** | | | |
| Restricted stock | $ 12,607 | $ 11,431 | $ 19,305 |
| Restricted stock units | 10,620 | 2,932 | 1,092 |
| **Liability-classified cash-settled** | | | |
| Restricted stock units | 3,811 | — | — |
| **Total fair value of vested service-based awards** | **$ 27,038** | **$ 14,363** | **$ 20,397** |

As of December 31, 2017, $81 of total remaining unrecognized stock-based compensation costs related to service-based equity-classified restricted stock is expected to be recognized over the weighted-average remaining requisite service period of 1.6 years.

As of December 31, 2017, $32,100 of total remaining unrecognized stock-based compensation costs related to service-based equity-classified RSUs is expected to be recognized over the weighted-average remaining requisite service period of 1.9 years.

As of December 31, 2017, $19,691 of total remaining unrecognized stock-based compensation costs related to service-based liability-classified RSUs is expected to be recognized over the weighted-average remaining requisite service period of which is expected to be recognized over the next 1.9 years.

The liability associated with our service-based liability-classified RSUs as of December 31, 2017 and 2016 was $5,964 and $2,111, respectively, and was classified as Deferred compensation due to employees in the consolidated balance sheets.

*Performance -Based Awards*

In 2014, the Company granted performance-based awards in connection with the acquisitions completed during that year. The total number of the awards varied based on attainment of certain performance targets pursuant to the terms of the relevant transaction documents. No performance-based awards are outstanding as of December 31, 2017.

Summarized activity related to the Company's performance-based awards for the years ended December 31, 2017, 2016 and 2015 was as follows:

| | Equity-Classified Equity-Settled Restricted Stock | | Liability-Classified Equity-Settled Restricted Stock | | Equity-Classified Equity-Settled Restricted Stock Units | |
|---|---|---|---|---|---|---|
| | Number of Shares | Weighted Average Grant Date Fair Value Per Share | Number of Shares | Weighted Average Grant Date Fair Value Per Share | Number of Shares | Weighted Average Grant Date Fair Value Per Share |
| **Unvested performance-based awards outstanding at January 1, 2015** | **33,045** | **$ 38.44** | **338,465** | **$ 39.43** | **—** | **$ —** |
| Awards granted | — | $ — | — | $ — | 14,000 | $ 70.22 |
| Awards vested | (12,145) | $ 39.92 | (105,604) | $ 40.44 | — | $ — |
| Awards forfeited/cancelled | (1,360) | $ 36.57 | — | $ — | — | $ — |
| Changes in the number of awards expected to be delivered | 2,550 | $ 36.57 | (21,655) | $ 32.27 | — | $ — |
| **Unvested performance-based awards outstanding at December 31, 2015** | **22,090** | **$ 37.52** | **211,206** | **$ 39.65** | **14,000** | **$ 70.22** |
| Awards granted | — | $ — | — | $ — | — | $ — |
| Awards vested | (9,978) | $ 40.15 | (105,604) | $ 40.44 | (4,666) | $ 70.22 |
| Awards forfeited/cancelled | (6,539) | $ 36.97 | — | $ — | (4,667) | $ 70.22 |
| **Unvested performance-based awards outstanding at December 31, 2016** | **5,573** | **$ 33.47** | **105,602** | **$ 38.86** | **4,667** | **$ 70.22** |
| Awards granted | — | $ — | — | $ — | — | $ — |
| Awards vested | (5,573) | $ 33.47 | (105,602) | $ 38.86 | — | $ — |
| Awards forfeited/cancelled | — | $ — | — | $ — | (4,667) | $ 70.22 |
| **Unvested performance-based awards outstanding at December 31, 2017** | **—** | **$ —** | **—** | **$ —** | **—** | **$ —** |

