

PTC INC.
 Form 424B5
 May 05, 2016
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Filed Pursuant to Rule 424(b)(5)
 Registration No. 333-211049

CALCULATION OF REGISTRATION FEE

Title of each class of securities to be registered	Amount to be Registered	Proposed Maximum Offering Price Per Note	Proposed Maximum Aggregate Offering Price	Amount of Registration Fee
6.000% Senior Notes due 2024	\$500,000,000	100.000%	\$500,000,000	\$50,350.00(1)

(1) Calculated in accordance with Rule 457(r) of the Securities Act of 1933, as amended.

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**Filed Pursuant to Rule 424(b)(5)
Registration No. 333-211049**

Prospectus supplement

(To prospectus dated May 2, 2016)

PTC Inc.

\$500,000,000

6.000% Senior Notes due 2024

Interest payable May 15 and November 15

Issue price: 100.000%

We are offering \$500,000,000 aggregate principal amount of our 6.000% Senior Notes due 2024 (the notes). The notes will mature on May 15, 2024. Interest will accrue from May 12, 2016, and the first interest payment date will be November 15, 2016.

We may redeem some or all of the notes at any time on or after May 15, 2019, at the redemption prices set forth in this prospectus supplement, plus accrued and unpaid interest, if any, to, but excluding, the redemption date. We may also redeem up to 40% of the notes using the proceeds of certain equity offerings before May 15, 2019, at a redemption price equal to 106.000% of the principal amount thereof, plus accrued and unpaid interest, if any, to, but excluding, the redemption date. In addition, at any time prior to May 15, 2019, we may redeem some or all of the notes at a price equal to 100% of the principal amount thereof, plus a make-whole premium, plus accrued and unpaid interest, if any, to, but excluding, the redemption date. If we sell certain of our assets and do not reinvest the proceeds or repay senior debt, or if we experience specific kinds of changes of control, we must offer to purchase the notes.

On the issue date, the notes will not be guaranteed by any of our subsidiaries. After the issue date, the notes will be required to be guaranteed on a senior unsecured basis by any of our domestic subsidiaries that in the future becomes a guarantor of our senior credit facility or certain other material indebtedness of PTC Inc. or any other future guarantor. See Description of notes Future guarantors.

The notes will be our senior unsecured obligations and will rank equally in right of payment to all of our existing and future senior debt and senior in right of payment to all of our future subordinated debt. The notes will be effectively subordinated to any of our existing and future secured debt to the extent of the value of the assets securing such debt. In addition, on the issue date, the notes will be structurally subordinated to the liabilities of all of our subsidiaries and in the future will be structurally subordinated to the liabilities of any of our subsidiaries that does not become a guarantor of the notes.

You should read this prospectus supplement, together with the accompanying prospectus, carefully before you invest in the notes. Investing in the notes involves risks. See Risk factors beginning on page S-22 for a discussion of certain risks that you should consider in connection with an investment in the notes.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these debt securities or determined if this prospectus supplement or the accompanying prospectus is truthful or complete. Any representation to

the contrary is a criminal offense.

	Price to public(1)	Underwriting discounts and commissions(2)	Proceeds, before expenses, to PTC Inc.(1)
Per note	100.000%	0.875%	99.125%
Total	\$500,000,000	\$4,375,000	\$495,625,000

(1) Plus accrued interest, if any, from May 12, 2016.

(2) We have agreed to reimburse the underwriters for certain expenses. See Underwriting (conflicts of interest). The notes are a new issue of securities with no established trading market. We do not intend to apply to list the notes on any securities exchange.

We expect that delivery of the notes will be made to investors in book-entry form through The Depository Trust Company on or about May 12, 2016.

Book-running manager

J.P. Morgan

Co-managers

Barclays **Fifth Third Securities** **HSBC** **Huntington Investment Company**
Janney Montgomery Scott **KeyBanc Capital Markets** **RBC Capital Markets** **RBS**
Santander **SunTrust Robinson Humphrey** **TD Securities** **US Bancorp**
The date of this prospectus supplement is May 4, 2016.

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You should rely only on the information contained in or incorporated by reference in this prospectus supplement, the accompanying prospectus and any related free writing prospectus prepared by us or on our behalf. We and the underwriters have not authorized anyone to provide you with different information. If you receive any other information, you should not rely on it. We and the underwriters are not making an offer of these securities, or soliciting an offer to buy these securities, in any jurisdiction where the offer or solicitation is not permitted. You should not assume that the information contained in or incorporated by reference in this prospectus supplement and the accompanying prospectus is accurate as of any date other than the date of this prospectus supplement or the accompanying prospectus, or the date of the document incorporated by reference. Our business, financial condition, results of operations and prospects may have changed since those respective dates.

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About this prospectus supplement

This prospectus supplement is a supplement to the accompanying prospectus that also is part of this document. This prospectus supplement and the accompanying prospectus are part of a registration statement that we filed with the Securities and Exchange Commission using a shelf registration process. Under the shelf registration process, we may, at any time from time to time, issue and sell to the public any combination of the securities described in the accompanying prospectus up to an indeterminate amount. The first part of this document is the prospectus supplement, which describes the specific terms of the notes we are offering and certain other matters relating to us and our financial condition. The second part, the accompanying prospectus, gives more general information about securities we may offer from time to time, some of which does not apply to the notes we are offering. You should read this prospectus supplement along with the accompanying prospectus, the documents incorporated by reference herein and therein, as well as any free writing prospectus that is filed, including the term sheet for the notes we are offering. Generally, when we refer to the prospectus, we are referring to both parts of this document combined. If the description of the offering varies between this prospectus supplement and the accompanying prospectus, you should rely on the information in this prospectus supplement.

Cautionary statement regarding forward-looking statements

This prospectus supplement and the documents we incorporate herein by reference contain disclosures that are forward-looking statements as defined in the Private Securities Litigation Reform Act of 1995, as amended. Forward-looking statements include all statements that do not relate solely to historical or current facts, which can be identified by the use of words such as may, will, expect, project, estimate, anticipate, plan, believe, potential, should and continue, including but not limited to statements about our anticipated financial results and growth, subscription adoption, the development of our products and markets, and anticipated tax rates. These forward-looking statements are based on our current plans and assumptions and involve risks and uncertainties that could cause actual results to differ materially from those projected. These risks include: macroeconomic and/or global manufacturing climates may not improve or may deteriorate; customers may not purchase our solutions when or at the rates we expect; our businesses, including our Technology Platform and SLM businesses, may not expand and/or generate the revenue we expect; our market size and growth estimates may be incorrect and we may be unable to grow our business at or in excess of market growth rates; new products released and planned products, including Technology Platform-enabled core products, may not generate the revenue we expect or be released as we expect; foreign currency exchange rates may vary from our expectations and thereby affect our reported revenue and expense; the mix of revenue between license, subscription, support and professional services could be different than we expect, which could impact our earnings per share results and cash flows; our customers may purchase more of our solutions as subscriptions than we expect, which would adversely affect near-term revenue, operating margins and earnings per share; customers may not purchase subscriptions at the rate we expect, which could affect our longer-term business projections; sales of our solutions as subscriptions may not have the longer-term positive effect on revenue that we expect; our workforce realignment may adversely affect our operations and may not achieve the expense savings we expect; we may be unable to generate sufficient operating cash flow to return 40% of free cash flow to shareholders and other uses of cash could preclude share repurchases; the settlements with the U.S. Securities and Exchange Commission and the U.S. Department of Justice to resolve our Foreign Corrupt Practices Act investigation in China (the China FCPA Investigation) may have collateral effects on our business in China, the U.S. or elsewhere; we may incur material damages in connection with a recently-filed securities law action concerning disclosures about the China FCPA Investigation; and material fines and penalties may be assessed against us in connection with the investigation by the China Administration for Industry and Commerce. In addition, our assumptions concerning our future GAAP and non-GAAP effective income tax rates

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are based on estimates and other factors that could change, including the geographic mix of our revenue, expenses and profits and loans and cash repatriations from foreign subsidiaries. Other important information about factors that may cause our actual results to differ materially from those contemplated by these statements is discussed under **Risk factors** in this prospectus supplement, as well as in our latest Annual Report on Form 10-K, which is incorporated by reference herein.

Market, ranking, industry data and forecasts

This prospectus supplement and the accompanying prospectus, including the documents incorporated by reference herein or therein, include market share, ranking, industry data and forecasts that we obtained from industry publications, surveys, public filings and internal company sources. Industry publications, surveys and forecasts generally state that the information contained therein has been obtained from sources believed to be reliable, but there can be no assurance as to the accuracy or completeness of included information. We have not independently verified any of the data from third-party sources, nor have we ascertained the underlying economic assumptions relied upon therein. Statements as to our market position and ranking are based on market data currently available to us, management's estimates and assumptions we have made regarding the size of our markets within our industry. While we are not aware of any misstatements regarding our industry data presented herein, our estimates involve risks and uncertainties and are subject to change based on various factors, including those discussed under the heading **Risk factors** in this prospectus supplement and the accompanying prospectus. Neither we nor the underwriters can guarantee the accuracy or completeness of such information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus.

Trademarks, service marks and copyrights

We own or have rights to trademarks, service marks or trade names that we use in connection with the operation of our business. PTC, the PTC logo, ThingWorx, Creo, Windchill, Servigistics, Vuforia and Kepware, and all other PTC product names and logos are trademarks or registered trademarks of PTC Inc. or its subsidiaries in the United States and in other countries. We also own or have the rights to copyrights that protect the content of our products. Solely for convenience, the trademarks, service marks, tradenames and copyrights referred to in this prospectus supplement are listed without the [®], [®] and [®] symbols, but we will assert, to the fullest extent under applicable law, our rights or the rights of the applicable licensors to these trademarks, service marks and tradenames.

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Summary

This summary highlights information appearing elsewhere or incorporated by reference in this prospectus supplement and the accompanying prospectus. This summary is not complete and does not include all of the information that you should consider before investing in the notes. You should carefully read the entire prospectus supplement and the accompanying prospectus, including the historical financial statements and related notes incorporated by reference in this prospectus supplement and the accompanying prospectus and the section entitled "Risk factors and under Risk Factors" in Item 1A of our Annual Report on Form 10-K for the fiscal year ended September 30, 2015, before making any investment decision. As used in this prospectus supplement, except as otherwise indicated or the context otherwise implies, when we refer to PTC, the company, we, us, or our, we are describing PTC Inc., together with its subsidiaries. With respect to any description of the terms of offer or the notes, references to PTC, us, we, or our, refer only to PTC Inc. and not to its subsidiaries.

Unless otherwise indicated, all figures referred to as adjusted in this prospectus supplement give effect to (i) additional borrowings of \$120.0 million on January 11, 2016 under our revolving line of credit, of which \$100.0 million was used for our purchase of Kepware, Inc., and (ii) this offering and the use of proceeds therefrom.

Unless otherwise indicated, all references to a year are to our fiscal year, which ends on September 30.

Our company

We develop and deliver technology solutions, comprised of software and services, that enable customers to transform the way they create, operate and service their products for a smart, connected world.

We generate revenue through the sale of software licenses, software subscriptions, support (which includes technical support and software updates when and if available), and services (including cloud services, whereby our customers receive secure hosting and 24/7 application management).

Our solutions and software products address the challenges our customers face in the following areas:

Solutions Group

Computer-Aided Design (CAD): Helps companies design and optimize their products through the creation of 3D virtual prototypes.

Product Lifecycle Management (PLM): Integrates people, processes and systems from a product's concept through service and retirement.

Application Lifecycle Management (ALM): Manages global software development from concept to delivery.

Service Lifecycle Management (SLM): Enables companies to maximize service efficiency, optimize parts revenue, and increase value for their customers.

Technology Platform Group

Internet of Things (IoT): Enables connectivity, development, analysis and augmented reality for smart, connected products and environments.

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Our business

For 2015, we achieved revenue of \$1,255.2 million, operating income of \$41.6 million and Adjusted EBITDA (as defined in footnote 3 in Summary historical consolidated financial data) of \$333.2 million. We are currently working to transition our business from a perpetual licensing model to a subscription model in order to increase our lifetime customer value, increase the recurring nature of our revenue and better satisfy customer demand. While we expect that this transition will provide significant value to the company over time, until we have fully transitioned to a stable mix of subscription and perpetual license sales, we expect that our total software revenue will decrease due to the differences in the timing and amount of revenue recognized for a subscription (revenue is recognized ratably over the term of the subscription) and a perpetual license (revenue is generally recognized upon shipment of the software).

We have built a world-class portfolio of solutions through both internal development and acquisitions. Consistent with our vision to help our customers create, operate and service smart, connected products, we have completed a number of recent acquisitions related to our Technology Platform business, including Kepware in the second quarter of 2016, Vuforia in the first quarter of 2016, ColdLight in 2015, and Axeda and ThingWorx in 2014. We expect to continue to pursue opportunities to broaden our solutions and customer base through acquisitions.

We serve over 26,000 customers spanning a broad range of industries, including industrial products; electronics and high tech; federal, aerospace and defense; automotive; retail and consumer; and life sciences. No single customer accounted for more than 10% of our total revenue in 2015. We currently sell our software and services primarily through a direct sales organization while 20% to 25% of our products and services were sold in 2015 through third-party resellers and other strategic partners. Our direct sales force is located throughout the Americas, Europe, Asia Pacific and Japan. As we grow our Technology Platform business, we expect our go-to-market strategy will rely more on channel partners and marketing directly to end users and developers. We are expanding our service partner program, under which service engagements are referred to third-party service providers, as part of our overall margin expansion strategy.

The following charts break out our 2015 revenue by product area, geographic region and end market:

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Products and services

Solutions Group

CAD

Our CAD products enable users to create conceptual and detailed designs, analyze designs, perform engineering calculations and leverage the information created downstream using 2D, 3D, parametric and direct modeling. Our principal CAD products are:

PTC Creo is an interoperable suite of product design software that provides a scalable set of packages for design engineers designed to meet a variety of specialized needs. PTC Creo provides capabilities for design flexibility, advanced assembly design, piping and cabling design, advanced surfacing, comprehensive virtual prototyping and other essential design functions.

PTC Mathcad is software for solving, analyzing and sharing vital engineering calculations. PTC Mathcad combines the ease and familiarity of an engineering notebook with the powerful features of a dedicated engineering calculations application.

In 2015, CAD revenue totaled \$511.6 million. The CAD market is estimated to exceed \$4 billion with an expected compound annual growth rate (CAGR) of approximately 4% between 2015 and 2018.

Extended PLM

Extended PLM (ePLM) includes our PLM and ALM products.

Our PLM products are designed to address common challenges that companies, particularly manufacturing companies, face over the life of the product, from concept to retirement. These software products help customers manage product configuration information through each stage of the product lifecycle, and communicate and collaborate across the entire enterprise, including product development, manufacturing and the supply chain, including sourcing and procurement. Our principal PLM products are:

PTC Windchill is a suite of PLM software that offers lifecycle intelligence from design to service. PTC Windchill offers a single repository for all product information. As such, it is designed to create a single source of truth for all product-related content such as CAD models, documents, technical illustrations, embedded software, calculations and requirement specifications for all phases of the product lifecycle to help companies streamline enterprise-wide communication and make informed decisions.

The PTC Windchill product family includes supply chain management (SCM) solutions that allow manufacturers, distributors and retailers to collaborate across product development and the supply chain, including sourcing and procurement, to identify an optimal set of parts, materials and suppliers. This functionality provides automated cost modeling and visibility into supply chain risk information to balance cost and quality, and enables customers to design products that meet compliance requirements and performance targets.

PTC Creo View enables enterprise-wide visualization, verification, annotation and automated comparison of a wide variety of product development data formats, including CAD (2D and 3D), electronic CAD (ECAD), and documents. PTC Creo View provides access to designs and related data without requiring the original authoring tool.

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Our ALM products are designed for discrete manufacturers where coordination and collaboration between software and hardware teams is critical to understand product release readiness, support variant complexity, automate development processes, ensure complete lifecycle traceability and manage change. Our ALM products enable companies to accelerate innovation of software-intensive products.

PTC Integrity, our principal ALM product suite, enables users to manage system models, software configurations, test plans and defects. With PTC Integrity, engineering teams can improve productivity and quality, streamline compliance, and gain greater product visibility, ultimately enabling them to bring more innovative products to market.

Our Model-Based Systems Engineering (MBSE) solution connects requirements engineering, architecture modeling, physical product definition and system verification functions. Our solution allows multi-functional teams to work in concert while modeling the interdependencies of mechanical, electrical and software engineering components. In doing so, it enables users to drive efficiencies and process standardization, allowing distributed teams to collaboratively build digital models of complex systems, while managing system variability and enabling reuse.

In 2015, our ePLM solutions achieved \$524.7 million in revenue. The PLM and ALM markets are estimated to exceed \$5 billion and \$3 billion, respectively, with expected CAGRs of approximately 6% and 8%, respectively, between 2015 and 2018.

SLM

Our SLM products help manufacturers and their service providers improve service efficiency and quality. These include capabilities to support product service and maintenance requirements, service information delivery, service parts planning and optimization, service knowledge management, and service analytics. Our principal SLM products are:

PTC Servigistics is a suite of SLM software products that integrate service planning, delivery and analysis to optimize service outcomes. PTC Servigistics products enable a systematic approach to service lifecycle management by providing a single view of service throughout the service network, enabling customers to improve their products and services and increase customer satisfaction.

PTC Arbortext is an enterprise software suite used by manufacturers to create, illustrate, manage and publish technical and service parts information to improve the operation, maintenance, service and upgrade of equipment throughout its lifecycle. These products are available in stand-alone configurations as well as integrated with PTC Windchill Service Information Manager and PTC Creo Illustrate to deliver dynamic, product-centric service and parts information.

In 2015, our SLM solutions achieved \$166.1 million in revenue. The SLM market is estimated to be \$2.8 billion with an expected CAGR of approximately 10% between 2015 and 2018.

Technology Platform Group

Our Technology Platform products allow manufacturers and their service providers to enable connectivity and optimize data intelligence for smart, connected products for the Internet of Things (IoT). Our solutions support the development of applications to gather, analyze and visualize product data, which in turn helps our customers design, operate and service smart, connected products. Our principal Technology Platform products are:

ThingWorx, a technology platform that enables users to create and deploy applications and solutions for today's smart, connected world, enabling customers to transform their products and services, innovate, and

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unlock new business models. ThingWorx allows customers to reduce the time, cost, and risk required to connect, manage, and develop innovative applications for smart, connected products such as predictive maintenance, system monitoring, and usage-based product design requirements. Our ThingWorx solutions include tools added through our acquisition of Axeda, including cloud-based tools that allow customers to easily and more securely connect products and devices to the cloud, and intelligently process, transform, organize and store product and sensor data.

ThingWorx Machine Learning, a predictive intelligence tool that uses artificial intelligence technology to simplify and automate the processes of creating and operationalizing predictions inside ThingWorx-powered solutions and other systems of record. ThingWorx Machine Learning complements our Technology Platform portfolio by introducing data analytics to information collected from smart, connected products.

Vuforia, an augmented reality technology platform that enables applications to see things in the real world and then interact with them. Using computer vision technologies, and building them for mobile platforms, the technology is accessible through an application programming interface and developer workflows.

KEPServerEX, a communications platform that provides a single source of industrial automation data. The platform allows users to connect, manage, monitor, and control diverse automation devices and software applications through one intuitive user interface. KEPServerEx facilitates our entry into the factory setting and industrial IoT.

In 2015, our Technology Platform business achieved \$52.9 million in revenue. The IoT market is estimated to be \$1.1 billion, with an expected CAGR of 38% between 2015 and 2018 according to a leading industry source and management estimates.

Services

We offer consulting, implementation and training services through our Global Services Organization, with approximately 1,000 professionals worldwide, as well as through third-party resellers and other strategic partners. Our services create value by helping customers improve product development performance through technology enabled process improvement and multiple deployment paths. We also offer cloud services, whereby our customers receive hosting and 24/7 application management.

Competitive strengths

Deeply embedded, mission critical solutions drive high retention rates

We have historically had very low customer attrition. For example, our first customer, John Deere, circa 1987, remains one of our largest customers. Our solutions are mission critical and, because they underlie our customers' ability to deliver their core products, are essential in day to day operations. Tens of thousands of engineers and designers use our CAD products to perform their jobs; relying on the historical data, designs, and configurations stored in our proprietary format to create new products and refine existing ones. Our PLM solutions benefit from the same drivers but are even more embedded in our customers' operations, integrating employee interactions with product data across every business unit within a customer from product design to distribution and support. Our solutions span technological, organizational, and geographic boundaries; thus, by their very nature, they become deeply integrated into our customers' systems and operations resulting in high degrees of customer loyalty.

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Strong competitive position with high level of technical expertise

Our competitive position is established and sustained through our core capabilities and high-level technical expertise. Engineering and design software is highly technical and complex and our solutions have been built through decades of research and development. Many of our customers operate in highly regulated industries and use our software to design products where precision and safety are paramount. Our long history of partnering closely with customers in the industries we serve provides a wealth of insight that allows us to continually innovate and serve our customers' evolving needs. We believe that our extensive experience across many different sectors, leading technologies, expert workforce, which includes more than 1,100 engineers and more than 300 quota-carrying sales representatives, and ability to provide value-added services, position us well to serve our customers operating in dynamic environments.

Significant recurring revenue

Approximately 59% of our revenue in 2015 came from recurring revenue streams, which include our subscription solutions and support. This represents a 700 basis point increase from one year ago. We expect that our shift to a subscription model will increase our mix of recurring revenue to approximately 70% by 2021. We anticipate that this expected increase in recurring revenue will lead to greater visibility and stability in our business and will enhance our ability to innovate and invest, increase our resilience throughout economic cycles, and support leverage to grow returns. Recent changes to our support terms are expected to increase support renewal rates. Additionally, customers may elect to convert existing perpetual licenses with support to subscription licenses, which will decrease support revenue but increase subscription revenue.

Diverse revenue base including relationships with Fortune 100 companies and influential developers

We are widely diversified across geographic regions, industries, customers and products. During 2015, we derived approximately 42% of our revenue from the Americas, 37% from Europe, 11% from the Pacific Rim and 9% from Japan. Our revenue is also well diversified across multiple industry sectors, including industrial products; electronics and high tech; federal, aerospace and defense; automotive; life sciences; and retail and consumer. Our largest industry vertical, industrial products, contributed 31% of total revenue during 2015 while our largest solution area, ePLM, contributed 42% of total revenue. No single customer accounted for more than 10% of our total revenue in each of our last three fiscal years. We also have more than 750 partners, including value-added resellers, enterprise software and performance team partners, hardware and system integration partners and service and training partners.

Expanding margins and strong cash flow generation

Over the last five years, our management team has, with great success, focused on improving margins and operating efficiency. Non-GAAP operating margins increased from 15.6% in 2010 to 24.2% in 2015, driven by increases in sales and marketing efficiency, service margin expansion and modest reductions in research and development expense as a percentage of revenue. (GAAP operating margins fluctuated during the same period; they were 7.4% in 2010 and 3.3% in 2015.) These operational changes along with disciplined capital expenditures have driven significant free cash flow generation. For 2015, we converted \$333.2 million of Adjusted EBITDA into \$228.3 million of Adjusted free cash flow. (Adjusted EBITDA, non-GAAP operating margin and Adjusted free cash flow are defined in Summary historical consolidated financial data .) Since 2011, our Adjusted free cash flow grew at a 23% CAGR through 2015. While our transition to a subscription model negatively impacts traditional financial metrics like revenue, Adjusted EBITDA and Adjusted free cash

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flow in the short term (see Recent developments for more detail), we believe the subscription business model, once fully adopted, will provide a competitive advantage and will ultimately result in a more attractive financial profile.

Well-positioned to capitalize on emerging growth opportunities

We believe we have an opportunity to grow our business by capitalizing on the significant opportunity in the high-growth Internet of Things market with our award-winning ThingWorx technology platform, as well as our acquisitions of Axeda, ColdLight, Vuforia and Kepware, which have enabled us to create leading Technology Platform solutions. Our Technology Platform business generated 5% of our total software license revenue in 2015. We are focused on the B2B segment of this market. While the market for our Technology Platform solutions is in its early days, we believe demand is poised to grow significantly among our customers and our Technology Platform solutions are a natural extension of our core solutions, which manage the cradle-to-grave lifecycle of our customers' products. Our Technology Platform solutions deliver valuable data from products in the field (e.g., usage, durability, performance) back to manufacturers that they can use to make future design improvements.

Business strategy

Sustainable growth

Our goals for overall growth are predicated on continuing to expand our Technology Platform footprint and making structural changes to our business to improve operational performance and increase growth potential for both our Technology Platform solutions and our core solutions. For 2016, we reorganized the company into two main business units: the Solutions Group, comprised of our core CAD, ePLM and SLM business, and the Technology Platform Group, comprised of our IoT, analytics and augmented reality business. This new structure facilitates appropriate focus on both our core business and the Technology Platform business. We expect to continue to invest in our businesses to support their growth.

Transition to subscription revenue

A majority of our software license sales to date have been perpetual licenses, under which customers own the software license and we generally recognize revenue upon shipment of the software. Due to evolving customer preferences, our plan to increase our recurring revenue base and our acquisitions in the IoT and cloud services space, a growing percentage of our business consists of subscriptions for which revenue is recognized ratably over the subscription term. Under a subscription, the customer does not own the software license but pays a periodic fee to license our software for a specified period of time, including access to technical support. In October 2015, we launched the second phase of our subscription program with the goal of accelerating our transition to a predominantly subscription-based model. To drive that acceleration, we launched new pricing and packaging for subscriptions and new sales incentive compensation plans. We also launched a program for our existing customers to convert their support contracts to subscription contracts. We expect there will be greater opportunities for the remainder of 2016 and into 2017 than in subsequent years to convert existing support and term license contracts into subscription contracts due to the cyclical nature of certain of those contracts.

We believe that by 2018, a significant majority of our license and subscription order bookings will be subscriptions. We estimate that, over time, this can generate an approximately 40% higher lifetime value per customer.

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Cost controls and margin expansion

We continue to proactively manage our cost structure and invest in what we believe are the highest return opportunities in our business. Our goal is to drive continued margin expansion over the long term. To that end, in October 2015, we committed to a plan to restructure approximately 8% of our workforce and consolidate select facilities in order to reduce our cost structure and to realign our investments with our identified growth opportunities. The restructuring is expected to result in a charge of up to \$50 million, of which \$41.7 million was recorded in the first half of 2016 and the remainder of which is expected to be recorded in the second half of 2016. We expect that the expense reductions will be offset by planned cost increases, investments in our business and the anticipated effects of foreign currency fluctuations, which effect is contemplated in our most recent financial targets for fiscal 2016. Our financial targets do not reflect the effect of increased interest expense that will be incurred as a result of the proposed offering.

Recent developments

The discussion below includes discussion of our bookings and our license and subscription bookings operating measures. Information about these measures is provided in Management's discussion and analysis of financial condition and results of operations below in this prospectus supplement.

The results of operations of acquired businesses, including Kepware and Vuforia, have been included in our consolidated financial statements beginning on their respective acquisition dates. Kepware contributed approximately \$5 million to our revenue in the second quarter of 2016.

Second quarter results

Revenue for the second quarter of 2016 was \$272.6 million, compared with \$314.1 million for the second quarter of 2015, a decline of \$41.5 million (13%), or (10%) on a constant currency basis. We believe the decline of \$30.7 million (12%) in total software revenue in the quarter was due to the acceleration of adoption of subscription licensing by our customers, which resulted in subscription bookings constituting a higher percentage of license and subscription bookings in the quarter than in the prior year. A decline in professional services revenue of 18% accounted for the remaining \$10.8 million of the decline in revenue in the quarter as a result of our strategy to grow our service partner ecosystem and transition more services to our partners. Revenue was also adversely affected by a challenging macroeconomic environment and the impact of foreign currency exchange rates on our reported revenue due to an increase in the strength of the U.S. Dollar relative to international currencies, most notably the Euro and the Yen.

Approximately 80% of our total software revenue in the second quarter came from recurring revenue streams (subscription and support revenue).

We recorded a restructuring charge of \$4.6 million in the second quarter in connection with our restructuring plan announced in October 2015, bringing the total restructuring charge for the first half of 2016 to \$41.7 million. We expect the remaining \$8 million of the anticipated \$50 million total charge will be recorded in the second half of 2016.

Adjusted EBITDA for our second quarter of 2016 was \$45.5 million, as compared with \$80.9 million for the corresponding quarter in 2015. This decline was driven primarily by the higher subscription mix and its resulting impact on total software revenue.

Excluding fines and penalties totaling \$28.2 million paid to the U.S. Securities and Exchange Commission (SEC) and the U.S. Department of Justice (DOJ) in February 2016 to resolve an investigation under the U.S. Foreign

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Corrupt Practices Act related to our China business (the "China FCPA Investigation") and \$25.1 million paid in the quarter in connection with the restructuring described above, Adjusted free cash flow for the second quarter of 2016 was \$97.4 million, as compared with \$91.3 million for the corresponding quarter in 2015.

Adjusted EBITDA, non-GAAP operating income, free cash flow and Adjusted free cash flow are non-GAAP financial measures. See footnotes (3) and (5) in "Summary historical consolidated financial data" and "Information about non-GAAP financial measures" below for a discussion of management's definitions and use of these non-GAAP measures and limitations of their use. The following table provides a reconciliation of non-GAAP operating income to operating income and of Adjusted EBITDA to net income (loss), the most directly comparable financial measures calculated in accordance with generally accepted accounting principles ("GAAP"), as well as a reconciliation of free cash flow and Adjusted free cash flow to net cash provided by operating activities, the most directly comparable financial measure calculated in accordance with GAAP.

(In thousands)	Three months ended	
	April 4, 2015 (unaudited)	April 2, 2016 (unaudited)
Adjusted EBITDA reconciliation:		
Net income (loss)	\$ 5,392	\$ (5,173)
Provision for (benefit from) income taxes	(5,005)	1,604
Interest and other expense, net	3,601	5,327
Operating income	3,988	1,758
Fair value adjustment of acquired deferred revenue(a)	1,133	1,063
Fair value adjustment of acquired deferred costs(b)	(151)	(125)
Stock-based compensation	12,822	14,836
Amortization of acquired intangible assets included in cost of software revenue	4,714	6,725
Amortization of acquired intangible assets	9,173	8,396
Acquisition-related charges included in general and administrative expenses	1,892	1,071
U.S. pension plan termination-related costs(c)	1,713	
Restructuring charges(d)	38,487	4,579
Non-GAAP operating income	73,771	38,303
Depreciation	7,080	7,169
Adjusted EBITDA	\$ 80,851	\$ 45,472
Adjusted free cash flow reconciliation:		
Net cash provided by operating activities	\$ 91,992	\$ 48,885
Capital expenditures	(6,160)	(4,681)
Free cash flow	85,832	44,204
Restructuring payments(d)	5,483	25,066
Legal settlement payments(e)		28,162
Adjusted free cash flow	\$ 91,315	\$ 97,432

(a) Reflects the restoration of the reduction of revenue as a consequence of the write-down of deferred revenue due to purchase accounting adjustments.

(b) Reflects the restoration of the reduction of expenses due to purchase accounting adjustments.

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- (c) We maintained a U.S. defined benefit pension plan that covered certain persons who were employees of Computervision Corporation (acquired by us in 1998). Benefits under the plan were frozen in 1990. We terminated the plan in 2015. In connection with the termination, we incurred pension expense of \$1.7 million in the three months ended April 4, 2015.

- (d) In the second quarter of 2015, we implemented actions to restructure our workforce and reduce costs through organizational efficiencies. In October 2015, we adopted a plan to further restructure our workforce and consolidate select facilities. See Notes C and O to our audited consolidated financial statements included in our most recent Annual Report on Form 10-K, which is incorporated into this prospectus supplement, and Note 3 to our unaudited consolidated financial statements included in our most recent Quarterly Report on Form 10-Q, which is incorporated by reference into this prospectus supplement.

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(e) Reflects the payment of our legal settlement accrual recorded as charges during the third and fourth quarters of 2015 in connection with the China FCPA Investigation. See Resolution of previously disclosed FCPA investigation in China below.

The selected financial data presented above for the three months ended April 2, 2016 is preliminary and subject to the completion of our closing procedures for the three months ended April 2, 2016. Those procedures have not been completed, and we may make further adjustments as a result of developments occurring between now and the time the financial results for this period are finalized. Accordingly, these results may change and those changes may be material. This preliminary consolidated financial data has been prepared by and is the responsibility of our management. PricewaterhouseCoopers LLP has not audited, reviewed, compiled or performed any procedures with respect to this preliminary consolidated financial data. Accordingly, PricewaterhouseCoopers LLP does not express an opinion or any other form of assurance with respect thereto.

See Summary historical consolidated financial data.

Acceleration of subscription business model transition

The second quarter of 2016 saw significant acceleration in the adoption of subscription licensing by our customers. Subscription bookings as a percentage of license and subscription bookings grew to 54% for this period, up from 28% in the first quarter and up from 14% in the corresponding quarter of 2015. License and subscription bookings grew 25% in the second quarter over the first quarter of 2016, with license and subscription bookings of \$86 million in the second quarter of 2016, and grew 6% over the second quarter of 2015.

For the first half of 2016, subscription bookings increased over 2015 subscription bookings at a higher rate than we had anticipated, and we currently expect that subscription bookings for the full 2016 year will be approximately 45% of our total bookings, while in our original 2016 plan we had expected subscription bookings to account for about one-third of our total bookings. Although we believe that this higher mix of subscription bookings will be favorable to our revenue and earnings over time, it has been and will be unfavorable to our reported revenue and earnings per share in 2016. If a greater percentage of our customers continue to elect our subscription offering in the second half of 2016 than we anticipated, our revenue, operating margin, cash flow and earnings per share will be adversely impacted relative to those financial targets, although this change in the mix of our business is expected to be beneficial to our longer-term prospects. In addition, subscription orders tend to be smaller than perpetual license deals, which can also adversely affect revenue.

Technology Platform acquisitions

On January 12, 2016, we acquired Kepware, a software development company that provides communications connectivity to industrial automation environments, for \$100.0 million in cash and \$18.0 million of contingent earn-out. At the time of the acquisition, Kepware had approximately 115 employees and historical annualized revenue of approximately \$20 million. In January 2016, we borrowed \$120.0 million under our senior credit facility, \$100.0 million of which was used to fund the acquisition of Kepware.

On November 3, 2015, we acquired the Vuforia augmented reality business from Qualcomm. The Vuforia platform is a mobile vision platform that enables applications to see and connect the physical world with digital experiences. We paid \$64.8 million in cash, net of cash acquired, for the Vuforia business.

Amended and restated credit agreement

On November 4, 2015, we amended and restated our senior credit facility with our syndicate of 16 lenders, whereby we repaid our term loan facility in full by borrowing additional amounts under our revolving line of

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credit, amended the financial covenants, granted the lenders a security interest in our assets, and made various other changes to the terms and conditions of the credit facility. We further amended the credit facility on April 18, 2016 to make additional changes to the terms and conditions of the credit facility, including an amendment to the definition of Consolidated EBITDA. The current commitment under our revolving credit facility is \$1.0 billion (which may be increased by up to an additional \$500.0 million in the aggregate if the existing or additional lenders are willing to make such increased commitments). Outstanding borrowings under the revolving line of credit were \$838.1 million as of April 2, 2016. The credit facility matures in September 2019.

Resolution of previously disclosed FCPA investigation in China

On February 16, 2016, we announced that we had entered into an agreement with the SEC and that our China subsidiaries had entered into an agreement with the DOJ to resolve our previously disclosed FCPA investigation pertaining to expenditures by certain former employees and business partners in China between 2006 and 2011 that benefited employees of customers regarded as state owned enterprises in China (the China FCPA Investigation). In the second quarter of 2016, we paid \$28.2 million in the aggregate to those agencies in connection with those settlements. Settlement of this matter could have collateral effects on our business in China, the United States and elsewhere that could materially adversely affect our financial condition or results of operations.

Lawsuit concerning disclosures about the China FCPA Investigation

On March 7, 2016, a lawsuit was filed against us and certain of our current and former officers and directors in the U.S. District Court for the District of Massachusetts by a shareholder on behalf of himself and purportedly on behalf of other shareholders who purchased our stock during the period November 24, 2011 through July 29, 2015. The lawsuit alleges that, during that period, PTC's public disclosures concerning the China FCPA Investigation described above were false and/or misleading and/or failed to disclose certain alleged facts. We intend to contest the action vigorously. We cannot predict the outcome of this action nor when it will be resolved. If the plaintiff(s) were to prevail in the litigation, we could be liable for damages, which could be material and could adversely affect our financial condition or results of operations.

Investigation by China Administration for Industry and Commerce

On March 2, 2016, the China Administration for Industry and Commerce (China AIC) initiated an investigation at our China subsidiary related to the China FCPA Investigation, but not necessarily limited to the China FCPA Investigation. The China AIC is authorized to issue fines and assess other civil penalties. We are unable to predict the outcome of this matter, which could include fines or other sanctions that could be material and could adversely affect our financial condition or results of operations.

Other information

We were incorporated in Massachusetts in 1985. Our principal executive offices are located at 140 Kendrick Street, Needham, Massachusetts 02494, and our telephone number at that address is (781) 370-5000. We maintain a website at www.ptc.com where general information about us is available. We are not incorporating the contents of the website into this prospectus supplement or the accompanying prospectus.

For additional information regarding our business, we refer you to our filings with the SEC incorporated into this prospectus supplement by reference. Please read [Where you can find more information](#) and [Incorporation by reference](#) in this prospectus supplement.

Table of Contents**The offering**

The following summary contains selected information about the notes and is not intended to be complete. For a more complete understanding of the notes, please refer to the section in this prospectus supplement entitled "Description of notes" and the section in the accompanying prospectus entitled "Description of securities."