The fair value of vested performance-based awards (measured at the vesting date) for the years ended December 31, 2017, 2016 and 2015 was as follows:

| | For the Years Ended December 31, | | |
|---|---|---|---|
| | 2017 | 2016 | 2015 |
| **Equity-classified equity-settled** | | | |
| Restricted stock | $ 452 | $ 690 | $ 789 |
| Restricted stock units | — | 348 | — |
| **Liability-classified equity-settled** | | | |
| Restricted stock | 8,633 | 7,955 | 7,363 |
| **Total fair value of vested performance-based awards** | **$ 9,085** | **$ 8,993** | **$ 8,152** |

## 14. EARNINGS PER SHARE

Basic earnings per share is computed by dividing net income available to common shareholders by the weighted-average number of shares of common stock outstanding during the period. Diluted earnings per share is computed by dividing net income available to common shareholders by the weighted-average number of shares of common stock outstanding during the period increased to include the number of additional shares of common stock that would have been outstanding if the potentially dilutive securities had been issued. Potentially dilutive securities include outstanding stock options, unvested restricted stock and unvested equity-settled RSUs. The dilutive effect of potentially dilutive securities is reflected in diluted earnings per share by application of the treasury stock method.

The following table sets forth the computation of basic and diluted earnings per share of common stock as follows:

| | For the Years Ended December 31, | | |
|---|---|---|---|
| | 2017 | 2016 | 2015 |
| **Numerator for basic and diluted earnings per share:** | | | |
| Net income | $ 72,760 | $ 99,266 | $ 84,456 |
| Numerator for basic and diluted earnings per share | $ 72,760 | $ 99,266 | $ 84,456 |
| **Denominator for basic and diluted earnings per share:** | | | |
| Basic weighted average common stock outstanding | 52,077,011 | 50,309,362 | 48,720,844 |
| Effect of dilutive securities: | | | |
| Stock options, equity-settled RSUs and performance-based awards | 2,907,162 | 2,906,030 | 3,265,029 |
| Diluted weighted average common stock outstanding | 54,984,173 | 53,215,392 | 51,985,873 |
| **Earnings per share:** | | | |
| Basic | $ 1.40 | $ 1.97 | $ 1.73 |
| Diluted | $ 1.32 | $ 1.87 | $ 1.62 |

The amount of potential common stock that was excluded from the calculation of diluted earnings per share as their effect would be anti–dilutive was 883,350, 2,324,667 and 1,637,048 for the years ended December 31, 2017, 2016 and 2015, respectively.

## 15. COMMITMENTS AND CONTINGENCIES

The Company leases office space under operating leases, which expire at various dates. Certain leases contain renewal provisions and generally require the Company to pay utilities, insurance, taxes, and other operating expenses. Rent expense under operating lease agreements for the years ended December 31, 2017, 2016 and 2015 was $37,916, $28,220, and $20,065 respectively. Future minimum rental payments under operating leases that have initial or remaining lease terms in excess of one year as of December 31, 2017 were as follows:

| Year Ending December 31, | Operating Leases |
|---|---|
| 2018 | $ 39,359 |
| 2019 | 27,739 |
| 2020 | 20,175 |
| 2021 | 15,517 |
| 2022 | 10,111 |
| Thereafter | 25,600 |
| Total minimum lease payments | $ 138,501 |

**Indemnification Obligations** — In the normal course of business, the Company is a party to a variety of agreements under which it may be obligated to indemnify the other party for certain matters. These obligations typically arise in contracts where the Company customarily agrees to hold the other party harmless against losses arising from a breach of representations or covenants for certain matters such as title to assets and intellectual property rights associated with certain arrangements. The duration of these indemnifications varies, and in certain cases, is indefinite.

The Company is unable to reasonably estimate the maximum potential amount of future payments under these or similar agreements due to the unique facts and circumstances of each agreement and the fact that certain indemnifications provide for no limitation to the maximum potential future payments under the indemnification. Management is not aware of any such matters that historically had or would have a material effect on the financial statements of the Company.

**Litigation** — From time to time, the Company is involved in litigation, claims or other contingencies arising in the ordinary course of business. The Company accrues a liability when a loss is considered probable and the amount can be reasonably estimated. When a material loss contingency is reasonably possible but not probable, the Company does not record a liability, but instead discloses the nature and the amount of the claim, and an estimate of the loss or range of loss, if such an estimate can be made. Legal fees are expensed as incurred. In the opinion of management, the outcome of any existing claims and legal or regulatory proceedings, if decided adversely, is not expected to have a material adverse effect on the Company's business, financial condition, results of operations and cash flows.

## 16. FAIR VALUE MEASUREMENTS

The Company had no material financial liabilities measured at fair value on a recurring basis as of December 31, 2017. The following table shows the fair values of the Company's financial liabilities measured at fair value on a recurring basis as of December 31, 2016:

| | As of December 31, 2016 | | | |
|---|---|---|---|---|
| | Balance | Level 1 | Level 2 | Level 3 |
| Performance-based equity awards | $ 3,789 | $ 3,789 | $ — | $ — |
| **Total financial liabilities measured at fair value on a recurring basis** | **$ 3,789** | **$ 3,789** | **$ —** | **$ —** |

Performance-based equity awards carried at fair value on a recurring basis represent contractual liabilities related to certain business combination transactions completed in 2014. All of these awards have vested as of December 31, 2017 and the related liabilities have been settled. Changes in the fair values of these awards were recorded within selling, general and administrative expenses on the Company's consolidated statements of income and comprehensive income.

A reconciliation of the beginning and ending balances of acquisition-related contractual contingent liabilities using significant unobservable inputs (Level 3) for the years ended December 31, 2016 and 2015, is as follows:

| | Amount |
|---|---|
| **Contractual contingent liabilities at January 1, 2015** | **$ 40,623** |
| Liability-classified stock-based awards | 5,148 |
| Changes in fair value of contractual contingent liabilities included in earnings | 4,355 |
| Effect of net foreign currency exchange rate changes | 246 |
| Settlements of contractual contingent liabilities | (45,008) |
| **Contractual contingent liabilities at December 31, 2015** | **5,364** |
| Acquisition date fair value of contractual contingent liabilities — other acquisitions | 800 |
| Liability-classified stock-based awards | 5,148 |
| Changes in fair value of contractual contingent liabilities included in earnings | 1,232 |
| Changes in fair value of contractual contingent liabilities recorded against goodwill | 200 |
| Settlements of contractual contingent liabilities | (8,955) |
| Reclassification of contractual contingent liabilities out of Level 3 | (3,789) |
| **Contractual contingent liabilities at December 31, 2016** | **$ —** |

There was no activity in contractual contingent liabilities during the year ended December 31, 2017.

Estimates of fair value of financial instruments not carried at fair value on a recurring basis on the Company's consolidated balance sheets are generally subjective in nature, and are determined as of a specific point in time based on the characteristics of the financial instruments and relevant market information. The Company uses the following methods to estimate the fair values of its financial instruments:

- for financial instruments that have quoted market prices, those quoted prices are used to estimate fair value;
- for financial instruments for which no quoted market prices are available, fair value is estimated using information obtained from independent third parties, or by discounting the expected cash flows using an estimated current market interest rate for the financial instrument;
- for financial instruments for which no quoted market prices are available and that have no defined maturity, have a remaining maturity of 360 days or less, or reprice frequently to a market rate, the Company assumes that the fair value of these instruments approximates their reported value, after taking into consideration any applicable credit risk.

The generally short duration of certain of the Company's assets and liabilities results in a significant number of assets and liabilities for which fair value equals or closely approximates the amount recorded on the Company's consolidated balance sheets. The Company's financial assets and liabilities that are not carried at fair value on a recurring basis on the Company's consolidated balance sheets are as follows:

- cash and cash equivalents;
- restricted cash and time deposits;
- employee loans and notes receivable;
- long-term debt (Note 12 "Long-Term Debt")

The fair value of employee housing loans is estimated using information on the rates of return that market participants in Belarus would require when investing in unsecured U.S. dollar-denominated government bonds with similar maturities (a "risk-free rate"), after taking into consideration any applicable credit and liquidity risk.