Issuer	PTC Inc.
Securities offered	\$500.0 million aggregate principal amount of 6.000% Senior Notes due 2024.
Maturity date	May 15, 2024.
Interest rate	6.000% per year.
Interest payment dates	May 15 and November 15, commencing November 15, 2016. Interest will accrue from May 12, 2016.
Optional redemption	<p>The notes will be redeemable at our option, in whole or in part, at any time on or after May 15, 2019, at the redemption prices set forth in this prospectus supplement, plus accrued and unpaid interest, if any, to, but excluding, the date of redemption.</p> <p>At any time prior to May 15, 2019, we may redeem up to 40% of the original aggregate principal amount of the notes with the proceeds of certain equity offerings at a redemption price of 106.000% of the principal amount of the notes, plus accrued and unpaid interest, if any, to, but excluding, the date of redemption.</p> <p>At any time prior to May 15, 2019, we may also redeem some or all of the notes at a price equal to 100% of the principal amount of the notes plus a "make-whole" premium, plus accrued and unpaid interest, if any, to, but excluding, the date of redemption.</p> <p>See "Description of notes" Optional redemption.</p>
Change of control offer	Upon the occurrence of specific kinds of changes of control, you will have the right, as holders of the notes, to cause us to repurchase some or all of your notes at 101% of their face amount, plus accrued and unpaid interest, if any, to, but excluding, the repurchase date. See "Description of notes" Change of control.
Asset sales offer	If we or any of our subsidiaries sell assets, under certain circumstances, we will be required to use the net cash proceeds to make an offer to purchase notes at an offer price in cash in an amount equal to 100% of the principal amount of the notes, plus accrued and unpaid interest, if any, to, but excluding, the repurchase date. See "Description of notes" Certain covenants Limitation on asset sales.

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Future subsidiary guarantees

On the issue date, the notes will not be guaranteed by any of our subsidiaries. After the issue date, the notes will be required to be guaranteed on a senior unsecured basis by any of our domestic subsidiaries that in the future becomes a

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guarantor of our senior credit facility or certain other material indebtedness of PTC Inc. or any other future guarantor. See Description of notes Future guarantors.

For the twelve months ended January 2, 2016, our subsidiaries:

represented approximately 58% of our revenue;

generated approximately \$173 million of operating income, excluding net intercompany charges by PTC Inc. to those subsidiaries; and

represented approximately 86% of our Adjusted EBITDA.

As of January 2, 2016, our subsidiaries:

represented approximately 42% of our total assets, excluding intercompany receivables; and

had approximately \$354 million of total liabilities, including trade payables but excluding intercompany liabilities.

Ranking

The notes will be our senior unsecured obligations and will:

rank senior in right of payment to all of our future subordinated indebtedness;

rank equally in right of payment with all of our existing and future senior indebtedness;

be effectively subordinated to any of our existing and future secured debt, to the extent of the value of the assets securing such debt, including loans made under our senior credit facility which are permitted to be made in an amount not to exceed the current commitment of \$1.0 billion (which may be increased by up to an additional \$500.0 million in the aggregate if the existing or additional lenders are willing to make such increased commitments); and

on the issue date, be structurally subordinated to all of the liabilities (including trade payables) of all of our subsidiaries, and in the future be structurally subordinated to all of the liabilities (including trade payables) of any of our subsidiaries that does not become a guarantor of the notes.

As of January 2, 2016 on an as adjusted basis:

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we would have had approximately \$844.2 million of total indebtedness (including the notes) (without giving effect to approximately \$4.0 million of outstanding letters of credit supporting leases and certain other obligations, approximately \$1.1 million of which outstanding letters of credit are secured by cash);

of our total indebtedness, we would have had approximately \$344.2 million of secured indebtedness (without giving effect to approximately \$1.1 million of outstanding letters of credit which are secured by cash), to which the notes would have been effectively subordinated;

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we and one of our foreign subsidiaries which is a borrower under our senior credit facility would have had unused commitments under the senior credit facility of approximately \$655.8 million, of which approximately \$236.0 million would have been available for borrowing as a result of financial covenants; and

our subsidiaries would have had approximately \$354 million of total liabilities (including trade payables but excluding intercompany liabilities), all of which would have been structurally senior to the notes.

In addition, one of our foreign subsidiaries is a borrower under our senior credit facility and certain other foreign subsidiaries may become borrowers under our senior credit facility in the future, subject to certain conditions, and any borrowings by such subsidiaries will be secured indebtedness.

Covenants

We will issue the notes under an indenture with The Bank of New York Mellon, as trustee. The indenture will, among other things, limit our ability and the ability of our subsidiaries to:

incur additional indebtedness or guarantee indebtedness;

pay dividends or make other distributions or repurchase or redeem our capital stock;

prepay, redeem or repurchase certain debt;

make loans and investments;

sell assets;

incur liens;

enter into certain sale and leaseback transactions; and

consolidate, merge or sell all or substantially all of our assets.

These covenants will be subject to a number of important exceptions and qualifications.

If the notes are assigned an investment grade rating from both Standard & Poor's Rating Group and Moody's Investors Service, Inc., subject to certain conditions, many of these covenants will be suspended.

For more details, see Description of notes.

**Absence of public market
for the notes**

The notes are a new issue of securities and there is currently no established trading market for the notes. We do not intend to apply for a listing of the notes on any securities exchange or an automated dealer quotation system. Accordingly, a liquid market for the notes may not develop. The underwriters have advised us that they currently intend to make a market in the notes. However, they are not obligated to do so, and any market making with respect to the notes may be discontinued without notice.

Use of proceeds

We intend to use the net proceeds of this offering to repay a portion of the outstanding indebtedness under our senior credit facility. See Use of proceeds.

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Underwriting (conflicts of interest) Affiliates of certain of the underwriters will receive at least 5% of the net proceeds of this offering in connection with the repayment of a portion of the outstanding indebtedness under our senior credit facility. See Use of proceeds. Accordingly, this offering is being made in compliance with the requirements of Rule 5121 of the Financial Industry Regulatory Authority, Inc. (FINRA). This rule requires, among other things, that a qualified independent underwriter has participated in the preparation of, and has exercised the usual standards of due diligence with respect to, the registration statement. The Huntington Investment Company has agreed to act as qualified independent underwriter for this offering and to undertake the legal responsibilities and liabilities of an underwriter under the Securities Act of 1933, as amended (the Securities Act). See Underwriting (conflicts of interest).

Risk factors Investing in the notes involves substantial risk. In evaluating an investment in the notes, prospective investors should carefully consider, along with the other information in, or incorporated by reference into, this prospectus supplement and the accompanying prospectus, the specific factors set forth under Risk factors for risks involved with an investment in the notes.

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Summary historical consolidated financial data

The following tables set forth our summary historical consolidated financial data as of and for the periods presented. The summary consolidated statement of operations data for the years ended September 30, 2013, 2014 and 2015 and the summary consolidated balance sheet data as of September 30, 2014 and 2015 were derived from our audited consolidated financial statements included in our most recent Annual Report on Form 10-K, which is incorporated by reference into this prospectus supplement. The summary consolidated balance sheet data as of September 30, 2013 was derived from our audited consolidated financial statements included in our Annual Report on Form 10-K for the year ended September 30, 2013, which is not incorporated by reference into this prospectus supplement. The summary consolidated statement of operations data for the three months ended January 3, 2015 and January 2, 2016 and the consolidated balance sheet data as of January 2, 2016 were derived from our unaudited consolidated financial statements included in our most recent Quarterly Report on Form 10-Q, which is incorporated by reference into this prospectus supplement. The summary consolidated balance sheet data as of January 3, 2015 was derived from our unaudited consolidated financial statements included in our Quarterly Report on Form 10-Q for the three months ended January 3, 2015, which is not incorporated by reference into this prospectus supplement. Our unaudited consolidated financial statements have been prepared on the same basis as the audited financial statements. In the opinion of management, the unaudited interim financial information reflects all adjustments, consisting only of normal recurring adjustments, necessary for a fair statement of the financial information in those statements.

The unaudited consolidated financial data for the twelve months ended January 2, 2016 was derived by adding our financial data for the year ended September 30, 2015 to the financial data for the three months ended January 2, 2016 and subtracting the financial data for the three months ended January 3, 2015.

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The summary historical consolidated financial data set forth below are not necessarily indicative of the results of future operations. This information is only a summary and should be read in conjunction with our consolidated financial statements and accompanying notes included in our most recent Annual Report on Form 10-K and Quarterly Report on Form 10-Q, each of which is incorporated by reference into this prospectus supplement, as well as Use of proceeds, Capitalization and Management's discussion and analysis of financial condition and results of operations.

(In thousands)	Year ended September 30,			Three months ended		Twelve
	2013	2014	2015	January 3, 2015 (unaudited)	January 2, 2016 (unaudited)	months ended January 2, 2016 (unaudited)
Consolidated statement of operations data:						
Revenue:						
Subscription	\$ 10,073	\$ 27,137	\$ 65,239	\$ 14,223	\$ 22,176	\$ 73,192
Support	654,679	688,502	681,524	181,629	171,756	671,651
Total recurring software revenue	664,752	715,639	746,763	195,852	193,932	744,843
Perpetual license	344,209	362,602	282,760	64,748	47,763	265,775
Total software revenue	1,008,961	1,078,241	1,029,523	260,600	241,695	1,010,618
Professional services	284,580	278,726	225,719	64,842	49,322	210,199
Total revenue	1,293,541	1,356,967	1,255,242	325,442	291,017	1,220,817
Cost of revenue:						
Cost of software revenue	120,118	129,708	135,992	34,725	36,814	138,081
Cost of professional services revenue	252,921	243,975	198,742	58,217	43,333	183,858
Total cost of revenue	373,039	373,683	334,734	92,942	80,147	321,939
Gross margin	920,502	983,284	920,508	232,500	210,870	898,878
Operating expenses:						
Sales and marketing	373,375	367,454	346,794	89,484	82,429	339,739
Research and development	221,918	226,496	227,513	61,097	57,669	224,085
General and administrative	119,202	132,225	158,715	35,130	38,567	162,152
U.S. pension settlement loss(1)			66,332			66,332
Amortization of acquired intangible assets	26,486	32,127	36,129	9,413	8,350	35,066
Restructuring charges (credits)(2)	52,197	28,406	43,409	(255)	37,147	80,811
Total operating expenses	793,178	786,708	878,892	194,869	224,162	908,185
Operating income (loss)	127,324	196,576	41,616	37,631	(13,292)	(9,307)
Interest and other expense, net	(1,090)	(10,464)	(15,091)	(3,224)	(6,253)	(18,120)
Income (loss) before income taxes	126,234	186,112	26,525	34,407	(19,545)	(27,427)
Provision for (benefit from) income taxes	(17,535)	25,918	(21,032)	4,123	4,347	(20,808)
Net income (loss)	\$ 143,769	\$ 160,194	\$ 47,557	\$ 30,284	\$ (23,892)	\$ (6,619)

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(In thousands)	2013	As of September 30,			January 3,	As of
		2014	2015	2015	2015	January 2,
				(unaudited)	(unaudited)	2016
Consolidated balance sheet data:						
Cash and cash equivalents	\$ 241,913	\$ 293,654	\$ 273,417	\$ 261,052	\$ 296,797	
Goodwill	769,095	1,012,527	1,069,041	1,000,992	1,086,230	
Total assets	1,828,906	2,199,954	2,209,913	2,137,223	2,215,893	
Total debt, including current portion	258,125	611,875	668,125	605,625	718,125	
Total liabilities	902,426	1,346,065	1,349,742	1,281,770	1,379,956	
Total stockholders equity	926,480	853,889	860,171	855,453	835,937	

(Dollar amounts in thousands)	2013	2014	2015	Three months ended		Twelve
				Year ended September 30,		months
				2015	2016	ended
				January 3,	January 2,	January 2,
				(unaudited)	(unaudited)	(unaudited)
Other financial data:						
Adjusted EBITDA(3)	\$ 317,749	\$ 367,356	\$ 333,229	\$ 76,870	\$ 69,229	\$ 325,588
Adjusted EBITDA margin(3)(4)	25%	27%	27%	24%	24%	27%
Adjusted free cash flow(5)	\$ 232,554	\$ 299,852	\$ 228,338	\$ 23,012	\$ 73,771	\$ 279,097
Ratio of total debt to Adjusted EBITDA(3)(6)	0.8x	1.7x	2.0x	7.9x	10.4x	2.2x
Ratio of Adjusted EBITDA to interest expense(3)(7)	45.5x	45.0x	22.6x	20.4x	10.5x	18.5x
As adjusted financial data:(8)						
Ratio of total debt to Adjusted EBITDA(3)(6)						2.6x
Ratio of Adjusted EBITDA to interest expense(3)(7)						8.0x

- (1) We maintained a U.S. defined benefit pension plan that covered certain persons who were employees of Computervision Corporation (acquired by us in 1998). Benefits under the plan were frozen in 1990. We terminated the plan in 2015. In connection with the termination, we contributed \$25.5 million to the plan and recorded a settlement loss of \$66.3 million.
- (2) In each of 2013, 2014, 2015 and the first quarter of 2016, we implemented restructuring actions to restructure our workforce and reduce costs through organizational efficiencies. In October 2015, we adopted a plan to further restructure our workforce and consolidate select facilities. See Notes C and O to our audited consolidated financial statements included in our most recent Annual Report on Form 10-K, which is incorporated by reference into this prospectus supplement, and Note 3 to our unaudited consolidated financial statements included in our most recent Quarterly Report on Form 10-Q, which is incorporated by reference into this prospectus supplement.

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- (3) Non-GAAP operating income and Adjusted EBITDA are non-GAAP financial measures. We define non-GAAP operating income as operating income (loss), excluding the impact of purchase accounting on the fair value of acquired deferred revenue and acquired deferred costs, stock-based compensation expense, amortization of acquired intangible assets, acquisition-related expenses, costs associated with terminating a U.S. pension plan, a litigation accrual associated with the China FCPA Investigation and restructuring charges. We define Adjusted EBITDA as non-GAAP operating income before depreciation. The following reconciles non-GAAP operating income to operating income (loss) and Adjusted EBITDA to net income (loss), the most directly comparable financial measures calculated in accordance with GAAP.

(In thousands)	Year ended September 30,			Three months ended		Twelve
	2013	2014	2015	January 3,	January 2,	months
				2015	2016	ended
			(unaudited)	(unaudited)	(unaudited)	
Adjusted EBITDA reconciliation:						
Net income (loss)	\$ 143,769	\$ 160,194	\$ 47,557	\$ 30,284	\$ (23,892)	\$ (6,619)
Provision for (benefit from) income taxes	(17,535)	25,918	(21,032)	4,123	4,347	(20,808)
Interest and other expense, net	1,090	10,464	15,091	3,224	6,253	18,120
Operating income (loss)	127,324	196,576	41,616	37,631	(13,292)	(9,307)
Fair value adjustment of acquired deferred revenue(a)	3,035	1,249	3,869	1,404	497	2,962
Fair value adjustment of acquired deferred costs(b)		(167)	(526)	(106)	(132)	(552)
Stock-based compensation	48,787	50,889	50,182	11,242	23,189	62,129
Amortization of acquired intangible assets included in cost of software revenue	18,586	18,112	19,402	4,767	5,127	19,762
Amortization of acquired intangible assets	26,486	32,127	36,129	9,413	8,350	35,066
Acquisition-related charges included in general and administrative expenses	9,855	12,715	8,913	4,033	1,207	6,087
U.S. pension plan termination-related costs(c)		381	73,171	1,684		71,487
Legal settlement accrual(d)			28,162			28,162
Restructuring charges (credits)(e)	52,197	28,406	43,409	(255)	37,147	80,811
Non-GAAP operating income	286,270	340,288	304,327	69,813	62,093	296,607
Depreciation	31,479	27,068	28,902	7,057	7,136	28,981
Adjusted EBITDA	\$ 317,749	\$ 367,356	\$ 333,229	\$ 76,870	\$ 69,229	\$ 325,588

(a) Reflects the restoration of the reduction of revenue as a consequence of the write-down of deferred revenue due to purchase accounting adjustments.

(b) Reflects the restoration of the reduction of expenses due to purchase accounting adjustments.

(c) See footnote (1).

(d) Reflects the add-back of our recorded charges of \$28.2 million relating to the China FCPA Investigation.

(e) See footnote (2).

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(4) Adjusted EBITDA as a percentage of total revenue.

(5) Free cash flow and Adjusted free cash flow are also non-GAAP financial measures. We define free cash flow as net cash provided by operating activities less capital expenditures (other than acquisitions). Adjusted free cash flow is defined as free cash flow plus cash paid for discrete charges as identified (for the periods presented this included U.S. pension plan termination payments and restructuring payments). The following reconciles free cash flow and Adjusted free cash flow to net cash provided by operating activities, the most directly comparable financial measure calculated in accordance with GAAP.

(In thousands)	Year ended September 30,			Three months ended		Twelve
	2013	2014	2015	January 3, 2015 (unaudited)	January 2, 2016 (unaudited)	months ended January 2, 2016 (unaudited)
Adjusted free cash flow reconciliation:						
Net cash provided by operating activities	\$ 224,683	\$ 304,552	\$ 179,903	\$ 13,632	\$ 61,254	\$ 227,525
Capital expenditures	(29,328)	(25,275)	(30,628)	(7,947)	(4,185)	(26,866)
Free cash flow	195,355	279,277	149,275	5,685	57,069	200,659
U.S. pension plan termination payments(a)			25,475			25,475
Restructuring payments(b)	37,199	20,575	53,588	17,327	16,702	52,963
Adjusted free cash flow	\$ 232,554	\$ 299,852	\$ 228,338	\$ 23,012	\$ 73,771	\$ 279,097

(a) See footnote (1).

(b) See footnote (2).

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(6) Total debt (including current portion) divided by Adjusted EBITDA.

(7) Adjusted EBITDA divided by interest expense.

(8) Calculated giving effect to the transactions described in this prospectus supplement as if they had occurred on January 4, 2015.

We have also presented non-GAAP operating margin in this prospectus supplement. Non-GAAP operating margin is a non-GAAP financial measure that excludes the same items that are excluded when calculating non-GAAP operating income as explained in footnote (3) above. The following reconciles non-GAAP operating margin to operating margin, the most directly comparable financial measure calculated in accordance with GAAP.

	Year ended September 30,			Three months ended		Twelve months ended
	2013	2014	2015	January 3, 2015	January 2, 2016	January 2, 2016
				(unaudited)	(unaudited)	(unaudited)
Non-GAAP operating margin reconciliation:						
Operating margin	9.8%	14.5%	3.3%	11.6%	(4.6%)	(0.8%)
Fair value adjustment of acquired deferred revenue(a)	0.2%	0.1%	0.3%	0.4%	0.2%	0.2%
Fair value adjustment of acquired deferred costs(b)	%	%	%	%	%	%
Stock-based compensation	3.8%	3.8%	4.0%	3.5%	8.0%	5.1%
Amortization of acquired intangible assets	3.5%	3.7%	4.4%	4.4%	4.6%	4.5%
Acquisition-related charges included in general and administrative expenses	0.8%	0.9%	0.7%	1.2%	0.4%	0.5%
U.S. pension plan termination-related costs(c)	%	%	5.8%	0.5%	%	5.9%
Legal settlement accrual(d)	%	%	2.2%	%	%	2.3%
Restructuring charges (credits)(e)	4.0%	2.1%	3.5%	(0.1%)	12.8%	6.6%
Non-GAAP operating margin	22.1%	25.1%	24.2%	21.4%	21.3%	24.3%

(a) See footnote (a) under Adjusted EBITDA reconciliation.

(b) See footnote (b) under Adjusted EBITDA reconciliation.

(c) See footnote (1).

(d) See footnote (d) under Adjusted EBITDA reconciliation.

(e) See footnote (2).

Information about non-GAAP financial measures

Non-GAAP operating income, non-GAAP operating margin, Adjusted EBITDA, free cash flow and Adjusted free cash flow are not recognized terms under GAAP and do not purport to be alternatives to operating income or net income as a measure of operating performance or to cash flows provided by operations as a measure of liquidity. We present these non-GAAP measures because we believe that they assist our investors to make period-to-period comparisons of our operational performance because they provide a view of our operating results without items that are not, in our view, indicative of our core operating results. We believe that these non-GAAP measures help illustrate underlying trends in our business, and we use the measures to establish budgets and operational goals, communicated internally and externally, for managing our business and evaluating our performance. We provide information on free cash flow and Adjusted free cash flow to enable investors to assess our ability to generate cash without incurring additional external financings and to evaluate our performance against our announced long-term goal of returning approximately 40% of our free cash flow

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to shareholders through stock repurchases. We believe that providing non-GAAP measures affords investors a view of our operating results that may be more easily compared to the results of peer companies. In addition, compensation of our executives is based in part on the performance of our business based on these non-GAAP measures. However, non-GAAP information should not be construed as an alternative to GAAP information as the items excluded from the non-GAAP measures often have a material impact on our financial results. Management uses, and investors should consider, non-GAAP measures in conjunction with our GAAP results.

Non-GAAP operating income, non-GAAP operating margin, Adjusted EBITDA, free cash flow and Adjusted free cash flow have limitations as analytical tools, and you should not consider them in isolation or as substitutes for analysis of our results as reported under GAAP. Some of these limitations are:

although depreciation and amortization are non-cash charges, the assets being depreciated and amortized may have to be replaced in the future, and Adjusted EBITDA does not reflect cash capital expenditure requirements for such replacements or for new capital expenditure requirements;

non-GAAP operating income and Adjusted EBITDA do not reflect changes in, or cash requirements for, our working capital needs;

non-GAAP operating income and Adjusted EBITDA do not reflect our interest expense, or the cash requirements necessary to service interest or principal payments on our debt;

non-GAAP operating income and Adjusted EBITDA do not reflect our income tax expense or the cash requirements to pay our taxes;

free cash flow and Adjusted free cash flow do not reflect the cash necessary to service principal payments on our debt or to repurchase shares of our common stock;

free cash flow and Adjusted free cash do not represent the residual cash flow for discretionary expenditures;

Adjusted free cash flow does not reflect the cash necessary to pay restructuring obligations or cash amounts paid in connection with the U.S. pension plan termination; and

other companies, including companies in our industry, may calculate non-GAAP operating income, non-GAAP operating margin, Adjusted EBITDA, free cash flow and Adjusted free cash flow differently, which reduces their usefulness as comparative measures. Because of these limitations, non-GAAP operating income, non-GAAP operating margin, Adjusted EBITDA, free cash flow and Adjusted free cash flow should not be considered as measures of discretionary cash available to use for reinvestment in the growth of our business or as a measure of cash that will be available to meet our obligations. You should consider these non-GAAP measures alongside other financial performance measures, including various cash flow metrics, net income and our other GAAP results.

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Risk factors

Any investment in the notes involves a high degree of risk. In addition to the other information provided and incorporated by reference in this prospectus supplement and the accompanying prospectus, you should carefully consider the risks described below before deciding whether to purchase the notes. The risks and uncertainties described below and in such incorporated documents are not the only risks and uncertainties that we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also impair our business operations. If any of those risks actually occurs, our business, financial condition and results of operations would suffer.

*The risks discussed below also include forward-looking statements, and our actual results may differ substantially from those discussed in these forward-looking statements. See *Cautionary statement regarding forward-looking statements* in this prospectus supplement.*

*This discussion of risk factors should be read in conjunction with *Management's discussion and analysis of financial condition and results of operations* and the consolidated financial statements and related notes included in our most recent Annual Report on Form 10-K and Quarterly Report on Form 10-Q, each of which is incorporated by reference into this prospectus supplement.*

Risks related to our business

I. Operational considerations

Our operating results fluctuate from quarter to quarter, making future operating results difficult to predict; failure to meet market expectations could cause the price of our securities to decline.

Our quarterly operating results historically have fluctuated and are likely to continue to fluctuate depending on a number of factors, including:

a high percentage of our revenue historically has been generated in the third month of each fiscal quarter and any failure to receive, complete or process orders at the end of any quarter could cause us to fall short of our revenue targets;

a significant percentage of our revenue comes from transactions with large customers, which tend to have long lead times that are less predictable;

one or more industries that we serve may have weak or negative growth;

our operating expenses are largely fixed in the short term and are based on expected revenues and any failure to achieve our revenue targets could cause us to miss our earnings targets as well;

our mix of license, subscription and service revenues can vary from quarter to quarter, creating variability in our operating margins;

because a significant portion of our revenue comes from outside the U.S. and a significant portion of our expense structure is located internationally, shifts in foreign currency exchange rates could adversely affect our reported results; and

we may incur significant expenses in a quarter in connection with corporate development initiatives, restructuring efforts or the investigation, defense or settlement of legal actions that would increase our operating expenses and reduce our earnings for the quarter in which those expenses are incurred.

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Accordingly, our quarterly results are difficult to predict prior to the end of the quarter and we may be unable to confirm or adjust expectations with respect to our operating results for a particular quarter until that quarter has closed. Any failure to meet our quarterly revenue or earnings targets could adversely impact the market price of our securities.

We now offer our solutions as subscriptions, which will adversely affect our revenue and earnings in the transition period and make predicting our revenue and earnings more difficult.

We began offering most of our solutions under a subscription option in 2015, in addition to our perpetual license option. Under a subscription, customers pay a periodic fee for the right to use our software and receive support, or to use our cloud services and have us manage the application for a specified period. We believe that a significant number of our customers will elect to purchase our solutions as subscriptions rather than under a perpetual license (if available). Until we have fully transitioned to a stable mix of subscription and perpetual license purchases, we expect that our license revenue will decrease due to the difference in revenue recognition for a subscription license (revenue is recognized ratably over the term of the license) and a perpetual license (revenue is generally recognized upon purchase) and that our support revenue (which comprises a significant portion of our revenue) may also decrease due to support services being included in the subscription offering.

Our revenue and earnings targets are based on assumptions about the mix of revenue that will be attributable to subscription and perpetual license revenue. If a greater percentage of our customers elect to purchase our solutions as subscriptions in a period than we assumed, our revenue and earnings will likely fall below our expectations for that period, which could cause the price of our securities to decline.

Our long range financial targets are predicated on revenue growth and operating margin improvements that we may fail to achieve, which could reduce our expected earnings and cause us to fail to meet the expectations of analysts or investors and cause the price of our securities to decline.

We are projecting long-term revenue and earnings growth. However, as we transition to a subscription model, our plan through 2021 assumes that our total software revenue and earnings will decrease in 2016, 2017 and 2018 due to lower up-front revenue recognized for a subscription license compared to a perpetual license, and assumes increases in revenue from a recurring subscription revenue stream beginning in 2019. Our projections are based on the expected growth potential in the IoT and SLM markets, with more modest growth expectations for CAD and ePLM. We may not achieve the expected bookings and revenue growth if the markets we serve do not grow at expected rates, if we are not able to deliver solutions desired by customers and potential customers, and/or if acquired businesses do not generate the revenue growth that we expect.

Our long-term operating margin improvement is predicated on operating leverage from revenue growth, improved operating efficiencies, particularly within our sales organization, and service margin improvements. Services margins are significantly lower than license and support margins. Future projected improvements in our operating margin as a percent of revenue are based in part on our ability to improve services margins by reducing the amount of direct services that we perform through expansion of our service partner program, and improving the profitability of services that we perform. If our services revenue increases as a percentage of total revenue and/or if we are unable to improve our services margins, our overall operating margin may not increase to the levels we expect or may decrease. Additionally, if we do not achieve lower sales and marketing expenses as a percentage of revenue through productivity initiatives, we may not achieve our operating margin targets. If operating margins do not improve, our earnings could be adversely affected and the price of our securities could decline.

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Our significant investment in our Technology Platform business may not generate the revenues we expect.

We have made a significant investment in recent years in our Technology Platform business, including five acquisitions, totaling approximately \$550 million. Our Technology Platform business provides technology solutions that enable customers to transform their businesses and leverage the opportunities created by the Internet of Things.

The Technology Platform market is a new market for us that requires us to adopt a new sales approach. The go-to-market approach for the Technology Platform business relies on an extensive and differentiated partner ecosystem to enable us to access markets and customers beyond our traditional markets, customers and buyers. We also expect to focus on marketing directly to software application developers to become the Technology Platform of choice for the IoT. We may be unable to expand our partner ecosystem as we expect and developers may not adopt our Technology Platform solutions as we expect, which would adversely affect our ability to realize revenue from our investments in this business.

Further, the Internet of Things is a relatively new market and there are a significant number of competitors in the market. If the market does not expand as rapidly as we or others expect or if customers adopt competitive solutions rather than our solutions, our Technology Platform business may not generate the revenues we expect.

Businesses we acquire may not generate the revenue and earnings we anticipate and may otherwise adversely affect our business.

We have acquired, and intend to continue to acquire, new businesses and technologies. If we fail to successfully integrate and manage the businesses and technologies we acquire, or if an acquisition does not further our business strategy as we expect, our operating results will be adversely affected.

Moreover, business combinations also involve a number of risks and uncertainties that can adversely affect our operations and operating results, including:

- difficulties managing an acquired company's technologies or lines of business or entering new markets where we have limited or no prior experience or where competitors may have stronger market positions;

- unanticipated operating difficulties in connection with the acquired entities, including potential declines in revenue of the acquired entity;

- failure to achieve the expected return on our investments which could adversely affect our business or operating results and impair the assets that we recorded as a part of an acquisition including intangible assets and goodwill;

- diversion of management and employee attention;

- loss of key personnel;

- assumption of unanticipated legal or financial liabilities or other unidentified issues with the acquired business;

- potential incompatibility of business cultures;

- significant increases in our interest expense, leverage and debt service requirements if we incur additional debt to pay for an acquisition; and

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if we were to issue a significant amount of equity securities in connection with future acquisitions, existing stockholders may be diluted and earnings per share may decrease.

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Our restructuring actions and reorganization may be disruptive and could harm our operations.

Over the past few years, we have taken a number of restructuring actions and reorganizations designed to realign our global workforce to our business needs, reduce our expenses and enable us to increase investment in our Technology Platform business. These actions may not have the expected long-term effect on our expenses or may not be sufficient to fully offset additional investments we may make in our business. Disruptions in operations have occurred and will likely continue to occur as a result of these actions. Disruptions may include attrition beyond our planned reduction in workforce, a negative effect on employee morale or our ability to attract highly skilled employees. Further, we could experience delays, business disruptions, decreased productivity, unanticipated employee turnover and increased litigation related costs in connection with the restructuring and other efficiency initiatives.

In October 2015, we committed to a plan to reduce costs and realign investments with what we believe are our higher growth opportunities by reducing our workforce and consolidating facilities. This restructuring may result in higher charges than anticipated and/or our actual projected expense reductions may fall below our expectations.

We depend on sales within the discrete manufacturing sector and our business could be adversely affected if manufacturing activity does not grow or if it contracts.

A large amount of our revenue is related to sales to customers in the discrete manufacturing sector. If this economic sector does not grow, or if it contracts, our customers in this sector may, as they have in the past, reduce or defer purchases of our products and services, which adversely affects our business. In 2015 and the first half of 2016, the manufacturing sector was weak, particularly in the Americas and China, which we believe adversely impacted our sales and operating results in those regions in 2015. We expect global manufacturing economic conditions could continue to adversely impact our results in the remainder of 2016, particularly in the U.S.

We face significant competition, which may reduce our profits and limit or reduce our market share.

The market for product development solutions and IoT solutions is rapidly changing and characterized by vigorous competition, both by entry of competitors with innovative technologies and by consolidation of companies with complementary products and technologies. This competition could result in price reductions for our products and services, reduced margins, loss of customers and loss of market share. Our primary competition comes from:

larger companies that offer competitive solutions;

larger, more well-known enterprise software providers with greater financial, technical, sales and marketing, and other resources; and

other vendors of various competitive point solutions or IoT platforms.

In addition, barriers to entry into certain segments of the software industry have declined and the ability of customers to adopt software solutions has increased with the ability to offer software in the cloud and the increasing prevalence of subscription license models and customer acceptance of both those models. Because of these and other factors, competitive conditions in the industry are likely to intensify in the future.

Increased competition could result in price reductions, reduced net revenue and profit margins and loss of market share, any of which would likely harm our business.

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A breach of security in our products or computer systems, or those of our third-party service providers, could compromise the integrity of our products, harm our reputation, create additional liability and adversely impact our financial results.

We have implemented and continue to implement measures intended to maintain the security and integrity of our products, source code and computer systems. The potential consequences of a security breach or system disruption (particularly through cyber-attack or cyber-intrusion, including by computer hackers, foreign governments and cyber terrorists) have increased in scope as the number, intensity and sophistication of attempted attacks and intrusions from around the world have increased. Despite efforts to create security barriers to such threats, it is virtually impossible for us to entirely eliminate this risk. In addition, we offer cloud services to our customers and some of our products are hosted by third-party service providers, which expose us to additional risks as those repositories of our customers' proprietary data may be targeted by such hackers. A significant breach of the security and/or integrity of our products or systems, or those of our third-party service providers, could prevent our products from functioning properly, could enable access to sensitive, proprietary or confidential information, including that of our customers, without authorization, or could disrupt our business operations or those of our customers. This could require us to incur significant costs of remediation, harm our reputation, cause customers to stop buying our products, and cause us to face lawsuits and potential liability, which could have a material adverse effect on our financial condition and results of operations.

Our sales and operations are globally dispersed, which exposes us to additional compliance risks.

We sell and deliver software and services, and maintain support operations, in a large number of countries whose laws and practices differ from one another and are subject to unexpected changes. Managing these geographically dispersed operations requires significant attention and resources to ensure compliance with laws of those countries and those of the U.S. governing our activities in non-U.S. countries.

Those laws include, but are not limited to, anti-corruption laws and regulations (including the U.S. Foreign Corrupt Practices Act (FCPA) and the U.K. Bribery Act 2010) and trade and economic sanctions laws and regulations (including laws administered by the U.S. Department of the Treasury's Office of Foreign Assets Control, the U.S. State Department, the U.S. Department of Commerce, the United Nations Security Council and other relevant sanctions authorities). The FCPA and UK Bribery Act prohibit us and business partners or agents acting on our behalf from offering or providing anything of value to persons considered to be foreign officials under those laws for the purposes of obtaining favorable treatment. The UK Bribery Act also prohibits commercial bribery and accepting bribes. Our compliance risks with these laws are heightened due to the global nature of our business, the fact that we operate in, and are expanding into, countries with a higher incidence of corruption and fraudulent business practices than others, and the fact that we deal with governments and state-owned business enterprises, the employees and representatives of which may be considered foreign officials for purposes of the FCPA and the UK Bribery Act.

Accordingly, while we strive to maintain a comprehensive compliance program, we cannot guarantee that an employee, agent or business partner will not act in violation of our policies or U.S. or other applicable laws. Investigations of alleged violations of those laws can be expensive and disruptive. Violations of such laws can lead to civil and/or criminal prosecutions, substantial fines and other sanctions, including the revocation of our rights to continue certain operations and also cause business and reputation loss. For example, as discussed in Risk Factors II. Other Considerations, we recently resolved an investigation by the SEC and the DOJ concerning certain payments and expenses by certain business partners and employees in China, and we are currently subject to an investigation at our China subsidiary by the China Administration for Industry and Commerce (the "China AIC").

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Our international businesses present economic and operating risks.

We expect that our international operations will continue to expand and to account for a significant portion of our total revenue. Because we transact business in various foreign currencies, the volatility of foreign exchange rates has had and may in the future have a material adverse effect on our revenue, expenses and operating results.

Other risks inherent in our international operations include, but are not limited to, the following:

- difficulties in staffing and managing foreign sales and development operations;
- possible future limitations upon foreign-owned businesses;
- increased financial accounting and reporting burdens and complexities;
- inadequate local infrastructure; and
- greater difficulty in protecting our intellectual property.

We may be unable to adequately protect our proprietary rights.

Our software products are proprietary. We protect our intellectual property rights in these items by relying on copyrights, trademarks, patents and common law safeguards, including trade secret protection, as well as restrictions on disclosures and transferability contained in our agreements with other parties. Despite these measures, the laws of all relevant jurisdictions may not afford adequate protection to our products and other intellectual property. In addition, we frequently encounter attempts by individuals and companies to pirate our software. If our measures to protect our intellectual property rights fail, others may be able to use those rights, which could reduce our competitiveness and revenues.

In addition, any legal action to protect our intellectual property rights that we may bring or be engaged in could be costly, may distract management from day-to-day operations and may lead to additional claims against us, and we may not succeed, all of which would materially adversely affect our operating results.

Intellectual property infringement claims could be asserted against us, which could be expensive to defend and could result in limitations on our use of the claimed intellectual property.

The software industry is characterized by frequent litigation regarding copyright, patent and other intellectual property rights, as well as improper disclosure of confidential or proprietary information. If a lawsuit of this type is filed, it could result in significant expense to us and divert the efforts of our technical and management personnel. We cannot be sure that we would prevail against any such asserted claims. If we did not prevail, we could be prevented from using the claimed intellectual property or be required to enter into royalty or licensing agreements, which might not be available on terms acceptable to us. In addition to possible claims with respect to our proprietary products, some of our products contain technology developed by and licensed from third parties and we may likewise be susceptible to infringement claims with respect to these third-party technologies.

Some of our products contain open source software, and any failure to comply with the terms of one or more of these open source licenses could negatively affect our business and subject us to possible litigation.

Some of our products incorporate so-called open source software and we may incorporate open source software into other products in the future. Such open source software is generally licensed by its authors or other third parties under open source licenses. We monitor our use of open source software in an effort to avoid subjecting our products to conditions we do not intend. Although we believe that we have complied with our

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obligations under the various applicable licenses for open source software that we use, our processes used to monitor how open source software is used could be improperly followed or subject to error.

If an author or other third party that distributes such open source software were to allege that we had not complied with the conditions of one or more of these licenses, we could be required to incur significant legal expenses defending against such allegations. If our defenses were not successful, we could be subject to significant damages. We could also be enjoined from the distribution of our products that contained the open source software or be required to modify our products in order to comply with the conditions of the open source license(s) in question, thereby disrupting the distribution and sale of some of our products. In addition, if we combine our proprietary software with open source software in a certain manner, under some open source licenses we could be required to release the source code of our proprietary software, which would adversely affect our ability to derive revenue from the affected products.

Our financial condition could be adversely affected if significant errors or defects are found in our software.

Sophisticated software can sometimes contain errors, defects or other performance problems. If errors or defects are discovered in our products, we may need to expend significant financial, technical and management resources, or divert some of our development resources, in order to resolve or work around those defects, and we may not be able to correct them in a timely manner or provide an adequate response to our customers.

Errors, defects or other performance problems in our products could also cause us to lose revenue, lose customers and lose market share, and could subject us to liability. Such defects or problems could also damage our business reputation and cause us to lose new business opportunities.

We may have exposure to additional tax liabilities and our effective tax rate may increase or fluctuate, which could increase our income tax expense and reduce our net income.

As a multinational organization, we are subject to income taxes as well as non-income based taxes in the U.S. and in various foreign jurisdictions. Significant judgment is required in determining our worldwide income tax provision and other tax liabilities. In the ordinary course of a global business, there are many intercompany transactions and calculations where the ultimate tax determination is uncertain. Our tax returns are subject to review by various taxing authorities. Although we believe that our tax estimates are reasonable, the final determination of tax audits or tax disputes could be different from what is reflected in our historical income tax provisions and accruals.

Our effective tax rate can be adversely affected by several factors, many of which are outside of our control, including:

changes in tax laws, regulations, and interpretations in multiple jurisdictions in which we operate;

assessments, and any related tax interest or penalties, by taxing authorities;

changes in the relative proportions of revenues and income before taxes in the various jurisdictions in which we operate that have differing statutory tax rates;

changes to the financial accounting rules for income taxes;

unanticipated changes in tax rates; and

changes to a valuation allowance on net deferred tax assets, if any.

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Because we have substantial cash requirements in the United States and a significant portion of our cash is generated and held outside of the United States, if our cash available in the United States and the cash available under our credit facility is insufficient to meet our operating expenses and debt repayment obligations in the United States, we may be required to raise cash in ways that could negatively affect our financial condition, results of operations and the market price of our securities.

We have significant operations outside the United States. As of September 30, 2015, approximately 72% of our cash and cash equivalents balance was held by subsidiaries outside the United States, with the remainder of the balance held by PTC Inc. or its subsidiaries in the United States. We believe that the combination of our existing United States cash and cash equivalents, future United States operating cash flows and cash available under our credit facility, are sufficient to meet our ongoing United States operating expenses and known capital requirements. However, if these sources of cash are insufficient to meet our future financial obligations in the United States, we will be required to seek other available funding sources or means to repatriate cash to the United States, which could negatively impact our results of operations, financial position and the market price of our securities.

II. Other Considerations

Collateral proceedings and effects of the resolution of a governmental investigation into our business practices in China could have a material adverse effect on our business and our results.

We recently paid fines and penalties totaling \$28.2 million to the SEC and the DOJ to resolve the China FCPA Investigation. This resolution has prompted certain additional proceedings and could have other collateral effects on our business in China, the United States and elsewhere that could materially adversely affect our financial condition and results of operations. For example:

A lawsuit has been filed against us alleging that certain of our public disclosures concerning the China FCPA Investigation were false and/or misleading and/or failed to disclose certain alleged facts and additional lawsuits may be filed. We cannot predict the outcome of this action nor when it will be resolved, but, if the plaintiff(s) were to prevail in the litigation, we could be liable for damages, which could be material and could adversely affect our financial condition or results of operations.

The China AIC recently initiated an investigation at our China subsidiary related to the China FCPA Investigation, but not necessarily limited to the China FCPA Investigation. The China AIC is authorized to issue fines and assess other civil penalties. We are unable to predict the outcome of this matter, which could include fines or other sanctions that could be material.

We are required to comply with certain financial and operating covenants under our credit facility and to make scheduled debt payments as they become due; any failure to comply with those covenants or to make scheduled payments could cause amounts borrowed under the facility to become immediately due and payable and/or prevent us from borrowing under the facility.

Our credit facility consists of a \$1 billion revolving loan commitment that matures on September 15, 2019, at which time all remaining amounts outstanding will be due and payable in full. As of April 2, 2016, we had \$838.1 million outstanding under the credit facility. We intend to use the net proceeds of this offering to repay a portion of the outstanding indebtedness under our senior credit facility. We may wish to borrow additional amounts under the facility in the future to support our operations, including for strategic acquisitions and share repurchases.

We are required to comply with specified financial and operating covenants and to make payments under the facility, which limit our ability to operate our business as we otherwise might operate it. Our failure to comply with any of these covenants or to meet any payment obligations under the facility could result in an event of

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default which, if not cured or waived, would result in any amounts outstanding, including any accrued interest and unpaid fees, becoming immediately due and payable. We might not have sufficient working capital or liquidity to satisfy any repayment obligations in the event of an acceleration of those obligations. In addition, if we are not in compliance with the financial and operating covenants at the time we wish to borrow funds, we will be unable to borrow funds.

Risks related to the notes

Our substantial indebtedness could adversely affect our business, financial condition and results of operations, as well as our ability to meet our payment obligations under the notes and our other debt.

We have, and after this offering we will continue to have, a significant amount of indebtedness. As of January 2, 2016 on an as adjusted basis, our total debt would have been approximately \$844.2 million (without giving effect to approximately \$4.0 million of outstanding letters of credit supporting leases and certain other obligations, approximately \$1.1 million of which outstanding letters of credit are secured by cash), of which approximately \$344.2 million would have been secured (without giving effect to approximately \$1.1 million of outstanding letters of credit secured by cash), and we and one of our foreign subsidiaries which is a borrower under our senior credit facility would have had unused commitments under our senior credit facility of approximately \$655.8 million, of which approximately \$236.0 million would have been available for borrowing as a result of financial covenants. The committed amount under our senior credit facility is currently \$1.0 billion and may be increased by up to an additional \$500.0 million in the aggregate if the existing or additional lenders are willing to make such increased commitments. PTC Inc. and one of our foreign subsidiaries are borrowers under the senior credit facility and certain other foreign subsidiaries may become borrowers under our senior credit facility in the future, subject to certain conditions.

Subject to the limits contained in the credit agreement governing our senior credit facility and the indenture governing the notes offered hereby, we may be able to incur substantial additional debt from time to time to finance working capital, capital expenditures, investments or acquisitions, or for other purposes. If we do so, the risks related to our high level of debt could intensify. Specifically, our high level of debt could have significant consequences to the holders of the notes, including:

making it more difficult for us to satisfy our debt obligations, including the notes, and other ongoing business obligations, which may result in defaults;

events of default if we fail to comply with the financial and other covenants contained in the agreements governing our debt instruments, which could result in all of our debt becoming immediately due and payable or require us to negotiate an amendment to financial or other covenants that could cause us to incur additional fees and expenses;

limiting our ability to obtain additional financing to fund future working capital, capital expenditures, acquisitions or other general corporate requirements;

reducing the availability of our cash flow to fund working capital, capital expenditures, acquisitions and other general corporate purposes and limiting our ability to obtain additional financing for these purposes;

increasing our vulnerability to the impact of adverse economic and industry conditions;

exposing us to the risk of increased interest rates as certain of our borrowings, including borrowings under the senior credit facility, are at variable rates of interest;

limiting our flexibility in planning for, or reacting to, and increasing our vulnerability to, changes in our business, the industries in which we operate, and the overall economy;

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placing us at a competitive disadvantage compared to other, less leveraged competitors; and

increasing our cost of borrowing.

Any of the above-listed factors could have an adverse effect on our business, financial condition and results of operations and our ability to meet our payment obligations under the notes and our other debt.

We may not be able to generate sufficient cash to service all of our indebtedness, including the notes, and may be forced to take other actions to satisfy our obligations under our indebtedness, which may not be successful.

Our ability to make scheduled payments on or refinance our debt obligations, including the notes, depends on our financial condition and operating performance, which are subject to prevailing economic and competitive conditions and to certain financial, business, legislative, regulatory and other factors beyond our control. We may be unable to maintain a level of cash flows from operating activities sufficient to permit us to pay the principal, premium, if any, and interest on our indebtedness, including the notes.

If our cash flows and capital resources are insufficient to fund our debt service obligations, we could face substantial liquidity problems and could be forced to reduce or delay investments and capital expenditures or to dispose of material assets or operations, seek additional debt or equity capital or restructure or refinance our indebtedness, including the notes. We may not be able to effect any such alternative measures, if necessary, on commercially reasonable terms or at all and, even if successful, those alternative actions may not allow us to meet our scheduled debt service obligations. The credit agreement governing the senior credit facility restricts, and the indenture governing the notes offered hereby will restrict, our ability to dispose of assets and use the proceeds from those dispositions and may also restrict our ability to raise debt or equity capital to be used to repay other indebtedness when it becomes due. We may not be able to consummate those dispositions or to obtain proceeds in an amount sufficient to meet any debt service obligations then due. See [Description of other indebtedness](#) and [Description of notes](#).

In addition, we conduct a substantial portion of our operations through our subsidiaries, none of which will initially guarantee the notes. Accordingly, repayment of our indebtedness, including the notes, is dependent on the generation of cash flow by our subsidiaries and their ability to make such cash available to us, by dividend, debt repayment or otherwise. Unless they are guarantors of the notes or our other indebtedness, our subsidiaries do not have any obligation to pay amounts due on the notes or our other indebtedness or to make funds available for that purpose. Our subsidiaries may not be able to, or may not be permitted to, make distributions to enable us to make payments in respect of our indebtedness, including the notes. Each subsidiary is a distinct legal entity, and, under certain circumstances, legal and contractual restrictions may limit our ability to obtain cash from our subsidiaries. While the credit agreement governing the senior credit facility limits the ability of our subsidiaries to incur consensual restrictions on their ability to pay dividends or make other intercompany payments to us, these limitations are subject to qualifications and exceptions. In the event that we do not receive distributions from our subsidiaries, we may be unable to make required payments of principal, premium, if any, and interest on our indebtedness, including the notes.

Our inability to generate sufficient cash flows to satisfy our debt obligations, or to refinance our indebtedness on commercially reasonable terms or at all, would materially and adversely affect our financial position and results of operations and our ability to satisfy our obligations under the notes.

If we cannot make scheduled payments on our debt, we will be in default and holders of the notes could declare all outstanding principal, premium, if any, and interest to be due and payable, the lenders under the senior credit facility could terminate their commitments to loan money, the lenders could foreclose against the assets securing their borrowings and we could be forced into bankruptcy or liquidation. All of these events could result in your losing your investment in the notes.

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Despite our current level of indebtedness, we and our subsidiaries may still be able to incur substantially more debt and other obligations. This could further exacerbate the risks to our financial condition described above.

We and our subsidiaries may be able to incur significant additional indebtedness and other obligations in the future, including secured debt. Although the indenture that will govern the notes will contain, and the credit agreement governing our senior credit facility contains, restrictions on the incurrence of additional indebtedness, these restrictions are subject to a number of qualifications and exceptions. The additional indebtedness incurred in compliance with these restrictions could be substantial. If we incur any additional indebtedness that ranks equally with the notes, subject to collateral arrangements, the holders of that debt will be entitled to share ratably with you in any proceeds distributed in connection with any insolvency, liquidation, reorganization, dissolution or other winding up of our company. This may have the effect of reducing the amount of proceeds paid to you. All of the borrowings under our senior credit facility would be secured indebtedness. These restrictions also will not prevent us from incurring obligations that do not constitute indebtedness. If new debt is added to our current debt levels, or we incur other obligations, the related risks that we now face could intensify. See [Description of other indebtedness](#) and [Description of notes](#).

The credit agreement governing the senior credit facility contains, and the indenture governing the notes will contain, various covenants that limit our management's discretion in the operation of our business.

The credit agreement governing the senior credit facility contains, and the indenture governing the notes will contain, various provisions that limit our management's discretion by restricting our and our subsidiaries' ability to, among other things:

- incur additional indebtedness or guarantee indebtedness;
- pay dividends or make other distributions or repurchase or redeem our capital stock;
- prepay, redeem or repurchase certain debt;
- make loans and investments;
- sell assets;
- incur liens; and
- consolidate, merge or sell all or substantially all of our assets.

In addition, our senior credit facility requires us to meet certain financial ratios. Any failure to comply with the restrictions of our senior credit facility, the indenture governing the notes or any other subsequent financing agreements may result in an event of default. An event of default may allow the creditors, if the agreements so provide, to accelerate the related debt as well as any other debt to which a cross-acceleration or cross-default provision applies. In addition, the lenders may be able to terminate any commitments they had made to supply us with further funds.

Our variable rate indebtedness subjects us to interest rate risk, which could cause our debt service obligations to increase significantly.

Borrowings under our senior credit facility are at variable rates of interest and expose us to interest rate risk. If interest rates were to increase, our debt service obligations on the variable rate indebtedness would increase even though the amount borrowed remained the same, and our net income and cash flows, including cash available for servicing our indebtedness, will correspondingly decrease. Assuming all loans are fully drawn, each 25 basis point change in interest rates would result in a \$2.5 million change in annual interest expense on our indebtedness under our senior credit facility. In the future, we may enter into interest rate swaps that involve the exchange of floating for fixed rate interest payments in order to reduce interest rate volatility.

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However, we may not maintain interest rate swaps with respect to all of our variable rate indebtedness, and any swaps we enter into may not fully mitigate our interest rate risk.

The notes will be effectively subordinated to our indebtedness under the senior credit facility and any other secured indebtedness of our company to the extent of the value of the assets securing that indebtedness.

The notes will not be secured by any of our assets. As a result, the notes will be effectively subordinated to our indebtedness under the senior credit facility with respect to the assets that secure that indebtedness. As of January 2, 2016 on an as adjusted basis, we and one of our foreign subsidiaries that is a borrower under our senior credit facility would have had total unused commitments under the senior credit facility of approximately \$655.8 million of which approximately \$236.0 million would have been available for borrowing as a result of financial covenants. In addition, we may incur additional secured debt in the future. The effect of this subordination is that upon a default in payment on, or the acceleration of, any of our secured indebtedness, or in the event of bankruptcy, insolvency, liquidation, dissolution or reorganization of our company, the proceeds from the sale of assets securing our secured indebtedness will be available to pay obligations on the notes only after all indebtedness under the senior credit facility and that other secured debt has been paid in full. As a result, the holders of the notes may receive less, ratably, than the holders of secured debt in the event of our bankruptcy, insolvency, liquidation, dissolution or reorganization.

The notes will be structurally subordinated to all obligations of our existing and future subsidiaries that are not and do not become guarantors of the notes.

On the issue date, the notes will not be guaranteed by any of our subsidiaries. After the issue date, the notes will be required to be guaranteed on a senior unsecured basis by any of our domestic subsidiaries that in the future becomes a guarantor of our senior credit facility or certain other material indebtedness of PTC Inc. or any other future guarantor. Except for any such future guarantees, our subsidiaries will have no obligation, contingent or otherwise, to pay amounts due under the notes or to make any funds available to pay those amounts, whether by dividend, distribution, loan or other payment. The notes will be structurally subordinated to all indebtedness and other obligations of any non-guarantor subsidiary such that in the event of insolvency, liquidation, reorganization, dissolution or other winding up of any subsidiary that is not a guarantor, all of that subsidiary's creditors (including trade creditors) would be entitled to payment in full out of that subsidiary's assets before we would be entitled to any payment. PTC (IFSC) Limited is currently a borrower under the senior credit facility. As of April 2, 2016, no amounts under the senior credit facility have been borrowed by PTC (IFSC). Under certain conditions, certain other foreign subsidiaries may become borrowers under the senior credit facility in the future.

For the twelve months ended January 2, 2016, our subsidiaries represented approximately 58% of our revenue, generated approximately \$173 million of operating income, excluding net intercompany charges by PTC Inc. to those subsidiaries, and represented approximately 86% of our Adjusted EBITDA. As of January 2, 2016, our subsidiaries represented approximately 42% of our total assets, excluding intercompany receivables, and had approximately \$354 million of total liabilities, including trade payables but excluding intercompany liabilities.

In the event any subsidiary becomes a guarantor of the notes in the future, such subsidiary guarantor will be automatically released from its note guarantee without the consent of the holders of the notes upon the occurrence of certain events, including the following:

the release or discharge of any guarantee or indebtedness that resulted in the creation of the guarantee of the notes by such subsidiary guarantor; or

the sale or other disposition, including by way of a consolidation or merger and the sale or disposition of all or substantially all the assets, of that subsidiary guarantor.

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If a subsidiary becomes a guarantor of the notes and its guarantee is subsequently released, no holder of the notes will have a claim as a creditor against that subsidiary, and the indebtedness and other liabilities, including trade payables and preferred stock, if any, whether secured or unsecured, of that subsidiary will be effectively senior to the claim of any holders of the notes. See Description of notes Guarantees.

We may be unable to repurchase the notes upon a change of control.

Upon the occurrence of specific kinds of change of control events, we will be required to offer to repurchase all outstanding notes at 101% of their principal amount, plus accrued and unpaid interest, if any, to, but excluding, the purchase date. Additionally, under the senior credit facility, a change of control (as defined therein) constitutes an event of default that permits the lenders to accelerate the maturity of borrowings under the credit agreement and the commitments to lend would terminate. The source of funds for any purchase of the notes and repayment of borrowings under our senior credit facility would be our available cash or cash generated from our subsidiaries' operations or other sources, including borrowings, sales of assets or sales of equity. We may not be able to repurchase the notes upon a change of control because we may not have sufficient financial resources to purchase all of the debt securities that are tendered upon a change of control and repay our other indebtedness that will become due. If we fail to repurchase the notes in that circumstance, we will be in default under the indenture that will govern the notes. We may require additional financing from third parties to fund any such purchases, and we may be unable to obtain financing on satisfactory terms or at all. Further, our ability to repurchase the notes may be limited by law. In order to avoid the obligations to repurchase the notes and events of default and potential breaches of the credit agreement governing our senior credit facility, we may have to avoid certain change of control transactions that would otherwise be beneficial to us.

In addition, certain important corporate events, such as leveraged recapitalizations, may not, under the indenture that will govern the notes, constitute a change of control that would require us to repurchase the notes, even though those corporate events could increase the level of our indebtedness or otherwise adversely affect our capital structure, credit ratings or the value of the notes. See Description of notes Change of control.

The exercise by the holders of notes of their right to require us to repurchase the notes pursuant to a change of control offer would not be permitted under the senior credit facility if such change of control constituted a default under the senior credit facility, and if the relevant transaction was not a change of control under the senior credit facility, we would be required to satisfy a total leverage ratio to repurchase the notes under such change of control offer. In addition, a change of control offer could also cause a default under the agreements governing our other indebtedness, including future agreements, even if the change of control itself does not, due to the financial effect of such repurchases on us. In the event a change of control offer is required to be made at a time when we are prohibited from purchasing notes, we could attempt to refinance the borrowings that contain such prohibitions. If we do not obtain a consent or repay those borrowings, we will remain prohibited from purchasing notes. In that case, our failure to purchase tendered notes would constitute an event of default under the indenture governing the notes, which could, in turn, constitute a default under our other indebtedness. Finally, our ability to pay cash to the holders of notes upon a repurchase may be limited by our then existing financial resources.

Holders of the notes may not be able to determine when a change of control giving rise to their right to have the notes repurchased has occurred following a sale of substantially all of our assets.

One of the circumstances under which a change of control may occur is upon the sale or disposition of all or substantially all of our assets. There is no precise established definition of the phrase substantially all under

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applicable law and the interpretation of that phrase will likely depend upon particular facts and circumstances. Accordingly, the ability of a holder of notes to require us to repurchase its notes as a result of a sale of less than all our assets to another person may be uncertain.

Federal and state fraudulent transfer laws may permit a court to void the notes and/or the note guarantees, if any, and if that occurs, you may not receive any payments on the notes.

Federal and state fraudulent transfer and conveyance statutes may apply to the issuance of the notes. If in the future one or more of our subsidiaries becomes a guarantor of the notes, federal and state fraudulent transfer and conveyance statutes may also apply to the incurrence of the note guarantees. Under federal bankruptcy law and comparable provisions of state fraudulent transfer or conveyance laws, which may vary from state to state, the notes could be voided as a fraudulent transfer or conveyance if we, (a) issued the notes with the intent of hindering, delaying or defrauding current or future creditors or (b) received less than the reasonably equivalent value or fair consideration in return for issuing the notes and, in the case of (b) only, one of the following is also true at the time thereof:

we were insolvent or rendered insolvent by reason of the issuance of the notes;

the issuance of the notes left us with an unreasonably small amount of capital or assets to carry on our business;

we intended to, or believed that we would, incur debts beyond our ability to pay as they mature; or

we were a defendant in an action for money damages, or had a judgment for money damages docketed against us if, in either case, the judgment is unsatisfied after final judgment.

As a general matter, value is given for a transfer or an obligation if, in exchange for the transfer or obligation, property is transferred or a valid antecedent debt is secured or satisfied.

We cannot be certain as to the standards a court would use to determine whether or not we were insolvent at the relevant time or, regardless of the standard that a court uses, whether the notes would be subordinated to our other debt. In general, however, a court would deem an entity insolvent if:

the sum of its debts, including contingent and unliquidated liabilities, was greater than the fair saleable value of all of its assets;

the present fair saleable value of its assets was less than the amount that would be required to pay its probable liability on its existing debts, including contingent liabilities, as they become absolute and mature; or

it could not pay its debts as they became due.

If a court were to find that the issuance of the notes was a fraudulent transfer or conveyance, the court could void the payment obligations under the notes, could subordinate the notes to presently existing and future indebtedness of ours. In the event of a finding that a fraudulent transfer or conveyance occurred, you may not receive any repayment on the notes. Further, the avoidance of the notes could result in an event of default with respect to our and our subsidiaries' other debt that could result in acceleration of that debt.

Finally, as a court of equity, the bankruptcy court may subordinate the claims in respect of the notes to other claims against us under the principle of equitable subordination if the court determines that (1) the holder of notes engaged in some type of inequitable conduct, (2) the inequitable conduct resulted in injury to our other creditors or conferred an unfair advantage upon the holders of notes and (3) equitable subordination is not inconsistent with the provisions of the bankruptcy code.

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Your ability to transfer the notes may be limited by the absence of an active trading market, and an active trading market may not develop for the notes.

The notes will be a new issue of securities for which there is no established trading market, and we do not intend to list the notes on any national securities exchange or include the notes in any automated quotation system. The underwriters of the notes have advised us that they intend to make a market in the notes, as permitted by applicable laws and regulations. However, the underwriters are not obligated to make a market in the notes and, if commenced, they may discontinue their market-making activities at any time without notice.

Therefore, an active market for the notes may not develop or be maintained, which would adversely affect the market price and liquidity of the notes. In that case, the holders of the notes may not be able to sell their notes at a particular time or at a favorable price.

Even if an active trading market for the notes does develop, there is no guarantee that it will continue. Historically, the market for non-investment grade debt has been subject to severe disruptions that have caused substantial volatility in the prices of securities similar to the notes. The market, if any, for the notes may experience similar disruptions and any such disruptions may adversely affect the liquidity in that market or the prices at which you may sell your notes. In addition, subsequent to their initial issuance, the notes may trade at a discount from their initial offering price, depending upon prevailing interest rates, the market for similar notes, our performance and other factors.

A lowering or withdrawal of the ratings assigned to the notes by rating agencies may increase our future borrowing costs and reduce our access to capital.

When issued, the notes will have a non-investment grade rating, and any rating assigned to the notes could be lowered or withdrawn entirely by a rating agency if, in that rating agency's judgment, future circumstances relating to the basis of the rating, such as adverse changes, so warrant. Consequently, real or anticipated changes in our credit ratings will generally affect the market value of the notes. Credit ratings are not recommendations to purchase, hold or sell the notes. Additionally, credit ratings may not reflect the potential effect of risks relating to the structure or marketing of the notes. Any future lowering of our ratings would likely make it more difficult or more expensive for us to obtain additional debt financing. If any credit rating initially assigned to the notes is subsequently lowered or withdrawn for any reason, you may not be able to resell your notes without a substantial discount.

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Use of proceeds

We estimate that the net proceeds from this offering will be approximately \$493.3 million, after deducting underwriting discounts and commissions and estimated offering expenses payable by us. We plan to use the net proceeds from the issuance of the notes to repay a portion of the outstanding indebtedness under our senior credit facility, and such amounts may be reborrowed in the future.

As of April 2, 2016, there was an aggregate of \$838.1 million outstanding under our senior credit facility. The weighted average interest rate on the aggregate amount outstanding at that date was 2.1%. Of the indebtedness to be repaid with the net proceeds of this offering, \$120.0 million was incurred under the revolving line of credit portion of our senior credit facility on January 11, 2016, of which \$100.0 million was used to fund the acquisition of Kepware and the remainder was used for general corporate purposes. The remainder of the indebtedness to be repaid with the net proceeds of this offering was incurred on November 4, 2015 under the revolving line of credit portion of our senior credit facility and was used to repay the term loan portion of the prior senior credit facility in connection with the amendment and restatement of that facility. The senior credit facility matures on September 15, 2019, when all amounts outstanding will be due and payable in full. For more information about the senior credit facility, see Description of other indebtedness.

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Table of Contents**Capitalization**

The following table summarizes our cash and cash equivalents and our capitalization as of January 2, 2016:

On an actual basis;

On an interim adjusted basis giving effect to additional borrowings of \$120.0 million on January 11, 2016 under our revolving line of credit, of which \$100.0 million was used for our purchase of Kepware; and

On an as adjusted basis giving further effect to the net proceeds from this offering, after deducting underwriting discounts and commissions and estimated offering expenses payable by us, and our application of the net proceeds therefrom to repay a portion of the outstanding indebtedness under our senior credit facility as described in Use of proceeds.

	As of January 2, 2016		
		Interim	adjusted
(In thousands, except per share data)	Actual	adjusted	adjusted
Cash and cash equivalents	\$ 296,797	\$ 316,797	\$ 316,797
Total debt, including current portion:			
Revolving line of credit(1)(2)(3)	\$ 718,125	\$ 838,125	\$ 344,215
Notes offered hereby			500,000
Total debt, including current portion	718,125	838,125	844,215
Stockholders' equity:			
Preferred stock, par value \$0.01 per share; 5,000 shares authorized; no shares issued or outstanding, actual, interim adjusted and as adjusted			
Common stock, par value \$0.01 per share; 500,000 shares authorized; 114,532 shares issued and outstanding, actual, interim adjusted and as adjusted	1,145	1,145	1,145
Additional paid-in capital	1,561,795	1,561,795	1,561,795
Accumulated deficit	(626,506)	(626,506)	(626,506)
Accumulated other comprehensive loss	(100,497)	(100,497)	(100,497)
Total stockholders' equity	835,937	835,937	835,937
Total capitalization	\$ 1,554,062	\$ 1,674,062	\$ 1,680,152

(1) Our senior credit facility provides for borrowings of \$1.0 billion of revolving loans and letters of credit, which may be increased by up to an additional \$500.0 million in the aggregate if the existing or additional lenders are willing to make such increased commitments. As of January 2, 2016 on an as adjusted basis, we and one of our foreign subsidiaries which is a borrower under our senior credit facility would have had approximately \$655.8 million of unused commitments under the senior credit facility of which approximately \$236.0 million would have been available for borrowing as a result of financial covenants.

(2) The as adjusted amount of debt outstanding under our revolving line of credit reflects an incremental repayment of debt of \$0.6 million, which represents the portion of the estimated offering expenses payable by us that we had already paid as of January 2, 2016.

- (3) We expect to borrow amounts under our senior credit facility to make additional acquisitions. We evaluate possible strategic transactions on an ongoing basis and at any given time may be engaged in discussions or negotiations with respect to possible strategic transactions.

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The following table sets forth our ratio of earnings to fixed charges for the periods indicated:

	Three months ended							As adjusted(3)	
	Year ended September 30,			January 3, January 2,		September 30, January 2,		Year ended	Three months ended
	2011	2012	2013	2014	2015	2015	2016	2015	2016
Ratio of earnings to fixed charges(1)	7.7x	7.8x	7.3x	9.8x	2.0x	5.9x	(2)	1.0x	(4)

- (1) The ratio of earnings to fixed charges is calculated by dividing earnings by fixed charges. For this purpose, earnings are determined by adding fixed charges to our income (loss) before income taxes. Fixed charges consists of interest expense on our indebtedness as well as the estimated interest component of rental expense under our operating lease commitments.
- (2) Our earnings were insufficient to cover our fixed charges during the three months ended January 2, 2016 by \$19.5 million. Our loss before income taxes for the three months ended January 2, 2016 included a \$37.1 million restructuring charge.
- (3) The ratios of earnings to fixed charges on an as adjusted basis for the year ended September 30, 2015 and the three months ended January 2, 2016 give effect to (i) additional borrowings of \$120.0 million on January 11, 2016 under our revolving line of credit, of which \$100.0 million was used for our purchase of Kepware, (ii) the net proceeds from this offering, after deducting underwriting discounts and commissions and estimated offering expenses payable by us, and (iii) our application of the net proceeds therefrom to repay a portion of the outstanding indebtedness under our senior credit facility as described in Use of proceeds as if those transactions had occurred on October 1, 2014. The as adjusted ratios include the effect of incremental fixed charges of \$26.1 million for the year ended September 30, 2015 and \$3.5 million for the three months ended January 2, 2016 for interest expense related to these transactions. The as adjusted ratios do not necessarily reflect what our actual ratios of earnings to fixed charges would have been had these transactions occurred as of that date or predict our ratio of earnings to fixed charges for any future period.
- (4) On an as adjusted basis described in footnote (3), our earnings were insufficient to cover our fixed charges during the three months ended January 2, 2016 by \$23.0 million. Our loss before income taxes for the three months ended January 2, 2016 included a \$37.1 million restructuring charge.

Table of Contents**Management's discussion and analysis of financial condition and results of operations**

Information presented for the 2014 and 2015 fiscal years is derived from our audited consolidated financial statements included in our Annual Report on Form 10-K for 2015. Information presented for the three-month periods ended January 3, 2015 and January 2, 2016 is derived from our unaudited consolidated financial statements included in our Quarterly Report on Form 10-Q for the first quarter of 2016. This

Management's discussion and analysis of financial condition and results of operations should be read in conjunction with the Management's discussion and analysis of financial condition and results of operations in our Annual Report on Form 10-K for 2015 and Quarterly Report on Form 10-Q for the first quarter of 2016 and our audited and unaudited consolidated financial statements included therein, as applicable.

Executive overview

Revenue was down year over year in 2015 and the first quarter of 2016 due to changes in our business, including an increasing mix of subscription revenue as we transition from selling perpetual licenses to a subscription-based licensing model, as well as external factors, including a challenging macroeconomic environment and the impact of foreign currency exchange rates on our reported revenue due to an increase in the strength of the U.S. Dollar relative to international currencies, most notably the Euro and the Yen. In the first quarter of 2016, a decline in professional services revenue of 24%, consistent with our strategy to migrate more service engagements to our partners, also decreased our revenue.

Overview of results for the first quarter of 2016

Revenue	Three months ended		Change	Constant currency change
	January 2, 2016	January 3, 2015 (in millions)		
Subscription	\$ 22.2	\$ 14.2	56%	63%
Support	171.8	181.6	(5)%	1%
Total recurring software revenue	193.9	195.9	(1)%	5%
Perpetual license	47.8	64.7	(26)%	(22)%
Total software revenue	241.7	260.6	(7)%	(1)%
Professional services	49.3	64.8	(24)%	(16)%
Total revenue	\$ 291.0	\$ 325.4	(11)%	(4)%

Perpetual license revenue declined due in part to our transition to subscriptions, as well as unfavorable currency movements. We believe that challenging macroeconomic conditions in the industrial market, particularly in the Americas and, in part, in China, impacted our ability to close large deals.

The Solutions business had higher subscription bookings year over year as customers elected to purchase more of our solutions as subscriptions, particularly in PLM and SLM.

In the first quarter of 2016, we launched a program for our existing customers to transition their support contracts to subscription contracts, which contributed to our subscription growth.

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We delivered strong growth in our Technology Platform business, both with new customers and expansion with existing customers. The Technology Platform business represented 49% of our subscription revenue in the first quarter of 2016, up from 42% in the first quarter of 2015.

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Approximately 67% of our revenue in the first quarter of 2016 came from recurring revenue streams, compared to approximately 60% in the year-ago period. Approximately 80% of our total software revenue in the first quarter of 2016 came from recurring revenue streams, compared to approximately 75% in the year-ago period.

From a geographic perspective, the decrease in total revenue was primarily driven by PLM in the Americas, with fewer large deals than in the first quarter of 2015. Decreases in the Americas from perpetual license and professional services revenue were partially offset by increases in subscription revenue. In Europe, we saw an increase of 38% in subscription revenue, while perpetual license revenue and professional services revenue both decreased. Pacific Rim software revenue declined 15% due to weak results in CAD and SLM, particularly in China due in part to the overall economic slowdown there. Japan software revenue was up 7% from the first quarter of 2015 due to growth in CAD and SLM, partially offset by decreases in PLM.

Other operating measures	Three months ended		Change	Constant currency change
	January 2, 2016	January 3, 2015		
Operating Margin	(4.6)%	11.6%		
Earnings (Loss) Per Share	\$ (0.21)	\$ 0.26	(181)%	(164)%
Non-GAAP Operating Margin(1)	21.3%	21.4%		
Non-GAAP EPS(1)	\$ 0.51	\$ 0.50	2%	15%

(1) Non-GAAP measures are reconciled to GAAP results under *Results of Operations Non-GAAP Measures* below.

GAAP and non-GAAP operating margins reflect lower revenue, partially offset by reductions in operating expenses driven by cost savings from restructuring. Our GAAP earnings also reflect restructuring charges of \$37.1 million. Currency movements reduced GAAP EPS by approximately \$0.05. Both GAAP and non-GAAP EPS benefited from a lower tax rate.

We ended the quarter with a cash balance of \$297 million. We generated \$61 million of cash from operations in the first quarter of 2016 and we drew \$50 million on our credit facility to fund the acquisition of Vuforia for \$65 million (net of cash acquired). At January 2, 2016, the balance outstanding under our credit facility was \$718 million.

Restructuring

On October 23, 2015, we initiated a plan to restructure our workforce and consolidate select facilities in order to reduce our cost structure and to realign our investments with our identified growth opportunities. The restructuring resulted in a charge of \$36.8 million in the first quarter of 2016, which is primarily attributable to termination benefits associated with 432 employees.

Acquisition

On November 3, 2015, pursuant to an Asset Purchase Agreement, we acquired the Vuforia business from Qualcomm Connected Experiences, Inc., a subsidiary of Qualcomm Incorporated, for approximately \$65 million in cash. We acquired the Vuforia augmented reality technology to enrich our Technology Platform portfolio. At the time of the acquisition, Vuforia had approximately 80 employees and historical annualized revenues were not material.

Subsequent events

On January 12, 2016, we acquired Kepware Inc., a software development company that provides communications connectivity to industrial automation environments, for approximately \$100 million in cash

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and \$18 million of contingent earn-out. The acquisition enhances our Technology Platform portfolio. At the time of the acquisition, Kepware had approximately 115 employees and historical annualized revenues of approximately \$20 million. We will finalize our review of the purchase accounting prior to the filing of our report on Form 10-Q for the second quarter of 2016. In January 2016, we borrowed \$120 million under our existing credit facility, \$100 million of which was used to fund the acquisition of Kepware.

Future expectations, strategies and risks

The slowdown in the global manufacturing industry, uncertainty about the economic environment, the strong U.S. Dollar, and our transition to a subscription model were headwinds for revenue and earnings growth in the first quarter of 2016, as they had been in 2015. We anticipate that the macroeconomic conditions impacting spending among discrete manufacturing customers that faced PTC in the second half of 2015 will persist into 2016, particularly in the Americas and, in part, in China.

For 2016, we have three overriding goals: 1) drive sustainable growth, 2) expand our subscription-based licensing, and 3) continue to control costs and improve margins.

Sustainable growth

Our goals for overall growth are predicated on driving continued growth in our Technology Platform business, making organizational and structural changes that will allow for appropriate focus in our Solutions business to drive growth and leveraging technology from our Technology Platform business in our core Solutions to create additional offerings that expand our market opportunity.

Subscription

A majority of our software sales through 2015 were perpetual licenses, under which customers license our software in perpetuity and revenue is recognized at the time of sale. Due to evolving customer preferences, our plan to increase our recurring revenue base, as well as acquisitions we have made in the Technology Platform and cloud services space, we began offering our products under a subscription license model in 2015. A growing percentage of our business now consists of subscription licenses for which revenue is recognized ratably over time. Under a subscription, customers pay a periodic fee to license our software over a specified period of time, including access to technical support. Beginning October 1, 2015 we launched the second phase of our subscription program with the goal of accelerating our transition to a predominantly subscription-based licensing model. To drive that acceleration, we launched new pricing and packaging for subscriptions and new sales incentive compensation plans. We are targeting that by 2018 a significant majority of our license and solutions (L&S) bookings could be subscription. In 2016, we expect subscription bookings as a percentage of L&S bookings will be approximately 44%, up from 17% in 2015. If a greater percentage of our customers elect our subscription offering in 2016 than our base case assumption, it will have an adverse impact on revenue, operating margin, cash flow and EPS growth relative to our expectations. In addition, subscription orders may be smaller in size than perpetual deals.