The following tables present the reported amounts and estimated fair values of the financial assets and liabilities for which disclosure of fair value is required, as they would be categorized within the fair value hierarchy, as of the dates indicated:

| | | | Fair Value Hierarchy | | |
|---|---|---|---|---|---|
| | Balance | Estimated Fair Value | Level 1 | Level 2 | Level 3 |
| **December 31, 2017** | | | | | |
| **Financial Assets:** | | | | | |
| Cash and cash equivalents | $ 582,585 | $ 582,585 | $ 582,585 | $ — | $ — |
| Time deposits and restricted cash | $ 673 | $ 673 | $ — | $ 673 | $ — |
| Employee loans | $ 4,210 | $ 4,210 | $ — | $ — | $ 4,210 |
| **Financial Liabilities:** | | | | | |
| Borrowings under 2017 Credit Facility | $ 25,009 | $ 25,009 | $ — | $ 25,009 | $ — |

| | | | Fair Value Hierarchy | | |
|---|---|---|---|---|---|
| | Balance | Estimated Fair Value | Level 1 | Level 2 | Level 3 |
| **December 31, 2016** | | | | | |
| **Financial Assets:** | | | | | |
| Cash and cash equivalents | $ 362,025 | $ 362,025 | $ 362,025 | $ — | $ — |
| Time deposits and restricted cash | $ 3,042 | $ 3,042 | $ — | $ 3,042 | $ — |
| Employee loans | $ 5,978 | $ 5,978 | $ — | $ — | $ 5,978 |
| **Financial Liabilities:** | | | | | |
| Borrowings under 2014 Credit Facility | $ 25,019 | $ 25,019 | $ — | $ 25,019 | $ — |

## 17. SEGMENT INFORMATION

The Company determines its business segments and reports segment information in accordance with how the Company's chief operating decision maker ("CODM") organizes the segments to evaluate performance, allocate resources and make business decisions. Segment results are based on the segment's revenues and operating profit, where segment operating profit is defined as income from operations before unallocated costs. Expenses included in segment operating profit consist principally of direct selling and delivery costs as well as an allocation of certain shared services expenses. Certain expenses not directly attributable to or controllable at the segment level are not allocated to specific segments. Further, stock based compensation expense is not allocated to individual segments in internal management reports used by the CODM. These unallocated amounts are combined with total segment operating profit to arrive at consolidated income from operations as reported below in the reconciliation of segment operating profit to consolidated income before provision for income taxes.

The Company manages its business primarily based on the managerial responsibility for its client base. As managerial responsibility for a particular client relationship generally correlates with the client's geographic location, there is a high degree of similarity between client locations and the geographic boundaries of the Company's reportable segments. In some cases, managerial responsibility for a particular client is assigned to a management team in another region and is usually based on the strength of the relationship between client executives and particular members of EPAM's senior management team. In such cases, the client's activity would be reported through that management team's reportable segment.

The Company's reportable segments are North America, Europe, Russia and Other. The revenues in the Other segment represented less than 1% of total segment revenues in 2015 due to the ending of certain customer relationships and contractual changes with other clients. As no substantial clients remained in the segment, during the first quarter of 2016, the Company shifted managerial responsibility for the remaining clients to the Russia segment. This change did not represent a change in the Company's segments but rather a movement in responsibility for several clients that represented less than 1% of total segment revenues.