Cost controls and margin expansion

We continue to proactively manage our cost structure and invest in our identified growth opportunities. Our goal is to drive continued margin expansion over the long term. To that end, on October 23, 2015, we committed to a plan to restructure our workforce and consolidate select facilities in order to reduce our cost structure and to realign our investments with identified growth opportunities. The restructuring is expected to result in a charge of up to \$50 million, of which \$36.8 million was recorded in the first quarter of 2016, which is primarily

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attributable to termination benefits. The remaining charges are expected to have been recorded predominantly by the end of the third quarter of 2016. We expect that the effect of the expense reductions will be offset by certain planned cost increases and investments in our business and the anticipated effect of foreign exchange rate fluctuations.

Impact of China FCPA investigation

We recently resolved an investigation by the SEC and the DOJ concerning the China FCPA Investigation. We paid fines and penalties totaling \$28.2 million to those agencies to settle the matter. This resolution has prompted certain additional proceedings and could have other collateral effects on our business in China, the United States and elsewhere that could materially adversely affect our financial condition and results of operations. For example:

A lawsuit has been filed against us alleging that certain of our public disclosures concerning the recently resolved investigation were false and/or misleading and/or failed to disclose certain alleged facts. We cannot predict the outcome of this action nor when it will be resolved, but, if the plaintiff(s) were to prevail in the litigation, we could be liable for damages, which could have a material adverse effect on our financial condition and results of operations.

The China AIC recently initiated an investigation at our China subsidiary related to the China FCPA Investigation, but not necessarily limited to the China FCPA Investigation. The China AIC is authorized to issue fines and assess other civil penalties. We are unable to predict the outcome of this matter, which could include fines or other sanctions that could be material.

Overview of results for 2015 compared to 2014

Revenue	September 30, 2015	Year ended September 30, 2014 (in millions)	Change	Constant currency change
License and subscription	\$ 348.0	\$ 389.7	(11)%	(4)%
Support	681.5	688.5	(1)%	7%
Total software revenue	1,029.5	1,078.2	(5)%	3%
Professional Services	225.7	278.7	(19)%	(12)%
Total revenue	\$ 1,255.2	\$ 1,357.0	(8)%	%

Software revenue declined due to unfavorable currency movements and fewer large license transactions in the year than in the prior year. Perpetual license revenue declined \$80 million in 2015 compared to 2014 (\$56 million on a constant currency basis). We believe that challenging macroeconomic conditions and execution issues impacted our ability to secure large license transactions in our core business. Additionally, 2015 was a difficult comparison in relation to 2014, in which CAD and ePLM had double digit software revenue growth due in part to customer contract cycles.

Year-over-year revenue declines were partially offset by revenue from businesses acquired in 2014. On an organic basis (excluding revenue from acquired businesses), total license and subscription (L&S) revenue was down 18% year over year.

Professional services revenue declined primarily due to a shift of services to our partners in accordance with our margin improvement strategy.

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We delivered strong growth in our Internet of Things business, closing a number of significant deals with large, industrial companies that are adopting our platform for their IoT initiatives. IoT license revenue represented more than 10% of our total L&S revenue in 2015, compared to 1% in 2014.

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Approximately 59% of our revenue in 2015 came from recurring revenue streams (subscription solutions and support), compared to approximately 52% in 2014.

From a geographic perspective, we believe macroeconomic challenges in the Americas and Europe impacted our ability to close large CAD and ePLM deals, which, given the maturity of these markets, tend to be more cyclical. Total Software revenue was flat in the Americas as growth in our IoT and SLM businesses offset our weaker results in CAD and ePLM. In Europe, we saw 4% software revenue growth on a constant currency basis, driven by IoT, SLM, and ePLM with a decline in CAD. Pacific Rim software revenue declined modestly due to weak results in ePLM and SLM, which we believe was primarily due to the overall economic slowdown in China. Japan software revenue increased 9% in 2015 on a constant currency basis from 2014 due to L&S revenue growth in IoT, SLM and ePLM, offset by a decline in CAD.

Other operating measures	September 30, 2015	Year ended September 30, 2014	Change	Constant currency change
Operating Margin	3.3%	14.5%	(77)%	(64)%
EPS	\$ 0.41	\$ 1.34	(69)%	(57)%
Non-GAAP Operating Margin(1)	24.2%	25.1%	(4)%	5%
Non-GAAP EPS(1)	\$ 2.23	\$ 2.17	3%	21%

(1) Non-GAAP measures are reconciled to GAAP results under *Results of Operations Non-GAAP Measures* below.

GAAP and non-GAAP operating income reflect lower revenue, offset by reductions in operating expenses driven by cost savings from restructuring actions and by lower incentive compensation accruals associated with performance based incentive compensation plans for which the associated performance metrics were not achieved. Additionally, our GAAP operating margin includes a \$66 million pension settlement loss due to the termination of our U.S. pension plan, a \$28 million accrual associated with the then-pending China FCPA Investigation and restructuring charges of \$43 million due to our April 2015 restructuring plan. Currency movements reduced GAAP EPS by approximately \$0.26. Both GAAP and non-GAAP EPS benefited from a lower tax rate.

Our GAAP results reflect a tax benefit of \$19 million related to the reversal of a portion of the U.S. valuation allowance related to reducing deferred tax assets in connection with settling the U.S. pension plan and a tax benefit of \$18 million in 2014 related to the reversal of a portion of the valuation allowance on net deferred tax assets in the U.S. and a foreign jurisdiction as a result of accounting for acquisitions.

We generated \$180 million of cash from operations in 2015, down 41% from \$305 million in 2014, and we borrowed \$56 million under our credit facility to fund acquisitions and stock repurchases. The decrease in cash from operations in 2015 compared to 2014 was due in part to pension funding which was higher by \$34 million and restructuring payments which were higher by \$33 million. We used \$99 million of cash to acquire ColdLight and \$65 million to repurchase stock. At September 30, 2015, the balance outstanding under our credit facility was \$668 million and we had \$155 million available to borrow under the revolving loan portion of our credit facility. We ended 2015 with \$273 million of cash, down from \$294 million at the end 2014.

Acquisitions

In 2015, we acquired ColdLight Solutions, LLC for \$99 million. ColdLight offers solutions for data machine learning and predictive analytics, which expanded our technology portfolio in the IoT market. ColdLight was not material to our results for 2015.

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2015 Restructuring of our workforce

In April 2015, we committed to a plan to restructure our global workforce and consolidate select facilities to increase investment in our IoT business and to reduce our cost structure through organizational efficiencies in the face of significant foreign currency depreciation relative to the U.S. Dollar and a more cautious outlook on global macroeconomic conditions. The restructuring actions resulted in charges of \$43 million during 2015, including \$1 million of facility related charges and \$42 million of charges related to termination benefits associated with 411 employees. This reorganization resulted in net annualized expense reductions of approximately \$30 million. We recently announced a 2016 restructuring plan as described below in Results of operations-First quarter of 2016.

Pension termination

We maintained a U.S. defined benefit pension plan that covered certain persons who were employees of Computervision Corporation (acquired by us in 1998). Benefits under the plan were frozen in 1990. In the second quarter of 2014, we began the process of terminating the plan, which included settling plan liabilities by offering lump sum distributions to certain plan participants and purchasing annuity contracts to cover vested benefits. We completed the termination in the fourth quarter of 2015. In connection with the termination, we contributed \$25.5 million to the plan and recorded a settlement loss of \$66 million.

Table of Contents**Results of operations***First quarter of 2016*

The following table shows the financial measures that we consider the most significant indicators of the performance of our business. In addition to operating income, operating margin, and diluted earnings per share as calculated under generally accepted accounting principles (GAAP), the table also includes non-GAAP operating income, operating margin, and diluted earnings per share for the reported periods. We discuss the non-GAAP measures in detail, including items excluded from the measures, and provide a reconciliation to the comparable GAAP measures under *Non-GAAP Measures* below.

	Three months ended		Percent change 2015 to 2016	
	January 2, 2016	January 3, 2015	Actual	Constant currency
	(Dollar amounts in millions, except per share data)			
Subscription	\$ 22.2	\$ 14.2	56%	63%
Support	171.8	181.6	(5)%	1%
Total recurring software revenue	193.9	195.9	(1)%	5%
Perpetual license	47.8	64.7	(26)%	(22)%
Total software revenue	241.7	260.6	(7)%	(1)%
Professional services	49.3	64.8	(24)%	(16)%
Total revenue	291.0	325.4	(11)%	(4)%
Total cost of revenue	80.1	92.9	(14)%	
Gross margin	210.9	232.5	(9)%	
Operating expenses	224.2	194.9	15%	
Total costs and expenses	304.3	287.8	6%	11%
Operating income (loss)	\$ (13.3)	\$ 37.6	(135)%	(125)%
Non-GAAP operating income(1)	\$ 62.1	\$ 69.8	(11)%	%
Operating margin	(4.6)%	11.6%		
Non-GAAP operating margin(1)	21.3%	21.4%		
Diluted earnings (loss) per share	\$ (0.21)	\$ 0.26		
Non-GAAP diluted earnings per share(2)	\$ 0.51	\$ 0.50		
Cash flow from operations	\$ 61.3	\$ 13.6		

(1) See *Non-GAAP Measures* below for a reconciliation of or GAAP results to our non-GAAP results.

(2) Income tax adjustments for the three months ended January 2, 2016 and January 3, 2015 reflect the tax effects of non-GAAP adjustments which are calculated by applying the applicable tax rate by jurisdiction to the non-GAAP adjustments listed below in *Non-GAAP Measures*. We have recorded a full valuation allowance against our U.S. net deferred tax assets and a valuation allowance against net deferred tax assets in a foreign jurisdiction. As the U.S. and the foreign jurisdiction are profitable on a non-GAAP basis, the 2016 and 2015 non-GAAP tax provisions are calculated assuming there is no valuation allowance in these jurisdictions. Additionally, our non-GAAP tax provision for the three months ended January 2, 2016 excludes a \$1.6 million tax provision related to a legal settlement accrual.

Subscription measures

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Given the difference in revenue recognition between a subscription booking and a perpetual license sale, we are using the subscription bookings and license and solutions (L&S) bookings metrics described below to gauge the health of our business for internal planning and forecasting purposes.

Bookings

In order to normalize between perpetual and subscription transactions, we define bookings as either the annualized contract value (ACV) of a new subscription multiplied by a conversion factor of 2, the annualized

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value of incremental monthly software rental bookings, or the contract value of a new perpetual license. We arrived at the conversion factor of 2 by considering a number of variables including pricing, support, length of term, and renewal rates. We define ACV as the total value of a new subscription solutions booking divided by the term of the contract (in days) multiplied by 365, unless the term is less than one year, in which case the contract value equals the ACV. For monthly rentals, bookings equals revenue in the period, and ACV equals the annualized value of the incremental monthly software rental bookings during the period.

Because subscription solutions bookings is a metric we use to approximate the value of subscription solution sales if sold as perpetual licenses, it does not represent the actual revenue that will be recognized with respect to subscription solution sales or that would be recognized if the sales were completed as perpetual licenses.

When calculating L&S bookings for a period, we add the value of the converted subscription bookings to our perpetual license revenue bookings for the period.

Subscription bookings were 28% of license and subscription bookings in the first quarter of 2016, compared to 19% in the year ago period.

Annualized recurring revenue (ARR)

Annualized Recurring Revenue (ARR) for a given quarter is calculated by dividing the recurring revenue for the quarter by the number of days in the quarter and multiplying by 365. ARR should be viewed independently of revenue and deferred revenue as it is an operating measure and is not intended to be combined with or to replace either of those items. ARR is not a forecast and does not include non-recurring revenues.

ARR was approximately \$754 million for the first quarter of 2016, which increased 6% on a constant currency basis compared to the first quarter of fiscal 2015.

Impact of foreign currency exchange on results of operations

Approximately two-thirds of our revenue and half of our expenses are transacted in currencies other than the U.S. Dollar. Because we report our results of operations in U.S. Dollars, currency translation, particularly changes in the Euro and Yen relative to the U.S. Dollar, affects our reported results. If actual results for the first quarter of 2016 had been converted into U.S. Dollars based on the foreign currency exchange rates in effect for the first quarter of 2015, revenue would have been higher by \$21.2 million, costs and expenses would have been higher by \$16.4 million, and operating income would have been higher by \$4.8 million. Our constant currency disclosures are calculated by multiplying the actual results for the first three months of 2016 by the exchange rates in effect for the first three months of 2015.

Revenue from acquired businesses

The results of operations of acquired businesses (Vuforia, November 2015; ColdLight, May 2015) have been included in our consolidated financial statements beginning on their respective acquisition dates and were not material to our consolidated results of operations in the first quarter of 2016.

Reclassifications

In 2015, we classified revenue in three categories: 1) license and subscription solutions; 2) support; and 3) professional services. Effective with the beginning of the first quarter of 2016, we are reporting perpetual license revenue separately from the subscription revenue and are presenting revenue in four categories: 1) subscription; 2) support; 3) perpetual license; and 4) professional services. Effective with the beginning of the

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first quarter of 2016, we reclassified certain expenses related to management of our product lines from general and administrative to marketing. The discussion that follows reflects our revised reporting structure.

Revenue

We report our revenue by line of business (as described above), by product area (Solutions and Technology Platform Groups) and by geographic region (Americas, Europe, Pacific Rim and Japan). Results include combined revenue from direct sales and our channel.

Revenue by line of business

	% of total revenue Three months ended	
	January 2, 2016	January 3, 2015
Subscription	8%	4%
Support	59%	56%
Perpetual license	16%	20%
Professional services	17%	20%

Revenue by group

	Three months ended Percent change Constant			
	January 2, 2016	January 3, 2015	Actual	currency
	(Dollar amounts in millions)			
Solutions Group				
Subscription	\$ 11.4	\$ 8.3	37%	48%
Support	169.8	180.7	(6)%	%
Total recurring software revenue	181.2	189.0	(4)%	2%
Perpetual license	47.4	62.5	(24)%	(19)%
Total software revenue	228.6	251.6	(9)%	(3)%
Professional services	47.2	64.3	(27)%	(19)%
Total revenue	\$ 275.8	\$ 315.9	(13)%	(6)%
Technology Platform Group				
Subscription	\$ 10.8	\$ 5.9	83%	86%
Support	2.0	0.9	108%	112%
Total recurring software revenue	12.7	6.8	86%	89%
Perpetual license	0.4	2.2	(83)%	(83)%
Total software revenue	13.1	9.0	45%	47%
Professional services	2.1	0.5	312%	326%
Total revenue	\$ 15.2	\$ 9.5	59%	62%

Table of Contents*Software revenue performance*

Software revenue consists of subscription, support, and perpetual license revenue. Subscription revenue includes time-based licenses whereby customers use our software and receive related support for a specified term, and for which revenue is recognized ratably over the term of the contract. Support revenue is composed of contracts to maintain new and/or previously purchased perpetual licenses, for which revenue is recognized ratably over the term of the contract. Perpetual licenses include a perpetual right to use of the software, for which revenue is generally recognized up front upon shipment to the customer.

Solutions group

The decline in software revenue was driven primarily by PLM. SLM had a strong quarter and ALM was up modestly on a constant currency basis, offset by a small decline in CAD. The Solutions Group had fewer large deals in a macroeconomic environment that continues to be weak in the US and China, impacting spending among discrete manufacturing customers. We believe the increase of subscriptions could result in fewer large deals.

Technology Platform group

The Technology Platform group delivered solid revenue growth, particularly in subscription revenue.

Professional services revenue performance

Consulting and training services engagements typically result from sales of new perpetual licenses and subscriptions, particularly of our ePLM and SLM solutions. The decline in professional services revenue in the first quarter of 2016 was due in part to strong growth in bookings by our service partners, which is in line with our strategy for professional services revenue to trend flat-to-down over time as we expand our service partner program under which service engagements are referred to third party service providers. Additionally, over time, we anticipate offering solutions that require less services. As a result, we do not expect that professional services revenue will increase proportionately with software revenue. Foreign currency exchange rates negatively impacted professional services revenue by \$4.9 million in the first quarter of 2016.

Revenue by geographic region

	Three months ended		Percent change	
	January 2, 2016	January 3, 2015	Actual	Constant currency
(Dollar amounts in millions)				
Software revenue by region:				
Americas	\$ 108.1	\$ 108.3	%	%
Europe	\$ 86.0	\$ 101.6	(15)%	(4)%
Pacific Rim	\$ 25.6	\$ 30.2	(15)%	(11)%
Japan	\$ 22.0	\$ 20.5	7%	17%

	Three months ended	
	January 2, 2016	January 3, 2015
Revenue by region as a % of total revenue:		
Americas	43%	42%
Europe	37%	39%
Pacific Rim	10%	11%
Japan	9%	8%

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A significant percentage of our annual revenue comes from large customers in the broader manufacturing space. As a result, software revenue growth in our core CAD and ePLM products historically has correlated to growth in broader measures of the global manufacturing economy, including GDP, industrial production and manufacturing PMI.

Americas

The decrease in revenue in the Americas in the first quarter of 2016 compared to the first quarter of 2015 consisted of a decrease of 22% in perpetual license revenue, partially offset by an increase in subscription revenue of 65%. Support revenue decreased 1%.

Continued macroeconomic headwinds in the U.S. led to flat revenue performance year over year. Solutions bookings declined due to a significant decline in PLM, despite strong performance in SLM and ALM.

Europe

Revenue in Europe in the first quarter of 2016 compared to the first quarter of 2015 consisted of a decrease in perpetual license revenue of 42% (34% on a constant currency basis) and a decrease in support revenue of 10% (increase of 2% on a constant currency basis), partially offset by an increase in subscription revenue of 38% (55% on a constant currency basis).

Total software revenue declined primarily due to SLM and CAD declines; however, Technology Platform software revenue performed well in the quarter.

Changes in foreign currency exchange rates, particularly the Euro, reduced software revenue in Europe by \$12.2 million in the first quarter of 2016 compared to the first quarter of 2015.

Pacific Rim

Revenue in the Pacific Rim in the first quarter of 2016 compared to the first quarter of 2015 reflected a decrease of 26% in perpetual license and a decrease of 5% in support (flat on a constant currency basis), partially offset by an increase of 139% in subscription revenue. Changes in foreign currency exchange rates unfavorably impacted revenue in the Pacific Rim by \$1.6 million in the first quarter of 2016.

Total Pacific Rim bookings were down year over year, but we had strong bookings growth in the Technology Platform business. The challenging macro environment continues in the region, most notably in China.

Revenue from China, which has historically represented 4% to 5% of our total revenue, was 4% of revenue in both the first quarter of 2016 and the first quarter of 2015, and decreased 28% in the first quarter of 2016, as compared to the first quarter of 2015.

Japan

Revenue in Japan in the first quarter of 2016 compared to the first quarter of 2015 reflected an increase of 61% in subscriptions (76% on a constant currency basis), and an increase of 47% in perpetual licenses (59% on a constant currency basis), partially offset by a decrease of 4% in support (increase of 6% on a constant currency basis).

Changes in the Yen to U.S. Dollar exchange rate reduced software revenue in Japan by \$2.2 million in the first quarter of 2016 compared to the first quarter of 2015.

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	January 2, 2016	Three months ended January 3, 2015	Percent change
	(Dollar amounts in millions)		
Gross margin	\$ 210.9	\$ 232.5	(9)%
Non-GAAP gross margin	219.7	241.2	(9)%
Gross margin as a % of revenue:			
Software	85.0%	86.7%	
Professional services	12.1%	10.2%	
Gross margin as a % of total revenue	72.5%	71.4%	
Non-GAAP gross margin as a % of total revenue	75.4%	73.8%	

Gross margin as a percentage of total revenue in the first quarter of 2016 compared to the first quarter of 2015 reflects lower subscription and perpetual license volume and a higher mix of support revenue. Support revenue comprised 59% of our total revenue in the first quarter of 2016 compared to 56% in the first quarter of 2015.

	January 2, 2016	Three months ended January 3, 2015	Percent change
	(Dollar amounts in millions)		
Costs and expenses:			
Cost of software revenue	\$ 36.8	\$ 34.7	6%
Cost of professional services revenue	43.3	58.2	(26)%
Sales and marketing expense	82.4	89.5	(8)%
Research and development expense	57.7	61.1	(6)%
General and administrative expense	38.6	35.1	10%
Amortization of acquired intangible assets	8.4	9.4	(11)%
Restructuring charges	37.1	(0.3)	
Total costs and expenses(1)	\$ 304.3	\$ 287.8	6%
Total headcount at end of period	5,654	6,237	(9)%

(1) On a constant currency basis, compared to the year-ago period, total costs and expenses for the first quarter of 2016 increased 11%. Costs and expenses in the first quarter of 2016 compared to the first quarter of 2015 increased primarily as a result of the following:

restructuring charges of \$37.1 million recorded in the first quarter of 2016 compared to \$(0.3) million in the first quarter of 2015;

an increase in stock-based compensation expense of \$11.9 million;

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costs from acquired businesses (ColdLight and Vuforia added approximately 140 employees at the date of the acquisitions);

investments we are making in our Technology Platform business;

company-wide merit pay increases which were effective July 1, 2015; and

cash-based incentive compensation expense which was higher by \$5.0 million in the first quarter of 2016.

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The increases above were partially offset by decreases due to:

cost savings resulting from restructuring actions in 2015;

foreign currency rates which favorably impacted costs and expenses in the first quarter of 2016 by \$16.4 million; and

acquisition and pension termination-related costs, which were \$4.5 million lower in the first quarter of 2016 compared to the first quarter of 2015.

Cost of software revenue

	January 2, 2016	January 3, 2015	Three months ended Percent change
	(Dollar amounts in millions)		
Cost of software revenue	\$ 36.8	\$ 34.7	6%
% of total revenue	13%	11%	
% of total software revenue	15%	13%	
Software headcount at end of period	777	730	6%

Our cost of software revenue consists of fixed and variable costs associated with reproducing and distributing software and documentation, as well as royalties paid to third parties for technology embedded in or licensed with our software products, amortization of intangible assets associated with acquired products and costs to perform and support our cloud services business. Our cost of software revenue also includes costs such as salaries, benefits, and computer equipment and facilities associated with customer support and the release of support updates (including related royalty costs). Cost of software revenue as a percent of software revenue can vary depending on product mix sold, the effect of fixed and variable royalties, and the level of amortization of acquired software intangible assets. Amortization of acquired purchased software totaled \$5.1 million and \$4.8 million in the first quarters of 2016 and 2015, respectively. In the first quarter of 2016, compared to the first quarter of 2015, total compensation, benefit costs and travel expenses increased 5% (\$0.9 million).

Cost of professional services revenue

	January 2, 2016	January 3, 2015	Three months ended Percent change
	(Dollar amounts in millions)		
Cost of professional services revenue	\$ 43.3	\$ 58.2	(26)%
% of total revenue	15%	18%	
% of total professional services revenue	88%	90%	
Professional services headcount at end of period	989	1,272	(22)%

Our cost of professional services revenue includes costs such as salaries, benefits, and computer equipment and facilities for our training and consulting personnel, and third-party subcontractor fees. In the first quarter of 2016 compared to the first quarter of 2015, total compensation, benefit costs and travel expenses were down 32% (\$13.0 million) and the cost of third-party consulting services was lower by 47% (\$4.3 million). The decrease in both compensation-related costs and third-party consulting services is due to lower professional services revenue. Professional services headcount at the end of the first quarter of 2016 included approximately 23 employees added from businesses acquired

after the first quarter of 2015.

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	January 2, 2016	January 3, 2015	Three months ended Percent Change
Sales and marketing	\$ 82.4	\$ 89.5	(8)%
% of total revenue	28%	27%	
Sales and marketing headcount at end of period	1,335	1,433	(7)%

Our sales and marketing expenses primarily include salaries and benefits, sales commissions, advertising and marketing programs, travel and facility costs. In the first quarter of 2016, compared to the first quarter of 2015, total compensation, benefit costs and travel expenses were lower by 9% (\$6.3 million) including lower commissions and cash-based incentive compensation. Sales and marketing headcount at the end of the first quarter of 2016 included approximately 19 employees added from businesses acquired after the first quarter of 2015.

Research and development

	January 2, 2016	January 3, 2015	Three months ended Percent change
Research and development	\$ 57.7	\$ 61.1	(6)%
% of total revenue	20%	19%	
Research and development headcount at end of period	1,894	2,125	(11)%

Our research and development expenses consist principally of salaries and benefits, costs of computer equipment and facility expenses. Major research and development activities include developing new products and releases and updates of our software that enhance functionality and add features. In the first quarter of 2016 compared to the first quarter of 2015, total compensation, benefit costs and travel expenses were lower by 4% (\$2.2 million). Research and development headcount at the end of the first quarter of 2016 included approximately 81 employees added from businesses acquired after the first quarter of 2015.

General and administrative

	January 2, 2016	January 3, 2015	Three months ended Percent change
General and administrative	\$ 38.6	\$ 35.1	10%
% of total revenue	13%	11%	
General and administrative headcount at end of period	659	677	(3)%

Our general and administrative expenses include the costs of our corporate, finance, information technology, human resources, legal and administrative functions, as well as acquisition-related charges, bad debt expense and outside professional services, including accounting and legal fees. The increase in general and administrative costs in the first quarter of 2016 compared to the first quarter of 2015 was primarily attributable to an \$11.7 million increase in performance-based bonus and stock-based compensation. This increase was offset by a decrease in acquisition and pension plan termination-related costs of \$4.5 million, a decrease of salary, benefit costs and travel expenses of \$0.8 million and a decrease in costs for outside professional services of \$2.6 million.

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	January 2, 2016	January 3, 2015	Three months ended Percent change
Amortization of acquired intangible assets	\$ 8.4	\$ 9.4	(11)%
% of total revenue	3%	3%	

Amortization of acquired intangible assets reflects the amortization of acquired non-product related intangible assets, primarily customer and trademark-related intangible assets, recorded in connection with completed acquisitions. The decrease in amortization of acquired intangible assets in the first quarter of 2016 is due to certain intangibles becoming fully amortized.

Restructuring charges

	January 2, 2016	January 3, 2015	Three months ended (in millions)
Restructuring charges	\$ 37.1	\$ (0.3)	

On October 23, 2015, we committed to a plan to restructure our global workforce and consolidate select facilities in order to reduce our cost structure and to realign our investments with our identified growth opportunities. We expect the restructuring actions to result in a charge of up to \$50 million in 2016, \$36.8 million of which was recorded in the first quarter of 2016, related to employee termination costs. The remaining charges are expected to be recorded predominantly in the second and third quarters of 2016. We expect that this reorganization will result in net annualized expense reductions of approximately \$17 million. Additionally, in the first quarter of 2016, we recorded \$0.3 million related to previous restructuring actions.

In the first three months of 2016, we made cash payments related to restructuring charges of \$16.7 million, compared to \$17.3 million in the first three months of 2015. At January 2, 2016, accrued restructuring was \$35.6 million, which we expect to pay within the next twelve months.

The net restructuring credit recorded in the first three months of 2015 was primarily associated with the completion of actions initiated in the fourth quarter of 2014.

Interest and other expense, net

	January 2, 2016	January 3, 2015	Three months ended (in millions)
Interest income	\$ 0.9	\$ 1.2	
Interest expense	(6.6)	(3.8)	
Other expense, net	(0.6)	(0.6)	
Total interest and other expense, net	\$ (6.3)	\$ (3.2)	

Interest and other expense, net includes interest income, interest expense, foreign currency net losses and other non-operating gains and losses. Foreign currency net losses include costs of forward contracts, certain

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realized and unrealized foreign currency transaction gains or losses, and foreign exchange gains or losses resulting from the required period-end currency re-measurement of the assets and liabilities of our subsidiaries that use the U.S. Dollar as their functional currency. Because a large portion of our revenue and expenses is transacted in foreign currencies, we use foreign currency forward contracts, primarily for the Euro and Canadian Dollar, to reduce our exposure to fluctuations in foreign exchange rates. The increase in interest expense in the first quarter of 2016 compared to the first quarter of 2015 was due to higher amounts outstanding under our credit facility. We had \$718 million outstanding under the facility at January 2, 2016, compared to \$606 million at January 3, 2015.

Income taxes

	Three months ended	
	January 2, 2016	January 3, 2015
	(Dollar amounts in millions)	
Pre-tax income (loss)	\$ (19.5)	\$ 34.4
Tax provision	4.3	4.1
Effective income tax rate	(22)%	12%

In the first quarter of 2016 and 2015, our effective tax rate was lower than the 35% statutory federal income tax rate due to our corporate structure in which our foreign taxes are at a net effective tax rate lower than the U.S. rate. A significant amount of our foreign earnings is generated by our subsidiaries organized in Ireland. In 2016 and 2015, the foreign rate differential predominantly relates to these Irish earnings. Our foreign rate differential in 2016 and 2015 includes a rate benefit from a business realignment completed on September 30, 2014 in which intellectual property was transferred between two wholly-owned foreign subsidiaries. The realignment allows us to more efficiently manage the distribution of our products to European customers. We expect this realignment to result in an annual tax benefit of approximately \$15 million to \$20 million for the next several years, declining annually thereafter through 2021. This realignment resulted in a tax benefit of approximately \$3 million and \$4 million in the first quarters of 2016 and 2015, respectively. Additionally, in 2016 and 2015 our provision reflects a tax benefit of \$2.6 million and \$2.1 million, respectively, related to a retroactive extension of the U.S. research and development tax credit enacted in the first quarter of 2016 and 2015. In 2016 and 2015, this benefit was offset by a corresponding provision to increase our U.S. valuation allowance.

We have concluded, based on the weight of available evidence, that a full valuation allowance continues to be required against our U.S. net deferred tax assets as they are not more likely than not to be realized in the future. We will continue to reassess our valuation allowance requirements each financial reporting period.

In the normal course of business, PTC and its subsidiaries are examined by various taxing authorities, including the Internal Revenue Service in the U.S. We regularly assess the likelihood of additional assessments by tax authorities and provide for these matters as appropriate. We are currently under audit by tax authorities in several jurisdictions. Audits by tax authorities typically involve examination of the deductibility of certain permanent items, limitations on net operating losses and tax credits. Although we believe our tax estimates are appropriate, the final determination of tax audits and any related litigation could result in material changes in our estimates.

Table of Contents**2015 compared to 2014**

The following table shows the financial measures that we consider the most significant indicators of the performance of our business. In addition to providing operating income, operating margin, and diluted earnings per share as calculated under generally accepted accounting principles, it shows non-GAAP operating income, operating margin, and diluted earnings per share for the reported periods. These non-GAAP measures exclude fair value adjustments related to acquired deferred revenue, acquired deferred costs, stock-based compensation expense, amortization of acquired intangible assets expense, acquisition-related and pension plan termination costs, restructuring charges, certain identified gains or charges included in non-operating other income (expense) and the related tax effects of the preceding items, as well as the tax items identified. These non-GAAP measures provide investors another view of our operating results that is aligned with management budgets and with performance criteria in our incentive compensation plans. Management uses, and investors should use, non-GAAP measures in conjunction with our GAAP results. We discuss the non-GAAP measures in detail under *Non-GAAP Measures* below.

			Percent change 2014 to 2015 Constant		Percent change 2013 to 2014 Constant			
	2015	2014	Actual	currency	2013	Actual	currency	
	(Dollar amounts in millions, except per share data)							
L&S revenue	\$ 348.0	\$ 389.7	(11)%	(4)%	\$ 354.3	10%	10%	
Support revenue	681.5	688.5	(1)%	7%	654.7	5%	5%	
Total software revenue	1,029.5	1,078.2			1,009.0			
Professional services revenue	225.7	278.7	(19)%	(12)%	284.6	(2)%	(2)%	
Total revenue	1,255.2	1,357.0	(7)%	%	1,293.5	5%	5%	
Cost of L&S revenue	53.2	45.0			39.0			
Cost of support revenue	82.8	84.7			81.1			
Cost of professional service revenue	198.7	244.0			252.9			
Total cost of revenue	334.7	373.7			373.0			
Gross margin	920.5	983.3			920.5			
Operating expenses	878.9	786.7			793.2			
Total costs and expenses(1)	1,213.6	1,160.4	5%	9%	1,166.2	%	%	
Operating income(1)	\$ 41.6	\$ 196.6	(79)%	(57)%	\$ 127.3	54%	52%	
Non-GAAP operating income(1)	\$ 304.3	\$ 340.3	(11)%	5%	\$ 286.3	19%	18%	
Operating margin(1)	3.3%	14.5%			9.8%			
Non-GAAP operating margin(1)	24.2%	25.1%			22.1%			
Diluted earnings (loss) per share(2)	\$ 0.41	\$ 1.34			\$ 1.19			
Non-GAAP diluted earnings per share(2)	\$ 2.23	\$ 2.17			\$ 1.81			
Cash flow from operations	\$ 179.9	\$ 304.6			\$ 224.7			

(1) Costs and expenses in 2015 included \$73.2 million of pension plan termination-related costs, \$43.4 million of restructuring charges, a \$28.2 million legal accrual, and \$8.9 million of acquisition-related costs. Costs and expenses in 2014 included \$28.4 million of restructuring charges and \$13.1 million of acquisition-related and pension plan termination costs. Costs and expenses in 2013 included \$52.2 million of restructuring charges and \$9.9 million of acquisition-related costs. These restructuring, acquisition-related, pension plan termination costs and legal accrual have been excluded from non-GAAP operating income, non-GAAP operating margin and non-GAAP diluted EPS.

- (2) Income taxes for non-GAAP diluted earnings per share reflect the tax effects of non-GAAP adjustments which are calculated by applying the applicable tax rate by jurisdiction to the non-GAAP adjustments described in *Non-GAAP Measures*, and also exclude the following non-operating income and tax items: The GAAP earnings per share in 2015 reflect a tax benefit of \$18.7 million related to the reversal of a portion of the U.S. valuation allowance related to reducing deferred tax assets in connection with settling the U.S. pension plan. GAAP diluted earnings per share in 2014 includes (i) tax benefits of \$18.1 million related to the release of a portion of the valuation allowance as a result of deferred tax liabilities established for acquisitions recorded in 2014 and (ii) a tax charge of \$3.5 million to establish valuation allowances against net deferred tax assets in two foreign jurisdictions. GAAP diluted earnings per share in 2013 includes (i) tax benefits of \$36.7 million related to the release of a

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portion of the valuation allowance as a result of deferred tax liabilities established for acquisitions recorded in 2013, (ii) tax benefits of \$3.2 million relating to the final resolution of a long standing tax litigation matter and completion of an international jurisdiction tax audit, (iii) a tax benefit of \$7.9 million related to the release of a portion of the valuation allowance in the U.S. as a result of a pension gain (decrease in unrecognized actuarial loss) recorded in accumulated other comprehensive income, and (iv) a tax benefit of \$2.6 million relating to a tax audit in a foreign jurisdiction of an acquired company. GAAP diluted earnings per share in 2013 also includes a gain on investment of \$0.6 million and a legal settlement gain of \$5.1 million.

Acquisitions

In 2015, we acquired ColdLight (on May 7). In 2014, we acquired ThingWorx (on December 30), Atego (on June 30) and Axeda (on August 11). These acquisitions collectively added \$69.2 million of revenue in 2015 and \$9.8 million of revenue in 2014.

Impact of foreign currency exchange on results of operations

Approximately two thirds of our revenue and half of our expenses are transacted in currencies other than the U.S. dollar. Currency translation affects our reported results, which are in U.S. Dollars. Changes in currency exchange rates, particularly for the Yen and the Euro, compared to the prior year decreased revenue and decreased expenses in 2015, and increased revenue and decreased expenses in 2014. If actual reported results were converted into U.S. dollars based on the corresponding prior year's foreign currency exchange rates, 2015 and 2014 revenue would have been higher by \$99.7 million and lower by \$2.1 million, respectively, and expenses would have been higher by \$56.6 million and \$0.9 million, respectively. The net impact on year-over-year results would have been an increase in operating income of \$43.1 million in 2015 and a decrease in operating income of \$3.0 million in 2014. The results of operations, revenue by line of business and revenue by geographic region in the tables that follow present both actual percentage changes year over year and percentage changes on a constant currency basis.

Reclassifications

Through 2014, we classified revenue in three categories: 1) license; 2) service; and 3) support. Because we introduced subscription-based licenses in 2015, we have revised our revenue reporting. Effective with the beginning of the first quarter of 2015, we report revenue as follows: 1) license and subscriptions (L&S); 2) support; and 3) professional services. L&S revenue includes perpetual license revenue, subscription revenue and cloud services revenue. Cloud service offerings were previously reflected in service revenue and cost of service revenue. Consulting and training service revenue and consulting and training cost of service revenue are now referred to as professional services revenue and cost of professional services revenue. The discussion that follows reflects our revised reporting structure.

Revenue

Revenue is reported below by line of business (license and subscription, support, and professional services), by solution area (CAD, Extended PLM (ePLM), SLM and IoT) and by geographic region (Americas, Europe, Pacific Rim and Japan).

Results include combined revenue from direct sales and our channel.

Table of Contents*Revenue by line of business*

	\$ Amount	2015 % of total revenue	Percent change 2014 to 2015		\$ Amount	2014 % of total revenue	Percent change 2013 to 2014		\$ Amount	2013 % of total revenue
			Actual	Constant currency			Actual	Constant currency		
L&S	\$ 348.0	28%	(11)%	(4)%	\$ 389.7	29%	10%	10%	\$ 354.3	27%
Support	681.5	54%	(1)%	7%	688.5	51%	5%	5%	654.7	51%
Total software revenue	1,029.5				1,078.2				1,009.0	
Professional services revenue	225.7	18%	(19)%	(12)%	278.7	21%	(2)%	(2)%	284.6	22%
Total revenue	\$ 1,255.2	100%	(7)%	%	\$ 1,357.0	100%	5%	5%	\$ 1,293.5	100%

Revenue by solution

	2015	Actual	Percent change Constant currency	2014	Actual	Percent change Constant currency	2013		
								Year ended September 30, Percent change	
								(Dollar amounts in millions)	
CAD									
L&S	\$ 125.8	(26)%	(20)%	\$ 170.5	13%	13%	\$ 150.4		
Support	366.8	(5)%	3%	386.8	2%	2%	378.1		
Total software revenue	492.7			557.3			528.5		
Professional services	18.9	(22)%	(14)%	24.2	1%	1%	24.0		
Total revenue	\$ 511.6	(12)%	(4)%	\$ 581.5	5%	5%	\$ 552.4		
Extended PLM (ePLM)									
L&S	\$ 134.2	(22)%	(14)%	\$ 171.4	12%	12%	\$ 152.6		
Support	239.2	4%	10%	231.0	7%	6%	216.6		
Total software revenue	373.4			402.4			369.2		
Professional services revenue	151.3	(23)%	(15)%	196.9	(2)%	(3)%	201.9		
Total revenue	\$ 524.7	(12)%	(5)%	\$ 599.3	5%	5%	\$ 571.1		
SLM									
L&S	\$ 43.8	1%	7%	\$ 43.4	(15)%	(16)%	\$ 51.3		
Support	70.4	%	5%	70.3	17%	17%	60.0		
Total software revenue	114.2			113.8			111.3		
Professional services	51.8	(9)%	(4)%	57.2	(3)%	(2)%	58.8		

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Total revenue	\$ 166.1	(3)%	2%	\$ 171.0	1%	1%	\$ 170.0
IoT							
L&S	\$ 44.1	893%	904%	\$ 4.4			\$
Support	5.1	1,272%	1,297%	0.4			
Total software revenue	49.2			4.8			
Professional Services	3.6	928%	962%	0.4			
Total revenue	\$ 52.9			\$ 5.2			\$

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L&S revenue

2015 compared to 2014

The decline in L&S revenue in 2015 reflected year-over-year declines of 12% in the Americas, 15% in Europe (down 1% on a constant currency basis), and 5% in the Pacific Rim. Year-over-year amounts in Japan were flat and increased on a constant currency basis by 16%. The decreases were partially related to a higher mix of subscription bookings in 2015. Results also reflected lower L&S revenue, primarily due to fewer large license transactions in 2015. This was particularly true for CAD and PLM in Europe and the Americas. IoT revenue increased significantly, primarily as a result of our acquisition of Axeda.

Changes in foreign currency exchange rates unfavorably impacted L&S revenue by \$27.5 million in 2015 compared to 2014.

2014 compared to 2013

L&S revenue was strongest in Europe and the Americas, with 33% and 12% year-over-year growth, respectively, offsetting year-over-year declines in the Pacific Rim region, which was down 17%. CAD L&S revenue was driven by double digit year-over-year growth in Creo modules and upgrades, training software, and certain heritage products. SLM L&S revenue in 2014 decreased due to a slower-than-expected rebuilding of our pipeline after a strong 2013.

Changes in foreign currency exchange rates favorably impacted L&S revenue by \$0.7 million in 2014 compared to 2013.

Support revenue

Support revenue is comprised of contracts to maintain new and/or previously purchased software. Support revenue has tended to be fairly stable and predictable year-to-year. However, with our transition to subscription sales, we expect support revenue will decline as customers purchase our solutions as subscriptions.

Support revenue decreased in 2015 compared to 2014 due to the effect of foreign currency exchange rates. Changes in currency unfavorably impacted support revenue by \$51.8 million in 2015 compared to 2014.

Support revenue increased 5% (\$33.8 million) in 2014 compared to 2013. Changes in foreign exchange rates did not have a significant effect on support revenue in 2014.

Professional services revenue

Consulting and training services engagements typically result from sales of new licenses, particularly of our ePLM and SLM solutions. Expanding our service partner program, under which service engagements are referred to third party service providers, is part of our overall margin expansion strategy. Additionally, over time, we anticipate implementing solutions that require fewer services. As a result, we do not expect that the amount of services we deliver will increase proportionately with any L&S revenue increases.

2015 compared to 2014

The decrease in professional services revenue for 2015 was primarily due to a 25% decrease in PLM-related services and changes in foreign currency exchange rates. We attribute the decline in total professional services revenue to lower PLM and, to a lesser extent, CAD L&S revenue and to success in expanding our service partner program.

Changes in foreign currency exchange rates unfavorably impacted professional services revenue by \$20.4 million in 2015 compared to 2014.

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2014 compared to 2013

In 2014, professional services revenue declined slightly due to the expansion of our services partner program.

Revenue by geographic region

		Percent change Constant			Percent change Constant					
	% of Total 2015 revenue	Actual	currency	2014 revenue	% of Total Actual	currency	2013 revenue	% of Total revenue		
(Dollar amounts in millions)										
Revenue by region:										
Americas	\$ 530.3	42%	(5)%	(4)%	\$ 558.7	41%	7%	7%	\$ 522.8	40%
Europe	\$ 467.8	37%	(11)%	3%	\$ 528.1	39%	10%	7%	\$ 479.9	37%
Pacific Rim	\$ 139.2	11%	(6)%	(4)%	\$ 148.2	11%	(8)%	(9)%	\$ 161.6	13%
Japan	\$ 118.0	9%	(3)%	12%	\$ 122.1	9%	(6)%	4%	\$ 129.3	10%

A significant percentage of our annual revenue comes from large customers in the broader manufacturing space. As a result, L&S revenue growth in our core CAD and ePLM products historically has correlated to growth in broader measures of the global manufacturing economy, including GDP, industrial production and manufacturing PMI. PMI data in the fourth quarter of 2015, compared to the fourth quarter of 2014, suggests manufacturing economies in the U.S., China and Japan are slowing, while manufacturing activity in Europe has increased. For 2016, we are assuming a slower rate of growth in the manufacturing economies in the U.S., Japan, and the Pacific Rim.

Americas

In 2015, compared to 2014, Americas L&S revenue decreased 12% due primarily to a decrease in CAD and PLM L&S revenue, offset in part by increases in IoT L&S revenue (primarily due to our acquisition of Axeda) and SLM L&S revenue. Professional services revenue decreased by 23% and support revenue increased by 6%.

Americas revenue increased in 2014 compared to 2013 due to increases in all lines of business, primarily a 7% increase in support and a 12% increase in L&S revenue.

Europe

In 2015, compared to 2014, changes in foreign currency exchange rates, particularly the Euro, unfavorably impacted revenue by \$73.6 million. In 2015, Europe L&S revenue decreased 15% year over year (down 1% on a constant currency basis) with constant currency growth in IoT and ePLM and modest constant currency growth in SLM, offset by a decline in CAD. Europe support revenue decreased 7% year over year and increased 7% year-over-year on a constant currency basis.

In 2014 compared to 2013, Europe L&S revenue increased 33% and support revenue increased 7%. Europe professional services revenue decreased 3% year over year. Changes in foreign currency exchange rates, particularly the Euro, favorably impacted revenue in Europe by \$15.7 million in 2014 as compared to 2013.

Pacific Rim

In 2015, compared to 2014, Pacific Rim L&S revenue declined 5% year over year with growth in IoT and modest growth in CAD, offset by declines in ePLM and SLM. Pacific Rim support revenue increased 5% year over year and professional services revenue decreased 29%. Changes in foreign currency exchange rates unfavorably impacted revenue in the Pacific Rim by \$3.2 million in 2015 compared to 2014.

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In 2014, compared to 2013, Pacific Rim L&S revenue declined 17% year over year and professional services revenue decreased 11%. Pacific Rim support revenue increased 7% year over year. Changes in foreign currency exchange rates favorably impacted revenue in the Pacific Rim by \$0.6 million in 2014 compared to 2013.

In 2015 and 2014, compared to the prior year, revenue in China decreased 14% and 12%, respectively, and represented 4% and 5%, respectively, of total revenue.

Japan

In 2015 and 2014 declines in Japan revenue were due to changes in foreign currency rates. In 2015 compared to 2014, Japan L&S revenue was flat, support revenue decreased 10% and professional services revenue increased 15%. On a constant currency basis, L&S revenue increased 16%, support revenue increased 5% and professional services revenue increased 34%. Changes in foreign currency exchange rates unfavorably impacted revenue in Japan by \$19.2 million in 2015 as compared to 2014.

In 2014 compared to 2013, Japan L&S revenue decreased 2%, support revenue decreased 8% and professional services revenue decreased 1%. On a constant currency basis, L&S revenue increased 5%, professional services revenue increased 9% and support revenue increased 3%. Changes in foreign currency exchange rates unfavorably impacted revenue in Japan by \$12.8 million in 2014 as compared to 2013.

Gross margin

	Percent		Percent		
	2015	change	2014	change	2013
	(Dollar amounts in millions)				
Gross margin	\$ 920.5	(6)%	\$ 983.3	7%	\$ 920.5
Non-GAAP gross margin	953.4	(6)%	1,013.0	6%	951.6
Gross margin as a % of revenue:					
L&S	85%		88%		89%
Support	88%		88%		88%
Professional services	12%		12%		11%
Gross margin as a % of total revenue	73%		72%		71%
Non-GAAP gross margin as a % of total non-GAAP revenue	76%		75%		73%

Gross margin as a percentage of total revenue in 2015 compared to 2014 reflects lower L&S margins due to a higher mix of cloud services revenue (due to our acquisition of Axeda), which has lower margins than license revenue, and higher support volume. Support revenue comprised 54% of our total revenue in 2015 compared to 51% in both 2014 and 2013.

Gross margin as a percentage of total revenue in 2014 compared to 2013 reflects higher service margins, partially offset by lower L&S margins primarily attributable to lower L&S revenue and higher amortization of acquired purchased software. The increase in our GAAP service gross margin in 2014 was due in part to improved consulting margin. Service margins have improved due to cost reductions and a reduction in the amount of direct services that we perform through expansion of our service partner program.

Table of Contents*Costs and expenses*

	Percent		Percent		
	2015	change	2014	change	2013
Cost of L&S revenue	\$ 53.2	18%	\$ 45.0	15%	\$ 39.0
Cost of support revenue	82.8	(2)%	84.7	4%	81.1
Cost of professional services revenue	198.7	(19)%	244.0	(4)%	252.9
Sales and marketing	338.8	(5)%	357.4	(1)%	360.6
Research and development	227.5	%	226.5	2%	221.9
General and administrative	166.7	17%	142.2	8%	131.9
U.S. pension settlement loss	66.3				
Amortization of acquired intangible assets	36.1	12%	32.1	21%	26.5
Restructuring charges	43.4	53%	28.4	(46)%	52.2
Total costs and expenses	\$ 1,213.6	5%(1)	\$ 1,160.4	%(1)	\$ 1,166.2
Total headcount at end of period	5,982	(7)%	6,444(2)	7%	6,000

(1) On a constant currency basis from the prior period, total costs and expenses increased 9% from 2014 to 2015 and were flat from 2013 to 2014.

(2) Headcount at September 30, 2014 included approximately 250 employees with termination dates after September 30, 2014 that were included in our fourth quarter of 2014 restructuring actions.

2015 compared to 2014

Costs and expenses in 2015 compared to 2014 increased primarily as a result of the following:

restructuring charges of \$43.4 million in 2015 compared to \$28.4 million in 2014, primarily for severance and other related costs associated with the termination of 411 employees;

costs from acquired businesses (Axeda, Atego, Thingworx and ColdLight added approximately 360 employees at the date of the acquisitions);

costs associated with terminating our U.S. Pension Plan which totaled \$73.2 million (including a \$66.3 million settlement loss);

a litigation accrual of \$28.2 million related to the China FCPA Investigation; and

amortization of acquired intangible assets (including amortization of purchased software which is included in cost of revenue), primarily related to our acquisitions in 2014 and 2015, which was higher by \$5.3 million.

These cost increases were partially offset by:

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cost savings associated with restructuring actions in 2014 and 2015;

the impact of foreign currency movements which favorably impacted costs and expenses by \$56.6 million in 2015; and

a decrease in cash-based incentive compensation of \$18.1 million.
2014 compared to 2013

Costs and expenses in 2014, compared to 2013, decreased primarily as a result of:

restructuring charges, which were \$23.8 million lower in 2014; and

cost savings resulting from restructuring actions in 2013.

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These cost decreases were offset by:

costs from acquired businesses (approximately 300 employees);

investments we made in our Internet of Things business;

company-wide merit pay increases totaling approximately \$12 million on an annualized basis, which were effective February 1, 2014;

increased amortization of acquired intangible assets, which was \$5.2 million higher in 2014; and

increased acquisition-related and pension plan termination costs, which were \$3.2 million higher.

Cost of L&S revenue

	Percent		Percent		
	2015	change	2014	change	2013
	(Dollar amounts in millions)				
Cost of L&S revenue	\$ 53.2	18%	\$ 45.0	15%	\$ 39.0
% of total revenue	4%		3%		3%
% of total L&S revenue	15%		12%		11%
L&S headcount at end of period	115	55%	74	80%	41

Our cost of L&S revenue primarily consists of amortization of acquired purchased software intangible assets, fixed and variable costs associated with reproducing and distributing software and documentation and royalties paid to third parties for technology embedded in or licensed with our software products. Cost of L&S revenue as a percent of L&S revenue can vary depending on product mix sold, the effect of fixed and variable royalties, and the level of amortization of acquired software intangible assets. Amortization of acquired purchased software totaled \$19.4 million, \$18.1 million and \$18.6 million in 2015, 2014, and 2013, respectively. Costs to perform cloud services were \$19.0 million, \$12.9 million, and \$6.0 million in 2015, 2014, and 2013, respectively. The increase in costs to perform cloud services in 2015 is attributable to our acquisition of Axeda.

Cost of support revenue

	Percent		Percent		
	2015	change	2014	change	2013
	(Dollar amounts in millions)				
Cost of support revenue	\$ 82.8	(2)%	\$ 84.7	4%	\$ 81.1
% of total revenue	7%		6%		6%
% of total support revenue	12%		12%		12%
Support headcount at end of period	668	1%	659	4%	634

Our cost of support revenue includes costs such as salaries, benefits, and computer equipment and facilities associated with customer support and the release of support updates (including related royalty costs).

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In 2015 compared to 2014, total compensation, benefit costs and travel expenses were 4% (\$2.7 million) lower.

In 2014 compared to 2013, total compensation, benefit costs and travel expenses were higher by 5% (\$2.8 million). Support headcount at the end of 2014 included approximately 30 employees added from 2014 acquisitions.

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	Percent		Percent		
	2015	change	2014	change	2013
	(Dollar amounts in millions)				
Cost of professional services revenue	\$ 198.7	(19)%	\$ 244.0	(4)%	\$ 252.9
% of total revenue	16%		18%		20%
% of total professional services revenue	88%		88%		89%
Professional service headcount at end of period	1,074	(23)%	1,388	4%	1,336

Our cost of professional services revenue includes costs such as salaries, benefits, and computer equipment and facilities for our training and consulting personnel, and third-party subcontractor fees.

In 2015, compared to 2014, total compensation, benefit costs and travel expenses decreased 21% (\$36.9 million) primarily due to reduced headcount. Additionally, the cost of third-party consulting services was \$7.4 million lower in 2015 compared to 2014.

In 2014 compared to 2013, total compensation, benefit costs and travel expenses were higher by \$0.7 million. Service headcount at the end of 2014 included approximately 40 employees added from 2014 acquisitions. The cost of third-party consulting services was \$6.9 million lower in 2014, compared to 2013.

The decreases in 2015 and 2014, compared to the prior years, in the cost of third-party consulting services is a result of our strategy to have our strategic services partners perform services for customers directly, which has contributed to improving services margins.

Sales and marketing

	Percent		Percent		
	2015	change	2014	change	2013
	(Dollar amounts in millions)				
Sales and marketing expenses	\$ 338.8	(5)%	\$ 357.4	(1)%	\$ 360.6
% of total revenue	27%		26%		28%
Sales and marketing headcount at end of period	1,416	(4)%	1,481	9%	1,362

Our sales and marketing expenses primarily include salaries and benefits, sales commissions, advertising and marketing programs, travel and facility costs.

Our compensation, benefit costs and travel expenses were lower by an aggregate of 7% (\$20.3 million) in 2015 compared to 2014, primarily due to lower headcount.

In 2014, compared to 2013, our compensation, benefit costs and travel expenses were flat, which reflects higher commission and salary expense offset by lower benefit costs. Sales and marketing headcount at the end of 2014 included approximately 70 employees added from 2014 acquisitions. In 2014, compared to 2013, total depreciation and telecommunication costs decreased by \$2.5 million.

Research and development

	2015	Percent	2014	Percent	2013
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		change		change	
				(Dollar amounts in millions)	
Research and development expenses	\$ 227.5	%	\$ 226.5	2%	\$ 221.9
% of total revenue	18%		17%		17%
Research and development headcount at end of period	1,998	(7)%	2,156	8%	2,001

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Our research and development expenses consist principally of salaries and benefits, costs of computer equipment and facility expenses. Major research and development activities include developing new releases of our software.

Total compensation, benefit costs and travel expenses were lower by 1% (\$1.9 million) in 2015, compared to 2014. Research and development headcount at the end of 2015 included approximately 20 employees added from 2015 acquisitions.

Total compensation, benefit costs and travel expenses were higher by 3% (\$5.9 million) in 2014, compared to 2013. Headcount in 2014, excluding employees added from 2014 acquisitions, included a higher mix of research and development headcount in lower cost geographic regions as compared to 2013. Additionally, research and development headcount at the end of 2014 included approximately 100 employees added from companies acquired in 2014, primarily added in the fourth quarter of 2014. Total depreciation and telecommunication costs in 2014 decreased by \$1.8 million, compared to 2013.

General and administrative

	Percent		Percent		
	2015	change	2014	change	2013
	(Dollar amounts in millions)				
General and administrative	\$ 166.7	17%	\$ 142.2	8%	\$ 131.9
% of total revenue	13%		10%		10%
General and administrative headcount at end of period	711	4%	686	10%	626

Our general and administrative expenses include the costs of our corporate, finance, information technology, human resources, legal and administrative functions, as well as acquisition-related charges, bad debt expense and outside professional services, including accounting and legal fees. Acquisition-related costs include direct costs of acquisitions and expenses related to acquisition integration activities, including transaction fees, due diligence costs, retention bonuses and severance, and professional fees, including legal and accounting costs, related to the acquisition. In addition, subsequent adjustments to our initial estimated amount of contingent consideration associated with specific acquisitions are included in acquisition-related charges. Acquisition-related and pension plan termination-related costs were \$15.8 million, \$13.1 million, and \$9.9 million in 2015, 2014, and 2013, respectively. The increase in overall general and administrative costs in 2015, compared to 2014, was due primarily to a \$28.2 million reserve recorded related to the China FCPA Investigation. In 2014 compared to 2013, costs for outside professional services including legal, tax, audit and consulting services were higher by \$7.0 million. Cost increases in 2014 were partially offset by certain business taxes in a foreign jurisdiction which were lower by \$1.0 million in 2014 compared to 2013.

U.S. pension settlement loss

	2015	Percent change	2014	Percent change	2013
	(Dollar amounts in millions)				
U.S. pension termination loss	\$ 66.3		\$		\$
% of total revenue	5%		%		%

U.S. pension settlement loss reflects the loss recognized in the fourth quarter of 2015 related to the termination of our U.S. pension plan, due to the amortization of actuarial losses previously recorded in equity.

Table of Contents*Amortization of acquired intangible assets*

	2015	Percent change	2014	Percent change	2013
			(Dollar amounts in millions)		
Amortization of acquired intangible assets	\$ 36.1	12%	\$ 32.1	21%	\$ 26.5
% of total revenue	3%		2%		2%

Amortization of acquired intangible assets reflects the amortization of acquired non-product related intangible assets, primarily customer and trademark-related intangible assets, recorded in connection with completed acquisitions. The increase in amortization of acquired intangible assets in 2015 includes our acquisitions of ColdLight in the third quarter of 2015, Axeda and Atego in the fourth quarter of 2014, our acquisition of ThingWorx in the second quarter of 2014 and our acquisitions of Enigma and NetIDEAS in the fourth quarter of 2013.

Restructuring charges

	2015	2014	2013
	(Dollar amounts in millions)		
Restructuring charges	\$ 43.4	\$ 28.4	\$ 52.2
% of total revenue	3%	2%	4%

In April 2015, we committed to a plan to restructure our global workforce and consolidate select facilities to increase investment in our IoT business and to reduce our cost structure through organizational efficiencies in the face of significant foreign currency depreciation relative to the U.S. Dollar and a more cautious outlook on global macroeconomic conditions. The restructuring actions resulted in charges of \$43.4 million during 2015, including \$1.4 million of facility related charges and \$42.0 million of employee related termination costs, primarily related to termination benefits associated with 411 employees. This reorganization resulted in net annualized expense reductions of approximately \$30 million.

In September 2014, in support of integrating businesses acquired in the prior year and the continued evolution of our business model, we committed to a plan to restructure our workforce and recorded a restructuring charge of \$26.8 million attributable to termination benefits associated with 283 employees which were primarily paid in fiscal 2015. This restructuring action resulted in annualized cost savings of approximately \$30 million. In addition, in 2014 we recorded restructuring charges of \$1.6 million, primarily associated with the completion of the restructuring actions initiated in the fourth quarter of 2013.

In 2013, to improve profitability, we implemented restructuring actions and recorded restructuring charges of \$52.2 million, including \$50.9 million for severance and related costs associated with approximately 550 employees and \$1.3 million related to facility consolidations. These restructuring actions were substantially completed in 2013 and resulted in \$16 million per quarter reduction in operating expenses (which was reflected in our results for 2014).

In 2015, 2014, and 2013, we made cash payments related to restructuring charges of \$53.6 million, \$20.6 million, and \$37.2 million, respectively. At September 30, 2015, accrued expenses for unpaid restructuring charges totaled \$15.3 million, which we expect to pay within the next twelve months.

Table of Contents*Non-operating income (expense)*

	2015	2014	2013
	(Dollar amounts in millions)		
Foreign currency losses, net	\$ (2.7)	\$ (4.5)	\$ (2.0)
Interest income	3.7	3.1	2.9
Interest expense	(14.7)	(8.2)	(7.0)
Other income (expense), net	(1.3)	(1.0)	5.0
	\$ (15.1)	\$ (10.5)	\$ (1.1)

Foreign currency net losses: Foreign currency net losses include costs of hedging contracts, certain realized and unrealized foreign currency transaction gains or losses, and foreign exchange gains or losses resulting from the required period-end currency re-measurement of the assets and liabilities of our subsidiaries that use the U.S. dollar as their functional currency. Because a large portion of our revenue and expenses is transacted in foreign currencies, we engage in hedging transactions involving the use of foreign currency forward contracts to reduce our exposure to fluctuations in foreign exchange rates.

Interest income: Interest income represents earnings on the investment of our available cash balances and interest on financing provided to customers as described in Note B *Summary of Significant Accounting Policies* of Notes to Consolidated Financial Statements in this Annual Report.

Interest expense: Interest expense is primarily related to interest on borrowings under our credit facility. The increase in interest expense in 2015 from 2014 and 2013 is due to higher average amounts outstanding under our credit facility. We had \$668 million outstanding under the credit facility at September 30, 2015, compared to \$612 million at September 30, 2014 (including \$295 million borrowed in the fourth quarter of 2014 to fund our acquisition of Axeda and to fund an accelerated share repurchase program) and \$258 million at September 30, 2013. The balance outstanding at September 30, 2015 reflects amounts borrowed in 2015 as a result of our acquisition of ColdLight. The average interest rate on amounts outstanding under the credit facility was 1.7% in 2015, 1.6% in 2014 and 1.7% in 2013.

Other income (expense), net: The change in other income (expense), net in 2013 compared to 2014 and 2015, was due primarily to a legal settlement gain of \$5.1 million recorded in 2013.

Income taxes

	Year ended September 30,		
	2015	2014	2013
	(in millions)		
Pre-tax income	\$ 26.5	\$ 186.1	\$ 126.2
Tax (benefit) provision	(21.0)	25.9	(17.5)
Effective income tax rate	(79)%	14%	(14)%

In 2015, our effective tax rate was lower than the 35% statutory federal income tax rate due, in large part, to our corporate structure in which our foreign taxes are at an effective tax rate lower than the U.S. A significant amount of our foreign earnings is generated by our subsidiaries organized in Ireland. In 2015, 2014 and 2013, the foreign rate differential predominantly relates to these Irish earnings. Our foreign rate differential in 2015 includes a rate benefit from a business realignment completed on September 30, 2014 in which intellectual property was transferred between two wholly-owned foreign subsidiaries. The realignment allows us to more efficiently manage the distribution of our products to European customers. In 2015, this realignment resulted in

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a tax benefit of approximately \$24.0 million. We expect this realignment to result in an annual tax benefit of approximately \$15 million to \$20 million for the next several years, declining annually thereafter through 2021. U.S. permanent items include the tax effect of a \$14.5 million expense related to a pending legal settlement. Other factors impacting the effective tax rate include: the release of a valuation allowance totaling \$18.7 million relating to the U.S. pension plan termination, foreign withholding taxes of \$3.8 million, a tax benefit of \$3.1 million relating to the reassessment of our reserve requirements and a benefit of \$1.4 million in conjunction with the reorganization of our Atego U.S. subsidiaries. Additionally, our provision reflects a \$2.1 million tax benefit related to a retroactive extension of the U.S. research and development tax credit enacted in the first quarter of 2015. This benefit was offset by a corresponding provision to increase our U.S. valuation allowance.

In 2014, our effective tax rate was lower than the 35% statutory federal income tax rate due to our corporate structure in which our foreign taxes are at a net effective tax rate lower than the U.S. rate and the reversal of a portion of our valuation allowance against net deferred tax assets described below. Other factors impacting the rate include foreign withholding taxes of \$5.1 million and the establishment of a valuation allowance totaling \$3.5 million in two foreign subsidiaries.

In 2013, our effective tax rate was lower than the 35% statutory federal income tax rate due, in large part, to the reversal of a portion of the valuation allowance against deferred tax assets (primarily the U.S.). We recorded benefits resulting from 2013 acquisitions as described below, and a benefit of \$7.9 million related to the release of a valuation allowance as a result of a pension gain recorded in accumulated other comprehensive income in equity. Additionally, our 2013 tax provision reflected a \$2.0 million provision related to a research and development (R&D) cost sharing prepayment by a foreign subsidiary to the U.S. A similar prepayment was made in 2012, resulting in a \$7.8 million provision in that year. This impact was offset by a corresponding increase in our valuation allowance in the U.S. Other factors impacting the rate include our corporate structure in which our foreign taxes are at an effective tax rate lower than the U.S. rate, foreign withholding taxes of \$6.0 million and non-cash tax benefits of \$5.3 million recorded as a result of the conclusion of tax audits in several foreign jurisdictions.

Acquisitions in 2014 and 2013 were accounted for as business combinations. Assets acquired, including the fair value of acquired tangible assets, intangible assets and assumed liabilities were recorded, and we recorded net deferred tax liabilities of \$21.6 million and \$38.7 million in 2014 and 2013, respectively, primarily related to the tax effect of the acquired intangible assets that are not deductible for income tax purposes. These deferred tax liabilities reduced our net deferred tax asset balance and resulted in a tax benefit of \$18.1 million and \$36.7 million in 2014 and 2013, respectively, to decrease our valuation allowance in jurisdictions where we have recorded a valuation allowance. As these decreases in the valuation allowance are not part of the accounting for business combinations (the fair value of the assets acquired and liabilities assumed), they were recorded as an income tax benefit.

We have concluded, based on the weight of available evidence, that a full valuation allowance continues to be required against our U.S. net deferred tax assets as they are not more likely than not to be realized in the future. We will continue to reassess whether a valuation allowance is required each financial reporting period.

In the normal course of business, PTC and its subsidiaries are examined by various taxing authorities, including the Internal Revenue Service (IRS) in the United States. We regularly assess the likelihood of additional assessments by tax authorities and provide for these matters as appropriate. We are currently under audit by tax authorities in several jurisdictions. Audits by tax authorities typically involve examination of the deductibility of certain permanent items, limitations on net operating losses and tax credits. Although we believe our tax estimates are appropriate, the final determination of tax audits and any related litigation could result in material changes in our estimates.

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Our future effective income tax rate may be materially impacted by the amount of income taxes associated with our foreign earnings, which are taxed at rates different from the U.S. federal statutory income tax rate, as well as the timing and extent of the realization of deferred tax assets and changes in the tax law. Further, our tax rate may fluctuate within a fiscal year, including from quarter to quarter, due to items arising from discrete events, including settlements of tax audits and assessments, the resolution or identification of tax position uncertainties, and acquisitions of other companies.

Non-GAAP measures

The non-GAAP measures presented in the above discussion of our results of operations and the respective most directly comparable GAAP measures are:

non-GAAP revenue GAAP revenue
 non-GAAP gross margin GAAP gross margin
 non-GAAP operating income GAAP operating income
 non-GAAP operating margin GAAP operating margin
 non-GAAP net income GAAP net income (loss)
 non-GAAP diluted earnings per share GAAP diluted earnings (loss) per share

The non-GAAP measures exclude fair value adjustments related to acquired deferred revenue, stock-based compensation expense, amortization of acquired intangible assets expense, acquisition-related charges, restructuring charges, pension plan termination costs, a litigation accrual associated with our previously disclosed China investigation, identified discrete charges included in non-operating other expense, net and the related tax effects of the preceding items, and any other identified tax items. These items are normally included in the comparable measures calculated and presented in accordance with GAAP. Our management excludes these items when evaluating our ongoing performance and/or predicting our earnings trends, and therefore excludes them when presenting non-GAAP financial measures. Management uses, and investors should consider, non-GAAP measures in conjunction with our GAAP results.

Fair value of acquired deferred revenue and deferred costs are purchase accounting adjustments to record acquired deferred revenue and deferred costs at their fair values.

Stock-based compensation expense is non-cash expense relating to stock-based awards issued to executive officers, employees and outside directors, consisting of restricted stock, stock options and restricted stock units.

Amortization of acquired intangible assets expense is a non-cash expense that is impacted by the timing and magnitude of our acquisitions. We believe the assessment of our operations excluding these costs is relevant to our assessment of internal operations and comparisons to the performance of other companies in our industry.

Charges included in general and administrative expenses include acquisition-related charges, pension plan termination-related costs, and a litigation accrual associated with our previously disclosed China investigation. Acquisition-related charges include direct costs of potential and completed acquisitions and expenses related to acquisition integration activities, including transaction fees, due diligence costs, severance and professional fees. In addition, subsequent adjustments to our initial estimated amount of contingent consideration associated with specific acquisitions are included within acquisition-related charges. These costs are not considered part of our normal operations as the occurrence and amount will vary depending on the timing and size of acquisitions. In the second quarter of 2014, we began the process of terminating a U.S. pension plan. Costs associated with the termination are not considered part of our ongoing operations.

Pending legal settlement accrual for 2015 includes amounts related to the China FCPA Investigation.

Restructuring charges are costs incurred in a period related to strategies to reduce costs and to realign our business, including costs related to employee terminations and costs of excess facilities.

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We use these non-GAAP measures, and we believe that they assist our investors, to make period-to-period comparisons of our operational performance because they provide a view of our operating results without items that are not, in our view, indicative of our core operating results. We believe that these non-GAAP measures help illustrate underlying trends in our business, and we use the measures to establish budgets and operational goals, communicated internally and externally, for managing our business and evaluating our performance. We believe that providing non-GAAP measures affords investors a view of our operating results that may be more easily compared to the results of peer companies. In addition, compensation of our executives is based in part on the performance of our business based on these non-GAAP measures.

The items excluded from the non-GAAP measures often have a material impact on our financial results and such items often recur. Accordingly, the non-GAAP measures included in this prospectus supplement should be considered in addition to, and not as a substitute for or superior to, the comparable measures prepared in accordance with GAAP.

The following tables reconcile each of these non-GAAP measures to its most closely comparable GAAP measure on our financial statements.

First quarter of 2016

	Three months ended	
	January 2, 2016	January 3, 2015
	(in millions, except per share amounts)	
GAAP revenue	\$ 291.0	\$ 325.4
Fair value adjustment of acquired deferred revenue	0.5	1.4
Non-GAAP revenue	\$ 291.5	\$ 326.8
GAAP gross margin	\$ 210.9	\$ 232.5
Fair value adjustment of acquired deferred revenue	0.5	1.4
Fair value adjustment of acquired deferred costs	(0.1)	(0.1)
Stock-based compensation	3.4	2.6
Amortization of acquired intangible assets included in cost of revenue	5.1	4.8
Non-GAAP gross margin	\$ 219.7	\$ 241.2
GAAP operating income (loss)	\$ (13.3)	\$ 37.6
Fair value adjustment of acquired deferred revenue	0.5	1.4
Fair value adjustment of acquired deferred costs	(0.1)	(0.1)
Stock-based compensation	23.2	11.2
Amortization of acquired intangible assets included in cost of revenue	5.1	4.8
Amortization of acquired intangible assets	8.4	9.4
Acquisition-related charges included in general and administrative expenses	1.2	4.0
US pension plan termination-related costs		1.7
Restructuring charges	37.1	(0.3)
Non-GAAP operating income	\$ 62.1	\$ 69.8

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	January 2, 2016	January 3, 2015
	(in millions, except per share amounts)	
GAAP net income (loss)	\$ (23.9)	\$ 30.3
Fair value adjustment of acquired deferred revenue	0.5	1.4
Fair value adjustment of acquired deferred costs	(0.1)	(0.1)
Stock-based compensation	23.2	11.2
Amortization of acquired intangible assets included in cost of revenue	5.1	4.8
Amortization of acquired intangible assets	8.4	9.4
Acquisition-related charges included in general and administrative expenses	1.2	4.0
U.S. pension plan termination-related costs		1.7
Restructuring charges	37.1	(0.3)
Non-operating credit facility refinancing costs	2.4	
Income tax adjustments(1)	4.9	(3.5)
Non-GAAP net income	\$ 58.8	\$ 59.0
GAAP diluted earnings (loss) per share	\$ (0.21)	\$ 0.26
Fair value adjustment of acquired deferred revenue		0.01
Fair value adjustment of acquired deferred costs		
Stock-based compensation	0.20	0.10
Amortization of acquired intangible assets	0.12	0.12
Acquisition-related charges included in general and administrative expenses	0.01	0.03
U.S. pension plan termination-related costs		0.01
Restructuring charges	0.32	
Non-operating credit facility refinancing costs	0.02	
Income tax adjustments(1)	0.04	(0.03)
Non-GAAP diluted earnings per share	\$ 0.51	\$ 0.50

Operating margin impact of non-GAAP adjustments:

	January 2, 2016	January 3, 2015
	(in millions, except per share amounts)	
GAAP operating margin	(4.6)%	11.6%
Fair value adjustment of acquired deferred revenue	0.2%	0.4%
Fair value adjustment of acquired deferred costs	%	%
Stock-based compensation	8.0%	3.5%
Amortization of acquired intangible assets	4.6%	4.4%
Acquisition-related charges included in general and administrative expenses	0.4%	1.2%
U.S. pension plan termination-related costs	%	0.5%
Restructuring charges	12.8%	(0.1)%
Non-GAAP operating margin	21.3%	21.4%

- (1) Income tax adjustments for the three months ended January 2, 2016 and January 3, 2015 reflect the tax effects of non-GAAP adjustments which are calculated by applying the applicable tax rate by jurisdiction to the non-GAAP adjustments listed above. We have recorded a full valuation allowance against our U.S. net deferred tax assets and a valuation allowance against net deferred tax assets in a foreign jurisdiction. As the U.S. and the foreign jurisdiction are profitable on a non-GAAP basis, the 2016 and 2015 non-GAAP tax provisions are calculated assuming there is no valuation allowance in these jurisdictions.

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Additionally, our non-GAAP tax provision for the three months ended January 2, 2016 excludes a \$1.6 million tax provision related to a legal settlement accrual.

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	Year ended September 30,		
	2015	2014	2013
	(Dollar amounts in millions)		
GAAP revenue	\$ 1,255.2	\$ 1,357.0	\$ 1,293.5
Fair value adjustment of acquired deferred revenue	3.9	1.2	3.0
Non-GAAP revenue	\$ 1,259.1	\$ 1,358.2	\$ 1,296.5
GAAP gross margin	\$ 920.5	\$ 983.3	\$ 920.5
Fair value adjustment of acquired deferred revenue	3.9	1.2	3.0
Fair value adjustment to acquired deferred costs	(0.5)	(0.1)	
Stock-based compensation	10.2	10.4	9.5
Amortization of acquired intangible assets included in cost of revenue	19.4	18.1	18.6
Non-GAAP gross margin	\$ 953.4	\$ 1,013.0	\$ 951.6
GAAP operating income	\$ 41.6	\$ 196.6	\$ 127.3
Fair value adjustment of acquired deferred revenue	3.9	1.2	3.0
Fair value adjustment of acquired deferred costs	(0.5)	(0.2)	
Stock-based compensation	50.2	50.9	48.8
Amortization of acquired intangible assets	55.5	50.2	45.1
Acquisition-related charges included in general and administrative expenses	8.9	12.7	9.9
U.S. pension plan termination-related costs(1)	73.2	0.4	
Pending legal settlement accrual	28.2		
Restructuring charges	43.4	28.4	52.2
Non-GAAP operating income	\$ 304.3	\$ 340.3	\$ 286.3
GAAP net income	\$ 47.6	\$ 160.2	\$ 143.8
Fair value adjustment of acquired deferred revenue	3.9	1.2	3.0
Fair value adjustment of acquired deferred costs	(0.5)	(0.2)	
Stock-based compensation	50.2	50.9	48.8
Amortization of acquired intangible assets	55.5	50.2	45.1
Acquisition-related charges included in general and administrative expenses	8.9	12.7	9.9
U.S. pension plan termination-related costs(1)	73.2	0.4	
Pending legal settlement accrual	28.2		
Restructuring charges	43.4	28.4	52.2
Non-operating (gain) loss(2)			(5.7)
Income tax adjustments(3)	(51.1)	(43.5)	(77.8)
Non-GAAP net income	\$ 259.2	\$ 260.4	\$ 219.2

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	Year ended September 30,		
	2015	2014	2013
	(Dollar amounts in millions)		
GAAP diluted earnings (loss) per share	\$ 0.41	\$ 1.34	\$ 1.19
Stock-based compensation	0.43	0.42	0.40
Amortization of acquired intangible assets	0.48	0.42	0.37
Restructuring charges	0.37	0.24	0.43
Acquisition-related charges included in general and administrative expenses	0.08	0.11	0.08
U.S. pension plan termination-related costs	0.63		
Pending legal settlement accrual	0.24		
Non-operating (gain) loss			(0.05)
Income tax adjustments(3)	(0.44)	(0.36)	(0.64)
Fair value of acquired deferred revenue	0.03	0.01	0.03
Non-GAAP diluted earnings per share(4)	\$ 2.23	\$ 2.17	\$ 1.81
Operating margin impact of non-GAAP adjustments:			
GAAP operating margin	3.3%	14.5%	9.8%
Fair value adjustment of acquired deferred revenue	0.3%	0.1%	0.2%
Stock-based compensation	4.0%	3.8%	3.8%
Amortization of acquired intangible assets	4.4%	3.7%	3.5%
Acquisition-related charges included in general and administrative expenses	0.7%	0.9%	0.8%
U.S. pension plan termination-related costs	5.8%	%	%
Pending legal settlement accrual	2.2%	%	%
Restructuring charges	3.5%	2.1%	4.0%
Non-GAAP operating margin	24.2%	25.1%	22.1%

(1) Represents charges related to terminating a U.S. pension plan including a settlement loss of \$66.3 million in 2015.