Segment revenues from external customers and segment operating profit/(loss) for the North America, Europe, Russia and Other reportable segments were as follows:

| | For the years ended December 31, | | |
|---|---|---|---|
| | **2017** | **2016** | **2015** |
| Total segment revenues: | | | |
| North America | $ 796,126 | $ 642,216 | $ 471,603 |
| Europe | 593,167 | 474,988 | 400,460 |
| Russia | 62,994 | 43,611 | 37,992 |
| Other | — | — | 4,911 |
| **Total segment revenues** | **$ 1,452,287** | **$ 1,160,815** | **$ 914,966** |
| Segment operating profit/(loss): | | | |
| North America | $ 169,340 | $ 143,021 | $ 112,312 |
| Europe | 92,080 | 67,545 | 68,717 |
| Russia | 13,906 | 7,555 | 5,198 |
| Other | — | — | (94) |
| **Total segment operating profit** | **$ 275,326** | **$ 218,121** | **$ 186,133** |

Intersegment transactions were excluded from the above on the basis that they are neither included into the measure of a segment's profit and loss by the CODM, nor provided to the CODM on a regular basis.

There were no customers individually exceeding 10% of our total segment revenues for the year ended December 31, 2017. During the years ended December 31, 2016 and 2015, segment revenues from one customer, UBS AG, were $138,124 and $130,605, respectively and accounted for more than 10% of total segment revenues. Revenues from this customer are reported in the Company's Europe segment.

Accounts receivable and unbilled revenues are generally dispersed across our clients in proportion to their revenues. As of December 31, 2017, unbilled revenues from one customer, individually exceeded 10% and accounted for 13.0% of our total unbilled revenues. As of December 31, 2016, unbilled revenues from two customers, individually exceeded 10% and accounted for 22.2% of our total unbilled revenues. There were no customers individually exceeding 10% of our accounts receivable as of December 31, 2017 and 2016.

Reconciliations of segment revenues to consolidated revenues and segment operating profit to consolidated income before provision for income taxes are presented below:

| | For the Years Ended December 31, | | |
|---|---|---|---|
| | 2017 | 2016 | 2015 |
| Total segment revenues | $ 1,452,287 | $ 1,160,815 | $ 914,966 |
| Other income included in segment revenues | (1,839) | (683) | (838) |
| **Revenues** | **$ 1,450,448** | **$ 1,160,132** | **$ 914,128** |
| | | | |
| Total segment operating profit: | $ 275,326 | $ 218,121 | $ 186,133 |
| Unallocated amounts: | | | |
| Other income included in segment revenues | (1,839) | (683) | (838) |
| Stock-based compensation expense | (52,407) | (49,244) | (45,833) |
| Non-corporate taxes | (9,659) | (5,909) | (4,274) |
| Professional fees | (8,032) | (8,265) | (7,104) |
| Depreciation and amortization | (7,632) | (8,290) | (5,581) |
| Bank charges | (1,969) | (1,515) | (1,352) |
| One-time charges | (1,741) | (706) | (747) |
| Other corporate expenses | (19,101) | (9,813) | (14,437) |
| **Income from operations** | **172,946** | **133,696** | **105,967** |
| Interest and other income, net | 4,601 | 4,848 | 4,731 |
| Foreign exchange loss | (3,242) | (12,078) | (4,628) |
| **Income before provision for income taxes** | **$ 174,305** | **$ 126,466** | **$ 106,070** |

***Geographic Area Information***

Long-lived assets include property and equipment, net of accumulated depreciation and amortization, and management has determined that it is not practical to allocate these assets by segment since such assets are used interchangeably among the segments. The Company's long-lived assets based on physical location of the assets was as follows:

| | December 31, 2017 | December 31, 2016 | December 31, 2015 |
|---|---|---|---|
| Belarus | $ 49,866 | $ 46,011 | $ 44,879 |
| Russia | 9,617 | 7,203 | 2,084 |
| Ukraine | 6,995 | 5,610 | 4,487 |
| Hungary | 3,901 | 3,485 | 2,485 |
| United States | 3,371 | 2,618 | 1,969 |
| Poland | 2,893 | 2,213 | 1,088 |
| India | 2,698 | 1,650 | 1,099 |
| China | 2,608 | 1,887 | 514 |
| Bulgaria | 922 | 722 | 317 |
| Other | 3,548 | 2,217 | 1,577 |
| **Total** | **$ 86,419** | **$ 73,616** | **$ 60,499** |