(2) *Non-operating gain (loss) adjustments*: In 2013, we recorded a \$0.6 million gain on an investment related to an acquisition and a legal settlement gain of \$5.1 million.

(3) *Income tax adjustments* reflect the tax effects of non-GAAP adjustments which are calculated by applying the applicable tax rate by jurisdiction to the non-GAAP adjustments listed above, and also include any identified tax items. In the fourth quarter of 2012, a valuation allowance was established against our U.S. net deferred tax assets and in the fourth quarter of 2014 a valuation allowance was established against net deferred tax assets in two foreign jurisdictions. As the U.S. is profitable on a non-GAAP basis, the non-GAAP tax provision is being calculated assuming there is no U.S. valuation allowance. Additionally, the following identified tax items have been excluded from the non-GAAP tax results. The GAAP diluted earnings per share in 2015 includes an \$18.7 million release of valuation allowance related to the U.S. pension plan termination. GAAP diluted earnings per share in 2014 includes (i) tax benefits of \$18.1 million related to the release of a portion of the valuation allowance as a result of deferred tax liabilities established for acquisitions recorded in 2014 and (ii) a tax charge of \$3.5 million to establish a valuation allowance against net deferred tax assets in two foreign jurisdictions. GAAP diluted earnings per share in 2013 includes (i) tax benefits of \$36.7 million related to the release of a portion of the valuation allowance as a result of deferred tax liabilities established for acquisitions recorded in 2013, (ii) tax benefits of \$3.2 million relating to the final resolution of a long standing tax litigation matter and completion of an international jurisdiction tax audit, (iii) a tax benefit of \$7.9 million related to the release of a portion of the valuation allowance in the U.S. as a result of a pension gain (decrease in unrecognized actuarial loss) recorded in accumulated other comprehensive income and (iv) a tax benefit of \$2.6 million relating to a tax audit in a foreign jurisdiction of an acquired company.

(4) Diluted earnings per share impact of non-GAAP adjustments is calculated by dividing the dollar amount of the non-GAAP adjustment by the diluted weighted average shares outstanding for the respective year.

Critical accounting policies and estimates

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We have prepared our consolidated financial statements in accordance with accounting principles generally accepted in the United States of America. In preparing our financial statements, we make estimates, assumptions and judgments that can have a significant impact on our reported revenues, results of operations,

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and net income, as well as on the value of certain assets and liabilities on our balance sheet. These estimates, assumptions and judgments are necessary because future events and their effects on our results and the value of our assets cannot be determined with certainty, and are made based on our historical experience and on other assumptions that we believe to be reasonable under the circumstances. These estimates may change as new events occur or additional information is obtained, and we may periodically be faced with uncertainties, the outcomes of which are not within our control and may not be known for a prolonged period of time.

The accounting policies, methods and estimates used to prepare our financial statements are described generally in Note B *Summary of Significant Accounting Policies* of Notes to Consolidated Financial Statements included in our Annual Report on Form 10-K for 2015. The financial information relating to the first quarter of 2016 included in this prospectus supplement reflects no material changes in our critical accounting policies and estimates from those described in the Form 10-K.

The most important accounting judgments and estimates that we made in preparing the financial statements involved:

- revenue recognition;
- accounting for income taxes;
- valuation of assets and liabilities acquired in business combinations;
- valuation of goodwill;
- accounting for pensions; and
- legal contingencies.

A critical accounting policy is one that is both material to the presentation of our financial statements and requires us to make subjective or complex judgments that could have a material effect on our financial condition and results of operations. Critical accounting policies require us to make assumptions about matters that are uncertain at the time of the estimate, and different estimates that we could have used, or changes in the estimates that are reasonably likely to occur, may have a material impact on our financial condition or results of operations. Because the use of estimates is inherent in the financial reporting process, actual results could differ from those estimates.

Accounting policies, guidelines and interpretations related to our critical accounting policies and estimates are generally subject to numerous sources of authoritative guidance and are often reexamined by accounting standards rule makers and regulators. These rule makers and/or regulators may promulgate interpretations, guidance or regulations that may result in changes to our accounting policies, which could have a material impact on our financial position and results of operations.

Revenue recognition

Our sources of revenue include: (1) license and subscription, (2) support and (3) professional services. We record revenues in accordance with the guidance provided by ASC 985-605, *Software-Revenue Recognition* when the following criteria are met: (1) persuasive evidence of an arrangement exists, (2) delivery has occurred (generally, FOB shipping point or electronic distribution), (3) the fee is fixed or determinable, and (4) collection is probable. We exercise judgment and use estimates in connection with determining the amounts of software license and services revenues to be recognized in each accounting period. Our primary judgments involve the following:

- determining whether collection is probable;

- assessing whether the fee is fixed or determinable;

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determining whether service arrangements, including modifications and customization of the underlying software, are not essential to the functionality of the licensed software and thus would result in the revenue for license and service elements of an agreement being recorded separately; and

determining the fair value of services and support elements included in multiple-element arrangements, which is the basis for allocating and deferring revenue for such services and support.

Our software is distributed primarily through our direct sales force. In addition, we have an indirect distribution channel through alliances with resellers. Revenue arrangements with resellers are recognized on a sell-through basis; that is, when we deliver the product to the end-user customer. We record consideration given to a reseller as a reduction of revenue to the extent we have recorded revenue from the reseller. We do not offer contractual rights of return, stock balancing, or price protection to our resellers, and actual product returns from them have been insignificant to date. As a result, we do not maintain reserves for reseller product returns.

At the time of each sale transaction, we must make an assessment of the collectability of the amount due from the customer. Revenue is only recognized at that time if management deems that collection is probable. In making this assessment, we consider customer credit-worthiness and historical payment experience. At that same time, we assess whether fees are fixed or determinable and free of contingencies or significant uncertainties. In assessing whether the fee is fixed or determinable, we consider the payment terms of the transaction, including transactions with payment terms that extend beyond our customary payment terms, and our collection experience in similar transactions without making concessions, among other factors. We have periodically provided financing to credit-worthy customers with payment terms up to 24 months. If the fee is determined not to be fixed or determinable, revenue is recognized only as payments become due from the customer, provided that all other revenue recognition criteria are met. Our software license arrangements generally do not include customer acceptance provisions. However, if an arrangement includes an acceptance provision, we record revenue only upon the earlier of (1) receipt of written acceptance from the customer or (2) expiration of the acceptance period.

Generally, our contracts are accounted for individually. However, when contracts are closely interrelated and dependent on each other, it may be necessary to account for two or more contracts as one to reflect the substance of the group of contracts.

License and subscription

License and subscription (L&S) revenue includes revenue from three primary sources: (1) sales of perpetual licenses, (2) subscription-based licenses, and (3) cloud services.

Under perpetual license arrangements, we generally recognize license revenue up front upon shipment to the customer. We use the residual method to recognize revenue from perpetual license software arrangements that include one or more elements to be delivered at a future date when evidence of the fair value of all undelivered elements exists, and the elements of the arrangement qualify for separate accounting as described below. Under the residual method, the fair value of the undelivered elements (i.e., support and services) based on our vendor-specific objective evidence (VSOE) of fair value is deferred and the remaining portion of the total arrangement fee is allocated to the delivered elements (i.e., perpetual software license). If evidence of the fair value of one or more of the undelivered elements does not exist, all revenues are deferred and recognized when delivery of all of those elements has occurred or when fair values can be established. We determine VSOE of the fair value of services and support revenue based upon our recent pricing for those elements when sold separately. For certain transactions, VSOE is determined based on a substantive renewal clause within a customer contract. Our current pricing practices are influenced primarily by product type, purchase volume, sales channel and customer location. We review services and support sold separately on a periodic basis and update, when appropriate, our VSOE of fair value for such elements to ensure that it reflects our recent pricing experience.

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Subscription-based licenses include the right for a customer to use our licenses and receive related support for a specified term and revenue is recognized ratably over the term of the arrangement. When sold in arrangements with other elements, VSOE of fair value is established for the subscription-based licenses through the use of a substantive renewal clause within the customer contract for a combined annual fee that includes the term-based license and related support.

Cloud services reflect recurring revenues that include fees for hosting and application management of customers' perpetual or subscription-based licenses. Generally, customers have the right to terminate the cloud services contract and take possession of the licenses without a significant penalty. When cloud services are sold as part of a multi-element transaction, revenue is allocated to cloud services based on VSOE, and recognized ratably over the contractual term beginning on the commencement dates of each contract, which is the date the services are made available to the customer. VSOE is established for cloud services either through a substantive stated renewal option or stated contractual average rates, as these rates represent the value the customer is willing to pay on a standalone basis. In addition, cloud services include set-up fees, which are recognized ratably over the contract term or the expected customer life, whichever is longer.

Support

Support contracts generally include rights to unspecified upgrades (when and if available), telephone and internet-based support, updates and bug fixes. Support revenue is recognized ratably over the term of the support contract on a straight-line basis.

Professional services

Our software arrangements often include implementation, consulting and training services that are sold under consulting engagement contracts or as part of the software license arrangement. When we determine that such services are not essential to the functionality of the licensed software, we record revenue separately for the license and service elements of these arrangements, provided that appropriate evidence of fair value exists for the undelivered services (i.e., VSOE of fair value). We consider various factors in assessing whether a service is not essential to the functionality of the software, including if the services may be provided by independent third parties experienced in providing such services (i.e., consulting and implementation) in coordination with dedicated customer personnel, and whether the services result in significant modification or customization of the software's functionality. When professional services qualify for separate accounting, professional services revenues under time and materials billing arrangements are recognized as the services are performed. Professional services revenues under fixed-priced contracts are generally recognized as the services are performed using a proportionate performance model with hours or costs as the input method of attribution.

When we provide professional services that are considered essential to the functionality of the software, the arrangement does not qualify for separate accounting of the license and service elements, and the license revenue is recognized together with the consulting services using the percentage-of-completion method of contract accounting. Under such arrangements, consideration is recognized as the services are performed as measured by an observable input. In these circumstances, we separate license revenue from service revenue for income statement presentation by allocating VSOE of fair value of the consulting services as service revenue, and the residual portion as license revenue. Under the percentage-of-completion method, we estimate the stage of completion of contracts with fixed or not to exceed fees based on hours or costs incurred to date as compared with estimated total project hours or costs at completion. Adjustments to estimates to complete are made in the periods in which facts resulting in a change become known. When total cost estimates exceed revenues, we accrue for the estimated losses when identified. The use of the proportionate performance and percentage-of-completion methods of accounting require significant judgment relative to estimating total

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contract costs or hours (hours being a proxy for costs), including assumptions relative to the length of time to complete the project, the nature and complexity of the work to be performed and anticipated changes in salaries and other costs.

Reimbursements of out-of-pocket expenditures incurred in connection with providing consulting services are included in service revenue, with the offsetting expense recorded in cost of service revenue.

Training services include on-site and classroom training. Training revenues are recognized as the related training services are provided.

Accounting for income taxes

As part of the process of preparing our consolidated financial statements, we are required to calculate our income tax expense based on taxable income by jurisdiction. There are many transactions and calculations about which the ultimate tax outcome is uncertain; as a result, our calculations involve estimates by management. Some of these uncertainties arise as a consequence of revenue-sharing, cost-reimbursement and transfer pricing arrangements among related entities and the differing tax treatment of revenue and cost items across various jurisdictions. If we were compelled to revise or to account differently for our arrangements, that revision could affect our tax liability.

The income tax accounting process also involves estimating our actual current tax liability, together with assessing temporary differences resulting from differing treatment of items for tax and accounting purposes. These differences result in deferred tax assets and liabilities, which are included within our consolidated balance sheets. We must then assess the likelihood that our deferred tax assets will be recovered from future taxable income and, to the extent we believe that it is more likely than not that all or a portion of our deferred tax assets will not be realized, we must establish a valuation allowance as a charge to income tax expense.

As of September 30, 2015, we had a valuation allowance of \$166.5 million against net deferred tax assets in the U.S. and a valuation allowance of \$31.7 million against net deferred tax assets in certain foreign jurisdictions. We have concluded, based on the weight of available evidence, that a full valuation allowance continues to be required against our U.S. net deferred tax assets as they are not more likely than not to be realized in the future. We will continue to reassess our valuation allowance requirements each financial reporting period.

The valuation allowance recorded against net deferred tax assets of certain foreign jurisdictions is established primarily for our net operating loss carryforwards, the majority of which do not expire. There are limitations imposed on the utilization of such net operating losses that could further restrict the recognition of any tax benefits.

We have not provided for U.S. income taxes or foreign withholding taxes on foreign unrepatriated earnings as it is our current intention to permanently reinvest these earnings outside the U.S. unless it can be done with no significant tax cost, with the exception of a newly formed foreign holding company. There was no impact to this assertion in the current year. In the future, we expect to incur annual deferred tax expense of \$11 million. If we decide to change this assertion in the future to repatriate any additional non-U.S. earnings, we may be required to establish a deferred tax liability on such earnings. The cumulative amount of undistributed earnings of our subsidiaries for which U.S. income taxes have not been provided totaled approximately \$1,915 million and \$613 million as of September 30, 2015 and 2014, respectively. In 2015, we reorganized certain European entities to simplify our legal and reporting structure. This reorganization resulted in a transfer of assets between subsidiaries and triggered a gain that resulted in an increase in unremitted earnings. The amount of unrecognized deferred tax liability on the undistributed earnings cannot be practicably determined at this time.

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In the normal course of business, PTC and its subsidiaries are examined by various taxing authorities, including the Internal Revenue Service (IRS) in the United States. We regularly assess the likelihood of additional assessments by tax authorities and provide for these matters as appropriate. We are currently under audit by tax authorities in several jurisdictions. Audits by tax authorities typically involve examination of the deductibility of certain permanent items, limitations on net operating losses and tax credits. Although we believe our tax estimates are appropriate, the final determination of tax audits and any related litigation could result in material changes in our estimates.

Valuation of assets and liabilities acquired in business combinations

In accordance with business combination accounting, we allocate the purchase price of acquired companies to the tangible and intangible assets acquired and liabilities assumed based on their estimated fair values. Determining these fair values requires management to make significant estimates and assumptions, especially with respect to intangible assets.

Our identifiable intangible assets acquired consist of developed technology, core technology, tradenames, customer lists and contracts, and software support agreements and related relationships. Developed technology consists of products that have reached technological feasibility. Core technology represents a combination of processes, inventions and trade secrets related to the design and development of acquired products. Customer lists and contracts and software support agreements and related relationships represent the underlying relationships and agreements with customers of the acquired company's installed base. We have generally valued intangible assets using a discounted cash flow model. Critical estimates in valuing certain of the intangible assets include but are not limited to:

future expected cash flows from software license sales, customer support agreements, customer contracts and related customer relationships and acquired developed technologies and trademarks and trade names;

expected costs to develop the in-process research and development into commercially viable products and estimating cash flows from the projects when completed;

the acquired company's brand awareness and market position, as well as assumptions about the period of time the acquired brand will continue to be used by the combined company; and

discount rates used to determine the present value of estimated future cash flows.

In addition, we estimate the useful lives of our intangible assets based upon the expected period over which we anticipate generating economic benefits from the related intangible asset.

Net tangible assets consist of the fair values of tangible assets less the fair values of assumed liabilities and obligations. Except for deferred revenues, net tangible assets were generally valued by us at the respective carrying amounts recorded by the acquired company, if we believed that their carrying values approximated their fair values at the acquisition date. The values assigned to deferred revenue reflect an amount equivalent to the estimated cost plus an appropriate profit margin to perform the services related to the acquired company's software support contracts.

In addition, uncertain tax positions and tax related valuation allowances assumed in connection with a business combination are initially estimated as of the acquisition date and we reevaluate these items quarterly with any adjustments to our preliminary estimates being recorded to goodwill provided that we are within the measurement period (up to one year from the acquisition date) and we continue to collect information in order to determine their estimated values. Subsequent to the measurement period or our final determination of the estimated value of uncertain tax positions or tax related valuation allowances, whichever comes first, changes to these uncertain tax positions and tax related valuation allowances will affect our provision for income taxes in our Consolidated Statements of Operations.

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Our estimates of fair value are based upon assumptions believed to be reasonable at that time, but which are inherently uncertain and unpredictable. Assumptions may be incomplete or inaccurate, and unanticipated events and circumstances may occur, which may affect the accuracy or validity of such assumptions, estimates or actual results.

When events or changes in circumstances indicate that the carrying value of a finite-lived intangible asset may not be recoverable, we perform an assessment of the asset for potential impairment. This assessment is based on projected undiscounted future cash flows over the asset's remaining life. If the carrying value of the asset exceeds its undiscounted cash flows, we record an impairment loss equal to the excess of the carrying value over the fair value of the asset, determined using projected discounted future cash flows of the asset.

Valuation of goodwill

Our goodwill totaled \$1,069.0 million and \$1,012.5 million as of September 30, 2015 and 2014, respectively. We have two operating segments: (1) Software Products and (2) Services. We assess goodwill for impairment at the reporting unit level. Our reporting units are determined based on the components of our operating segments that constitute a business for which discrete financial information is available and for which operating results are regularly reviewed by segment management. Our reporting units are consistent with our operating segments. As of September 30, 2015 and 2014, goodwill and acquired intangible assets in the aggregate attributable to our software products reportable segment was \$1,297.9 million and \$1,283.0 million, respectively, and attributable to our services reportable segment was \$62.4 million and \$66.4 million, respectively. We test goodwill for impairment in the third quarter of our fiscal year, or on an interim basis if an event occurs or circumstances change that would, more likely than not, reduce the fair value of a reporting segment below its carrying value. Factors we consider important (on an overall company basis and reportable segment basis, as applicable) that could trigger an impairment review include significant underperformance relative to historical or projected future operating results, significant changes in our use of the acquired assets or a significant change in the strategy for our business, significant negative industry or economic trends, a significant decline in our stock price for a sustained period, or a reduction of our market capitalization relative to net book value.

We completed our annual goodwill impairment review as of July 4, 2015 and concluded that no impairment charge was required as of that date. To conduct our test of goodwill, the fair value of each reporting unit is compared to its carrying value. If the reporting unit's carrying value exceeds its fair value, we record an impairment loss equal to the difference between the carrying value of goodwill and its implied fair value. We estimate the fair values of our reporting units using discounted cash flow valuation models. Those models require estimates of future revenues, profits, capital expenditures, working capital, terminal values based on revenue multiples, and discount rates for each reporting unit. We estimate these amounts by evaluating historical trends, current budgets, operating plans and industry data. The estimated fair value of each reporting unit was more than double its carrying value as of July 4, 2015.

Accounting for pensions

We sponsor several international pension plans. We make assumptions that are used in calculating the expense and liability of these plans. These key assumptions include the expected long-term rate of return on plan assets and the discount rate used to determine the present value of benefit obligations. In selecting the expected long-term rate of return on assets, we consider the average future rate of earnings expected on the funds invested to provide for the benefits under the pension plan. This includes considering the plans' asset allocations and the expected returns likely to be earned over the life of the plans. The discount rate reflects the estimated rate at which an amount that is invested in a portfolio of high-quality debt instruments would provide the future cash

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flows necessary to pay benefits when they come due. The actuarial assumptions used by us may differ materially from actual results due to changing market and economic conditions or longer or shorter life spans of the participants. Our actual results could differ materially from those we estimated, which could require us to record a greater amount of pension expense in future years and/or require higher than expected cash contributions.

We previously maintained a U.S. defined benefit pension plan (the Plan) that covered certain persons who were employees of Computervision Corporation (acquired by us in 1998). Benefits under the Plan were frozen in 1990. In the second quarter of 2014, we began the process of terminating the Plan, and we completed the plan termination in the fourth quarter of 2015. As of September 30, 2014, we valued the projected benefit obligations of the U.S. Plan based on the present value of estimated costs to settle the liabilities through a combination of lump sum payments to participants and purchasing annuities from an insurance company. This reflected an estimate of how many participants we expected will accept a lump sum offering, and an estimate of lump sum payouts for those participants. Liabilities expected to be settled through annuity contracts were estimated based on future benefit payments, discounted based on current interest rates that correspond to the liability payouts, adjusted to reflect a premium that would be assessed by the insurer.

We settled the liabilities in 2015 and recognized a settlement loss of \$66.3 million based on the projected benefit obligations and assets measured as of the dates the settlements occurred. In the fourth quarter of 2015, we contributed \$25 million to fully fund the Plan.

In determining our U.S. pension cost for 2015, 2014, and 2013, we used a discount rate of 3.80%, 4.90% and 4.00%, respectively, and an expected return on plan assets of 1.35% for 2015, 7.25% for 2014 and 2013. The decrease in the expected return in 2015 was because assets were moved to fixed income security, in anticipation of terminating the U.S. pension plan.

Certain of our international subsidiaries (principally Germany) also sponsor pension plans. Accounting and reporting for these plans requires the use of country-specific assumptions for discount rates and expected rates of return on assets. We apply a consistent methodology in determining the key assumptions that, in addition to future experience assumptions such as mortality rates, are used by our actuaries to determine our liability and expense for each of these plans. The discount rate for Germany was selected with reference to a spot-rate yield curve based on the yields of AA-rated Euro-denominated corporate bonds. In addition, our actuarial consultants determine the expense and liabilities of the plan using other assumptions for future experience, such as mortality rates. In determining our pension cost for 2015, 2014, and 2013, we used weighted average discount rates of 2.4%, 3.3% and 3.4%, respectively, and weighted average expected returns on plan assets of 5.8%, 5.7% and 5.4%, respectively. In 2015, 2014 and 2013, our actual return on plan assets for all plans was \$1.9 million, \$15.9 million and \$13.6 million, respectively. If actual returns are below our expected rates of return, it will impact the amount and timing of future contributions and expense for these plans.

As of September 30, 2015 and 2014, our plans in total were underfunded, representing the difference between our projected benefit obligation and fair value of plan assets, by \$20.2 million and \$61.2 million, respectively. The projected benefit obligation as of September 30, 2015 was determined using a weighted average discount rate of 2.2% for our international plans. The most sensitive assumptions used in calculating the expense and liability of our pension plans are the discount rate and the expected return on plan assets. Total GAAP net periodic pension cost was \$73.9 million in 2015, including a \$66.3 million settlement loss related to the U.S. Plan termination, and we expect it to be approximately \$2 million in 2016. A 50 basis point change to our discount rate and expected return on plan assets assumptions would have changed our pension expense for the year ended September 30, 2015 by approximately \$1 million. A 50 basis point decrease in our discount rate assumptions would increase our projected benefit obligation as of September 30, 2015 by approximately \$7 million.

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Legal contingencies

We are periodically subject to various legal claims and involved in various legal proceedings. We routinely review the status of each significant matter and assess our potential financial exposure. If the potential loss from any matter is considered probable and the amount can be reasonably estimated, we record a liability for the estimated loss. Significant judgment is required in both the determination of probability and the determination as to whether the amount of an exposure is reasonably estimable. Because of inherent uncertainties related to these legal matters, we base our loss accruals on the best information available at the time. Further, estimates of this nature are highly subjective, and the final outcome of these matters could vary significantly from the amounts that have been included in the accompanying Consolidated Financial Statements. As additional information becomes available, we reassess our potential liability and may revise our estimates. Such revisions could have a material impact on future quarterly or annual results of operations.

Recent accounting pronouncements

In accordance with recently issued accounting pronouncements, we will be required to comply with certain changes in accounting rules and regulations.

Revenue recognition

In May 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2014-09, Revenue from Contracts with Customers: Topic 606 (ASU 2014-09), to supersede nearly all existing revenue recognition guidance under U.S. GAAP. The core principle of ASU 2014-09 is to recognize revenues when promised goods or services are transferred to customers in an amount that reflects the consideration that is expected to be received for those goods or services. ASU 2014-09 defines a five step process to achieve this core principle and, in doing so, it is possible more judgment and estimates may be required within the revenue recognition process than required under existing U.S. GAAP including identifying performance obligations in the contract, estimating the amount of variable consideration to include in the transaction price and allocating the transaction price to each separate performance obligation. In July 2015, the FASB approved a one-year delay in the effective date. ASU 2014-09 is effective for us in our first quarter of fiscal 2019 using either of two methods: (i) retrospective to each prior reporting period presented with the option to elect certain practical expedients as defined within ASU 2014-09; or (ii) retrospective with the cumulative effect of initially applying ASU 2014-09 recognized at the date of initial application and providing certain additional disclosures as defined per ASU 2014-09. We are currently evaluating the impact of our pending adoption of ASU 2014-09 on our consolidated financial statements.

Debt issuance costs

In April 2015, the FASB issued ASU No. 2015-03, Interest-Imputation of Interest (Subtopic 835-30), to simplify the required presentation of debt issuance costs. The amended guidance requires that debt issuance costs be presented in the balance sheet as a direct reduction from the carrying amount of the related debt liability rather than as an asset. It is effective for financial statements issued for fiscal years beginning after December 15, 2015, our fiscal 2017, with early adoption permitted. The new guidance will be applied retrospectively to each prior period presented. We are currently evaluating the impact of the new guidance on our consolidated financial statements.

Table of Contents**Deferred taxes**

In November 2015, the FASB issued Accounting Standards Update No. 2015-17, Balance Sheet Classification of Deferred Taxes, (Topic 740), to simplify the presentation of deferred income taxes. The amendments in this Update require that all deferred tax assets and liabilities, along with any related valuation allowance, be classified as noncurrent on the balance sheet. As a result, each jurisdiction will now only have one net noncurrent deferred tax asset or liability. The guidance does not change the existing requirement that permits offsetting only within a jurisdiction and companies are still prohibited from offsetting deferred tax liabilities from one jurisdiction against deferred tax assets of another jurisdiction. ASU 2015-17 is effective for public companies for fiscal years beginning after December 15, 2016, with early adoption permitted for all entities as of the beginning of an interim or annual reporting period. This guidance may be applied either prospectively or retrospectively (by reclassifying the comparative balance sheet). We early adopted this new

guidance for our current form 10-Q reporting and applied this guidance prospectively. As a result, the deferred tax assets and deferred tax liabilities on the Consolidated Balance Sheets are not comparative.

Liquidity and capital resources

	January 2, 2016	January 3, 2015
	(in thousands)	
Cash and cash equivalents	\$ 296,797	\$ 261,052

Amounts below are for the three months ended:

Cash provided by operating activities	\$ 61,254	\$ 13,632
Cash used by investing activities	(68,965)	(8,767)
Cash provided (used) by financing activities	32,924	(27,753)

	2015	September 30, 2014	September 30, 2013
	(in thousands)		
Cash and cash equivalents	\$ 273,417	\$ 293,654	\$ 241,913

Activity for the year included the following:

Cash provided by operating activities	\$ 179,903	\$ 304,552	\$ 224,683
Cash used by investing activities	(140,039)	(348,800)	(274,450)
Cash provided (used) by financing activities	(42,155)	105,353	(196,524)

Cash and cash equivalents

We invest our cash with highly rated financial institutions and in diversified domestic and international money market mutual funds. Cash and cash equivalents include highly liquid investments with original maturities of three months or less. At January 2, 2016, cash and cash equivalents totaled \$297 million, up from \$273 million at September 30, 2015, reflecting \$61 million in operating cash flow, \$50 million of amounts borrowed under our credit facility, offset by \$65 million to acquire Vuforia, \$4 million used for capital expenditures, and \$15 million used to pay withholding taxes on stock-based awards that vested in the period.

Cash provided by operating activities

Cash provided by operating activities was \$61.3 million in the first three months of 2016, compared to \$13.6 million in the first three months of 2015. The increase is primarily due to higher accounts receivable collections, lower year-end bonus payments due to failure to achieve associated performance-based targets and lower

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pension contributions, partially offset by lower earnings. Net (loss) income for the first three months of 2016 and 2015 was \$(23.9) million and \$30.3 million, respectively. Accounts receivable days sales outstanding was 52 days at the end of the first quarter of 2016 compared to 57 days as of September 30, 2015 and 59 days at the end of the first quarter of 2015.

Cash provided by operating activities was \$179.9 million in 2015, compared to \$304.6 million in 2014 and \$224.7 million in 2013.

Cash provided by operations was lower due to net income, higher restructuring payments (\$53.6 million in 2015 compared to \$20.6 million in 2014 and \$37.2 million in 2013) and contributions to pension plans, which were higher by \$33.8 million in 2015. Cash paid for income taxes was \$30.1 million, \$25.5 million and \$35.4 million in 2015, 2014 and 2013, respectively. Accounts receivable days sales outstanding was 57 days as of September 30, 2015 compared to 58 days as of September 30, 2014 and 60 days as of September 30, 2013.

We periodically provide financing with payment terms up to 24 months to credit-worthy customers for software purchases. As of January 2, 2016 and September 30, 2015, amounts due from customers for contracts with original payment terms greater than twelve months (financing receivables) totaled \$26.6 million and \$27.4 million, respectively, compared to \$47.7 million at January 3, 2015.

Cash used by investing activities

	January 2, 2016	Three months ended January 3, 2015 (in thousands)
Additions to property and equipment	\$ (4,185)	\$ (7,947)
Purchases of investments		(1,000)
Acquisitions of businesses, net of cash acquired	(64,780)	180
	\$ (68,965)	\$ (8,767)

In the first quarter of 2016, we used cash of \$64.8 million (net of cash acquired) to acquire Vuforia. Our expenditures for property and equipment consist primarily of computer equipment, software, office equipment and facility improvements.

	2015	Year ended September 30,	
		2014	2013
		(in thousands)	
Acquisitions of businesses, net of cash acquired	\$ (98,411)	\$ (323,525)	\$ (245,843)
Additions to property and equipment	(30,628)	(25,275)	(29,328)
Purchases of investments	(11,000)		
Other			721
	\$ (140,039)	\$ (348,800)	\$ (274,450)

In the third quarter of 2015, we acquired ColdLight for \$98.6 million, net of cash acquired. In the fourth quarter 2014, we acquired Axeda and Atego for \$165.9 million and \$46.1 million, respectively, net of cash acquired, and in the second quarter of 2014, we acquired ThingWorx for \$111.5 million, net of cash acquired. In the first quarter of 2013, we acquired Servigistics, Inc. for \$220.8 million, net of cash acquired and, in the fourth quarter of 2013, we acquired NetIDEAS and Enigma Information Systems LTD, for an aggregate of \$25.0 million, net of cash acquired.

Table of Contents**Cash provided (used) by financing activities**

	January 2, 2016	Three months ended January 3, 2015 (in thousands)
Net borrowings (repayments) under our credit facility	\$ 50,000	\$ (6,250)
Payments of withholding taxes in connection with vesting of stock-based awards	(14,833)	(21,669)
Proceeds from issuance of common stock	1	3
Excess tax benefits from stock-based awards	56	163
Contingent consideration	(1,250)	
Credit facility origination costs	(1,050)	
	\$ 32,924	\$ (27,753)

In the first quarter of 2016, we borrowed \$50 million under the credit facility to acquire Vuforia. In the first quarter of 2015, we borrowed \$35 million for working capital requirements. We repaid \$41.3 million of borrowings in the first three months of 2015.

	2015	Year ended September 30, 2014	2013 (in thousands)
Borrowings under credit facility	\$ 185,000	\$ 1,386,250	\$
Repayments of borrowings under credit facility	(128,750)	(1,032,500)	(111,875)
Repurchases of common stock	(64,940)	(224,915)	(74,871)
Proceeds from issuance of common stock	41	877	4,884
Payments of withholding taxes in connection with vesting of stock-based awards	(29,207)	(26,857)	(14,996)
Excess tax benefits from stock-based awards	24	10,428	334
Credit facility origination costs		(7,930)	
Contingent consideration	(4,323)		
	\$ (42,155)	\$ 105,353	\$ (196,524)

In both the second and fourth quarters of 2014, we refinanced our credit facility as described in *Credit Facility* below. We incurred \$7.9 million of origination costs in 2014 in connection with entering into and amending the new and previous credit facilities. In 2015, we borrowed \$100 million as a result of the purchase of ColdLight and \$64.9 million to repurchase shares. In 2014, we borrowed \$280 million to finance acquisitions and \$125 million to repurchase shares under an accelerated share repurchase transaction. Proceeds from issuance of common stock reflects stock option exercises. Stock option exercises totaled 0.1 million shares in 2014 and 0.5 million shares in 2013. Stock option exercises were only 6,000 (approximately) in 2015. Assuming no additional stock options are granted, future proceeds from option exercises will be immaterial.

Credit agreement

In November 2015, we entered into a multi-currency credit facility with a syndicate of sixteen banks for which JPMorgan Chase Bank, N.A. acts as Administrative Agent. This credit facility amended and restated in its entirety our credit facility described in Note H of our Annual Report on Form 10-K for the fiscal year ended September 30, 2015. We expect to use the credit facility for general corporate purposes, including acquisitions of businesses, share repurchases and working capital requirements. As of January 2, 2016, the fair value of our credit facility approximates its book value.

The credit facility consists of a \$1 billion revolving loan commitment, which may be increased by an additional \$500 million (in the form of revolving loans or term loans, or a combination thereof) if the existing or additional lenders are willing to make such increased commitments. The revolving loan commitment does not require

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amortization of principal and may be repaid in whole or in part prior to the scheduled maturity date at our option without penalty or premium. The credit facility matures on September 15, 2019, when all remaining amounts outstanding will be due and payable in full.

PTC and certain eligible foreign subsidiaries are eligible borrowers under the credit facility. Any borrowings by PTC Inc. under the credit facility are guaranteed by PTC Inc.'s material domestic subsidiaries that become parties to the subsidiary guaranty, if any. As of the filing of this prospectus supplement, there are no subsidiary guarantors of the obligations under the credit facility. Any borrowings by eligible foreign subsidiary borrowers are guaranteed by PTC Inc. and any subsidiary guarantors. As of the filing of this prospectus supplement, no amounts under the credit facility have been borrowed by an eligible foreign subsidiary borrower. In addition, PTC's and certain of its domestic subsidiaries' owned property (including equity interests) is subject to first priority perfected liens in favor of the lenders of this credit facility. 100% of the voting equity interests of certain of PTC's domestic subsidiaries and 65% of its material first-tier foreign subsidiaries are pledged as collateral for the obligations under the credit facility.

As of January 2, 2016, we had \$718.1 million in revolving loans outstanding under the credit facility. In January 2016, we borrowed \$120 million, \$100 million of which was used to acquire Kepware. Loans under the credit facility bear interest at variable rates which reset every 30 to 180 days depending on the rate and period selected by PTC as described below. As of January 2, 2016, the weighted average annual interest rate for borrowing outstanding was 1.9%. Interest rates on borrowings outstanding under the credit facility range from 1.25% to 1.75% above an adjusted LIBO rate for Euro currency borrowings or from 0.25% to 0.75% above the defined base rate (the greater of the Prime Rate, the FRBNY rate plus 0.5%, or an adjusted LIBO rate plus 1%) for base rate borrowings, in each case based upon our total leverage ratio. Additionally, we may borrow certain foreign currencies at rates set in the same range above the respective London interbank offered interest rates for those currencies, based on our leverage ratio. A quarterly commitment fee on the undrawn portion of the credit facility is required, ranging from 0.175% to 0.30% per annum, based upon our total leverage ratio.

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The credit facility limits our and our subsidiaries' ability to, among other things: incur liens or guarantee obligations; pay dividends (other than to PTC) and make other distributions; make investments and enter into joint ventures; dispose of assets; and engage in transactions with affiliates, except on an arms-length basis. Under the credit facility, we and our material domestic subsidiaries may not invest cash or property in, or loan to, our foreign subsidiaries in aggregate amounts exceeding \$75.0 million for any purpose and an additional \$200.0 million for acquisitions of businesses. In addition, under the credit facility, we must maintain the following financial ratios.

	Ratio as of January 2, 2016
<i>Total leverage ratio</i>	2.68 to 1.00
Ratio of consolidated total indebtedness to the consolidated trailing four quarters EBITDA, not to exceed:	
- prior to a Covenant Modification Trigger Event (incurring unsecured indebtedness of not less than \$200 million in aggregate)	
- 3.50 to 1.00 as of the last day of any fiscal quarter ending on or prior to July 2, 2016, and	
- 3.25 to 1.00 as of the last day of any fiscal quarter ending on or after September 30, 2016;	
- on and after a Covenant Modification Trigger Event, 4.00 to 1.00 as of the last day of any fiscal quarter.	
<i>Fixed charge coverage ratio</i>	7.65 to 1.00
Ratio of consolidated trailing four quarters EBITDA less consolidated capital expenditures to consolidated fixed charges as of the last day of any fiscal quarter, to be not less than 3.50 to 1.00.	
<i>Senior secured leverage ratio</i>	N/A
Ratio of senior consolidated total indebtedness (which excludes unsecured indebtedness) to consolidated trailing four quarters EBITDA as of the last day of any fiscal quarter ending after a Covenant Modification Trigger Event, not to exceed 3.00 to 1.00.	

As of January 2, 2016, we were in compliance with all financial and operating covenants of the credit facility.

Any failure to comply with the financial or operating covenants of the credit facility would prevent PTC from being able to borrow additional funds, and would constitute a default, permitting the lenders to, among other things, accelerate the amounts outstanding, including all accrued interest and unpaid fees, under the credit facility and to terminate the credit facility. A change in control of PTC, as defined in the agreement, also constitutes an event of default, permitting the lenders to accelerate the indebtedness and terminate the credit facility.

Share repurchases

Our Articles of Organization authorize us to issue up to 500 million shares of our common stock. Our Board of Directors has periodically authorized the repurchase of shares of our common stock. On August 4, 2014, our Board of Directors authorized us to repurchase up to an additional \$600 million of our common stock through September 30, 2017. We intend to use cash from operations and borrowings under our credit facility to make such repurchases. We repurchased 2.7 million shares at a cost of \$64.9 million in 2015, 5.1 million shares at a cost of \$224.9 million in 2014 (including \$125 million purchased through accelerated share repurchase agreement described below) and 3.1 million shares at a cost of \$74.9 million in 2013. In the first quarter of 2016, we did not repurchase any shares. In the first quarter of 2015, we received 1.1 million shares as the final settlement of the accelerated share repurchase agreement described below. All shares of our common stock repurchased are automatically restored to the status of authorized and unissued.

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On August 14, 2014, we entered into an accelerated share repurchase (ASR) agreement with a major financial institution (Bank). The ASR allowed us to buy a large number of shares immediately at a purchase price determined by an average market price over a period of time. Under the ASR, we agreed to purchase \$125 million of our common stock, in total, with an initial delivery to us in August 2014 of 2.3 million shares. We settled the ASR in December 2014 and the Bank delivered to us an additional 1.1 million shares.

Future expectations

We believe that existing cash and cash equivalents, together with cash generated from operations, and amounts available under our credit facility will be sufficient to meet our working capital and capital expenditure requirements through at least the next twelve months and to meet our known long-term capital requirements. We expect our capital expenditures for 2016 to be approximately \$30 million and that we will repurchase \$70 million of our stock in the second half of the year. Our ability to repurchase shares is subject to our having sufficient cash available and maintaining compliance with credit facility covenants.

We evaluate possible strategic transactions on an ongoing basis and at any given time may be engaged in discussions or negotiations with respect to possible strategic transactions. Our expected uses of cash could change, our cash position could be reduced and we may incur additional debt obligations to the extent we complete additional acquisitions.

We have substantial cash requirements in the United States and a significant portion of our cash is generated and held outside the U.S. At January 2, 2016, we had cash and cash equivalents of \$72.0 million in the U.S., \$90.6 million in Europe, \$89.8 million in the Pacific Rim (including India), \$24.0 million in Japan and \$20.4 million in other non-U.S. countries. We believe that the combination of our existing U.S. cash and cash equivalents, future U.S. operating cash flows and cash available under our credit facility, are sufficient to meet our ongoing U.S. operating expenses and known capital requirements.

Contractual obligations

At September 30, 2015, our contractual obligations were as follows:

Contractual obligations	Total	Less than 1 year	Payments due by period		
			1-3 years	3-5 years	5 years (in millions)
Credit facility(1)	\$ 719.0	\$ 64.2	\$ 150.7	\$ 504.0	\$
Operating leases(2)	144.1	35.8	48.3	33.3	26.7
Purchase obligations(3)	28.0	21.6	5.8	0.7	
Pension liabilities(4)	20.2	0.8	1.5	1.5	16.4
Unrecognized tax benefits(5)	14.1				
Total	\$ 925.4	\$ 122.4	\$ 206.3	\$ 539.5	\$ 43.1

(1) Credit facility amounts above include required principal repayments and interest and commitment fees based on the balance outstanding as of September 30, 2015 and the interest rate in effect as of September 30, 2015, 1.875%. Pursuant to our amended and restated credit facility signed November 4, 2015, the term loan was converted into a revolving loan. The credit facility matures on September 15, 2019, when all remaining amounts outstanding will be due and payable in full. Future payments under this new agreement will be: \$13.8 million in less than one year, \$28.6 million in one to three years, and \$732.6 million in three to five years.

(2) The future minimum lease payments above include minimum future lease payments for excess facilities under noncancelable operating leases. These leases qualify for operating lease accounting treatment and, as such, are not included on our balance sheet. See Note I *Commitments and Contingencies* of Notes to

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Consolidated Financial Statements in our Annual Report on Form 10-K for the period ended September 30, 2015 for additional information regarding our operating leases.

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- (3) Purchase obligations represent minimum commitments due to third parties, including royalty contracts, research and development contracts, telecommunication contracts, information technology maintenance contracts in support of internal-use software and hardware and other marketing and consulting contracts. Contracts for which our commitment is variable, based on volumes, with no fixed minimum quantities, and contracts that can be canceled without payment penalties have been excluded. The purchase obligations included above are in addition to amounts included in current liabilities and prepaid expenses recorded on our September 30, 2015 consolidated balance sheet.
- (4) These obligations relate to our international pension plans. These liabilities are not subject to fixed payment terms. Payments have been estimated based on the plans' current funded status, planned employer contributions and actuarial assumptions. In addition, we may, at our discretion, make additional voluntary contributions to the plans. See Note M *Pension Plans* of Notes to Consolidated Financial Statements in our Annual Report on Form 10-K for the period ended September 30, 2015 for further discussion.
- (5) As of September 30, 2015, we had recorded total unrecognized tax benefits of \$14.1 million. This liability is not subject to fixed payment terms and the amount and timing of payments, if any, which we will make related to this liability, are not known. See Note G *Income Taxes* of Notes to Consolidated Financial Statements in our Annual Report on Form 10-K for the period ended September 30, 2015 for additional information.

Based on amounts outstanding at April 2, 2016, assuming no principal repayments before the scheduled maturity date, we estimate future payments under our credit facility to be as follows:

(in millions)	Total	Remainder of 2016	1-3 Years	3-5 Years	More than 5 years
Credit facility	\$ 900.6	\$ 9.2	\$ 36.1	\$ 855.3	\$

As of April 2, 2016, we had letters of credit and bank guarantees outstanding of approximately \$4.1 million (of which approximately \$1.2 million was collateralized), primarily related to our corporate headquarters lease in Needham, Massachusetts.

Off-Balance sheet arrangements

We have not created, and are not party to, any special-purpose or off-balance sheet entities for the purpose of raising capital, incurring debt or operating parts of our business that are not consolidated (to the extent of our ownership interest therein) into our financial statements. We have not entered into any transactions with unconsolidated entities whereby we have 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.

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Description of other indebtedness

On November 4, 2015, PTC Inc. entered into an amended and restated credit agreement with JPMorgan Chase Bank, N.A. as administrative agent, for a secured multi-currency bank credit facility with a syndicate of banks.

The senior credit facility consists of a \$1.0 billion revolving line of credit, which may be increased by up to an additional \$500.0 million in the aggregate if the existing or additional lenders are willing to make such increased commitments. PTC and PTC (IFSC) Limited, an indirect wholly owned subsidiary of PTC Inc., are currently the borrowers under the senior credit facility. Certain other foreign subsidiaries of PTC may be designated as borrowers in the future under certain conditions. Any borrowings by PTC Inc. under the credit facility are guaranteed by PTC Inc.'s material domestic subsidiaries that become parties to the subsidiary guaranty, if any. As of the filing of this prospectus supplement, there are no subsidiary guarantors of the obligations under the credit facility. Any borrowings by eligible foreign subsidiary borrowers are guaranteed by PTC Inc. and any subsidiary guarantors. As of the filing of this prospectus supplement, no amounts under the credit facility have been borrowed by an eligible foreign subsidiary borrower. The obligations under the senior credit facility are secured, subject to exceptions, by a first priority perfected security interest in substantially all existing and after-acquired personal property owned by PTC and certain of its material domestic subsidiaries, including without limitation, intellectual property and a pledge of (i) 100% of the voting equity interests of certain of PTC's domestic subsidiaries and (ii) 65% of the voting equity interests of PTC's or certain of its material domestic subsidiaries' material first-tier foreign subsidiaries.

Interest rates for the senior credit facility are available at the option of PTC and would range from 1.75% to 1.25% above the Eurocurrency rate for Eurocurrency-based borrowings or would range from 0.75% to 0.25% above the defined base rate for base rate borrowings, in each case based upon PTC's total leverage ratio. Additionally, PTC may borrow certain foreign currencies at rates set in the same range above an adjusted LIBO rate, based on PTC's total leverage ratio. A quarterly commitment fee on the undrawn portion of the credit facility is required, ranging from 0.30% to 0.175% per annum, based upon PTC's total leverage ratio.

The senior credit facility limits PTC's and its subsidiaries' ability to, among other things: incur additional indebtedness; incur liens or guarantee obligations; pay dividends and make other distributions; make investments and enter into joint ventures; dispose of assets; and engage in transactions with affiliates, except on an arms-length basis.

Under the senior credit facility, PTC and its domestic subsidiaries may not invest cash or property in, or loan to, PTC's foreign subsidiaries in aggregate amounts exceeding \$200 million for acquisitions of businesses and an additional \$75 million for any purpose. In addition, under the senior credit facility, PTC and its subsidiaries must maintain the following financial ratios:

A total leverage ratio, defined as consolidated total indebtedness to consolidated EBITDA as defined in the credit agreement, not exceeding, (i) prior to a Covenant Modification Trigger Event (defined below) (x) 3.50 to 1.00 as of the last day of any fiscal quarter ending on or prior to July 2, 2016 and (y) 3.25 to 1.00 as of the last day of any fiscal quarter ending on or after September 30, 2016 and (ii) on and after a Covenant Modification Trigger Event, 4.00 to 1.00 as of the last day of any fiscal quarter.

After a Covenant Modification Trigger Event, a senior secured leverage ratio, defined as consolidated total indebtedness (excluding any unsecured indebtedness or subordinated indebtedness) to consolidated EBITDA, not exceeding 3.00 to 1.00 as of the last day of any fiscal quarter. A Covenant Modification Trigger Event is the incurrence by PTC of unsecured indebtedness in an amount of not less than \$200 million in the aggregate.

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A fixed charge coverage ratio, defined as the ratio of (1) consolidated EBITDA less consolidated capital expenditures to (2) consolidated fixed charges, defined as interest expenses plus scheduled payments of principal, of no less than 3.50 to 1.00 as of the last day of any fiscal quarter.

Any failure to comply with the financial or operating covenants of the senior credit facility would not only prevent PTC from being able to borrow additional funds, but would constitute a default, permitting the lenders to, among other things, accelerate the amounts outstanding, including all accrued interest and unpaid fees, under the credit facility and to terminate the senior credit facility. A change in control of PTC also constitutes an event of default, permitting the lenders to accelerate the indebtedness and terminate the senior credit facility.

The senior credit facility was amended on April 18, 2016, to make various changes to the terms and conditions of the credit facility, including an amendment to the definition of Consolidated EBITDA. The senior credit facility matures on September 15, 2019, when all amounts outstanding will be due and payable in full. The facility does not require amortization of principal. It may be prepaid before maturity in whole or in part at PTC's option without penalty or premium. PTC may at any time reduce or terminate the commitments under the senior credit facility.

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Description of notes

PTC Inc. (*PTC*) will issue the Notes under an indenture between itself and The Bank of New York Mellon, as trustee (the *Trustee*), to be dated as of the issue date for the Notes. The indenture will be supplemented by a supplemental indenture to be entered into concurrently with the delivery of the Notes (as so supplemented, the *Indenture*).

Certain terms used in this description are defined under the subheading *Certain definitions*. In this description, the words *we*, *us*, *our* and *Iss* refer to PTC and not to any of its subsidiaries. The terms of the Notes include those stated in the Indenture and those made part of the Indenture by reference to the Trust Indenture Act of 1939, as amended.

The following description is only a summary of the material provisions of the Notes and the Indenture. We urge you to read the Indenture because it, not this description, defines your rights as holders of these Notes. You may request copies of the Indenture at our address set forth under the heading *Where you can find more information*.

The registered holder will be treated as the owner of a Note for all purposes. Only registered holders will have rights under the Indenture.

Brief description of the notes

These Notes:

will be unsecured senior obligations of the Issuer; and

will be senior in right of payment to all existing and any future subordinated indebtedness of the Issuer.

The obligations of the Issuer under the Notes and the Indenture will not be guaranteed by any of the Issuer's Subsidiaries except to the extent any of the Issuer's Subsidiaries is required to guarantee the Issuer's obligations under the Notes and the Indenture in the future pursuant to the covenant described below under *Future guarantors*.

Principal, maturity and interest

The Issuer will issue the Notes initially with a maximum aggregate principal amount of \$500.0 million. The Issuer will issue the Notes in denominations of \$2,000 and any greater integral multiple of \$1,000. The Notes will mature on May 15, 2024. We are permitted to issue more Notes under the Indenture in an unlimited aggregate principal amount (the *Additional Notes*); *provided* that if any such Additional Notes are not fungible with the Notes offered hereby for U.S. federal income tax purposes, such Additional Notes will have one or more separate CUSIP numbers. The Notes and the Additional Notes, if any, will be treated as a single class for all purposes of the Indenture, including waivers, amendments, redemptions and offers to purchase. Unless the context otherwise requires, for all purposes of the Indenture and this *Description of notes*, references to the Notes include any Additional Notes actually issued.

Interest on the Notes will accrue at the rate of 6.000% per annum and will be payable semi-annually in arrears on May 15 and November 15, commencing on November 15, 2016. We will make each interest payment to the holders of record of these Notes on the immediately preceding May 1 and November 1.

Interest on these Notes will accrue from the date of original issuance or, if interest has already been paid, from the date it was most recently paid. Interest will be computed on the basis of a 360-day year comprised of twelve 30-day months.

Table of Contents**Optional redemption**

Except as described below, the Notes are not redeemable until May 15, 2019. On and after May 15, 2019, the Issuer may redeem the Notes, in whole or, from time to time, in part, upon not less than 30 nor more than 60 days' notice mailed or delivered by electronic transmission in accordance with the applicable procedures of DTC, at the redemption prices (expressed as a percentage of principal amount of the Notes to be redeemed) set forth below, plus accrued and unpaid interest on the Notes, if any, to but excluding the applicable redemption date, if redeemed during the 12-month period beginning on May 15, 2019 of the years indicated below:

Year	Percentage
2019	104.500%
2020	103.000%
2021	101.500%
2022 and thereafter	100.000%

Prior to May 15, 2019, the Issuer may on any one or more occasions redeem up to 40% of the original aggregate principal amount of the Notes (calculated after giving effect to any issuance of Additional Notes) with the Net Cash Proceeds of one or more Equity Offerings, upon not less than 30 nor more than 60 days' notice mailed or delivered by electronic transmission in accordance with the applicable procedures of DTC, at a redemption price equal to 106.000% of the aggregate principal amount thereof, plus accrued and unpaid interest, if any, to but excluding the applicable redemption date; *provided that*

(1) at least 60% of the original aggregate principal amount of the Notes (calculated after giving effect to any issuance of Additional Notes) remains outstanding after each such redemption (unless all of such Notes are redeemed); and

(2) such redemption occurs within 90 days after the closing of any such Equity Offering.

In addition, at any time prior to May 15, 2019, the Issuer may redeem the Notes, in whole or, from time to time, in part, upon not less than 30 nor more than 60 days' notice mailed or delivered by electronic transmission in accordance with the applicable procedures of DTC, at a redemption price equal to 100% of the aggregate principal amount of the Notes plus the Applicable Premium, plus accrued and unpaid interest, if any, to but excluding the applicable redemption date. The Issuer shall be solely responsible for the calculation of the Applicable Premium.

If the optional redemption date is on or after an interest record date but on or prior to the related interest payment date, then any accrued and unpaid interest in respect of Notes subject to redemption will be paid on the redemption date to the Person in whose name the Note is registered at the close of business, on such record date, and no additional interest will be payable to holders whose Notes will be subject to redemption by the Issuer.

Notice of any redemption of the Notes in connection with a transaction or an event (including a Change of Control or completion of an Equity Offering) may, at the Issuer's discretion, be given prior to the completion or the occurrence thereof and any such redemption or notice may, at the Issuer's discretion, be subject to one or more conditions precedent, including, but not limited to, completion or occurrence of the related transaction or event.

Applicable Premium means, with respect to a Note on any date of redemption, the greater of:

(1) 1.0% of the principal amount of such Note, and

(2) the excess, if any, of (a) the present value as of such date of redemption of (i) the redemption price of such Note on May 15, 2019 (such redemption price being set forth in the table above under "Optional

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Redemption) plus (ii) all required interest payments due on such Note through May 15, 2019 (excluding accrued but unpaid interest to the date of redemption), computed using a discount rate equal to the Treasury Rate as of such date of redemption plus 50 basis points, over (b) the then-outstanding principal amount of such Note.

Treasury Rate means as of any date of redemption of Notes the yield to maturity at such date of U.S. Treasury securities with a constant maturity (as compiled and published in the most recent Federal Reserve Statistical Release H.15(519) that has become publicly available at least two Business Days (but not more than five Business Days) prior to such redemption date (or, if such Statistical Release is no longer published, any publicly available source or similar market data selected by the Issuer in good faith)) most nearly equal to the period from such redemption date to May 15, 2019; *provided, however*, that if the period from such redemption date to May 15, 2019 is not equal to the constant maturity of a U.S. Treasury security for which a weekly average yield is given, the Treasury Rate shall be obtained by linear interpolation (calculated to the nearest one-twelfth of a year) from the weekly average yields of U.S. Treasury securities for which such yields are given, except that if the period from the redemption date to May 15, 2019 is less than one year, the weekly average yield on actually traded U.S. Treasury securities adjusted to a constant maturity of one year will be used.

Selection and notice of redemption

If we are redeeming less than all the Notes at any time, the Notes will be selected on a *pro rata* basis, by lot or by such other method as the Trustee in its sole discretion shall deem to be fair and appropriate; *provided, however*, that global Notes will be selected in accordance with the applicable procedures of DTC.

We will redeem Notes of \$2,000 or less in whole and not in part. We will cause notices of redemption to be mailed by first-class mail (or delivered by electronic transmission in accordance with the applicable procedures of DTC) not less than 30 nor more than 60 days prior to the redemption date to each holder of Notes to be redeemed at its registered address or otherwise in accordance with the applicable procedures of DTC, except that redemption notices may be mailed or sent more than 60 days prior to a redemption date if the notice is issued in connection with a legal defeasance, covenant defeasance or satisfaction and discharge of the Indenture.

If any Note is to be redeemed in part only, the notice of redemption that relates to that Note will state the portion of the principal amount thereof to be redeemed. We will issue a new Note in a principal amount equal to the unredeemed portion of the original Note in the name of the holder thereof upon cancellation of the original Note (or cause to be transferred by book entry). Notes called for redemption become due on the date fixed for redemption. On and after the redemption date, interest ceases to accrue on Notes or portions of them called for redemption.

No sinking fund; open market purchases

We are not required to make any sinking fund payments with respect to the Notes. However, under certain circumstances, we may be required to offer to purchase Notes as described under the captions *Change of control* and *Certain covenants Limitation on asset sales*. We may at any time and from time to time purchase Notes in the open market or otherwise.

Guarantees

Initially, all of our Subsidiaries will be Non-Guarantor Subsidiaries. Each of our domestic Subsidiaries that in the future becomes a Guarantor (see *Future guarantors*) will jointly and severally guarantee, on a senior

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unsecured basis, our obligations under the Notes and the Indenture. The obligations of each Guarantor under its Guarantee are designed to be limited as necessary to prevent such Guarantee from constituting a fraudulent conveyance under applicable law and, therefore, will be expressly limited to the maximum amount that such Guarantor could guarantee without such Guarantee constituting a fraudulent conveyance. This limitation, however, may not be effective to prevent such Guarantee from constituting a fraudulent conveyance. In addition, if a Guarantee was rendered voidable, it could be subordinated by a court to all other indebtedness (including guarantees and other contingent liabilities) of the applicable Guarantor, and, depending on the amount of such indebtedness, a Guarantor's liability on its Guarantee could be reduced to zero. See Risk factors Risks related to the notes Federal and state fraudulent transfer laws may permit a court to void the notes and/or the note guarantees, if any, and if that occurs, you may not receive any payments on the notes and/or the note guarantees.

Each Guarantor that makes a payment under its Guarantee will be entitled upon payment in full of all guaranteed obligations under the Indenture to a contribution from each other Guarantor in an amount equal to such other Guarantor's *pro rata* portion of such payment based on the respective net assets of all the Guarantors at the time of such payment determined in accordance with GAAP.

The Guarantee of a Guarantor will be automatically released:

- (1) upon the sale or other disposition (including by way of consolidation or merger) of a Guarantor;
- (2) upon the sale or disposition of all or substantially all the assets of a Guarantor;
- (3) at such time as such Guarantor no longer is a guarantor of any (i) Debt of the Issuer or any other Guarantor under a Debt Facility with an aggregate principal amount or commitments of \$50.0 million or more (including, without limitation, the Credit Agreement) or (ii) Material Capital Markets Debt of the Issuer or any other Guarantor;
- (4) upon the defeasance of the Notes, as provided under Defeasance ; or
- (5) as described under Amendments and waivers, in the case of clause (1) or (2), other than to the Issuer or a Subsidiary of the Issuer and as permitted by the Indenture.

Ranking

The indebtedness evidenced by the Notes and the Guarantees will be senior unsecured obligations and will rank equally in right of payment with all other unsecured unsubordinated indebtedness of the Issuer or the applicable Guarantor, as the case may be. Secured indebtedness and other secured obligations of the Issuer and the Guarantors will be effectively senior to the Notes and the Guarantees to the extent of the value of the assets securing such indebtedness or other obligations.

As of January 2, 2016 on an as adjusted basis:

- (1) the Issuer would have had approximately \$844.2 million of total indebtedness (including the Notes), all of which would have ranked equally with the Notes (without giving effect to approximately \$4.0 million of outstanding letters of credit supporting leases and certain other obligations, approximately \$1.1 million of which outstanding letters of credit are secured by cash);
- (2) of the Issuer's total indebtedness, the Issuer would have had approximately \$344.2 million of secured indebtedness (without giving effect to approximately \$1.1 million of outstanding letters of credit which are secured by cash) to which the Notes would have been effectively subordinated;

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(3) the Issuer and one of its foreign subsidiaries which is a borrower under the Credit Agreement would have had commitments available to be borrowed under the Credit Agreement of \$655.8 million, of which approximately \$236.0 million would have been available for borrowing as a result of financial covenants; and

(4) the Issuer's Subsidiaries would have had approximately \$354 million of total liabilities (including trade payables but excluding intercompany liabilities), all of which would have been structurally senior to the Notes.

Although the Indenture will limit the amount of additional indebtedness that the Issuer and its Subsidiaries may incur, such indebtedness could be substantial and, subject to the limitations set forth in the covenant described under Certain covenants Limitation on liens, such indebtedness may be secured indebtedness. In addition, one of the Issuer's Foreign Subsidiaries is a borrower under the Credit Agreement and certain other Foreign Subsidiaries of the Issuer may become borrowers under the Credit Agreement in the future, subject to certain conditions. Any additional borrowings made by the Issuer and any of the Issuer's Foreign Subsidiaries that is or becomes a borrower under the Credit Agreement will be secured indebtedness.

A substantial portion of our operations is conducted through our Subsidiaries. Initially, all of our Subsidiaries will be Non-Guarantor Subsidiaries. One or more domestic Subsidiaries may in the future be required to guarantee the Notes under the circumstances described under the caption Future guarantors. A domestic Subsidiary that in the future becomes a Guarantor may be released from its Guarantee without the consent of the holders of the Notes under the circumstances described under the caption Guarantees. Claims of creditors (including trade creditors) of any Non-Guarantor Subsidiaries and joint ventures, and claims of preferred stockholders of such Non-Guarantor Subsidiaries and joint ventures, generally will have priority with respect to the assets and earnings of such Non-Guarantor Subsidiaries and joint ventures over the claims of creditors of the Issuer and the Guarantors, including holders of the Notes and the Guarantees. Accordingly, the Notes will be effectively subordinated to creditors (including trade creditors) and preferred stockholders, if any, of such Non-Guarantor Subsidiaries and joint ventures.

Although the Indenture will limit the incurrence of indebtedness by our Subsidiaries, the Indenture will not impose any limitation on the incurrence by such Subsidiaries of liabilities that are not considered indebtedness under the Indenture.

Change of control

Within 30 days following the occurrence of a Change of Control, each noteholder shall have the right to require that the Issuer make an offer to purchase such noteholder's Notes at a purchase price in cash equal to 101% of the principal amount thereof on the date of purchase plus accrued and unpaid interest, if any, to but excluding the date of purchase.

If the Change of Control purchase date is on or after an interest record date and on or before the related interest payment date, any accrued and unpaid interest to the Change of Control purchase date will be paid on the Change of Control purchase date to the Person in whose name a Note is registered at the close of business on such record date.

Within 30 days following the occurrence of a Change of Control, unless we have exercised our option to redeem all the Notes as described under Optional redemption, we will mail (or deliver by electronic transmission in accordance with the applicable procedures of DTC) a notice to each noteholder with a copy to the Trustee (the *Change of Control Offer*) stating:

(1) that a Change of Control has occurred and that such noteholder has the right to require us to purchase such noteholder's Notes at a purchase price in cash equal to 101% of the principal amount thereof on the date of purchase, plus accrued and unpaid interest, if any, to but excluding the date of purchase;

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- (2) the circumstances that constitute or may constitute such Change of Control;

- (3) the purchase date (which shall be no earlier than 30 days nor later than 60 days from the date such notice is sent); and

- (4) the instructions, as determined by us, consistent with the covenant described hereunder, that a noteholder must follow in order to have its Notes purchased.

We will not be required to make a Change of Control Offer following a Change of Control if a third party makes the Change of Control Offer in the manner, at the times and otherwise in compliance with the requirements set forth in the Indenture applicable to a Change of Control Offer made by us and purchases all Notes validly tendered and not withdrawn under such Change of Control Offer or if the Issuer has exercised its option to redeem all the Notes pursuant to the provisions described under Optional redemption.

We will comply, to the extent applicable, with the requirements of Section 14(e) of the Exchange Act and any other securities laws or regulations in connection with the purchase of Notes as a result of a Change of Control. To the extent that the provisions of any securities laws or regulations conflict with the provisions of the covenant described hereunder, we will comply with the applicable securities laws and regulations and shall not be deemed to have breached our obligations under the covenant described hereunder by virtue of our compliance with such securities laws or regulations.

The Change of Control purchase feature of the Notes may in certain circumstances make more difficult or discourage a sale or takeover of the Issuer and, thus, the removal of incumbent management. The Change of Control purchase feature is a result of negotiations between the Issuer and the underwriters. We have no present intention to engage in a transaction involving a Change of Control, although it is possible that we could decide to do so in the future. Subject to the limitations discussed below, we could, in the future, enter into certain transactions, including acquisitions, refinancings or other recapitalizations, that would not constitute a Change of Control under the Indenture, but that could increase the amount of indebtedness outstanding at such time or otherwise affect our capital structure or credit ratings. Restrictions on our ability to incur additional indebtedness are contained in the covenants described under Certain covenants Limitation on debt and Certain covenants Limitation on liens. Such restrictions can only be waived with the consent of the holders of a majority in principal amount of the Notes then outstanding. Except for the limitations contained in such covenants, however, the Indenture will not contain any covenants or provisions that may afford holders of the Notes protection in the event of a highly leveraged transaction.

Holders may not be entitled to require us to purchase their Notes in certain circumstances involving a significant change in the composition of our Board of Directors, including in connection with a proxy contest where our Board of Directors approves the new directors as Continuing Directors, even if our Board of Directors initially opposed such directors.

The Credit Agreement provides that the occurrence of certain change of control events with respect to the Issuer would constitute a default thereunder. Future indebtedness that we may incur may contain prohibitions on the occurrence of certain events that would constitute a Change of Control or require the purchase or repayment of such indebtedness upon a Change of Control or such Change of Control may constitute a default thereunder. Moreover, the exercise by the holders of their right to require us to purchase the Notes could cause a default under such indebtedness, even if the Change of Control itself does not, due to the financial effect of such purchase on us. Finally, our ability to pay cash to the holders of Notes following the occurrence of a Change of Control may be limited by our then existing financial resources. There can be no assurance that sufficient funds will be available when necessary to make any required purchases. See Risk factors Risks related to the notes We may be unable to repurchase the notes upon a change of control.

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Notwithstanding anything to the contrary herein, a Change of Control Offer may be made in advance of a Change of Control, conditional upon such Change of Control, if a definitive agreement is in place for the Change of Control at the time of making of such Change of Control Offer.

The phrase all or substantially all, as used with respect to the assets of the Issuer in the definition of Change of Control, is subject to interpretation under applicable state law, and its applicability in a given instance would depend upon the facts and circumstances. As a result, there may be a degree of uncertainty in ascertaining whether a sale or transfer of all or substantially all the assets of the Issuer has occurred in a particular instance, in which case a holder's ability to obtain the benefit of these provisions could be unclear.

The provisions under the Indenture relative to our obligation to make an offer to purchase the Notes as a result of a Change of Control may be waived or modified with the written consent of the holders of a majority in principal amount of the Notes.

For purposes of this discussion of a repurchase of the Notes following a Change of Control:

A *Change of Control* means the occurrence of any of the following:

- (1) any person or group (as such terms are used in Sections 13(d) and 14(d) of the Exchange Act or any successor provision) is or becomes the beneficial owner (as such term is used in Rules 13d-3 and 13d-5 under the Exchange Act or any successor provision), directly or indirectly, of more than 50% of the total voting power of the Voting Stock of the Issuer;
- (2) the adoption of a plan relating to the liquidation or dissolution of the Issuer;
- (3) the merger or consolidation of the Issuer with or into another Person or the merger of another Person with or into the Issuer or the sale of all or substantially all the assets of the Issuer (determined on a consolidated basis) to another Person, other than a transaction following which in the case of a merger or consolidation transaction, holders of securities that represented 100% of the Voting Stock of the Issuer immediately prior to such transaction (or other securities into which such securities are converted as part of such merger or consolidation transaction) own, directly or indirectly, at least a majority of the voting power of the Voting Stock of the surviving Person in such merger or consolidation transaction immediately after such transaction; or
- (4) the first day on which a majority of the members of the Issuer's Board of Directors are not Continuing Directors.

Notwithstanding the foregoing, a transaction will not be deemed to involve a Change of Control if (a) the Issuer becomes a direct Subsidiary of a holding company, (b) such holding company owns no assets other than the Capital Stock of the Issuer and (c) upon completion of such transaction, the ultimate beneficial ownership of the Issuer has not been modified by such transaction.

Certain covenants

Effectiveness of covenants

Following the first day (such date, a *Suspension Date*):

- (a) the Notes have an Investment Grade Rating from both of the Rating Agencies; and
- (b) no Default or Event of Default has occurred and is continuing under the Indenture,

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the Issuer and its Subsidiaries will not be subject to the provisions of the Indenture summarized under the headings below:

- Limitation on debt,
- Limitation on restricted payments,
- Limitation on asset sales,
- Future guarantors and

clause (a)(3) of the covenant described below under the caption Consolidation, merger, sale or conveyance

(collectively, the *Suspended Covenants*). If at any time the Notes credit rating is downgraded from an Investment Grade Rating by any Rating Agency or if a Default or Event of Default occurs and is continuing, then the Suspended Covenants will thereafter be reinstated as if such covenants had never been suspended (the *Reinstatement Date*) and be applicable pursuant to the terms of the Indenture (including in connection with performing any calculation or assessment to determine compliance with the terms of the Indenture), unless and until the Notes subsequently attain an Investment Grade Rating from both of the Rating Agencies and no Default or Event of Default is in existence (in which event the Suspended Covenants shall no longer be in effect for such time that the Notes maintain an Investment Grade Rating from both of the Rating Agencies and no Default or Event of Default is in existence); *provided, however*, that no Default, Event of Default or breach of any kind shall be deemed to exist under the Indenture, the Notes or the Guarantees with respect to the Suspended Covenants based on, and none of the Issuer or any of its Subsidiaries shall bear any liability for, any actions taken or events occurring during the Suspension Period (as defined below) or any actions taken at any time pursuant to any contractual obligation arising during the Suspension Period, regardless of whether such actions or events would have been permitted if the applicable Suspended Covenants remained in effect during such period. The period of time between the Suspension Date and the Reinstatement Date is referred to as the *Suspension Period*.

On the Reinstatement Date, all Debt incurred during the Suspension Period will be classified to have been incurred or issued pursuant to the first paragraph of Limitation on debt or one of the clauses set forth under the definition of Permitted Debt (in each case to the extent such Debt would be permitted to be incurred thereunder as of the Reinstatement Date and after giving effect to Debt incurred prior to the Suspension Period and outstanding on the Reinstatement Date). To the extent such Debt would not be so permitted to be incurred pursuant to the first paragraph of

Limitation on debt or one of the clauses set forth under the definition of Permitted Debt, such Debt will be deemed to have been outstanding on the Issue Date, so that it is classified under clause (4) of the definition of Permitted Debt. Calculations made after the Reinstatement Date of the amount available to be made as Restricted Payments under Limitation on restricted payments will be made as though the covenant described under Limitation on restricted payments had been in effect since the Issue Date and throughout the Suspension Period. Accordingly, Restricted Payments made during the Suspension Period will reduce the amount available to be made as Restricted Payments under the first paragraph of

Limitation on restricted payments and the items specified under paragraphs (3)(a) through (3)(c) of the first paragraph of Limitation on restricted payments will increase the amount available to be made as Restricted Payments under the first paragraph of Limitation on restricted payments. For the purpose of determining compliance with the covenant described below under the caption Limitation on asset sales, on the Reinstatement Date, the Excess Proceeds from all Asset Sales not applied in accordance with such covenant shall be deemed to be reset to zero.

Promptly following the occurrence of any Suspension Date or Reinstatement Date, the Issuer will provide an Officer's Certificate to the Trustee, together with a notice to the holders, regarding such occurrence. The

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Trustee shall have no obligation to independently determine or verify if a Suspension Date or Reinstatement Date has occurred or notify the holders of any Suspension Date or Reinstatement Date. The Trustee shall provide a copy of such notice to holders to DTC for distribution to the holders of the Notes. There can be no assurance that the Notes will ever achieve an Investment Grade Rating.

Consolidation, merger, sale or conveyance

(a) The Indenture will provide that the Issuer may not consolidate or merge with or into any other entity or convey, transfer or lease its properties and assets substantially as an entirety to any entity, unless:

(1) the Issuer is the successor entity, or the successor or transferee entity, if other than the Issuer, is a Person (if such Person is not a corporation, then such successor or transferee shall include a corporate co-issuer) organized and existing under the laws of the United States, any state thereof or the District of Columbia (except if the Issuer determines in good faith that such requirement is not in the best interests of the Issuer and its Subsidiaries or that complying with such requirement would not be advisable for tax planning purposes or to improve tax efficiencies) and expressly assumes by a supplemental indenture executed and delivered to the Trustee, in form reasonably satisfactory to the Trustee, the due and punctual payment of the principal of, any premium on and any interest on all the outstanding Notes and the performance of every covenant and obligation in the Indenture to be performed or observed by the Issuer;

(2) immediately after giving effect to the transaction, no Event of Default, as defined in the Indenture, and no event which, after notice or lapse of time or both, would become an Event of Default, has happened and is continuing;

(3) immediately after giving effect to the transaction and any related financing transactions, as if such transactions had occurred at the beginning of the applicable Four Quarter Period,

(a) the successor entity would be able to incur at least \$1.00 of Coverage Debt under the Limitation on debt covenant, or

(b) the Consolidated Fixed Charge Coverage Ratio of the successor entity and its Subsidiaries would be greater than such ratio for the Issuer and its Subsidiaries immediately prior to such transaction; and

(4) the Issuer has delivered to the Trustee an Officer's Certificate and an Opinion of Counsel, each in the form required by the Indenture and stating that such consolidation, merger, conveyance, transfer or lease and, if a supplemental indenture is required in connection with such transaction, such supplemental indenture comply with the foregoing provisions relating to such transaction, and constitutes the legal, valid and binding obligation of the Issuer or successor entity, as applicable, subject to customary exceptions.

In case of any such consolidation, merger, conveyance or transfer (but not lease), the successor entity will succeed to and be substituted for the Issuer as obligor on the Notes with the same effect as if it had been named in the Indenture as the Issuer.