The table below presents information about the Company's revenues by client location including reimbursable expenses and other revenues, of $17,138, $12,521 and $9,511 for the years ended 2017, 2016 and 2015. See Note 1 "Nature of Business and Summary of Significant Accounting Policies" for discussion on reclassifications to conform to the current presentation.

Information about the Company's revenues by client location is as follows:

| | For the Years Ended December 31, | | |
|---|---|---|---|
| | 2017 | 2016 | 2015 |
| United States | $ 783,563 | $ 611,392 | $ 431,992 |
| United Kingdom | 188,995 | 177,194 | 166,418 |
| Switzerland | 123,281 | 122,919 | 111,686 |
| Russia | 61,222 | 40,944 | 36,585 |
| Germany | 60,158 | 43,621 | 36,403 |
| Canada | 57,129 | 59,189 | 58,319 |
| Netherlands | 51,556 | 17,521 | 10,373 |
| Sweden | 32,161 | 23,838 | 10,775 |
| Hong Kong | 19,795 | 21,010 | 23,285 |
| United Arab Emirates | 12,403 | 3,615 | — |
| Belgium | 8,725 | 8,627 | 8,113 |
| Ireland | 8,674 | 5,167 | 5,536 |
| China | 7,379 | 4,479 | 817 |
| Italy | 6,505 | 4,052 | 2,342 |
| Other locations | 28,902 | 16,564 | 11,484 |
| **Revenues** | **$ 1,450,448** | **$ 1,160,132** | **$ 914,128** |

***Service Offering Information***

Information about the Company's revenues by service offering is as follows:

| | For the Years Ended December 31, | | |
|---|---|---|---|
| | 2017 | 2016 | 2015 |
| Software development | $ 1,060,286 | $ 841,916 | $ 644,732 |
| Application testing services | 276,270 | 223,010 | 174,259 |
| Application maintenance and support | 92,630 | 74,475 | 70,551 |
| Licensing | 3,529 | 3,141 | 3,764 |
| Infrastructure services | 595 | 5,069 | 11,311 |
| Reimbursable expenses and other revenues | 17,138 | 12,521 | 9,511 |
| **Revenues** | **$ 1,450,448** | **$ 1,160,132** | **$ 914,128** |

## 18. QUARTERLY FINANCIAL DATA (UNAUDITED)

Summarized quarterly results for the two years ended December 31, 2017 and 2016 were as follows:

| 2017 | Three Months Ended March 31 | June 30 | September 30 | December 31 | Full Year |
|---|---|---|---|---|---|
| Revenues | $ 324,651 | $ 348,977 | $ 377,523 | $ 399,297 | $ 1,450,448 |
| Operating expenses: | | | | | |
| Cost of revenues (exclusive of depreciation and amortization) | 207,730 | 220,132 | 239,369 | 254,121 | 921,352 |
| Selling, general and administrative expenses | 78,453 | 80,419 | 81,190 | 84,793 | 324,855 |
| Depreciation and amortization expense | 6,672 | 7,020 | 7,174 | 7,696 | 28,562 |
| Other operating expenses, net | 830 | 724 | 542 | 637 | 2,733 |
| Income from operations | 30,966 | 40,682 | 49,248 | 52,050 | 172,946 |
| Interest and other income, net | 584 | 802 | 1,416 | 1,799 | 4,601 |
| Foreign exchange (loss)/income | (2,955) | 1,562 | (77) | (1,772) | (3,242) |
| Income before provision for income taxes | 28,595 | 43,046 | 50,587 | 52,077 | 174,305 |
| Provision for income taxes | 4,954 | 5,687 | 7,953 | 82,951 | 101,545 |
| Net income/(loss) | $ 23,641 | $ 37,359 | $ 42,634 | $ (30,874) | $ 72,760 |
| Comprehensive income/(loss) | $ 30,027 | $ 41,910 | $ 48,337 | $ (27,449) | $ 92,825 |
| Basic net income/(loss) per share(1) | $ 0.46 | $ 0.72 | $ 0.81 | $ (0.58) | $ 1.40 |
| Diluted net income/(loss) per share(1)(2) | $ 0.44 | $ 0.68 | $ 0.77 | $ (0.58) | $ 1.32 |

(1) Earnings per share amounts for each quarter may not necessarily total to the yearly earnings per share due to the weighting of shares outstanding on a quarterly and year to date basis.

(2) Due to the net loss during the three months ended December 31, 2017, zero incremental shares are included in the calculation of diluted earnings per share because of their antidilutive effect.

| 2016 | Three Months Ended March 31 | June 30 | September 30 | December 31 | Full Year |
|---|---|---|---|---|---|
| Revenues | $ 264,482 | $ 283,832 | $ 298,293 | $ 313,525 | $ 1,160,132 |
| Operating expenses: | | | | | |
| Cost of revenues (exclusive of depreciation and amortization) | 167,381 | 180,782 | 190,797 | 198,226 | 737,186 |
| Selling, general and administrative expenses | 61,494 | 64,241 | 67,491 | 71,432 | 264,658 |
| Depreciation and amortization expense | 5,102 | 6,123 | 5,925 | 6,237 | 23,387 |
| Other operating expenses, net | 174 | 606 | 178 | 247 | 1,205 |
| Income from operations | 30,331 | 32,080 | 33,902 | 37,383 | 133,696 |
| Interest and other income, net | 1,211 | 1,138 | 1,067 | 1,432 | 4,848 |
| Foreign exchange loss | (1,290) | (2,295) | (1,728) | (6,765) | (12,078) |
| Income before provision for income taxes | 30,252 | 30,923 | 33,241 | 32,050 | 126,466 |
| Provision for income taxes | 6,353 | 6,493 | 7,067 | 7,287 | 27,200 |
| Net income | $ 23,899 | $ 24,430 | $ 26,174 | $ 24,763 | $ 99,266 |
| Comprehensive income | $ 28,598 | $ 22,044 | $ 26,532 | $ 19,554 | $ 96,728 |
| Basic net income per share(1) | $ 0.48 | $ 0.49 | $ 0.51 | $ 0.49 | $ 1.97 |
| Diluted net income per share(1) | $ 0.45 | $ 0.46 | $ 0.49 | $ 0.46 | $ 1.87 |

(1) Earnings per share amounts for each quarter may not necessarily total to the yearly earnings per share due to the weighting of shares outstanding on a quarterly and year to date basis.

**SCHEDULE II**
**VALUATION AND QUALIFYING ACCOUNTS**
**FOR THE YEARS ENDED DECEMBER 31, 2017, 2016 AND 2015**
**(U.S. dollars in thousands)**

| | Balance at Beginning of Year | Additions | Deductions/ Write offs | Balance at End of Year |
|---|---|---|---|---|
| **Year ended December 31, 2017** | | | | |
| Allowance for doubtful accounts for trade receivables | $ 2,014 | 998 | (1,826) | $ 1,186 |
| Valuation allowance on deferred tax assets | $ — | 924 | — | $ 924 |
| **Year ended December 31, 2016** | | | | |
| Allowance for doubtful accounts for trade receivables | $ 1,729 | 3,500 | (3,215) | $ 2,014 |
| **Year ended December 31, 2015** | | | | |
| Allowance for doubtful accounts for trade receivables | $ 2,181 | $ 1,704 | $ (2,156) | $ 1,729 |