(b) No Guarantor may consolidate or merge with or into any other entity or convey, transfer or lease its properties and assets substantially as an entirety to any entity, unless:

(1) a Guarantor is the successor entity, or the successor or transferee entity, if not a Guarantor prior to such consolidation, merger, conveyance, transfer or lease, is a Person organized and existing under the laws of the jurisdiction under which such Guarantor was organized or under the laws of the United States, any state thereof or the District of Columbia, and expressly assumes by a supplemental indenture executed and delivered to the Trustee, in form reasonably satisfactory to the Trustee, all the obligations of such

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Guarantor under its Guarantee; provided, however, that the foregoing shall not apply in the case of a Guarantor (x) that has been, or will be as a result of the subject transaction, disposed of in its entirety to another Person (other than to the Issuer or an Affiliate of the Issuer), whether through a merger or consolidation or (y) that, as a result of the disposition of all or a portion of its Capital Stock, ceases to be a Subsidiary;

- (2) immediately after giving effect to the transaction, no Event of Default, as defined in the Indenture, and no event which, after notice or lapse of time or both, would become an Event of Default, has happened and is continuing; and
- (3) the Issuer has delivered to the Trustee an Officer's Certificate and an Opinion of Counsel, each in the form required by the Indenture and stating that such consolidation, merger, conveyance, transfer or lease and, if a supplemental indenture is required in connection with such transaction, such supplemental indenture comply with the foregoing provisions relating to such transaction and constitutes the legal, valid and binding obligation of the Guarantor or successor entity, as applicable, subject to customary exceptions.

Notwithstanding clauses (a) and (b) above, this Consolidation, merger, sale or conveyance covenant will not apply to a merger, transfer or conveyance or other disposition of assets between or among the Issuer and the Guarantors.

Limitation on debt

The Issuer will not, and will not permit any Subsidiary of the Issuer to, incur any Debt (including Acquired Debt); *provided, however*, that the Issuer and any Subsidiary that in the future becomes a Guarantor may incur Debt (including Acquired Debt) if, immediately after giving effect to the incurrence of such Debt and the receipt and application of the proceeds therefrom, (a) the Consolidated Fixed Charge Coverage Ratio of the Issuer and its Subsidiaries would be greater than 2.00 to 1.00 and (b) no Default or Event of Default shall have occurred and be continuing at the time or as a consequence of the incurrence of such Debt (any Debt incurred pursuant to this provision being herein referred to as *Coverage Debt*).

Notwithstanding the first paragraph above, the Issuer and its Subsidiaries may incur Permitted Debt.

For purposes of determining any particular amount of Debt under this Limitation on debt covenant, (x) Debt outstanding under the Credit Agreement on the Issue Date shall at all times be treated as incurred pursuant to clause (1) of the definition of Permitted Debt and shall not be permitted to be reclassified and (y) guarantees or obligations with respect to letters of credit supporting Debt otherwise included in the determination of such particular amount shall not be included. Except as provided above, for purposes of determining compliance with this

Limitation on debt covenant, in the event that an item of Debt meets the criteria of more than one of the types of Debt described above, including any Coverage Debt and any category of Permitted Debt, the Issuer, in its sole discretion, shall classify, and from time to time may reclassify, all or any portion of such item of Debt in any manner that complies with this covenant. For purposes of determining compliance of any non-U.S. dollar-denominated Debt with this covenant, the amount outstanding under U.S. dollar-equivalent principal amount of Debt denominated in a foreign currency shall at all times be calculated by the Issuer based on the relevant currency exchange rate in effect on the date such Debt was incurred, in the case of any term Debt, or first committed, in the case of any revolving credit Debt; *provided, however*, that if such Debt is incurred to refinance other Debt denominated in the same or different currency, and such refinancing would cause the applicable U.S. dollar-denominated restriction to be exceeded if calculated at the relevant currency exchange rate in effect on the date of such refinancing, such U.S. dollar-denominated restriction shall be deemed not to have been exceeded so long as the principal amount of such Refinancing Debt does not exceed the principal amount of such Debt being refinanced.

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The accrual of interest, the accretion or amortization of original issue discount and the payment of interest on Debt in the form of additional Debt with the same terms will not be deemed to be an incurrence of Debt for purposes of this covenant.

Limitation on liens

The Issuer will not, and will not permit any Subsidiary of the Issuer to, create, incur, issue, assume or guarantee any Debt secured by a Lien upon (a) any Property of the Issuer or such Subsidiary, or (b) any shares of Capital Stock or Debt issued by any Subsidiary of the Issuer and owned by the Issuer or any Subsidiary of the Issuer, whether owned on the Issue Date or thereafter acquired, without effectively providing concurrently that the Notes then outstanding under the Indenture are secured equally and ratably with or, at the option of the Issuer, prior to such Debt so long as such Debt shall be so secured.

The foregoing restriction shall not apply to, and there shall be excluded from Debt (or any guarantee thereof) in any computation under such restriction, Debt (or any guarantee thereof) secured by:

- (1) Liens on any property existing at the time of the acquisition thereof;
- (2) Liens on property of a Person existing at the time such Person is merged into or consolidated with the Issuer or a Subsidiary of the Issuer or at the time of a sale, lease or other disposition of the properties of such Person (or a division thereof) as an entirety or substantially as an entirety to the Issuer or a Subsidiary of the Issuer; provided that any such Lien does not extend to any property owned by the Issuer or any Subsidiary of the Issuer immediately prior to such merger, consolidation, sale, lease or disposition;
- (3) Liens on property of a Person existing at the time such Person becomes a Subsidiary of the Issuer;
- (4) Liens in favor of the Issuer or a Subsidiary of the Issuer;
- (5) Liens to secure all or part of the cost of acquisition, construction, development or improvement of the underlying property, or to secure Debt incurred to provide funds for any such purpose; provided that the commitment of the creditor to extend the credit secured by any such Lien shall have been obtained no later than 270 days after the later of (a) the completion of the acquisition, construction, development or improvement of such property or (b) the placing in operation of such property; provided, further, that such Liens do not extend to any property other than such property subject to acquisition, construction, development or improvement;
- (6) Liens in favor of the United States of America or any State thereof, or any department, agency or instrumentality or political subdivision thereof, to secure partial, progress, advance or other payments;
- (7) Liens existing on the Issue Date or any extension, renewal, replacement or refunding of any Debt (or any guarantee thereof) secured by a Lien existing on the Issue Date or referred to in clauses (1)-(3) or (5); provided that any such extension, renewal, replacement or refunding of such Debt (or any guarantee thereof) shall be created within 270 days of repaying the Debt (or any guarantee thereof) secured by the Lien referred to in clauses (1)-(3) or (5) and the principal amount of the Debt (or any guarantee thereof) secured thereby and not otherwise authorized by clauses (1)-(3) or (5) shall not exceed the principal amount of Debt (or any guarantee thereof), plus any premium or fee payable in connection with any such extension, renewal, replacement or refunding, so secured at the time of such extension, renewal, replacement or refunding; provided that neither the Credit Agreement nor any extension, renewal, replacement or refunding thereof shall be secured pursuant to this clause (7);
- (8) Liens incurred in the ordinary course of business in an aggregate principal amount not to exceed the greater of (x) \$50.0 million and (y) 2.5% of Consolidated Total Assets;

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(9) Liens in favor of the Notes and the Guarantees; and

(10) Liens securing Hedging Obligations entered into in the ordinary course of business.

Notwithstanding the restrictions described above, the Issuer and any Subsidiaries of the Issuer may create, incur, issue, assume or guarantee Debt secured by Liens (including, without limitation, Liens securing Debt and other obligations under the Credit Agreement, related Hedging Obligations and related banking services or cash management obligations) without equally and ratably securing the Notes then outstanding if, at the time of such creation, incurrence, issuance, assumption or guarantee, after giving effect thereto and to the retirement of any Debt which is concurrently being retired,

(A) the aggregate amount of all such Debt secured by Liens which would otherwise be subject to such restrictions (other than any Debt (or any guarantee thereof) secured by Liens permitted as described in clauses (1)-(10) of the immediately preceding paragraph) plus

(B) all Attributable Debt of the Issuer and the Subsidiaries of the Issuer in respect of Sale/Leaseback Transactions with respect to Properties (with the exception of such transactions that are permitted under clauses (1)-(4) of the first sentence of the first paragraph under Limitation on sale/leaseback transactions below)

would not exceed the greater of (x) \$1,250.0 million and (y) the amount that would cause the Consolidated Secured Debt Ratio to exceed 3.00 to 1.00.

Limitation on sale/leaseback transactions

The Issuer will not, and will not permit any Subsidiary of the Issuer to, enter into any Sale/Leaseback Transaction with respect to any Property unless:

(1) the Sale/Leaseback Transaction is solely with the Issuer or another Subsidiary of the Issuer;

(2) the lease is for a period not in excess of 36 months (or which may be terminated by the Issuer or such Subsidiary), including renewals;

(3) the Issuer or such Subsidiary would (at the time of entering into such arrangement) be entitled as described in clauses (1)-(10) of the second paragraph under the heading Limitation on liens, without equally and ratably securing the Notes then outstanding under the Indenture, to create, incur, issue, assume or guarantee Debt secured by a Lien on such Property in the amount of the Attributable Debt arising from such Sale/Leaseback Transaction;

(4) the Issuer or such Subsidiary within 360 days after the sale of such Property in connection with such Sale/Leaseback Transaction is completed, applies an amount equal to the net proceeds of the sale of such Property to (a) the retirement of Notes, other Funded Debt of the Issuer ranking on a parity with the Notes (or the Guarantees of the Notes) or Funded Debt of a Subsidiary of the Issuer, (b) the purchase of Property; or (c) a combination thereof; or

(5) (a) the Attributable Debt of the Issuer and Subsidiaries of the Issuer in respect of such Sale/Leaseback Transaction and all other Sale/Leaseback Transactions entered into after the Issue Date (other than any such Sale/Leaseback Transaction as would be permitted as described in clauses (1)-(4) of this sentence), plus

(b) the aggregate principal amount of Debt secured by Liens on Properties then outstanding (not including any such Debt secured by Liens described in clauses (1)-(10) of the second paragraph under the heading

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Limitation on liens) that are not equally and ratably secured with the outstanding Notes (or secured on a basis junior to the outstanding Notes), would not exceed the greater of (x) \$1,250.0 million and (y) the amount that would cause the Consolidated Secured Debt Ratio to exceed 3.00 to 1.00.

Limitation on restricted payments

The Issuer will not, and will not permit any Subsidiary of the Issuer to, directly or indirectly, make any Restricted Payment unless, at the time of and after giving effect to the proposed Restricted Payment:

- (1) no Default or Event of Default shall have occurred and be continuing or will occur as a consequence thereof;
- (2) after giving effect to such Restricted Payment on a pro forma basis, the Issuer would be permitted to incur at least \$1.00 of Coverage Debt under the Limitation on debt covenant; and
- (3) after giving effect to such Restricted Payment on a pro forma basis, the aggregate amount of all Restricted Payments made after the Issue Date (excluding (x) Restricted Payments permitted by clauses (2) through (7) of the next succeeding paragraph and (y) Restricted Payments permitted by clause (9)(x) of the next succeeding paragraph to the extent that the amount available for Restricted Payments under this clause (3) would be reduced to less than zero as a result of payments made under such clause (9)(x)) shall not exceed the sum (without duplication) of
 - (a) 50% of the Consolidated Net Income (or, if Consolidated Net Income shall be a deficit, minus 100% of such deficit) of the Issuer accrued on a cumulative basis during the period (taken as one accounting period) from the beginning of the fiscal quarter during which the Issue Date occurs and ending on the last day of the fiscal quarter immediately preceding the date of such proposed Restricted Payment, plus
 - (b) 100% of the aggregate net proceeds (including the fair market value of property other than cash as determined by the Issuer in good faith) received by the Issuer subsequent to the initial issuance of the Notes either (i) as a contribution to its common equity capital or (ii) from the issuance and sale (other than to a Subsidiary) of its Qualified Capital Interests, including Qualified Capital Interests issued upon the conversion of Debt, Disqualified Stock or Preferred Stock of the Issuer, and from the exercise of options, warrants or other rights to purchase such Qualified Capital Interests (other than, in each case, Capital Stock or Debt sold to a Subsidiary of the Issuer), plus
 - (c) to the extent that any Investment (other than Permitted Investments and Investments made pursuant to clause (9) of the next succeeding paragraph) that was made on or after the Issue Date is sold for cash or otherwise disposed of, liquidated, redeemed, repurchased or repaid for cash or other assets, or to the extent that the Issuer otherwise realizes any proceeds on the sale of such Investment or proceeds representing the return of capital on such Investment, the lesser of (i) the initial amount of such Investment, or (ii) to the extent not otherwise included in the calculation of Consolidated Net Income of the Issuer for such period, the net cash return of capital or net fair market value of return of capital as determined by the Issuer in good faith with respect to such Investment, less the cost of any such disposition or liquidation.

Notwithstanding whether the foregoing provisions would prohibit the Issuer and its Subsidiaries from making a Restricted Payment, the Issuer and its Subsidiaries may make the following Restricted Payments:

- (1) the payment of any dividend on Capital Stock of the Issuer or a Subsidiary of the Issuer within 60 days after declaration thereof if at the declaration date such payment was permitted by the provisions of this covenant;

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- (2) the purchase, repurchase, redemption, defeasance or other acquisition or retirement of any Qualified Capital Interests of the Issuer by conversion into, or by or in exchange for, Qualified Capital Interests, or out of net cash proceeds of the substantially concurrent sale (other than to a Subsidiary of the Issuer) of other Qualified Capital Interests of the Issuer;
- (3) the redemption, defeasance, repurchase or acquisition or retirement for value of any Debt of the Issuer or a Guarantor that is subordinate in right of payment to the Notes or the applicable Guarantee out of the net cash proceeds of a substantially concurrent issue and sale (other than to a Subsidiary of the Issuer) of (x) new subordinated Debt of the Issuer or such Guarantor, as the case may be, incurred in accordance with the Indenture or (y) Qualified Capital Interests of the Issuer;
- (4) the purchase, redemption, cancellation, retirement or other acquisition for value of Capital Stock of the Issuer held by employees or former employees of the Issuer or any Subsidiary of the Issuer (or their estates or beneficiaries under their estates) upon death, disability, retirement or termination of employment or alteration of employment status or pursuant to the terms of any agreement under which such Capital Stock was issued; provided, however, that the aggregate cash consideration paid for such purchase, redemption, retirement or other acquisition of such Capital Stock does not exceed \$10.0 million in any calendar year; provided further, however, that any unused amounts in any calendar year may be carried forward to one or more future periods subject to a maximum aggregate amount of repurchases made pursuant to this clause (4) not to exceed \$20.0 million in any calendar year; provided, however, that such amount in any calendar year may be increased by an amount not to exceed (A) the cash proceeds received by the Issuer or any of its Subsidiaries from the sale of Qualified Capital Interests of the Issuer to employees of the Issuer and its Subsidiaries that occurs after the Issue Date; provided, however, that the amount of such cash proceeds utilized for any such repurchase, retirement, other acquisition or dividend will not increase the amount available for Restricted Payments under clause (3) of the first paragraph of this covenant; plus (B) the cash proceeds of key man life insurance policies received by the Issuer and its Subsidiaries after the Issue Date (provided, however, that the Issuer may elect to apply all or any portion of the aggregate increase contemplated by the proviso of this clause (4) in any calendar year);
- (5) the repurchase, redemption, cancellation or other acquisition of Capital Stock deemed to occur upon the exercise or vesting of stock options, warrants, restricted stock units or other convertible or exchangeable securities and the repurchase, redemption, cancellation or other acquisition of Capital Stock made in lieu of withholding taxes resulting from the exercise or vesting of stock options, warrants, restricted stock units or other convertible or exchangeable securities;
- (6) cash payment, in lieu of issuance of fractional shares in connection with the exercise of warrants, options or other securities convertible into or exchangeable for the Capital Stock of the Issuer or a Subsidiary of the Issuer;
- (7) upon the occurrence of a Change of Control or an Asset Sale, the defeasance, redemption, repurchase or other acquisition of any subordinated Debt pursuant to provisions substantially similar to those described under Change of control and Limitation on asset sales at a purchase price not greater than 101% of the principal amount thereof (in the case of a Change of Control) or at a percentage of the principal amount thereof not higher than the principal amount applicable to the Notes (in the case of an Asset Sale), plus any accrued and unpaid interest thereon; provided, however, that prior to or contemporaneously with such defeasance, redemption, repurchase or other acquisition, the Issuer has made a Change of Control Offer or an Asset Sale Offer with respect to the Notes and has repurchased all Notes validly tendered for payment and not withdrawn in connection therewith;

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- (8) to the extent no Default in any payment in respect of principal, premium, if any, or interest under the Notes or an Event of Default has occurred and is continuing or will occur as a consequence thereof, other Restricted Payments not in excess of \$100.0 million in the aggregate;
- (9) to the extent no Default or Event of Default has occurred and is continuing or will occur as a consequence thereof, (x) any Restricted Payment so long as on the date of such Restricted Payment, after giving pro forma effect thereto and to any related transactions as if the same had occurred at the beginning of the Issuer's most recent Four Quarter Period, the Consolidated Debt Ratio would not exceed 3.25 to 1.00 or (y) if the Consolidated Debt Ratio is equal to or greater than 3.25 to 1.00 and less than 3.75 to 1.00, Restricted Payments in an aggregate amount not to exceed 50.0% of Free Cash Flow for the most recent Four Quarter Period, provided, this clause (y) shall only be available for four consecutive fiscal quarters in any five consecutive fiscal quarter period; and
- (10) payments and distributions to dissenting stockholders (that are not Affiliates of the Issuer) pursuant to applicable law, pursuant to or in connection with a consolidation, merger or transfer of all or substantially all of the assets of the Issuer and its Subsidiaries that complies with the terms of the indenture, including the covenant described under Consolidation, merger, sale or conveyance; provided that payments and distributions shall be permitted under this clause (10) only to the extent they are not otherwise permitted under this covenant.
- If any Person in which an Investment is made, which Investment constitutes a Restricted Payment when made, thereafter becomes a Subsidiary of the Issuer in accordance with the Indenture, all such Investments previously made in such Person shall no longer be counted as Restricted Payments for purposes of calculating the aggregate amount of Restricted Payments pursuant to clause (3) of the first paragraph under this Limitation on restricted payments covenant, in each case to the extent such Investments would otherwise be so counted.

For purposes of this covenant, if a particular Restricted Payment involves a non-cash payment, including a distribution of assets, then such Restricted Payment shall be deemed to be an amount equal to the cash portion of such Restricted Payment, if any, plus an amount equal to the fair market value of the non-cash portion of such Restricted Payment as determined by the Issuer in good faith.

For the avoidance of doubt, this covenant shall not restrict the making of any AHYDO catch-up payment with respect to, and required by the terms of any Debt of the Issuer and its Subsidiaries permitted to be incurred in accordance with the Indenture.

Limitation on asset sales

The Issuer will not, and will not permit any of its Subsidiaries to, consummate an Asset Sale unless:

- (1) the Issuer (or the Subsidiary, as the case may be) receives consideration at the time of the Asset Sale at least equal to the fair market value of the assets or Capital Stock issued or sold or otherwise disposed of as determined by the Issuer in good faith; and
- (2) except in the case of a Permitted Asset Swap, at least 75% of the consideration received in the Asset Sale by the Issuer or such Subsidiary is in the form of cash or Eligible Cash Equivalents. For purposes of this provision, each of the following will be deemed to be cash:
- (a) any liabilities, as shown on the most recent consolidated balance sheet of the Issuer or any Subsidiary of the Issuer (other than contingent liabilities and liabilities that are by their terms subordinated to the Notes or any Guarantee) that are assumed by the transferee of any such assets pursuant to a customary assignment and assumption agreement that releases the Issuer or such Subsidiary from further liability;

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- (b) any securities, notes or other obligations received by the Issuer or any such Subsidiary from such transferee that are converted by the Issuer or such Subsidiary into cash within 180 days of their receipt to the extent of the cash received in that conversion; and
- (c) any Designated Non-cash Consideration received by the Issuer or such Subsidiary in such Asset Sale, taken together with all other Designated Non-cash Consideration received pursuant to this clause (c) that is at that time outstanding, not to exceed the greater of (x) \$100.0 million and (y) 5.0% of Consolidated Total Assets at the time of the receipt of such Designated Non-cash Consideration, with the fair market value of each item of Designated Non-cash Consideration being measured at the time received and without giving effect to subsequent changes in value.

Within 360 days after the receipt of any Net Cash Proceeds from an Asset Sale, the Issuer (or the applicable Subsidiary, as the case may be) may apply such Net Cash Proceeds at its option:

- (i) to permanently repay (a) Debt under the Credit Agreement and, if the obligation repaid is revolving credit Debt, to correspondingly reduce commitments with respect thereto and/or (b) other unsecured Debt ranking pari passu in right of payment with the Notes (provided that if the Issuer shall so reduce obligations under such other unsecured Debt, the Issuer will (x) equally and ratably reduce obligations under the Notes under any applicable optional redemption provisions or by open market purchases or (y) make an offer (in accordance with the procedures set forth below for an Asset Sale Offer) to all holders to purchase, in each case, at a purchase price no less than 100% of the principal amount thereof, plus accrued and unpaid interest, if any, the pro rata principal amount of Notes);
 - (ii) to acquire all or substantially all of the assets of, or any Capital Stock of, another Permitted Business, if, after giving effect to any such acquisition of Capital Stock, the Permitted Business is or becomes a Subsidiary of the Issuer;
 - (iii) to make a capital expenditure in or that is used or useful in a Permitted Business or to make expenditures for maintenance, repair or improvement of existing properties and assets;
 - (iv) to acquire other assets (other than current assets) that are used or useful in a Permitted Business;
 - (v) to repay or repurchase Debt secured by a lien on assets of the Issuer or any Subsidiary of the Issuer; or
 - (vi) any combination of the foregoing;
- provided that in the case of an investment pursuant to clauses (ii), (iii) or (iv) above, a binding commitment shall be treated as a permitted application of such Net Cash Proceeds from the date of such commitment so long as such investment is consummated within 180 days of such 360th day.

Any Net Cash Proceeds from Asset Sales that are not applied, invested or subject to an offer to repurchase as provided in the preceding paragraph of this covenant will constitute Excess Proceeds. When the aggregate amount of Excess Proceeds exceeds \$75.0 million, the Issuer will, within 30 days, make an offer to purchase to all holders of Notes (an *Asset Sale Offer*), and to all holders of other Debt containing provisions similar to those set forth in the Indenture with respect to assets sales, the maximum aggregate principal amount of Notes and such other Debt that may be purchased out of the Excess Proceeds. The offer price for the Notes in any Asset Sale Offer will be equal to 100% of the principal amount plus accrued and unpaid interest to, but excluding, the date of purchase, and will be payable in cash. If any Excess Proceeds remain after consummation of an Asset Sale Offer in respect of the Notes, the Issuer may use those funds for any purpose not otherwise prohibited by the Indenture and they will no longer constitute Excess Proceeds. If the aggregate principal amount of Notes and other Debt tendered into such Asset Sale Offer exceeds the amount of Excess Proceeds, the Excess Proceeds will be allocated by the Issuer between the Notes and such other Debt based on the

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principal amount (or accreted value, if applicable) of Notes and such other Debt tendered and the Trustee will select the Notes to be purchased on a pro rata basis among all Notes tendered (subject to DTC procedures). Upon completion of each Asset Sale Offer, the amount of Excess Proceeds will be reset at zero.

The Issuer will comply with the requirements of Rule 14e-1 under the Exchange Act and any other securities laws and regulations thereunder to the extent those laws and regulations are applicable in connection with the repurchase of any Notes as a result of an Asset Sale Offer. To the extent that the provisions of any securities laws or regulations conflict with the Asset Sale Offer provisions of the Notes, the Issuer will comply with the applicable securities laws and regulations and will not be deemed to have breached its obligations under the Asset Sale Offer provisions of the Notes by virtue of such conflict.

Future guarantors

After the Issue Date, the Issuer will cause each domestic Subsidiary of the Issuer that in the future becomes a guarantor of (i) any Debt of the Issuer or any Guarantor under a Debt Facility with an aggregate principal amount or commitments of \$50.0 million or more or (ii) any Material Capital Markets Debt issued by the Issuer or any Guarantor to, within 30 days of the incurrence of such guarantee, execute and deliver to the Trustee a supplemental indenture to the Indenture pursuant to which such Subsidiary will guarantee payment of the Notes on the same terms and conditions as those set forth in the Indenture. A domestic Subsidiary that in the future becomes a Guarantor may be released from its Guarantee without the consent of the holders of the Notes under the circumstances described under the caption **Guarantees**.

SEC reports

Notwithstanding that the Issuer may not be subject to the reporting requirements of Sections 13 or 15(d) of the Exchange Act, the Issuer will file with the SEC within the time periods specified in the SEC's rules and regulations that are then applicable to the Issuer (or if the Issuer is not then subject to the reporting requirements of the Exchange Act, then the time periods for filing applicable to a filer that is not an accelerated filer as defined in such rules and regulations) and make available to the Trustee and noteholders within 15 days thereafter, such annual reports and such information, documents and other reports as are specified in Sections 13 and 15(d) of the Exchange Act and applicable to a U.S. corporation subject to such Sections; *provided, however*, that the Issuer shall not be so obligated to file such reports with the SEC if the SEC does not permit such filing, in which event the Issuer will make available such information to the Trustee and noteholders within 15 days after the time the Issuer would be required to file such information with the SEC if it were subject to Sections 13 or 15(d) of the Exchange Act.

The Trustee shall have no responsibility to ensure that such filing has occurred. Delivery of reports, information and documents to the Trustee is for informational purposes only and its receipt of such reports shall not constitute constructive notice of any information contained therein or determinable from information contained therein, including our compliance with any of the covenants under the Indenture or the Notes (as to which the Trustee is entitled to rely exclusively on Officer's Certificates). The Issuer will be deemed to have furnished such reports referred to in this section to the Trustee and the noteholders if the Issuer has filed such reports with the SEC via the EDGAR filing system and such reports are publicly available.

Defaults

Each of the following is an Event of Default:

- (1) a default in the payment of interest on the Notes when due, continued for 30 days;

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- (2) a default in the payment of principal of any Note when due at its Stated Maturity, upon redemption, upon required purchase, upon declaration of acceleration or otherwise;
- (3) the failure by the Issuer or any Guarantor to comply with its obligations under Certain covenants Consolidation, merger, sale or conveyance ;
- (4) the failure by the Issuer or any Guarantor, as the case may be, to comply for 45 days after notice with any of its obligations in the covenants described above under Change of control (other than a failure to purchase Notes) or under Certain covenants under Limitation on debt, Limitation on liens, Limitation on sale/leaseback transactions, Limitation on restricted payments, Limitation on asset sale than a failure to purchase Notes) or Future guarantors ;
- (5) the failure by the Issuer to comply for 120 days after notice with any of its obligations in the covenant described above under Certain covenants SEC reports ;
- (6) the failure by the Issuer or any Guarantor to comply for 60 days after notice with its other agreements contained in the Indenture;
- (7) Debt of the Issuer, any Guarantor or any Significant Subsidiary is not paid within any applicable grace period after final maturity or is accelerated by the holders thereof because of a default and the total amount of such Debt unpaid or accelerated exceeds \$50.0 million;
- (8) certain events of bankruptcy, insolvency or reorganization of the Issuer, any Guarantor or any Significant Subsidiary;
- (9) any final judgment or decree for the payment of money (other than judgments which are covered by enforceable insurance policies issued by solvent carriers) in excess of \$50.0 million is entered against the Issuer, any Guarantor or any Significant Subsidiary, remains outstanding for a period of 60 consecutive days following such judgment becoming final and is not discharged, waived or stayed within 30 days after notice; or
- (10) a Guarantee ceases to be in full force and effect (other than in accordance with the terms of such Guarantee) or a Guarantor denies or disaffirms its obligations under its Guarantee.

However, a default under clauses (4), (5), (6) and (9) will not constitute an Event of Default until the Trustee or the holders of 25% in principal amount of the outstanding Notes notify the Issuer (with a copy to the Trustee if given by the holders) of the default and the Issuer does not cure such default within the time specified after receipt of such notice. In the event of any Event of Default specified under clause (7), such Event of Default and all consequences thereof (excluding any resulting payment default, other than as a result of acceleration of Notes) shall be annulled, waived and rescinded, automatically and without any action by the Trustee or the holders, if within 30 days after such Event of Default arose: (a) holders thereof have rescinded or waived the acceleration, notice or action (as the case may be) giving rise to such Event of Default or (b) the default that is the basis for such Event of Default has been cured.

If an Event of Default occurs and is continuing, the Trustee or the holders of at least 25% in principal amount of the outstanding Notes may by written notice to the Issuer (and to the Trustee if notice is given by the holders) declare the principal of and accrued but unpaid interest, if any, and premium, if any, on all the Notes to be due and payable. Upon such declaration, such principal, interest and premium, if any, shall be due and payable immediately. If an Event of Default relating to certain events of bankruptcy, insolvency or reorganization of the Issuer, a Guarantor or a Significant Subsidiary occurs and is continuing, the principal of and interest (and premium, if any) on all the Notes will *ipso facto* become and be immediately due and payable without any

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declaration or other act on the part of the Trustee or any holders of the Notes. Under certain circumstances, the holders of a majority in principal amount of the outstanding Notes by written notice to the Trustee on behalf of all of the holders may rescind any such acceleration with respect to the Notes and its consequences.

Subject to the provisions of the Indenture relating to the duties of the Trustee, in case an Event of Default occurs and is continuing, the Trustee will be under no obligation to exercise any of the rights or powers under the Indenture at the request or direction of any of the holders of the Notes unless such holders have offered to the Trustee indemnity or security satisfactory to it against any loss, liability or expense and then only to the extent required by the terms of the Indenture. Except to enforce the right to receive payment of principal, premium (if any) or interest when due, no holder of a Note may pursue any remedy with respect to the Indenture or the Notes unless:

- (1) such holder has previously given the Trustee written notice that an Event of Default is continuing;
- (2) holders of at least 25% in principal amount of the outstanding Notes have requested the Trustee in writing to pursue the remedy;
- (3) such holders have offered the Trustee security or indemnity satisfactory to it against any loss, liability or expense;
- (4) the Trustee has not complied with such request within 60 days after the receipt thereof and the offer of security or indemnity; and
- (5) holders of a majority in principal amount of the outstanding Notes have not given the Trustee a written direction inconsistent with such request within such 60-day period.

Subject to certain restrictions, the holders of a majority in principal amount of the outstanding Notes may direct the time, method and place of conducting any proceeding for any remedy available to the Trustee or of exercising any trust or power conferred on the Trustee. The Trustee, however, may refuse to follow any direction that conflicts with law or the Indenture or that the Trustee determines is unduly prejudicial to the rights of any other holder of a Note (it being understood that the Trustee does not have any affirmative duty to ascertain whether or not any such directions are unduly prejudicial to such holders) or that would involve the Trustee in personal liability.

If a Default or Event of Default occurs, is continuing and is known to the Trustee, the Trustee must mail (or deliver by electronic transmission in accordance with the applicable procedures of DTC) to each holder of the Notes notice of the Default or Event of Default within 90 days after it occurs. Except in the case of a Default or Event of Default in the payment of principal of, interest or premium (if any) on any Note, the Trustee may withhold notice if in good faith it determines that withholding notice is in the interest of the holders of the Notes. In addition, we are required to deliver to the Trustee, within 120 days after the end of each fiscal year, a certificate indicating whether the signers thereof know of any Default that occurred during the previous year. We are required to deliver to the Trustee, within 30 days after the occurrence thereof, written notice of any event which would constitute a Default, its status and what action we are taking or propose to take in respect thereof.

Amendments and waivers

Subject to certain exceptions, the Indenture may be amended with the consent of the holders of a majority in principal amount of the Notes then outstanding (including consents obtained in connection with a tender offer or exchange for the Notes) and any past default or compliance with any provisions may also be waived with the

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consent of the holders of a majority in principal amount of the Notes then outstanding. However, without the consent of each holder of an outstanding Note affected thereby, an amendment or waiver may not, among other things:

- (1) reduce the amount of Notes whose holders must consent to an amendment;
 - (2) reduce the rate of or extend the time for payment of interest on any Note;
 - (3) reduce the principal of or extend the Stated Maturity of any Note;
 - (4) change the optional redemption dates or prices or calculations from those described under Optional redemption ;
 - (5) make any Note payable in money other than that stated in the Note;
 - (6) impair the right of any holder of the Notes to institute suit for the enforcement of any payment on or with respect to such holder's Notes after any interest payment date, Stated Maturity or any redemption date, as applicable;
 - (7) make any change in the amendment provisions which require each holder's consent or in the waiver provisions;
 - (8) make any change in the ranking or priority of any Note or Guarantee that would adversely affect the noteholders; or
 - (9) release any Guarantor from its Guarantee, except as provided for in the Indenture.
- Notwithstanding the preceding, without the consent of any holder of the Notes, the Issuer, the Guarantors and Trustee may amend or supplement the Indenture:

- (1) to cure any ambiguity, omission, defect or inconsistency, as determined in good faith by us;
- (2) to provide for the assumption by a successor Person of the obligations of the Issuer or any Guarantor under the Indenture;
- (3) to provide for uncertificated Notes in addition to or in place of certificated Notes (provided that the uncertificated Notes are issued in registered form for purposes of Section 163(f) of the Code);
- (4) to add guarantees with respect to the Notes, including any Guarantees, or to secure the Notes;
- (5) to add to the covenants of the Issuer or any Subsidiary of the Issuer for the benefit of the holders of the Notes or to surrender any right or power conferred upon the Issuer or any Subsidiary of the Issuer;

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- (6) to make any change that does not materially adversely affect the rights of any holder of the Notes, as determined in good faith by us;
- (7) to conform the text of the Indenture, Guarantees or the Notes to any provision of this Description of notes , as determined in good faith by us;
- (8) to release a Guarantor from its Guarantee when permitted by the terms of the Indenture;
- (9) to provide for successor trustees or to add to or change any provisions to the extent necessary to appoint a separate trustee for the Notes;
or
- (10) to make any amendment to the provisions of the Indenture relating to the transfer and legending of Notes as permitted by the Indenture, including, without limitation, to facilitate the issuance and administration of the Notes or, if incurred in compliance with the Indenture, Additional Notes; provided, however, that

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(A) compliance with the Indenture as so amended would not result in Notes being transferred in violation of the Securities Act or any applicable securities law and (B) such amendment does not materially and adversely affect the rights of holders to transfer Notes, as determined in good faith by us.

The consent of the holders of the Notes is not necessary under the Indenture to approve the particular form of any proposed amendment. It is sufficient if such consent approves the substance of the proposed amendment.

After an amendment under the Indenture becomes effective, we are required to mail (or deliver by electronic transmission in accordance with the applicable procedures of DTC) to holders of the Notes a notice briefly describing such amendment. However, the failure to give such notice to all holders of the Notes, or any defect therein, will not impair or affect the validity of the amendment.

Transfer

The Notes will be issued in registered form and will be transferable only upon the surrender of a Note for registration of transfer and in compliance with the Indenture. We may require payment of a sum sufficient to cover any tax, assessments or similar governmental charge payable in connection with certain transfers and exchanges.

Defeasance

The Issuer may, at its option and at any time, elect to have all of its obligations and the obligations of the Guarantors discharged with respect to the Indenture and the outstanding Notes and the Guarantees issued under the Indenture (*legal defeasance*) except for:

- (1) the rights of holders to receive payments in respect of the principal, premium, if any, and interest on the Notes when such payments are due, solely out of the trust referred to below;
- (2) the Issuer's obligations with respect to the Notes concerning issuing temporary Notes, registration of Notes, mutilated, destroyed, lost or stolen Notes and the maintenance of an office or agency for payment and money for Note payments held in trust;
- (3) the rights, powers, trusts, duties and immunities of the Trustee, and the Issuer's obligations in connection therewith; and
- (4) the legal defeasance provisions of the Indenture.

If the Issuer exercises the legal defeasance option, the Guarantees in effect at such time will be automatically released.

The Issuer at any time may be released from its obligations described under *Change of control* and under the covenants described under *Certain covenants* (other than *Consolidation, merger, sale or conveyance*) (*covenant defeasance*).

If the Issuer exercises the covenant defeasance option, the Guarantees in effect at such time will be automatically released.

The Issuer may exercise its legal defeasance option notwithstanding its prior exercise of its covenant defeasance option. If the Issuer exercises its legal defeasance option, payment of the Notes may not be accelerated because of an Event of Default with respect to the Notes. If the Issuer exercises its covenant defeasance option, an Event of Default specified in clause (4), clause (5), clause (6) (only with respect to

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covenants that are released as a result of such covenant defeasance), clause (7), clause (8) (solely with respect to Significant Subsidiaries), clause (9) or clause (10) under Events of default above, in each case, shall not constitute an Event of Default.

In order to exercise either legal defeasance or covenant defeasance under the Indenture:

- (1) the Issuer must irrevocably deposit with the Trustee, in trust, for the benefit of the holders, cash in U.S. dollars, Government Securities, or a combination thereof, in amounts as will be sufficient, in the opinion of a nationally recognized firm of independent public accountants, a nationally recognized investment bank or a nationally recognized appraisal or valuation firm delivered to the Trustee, without consideration of any reinvestment of interest, to pay the principal, premium, if any, and interest due on the outstanding Notes on the Stated Maturity or on the applicable redemption date, as the case may be, and the Issuer must specify whether the Notes are being defeased to maturity or to a particular redemption date;
- (2) in the case of legal defeasance, the Issuer has delivered to the Trustee an Opinion of Counsel confirming that, subject to customary assumptions and exclusions, (a) the Issuer has received from, or there has been published by, the U.S. Internal Revenue Service a ruling, or (b) since the Issue Date, there has been a change in the applicable U.S. federal income tax law, in either case to the effect that, and based thereon such Opinion of Counsel will confirm that the beneficial owners of the Notes will be subject to U.S. federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such legal defeasance had not occurred;
- (3) in the case of covenant defeasance, the Issuer has delivered to the Trustee an Opinion of Counsel confirming that, subject to customary assumptions and exclusions, the beneficial owners of the Notes will be subject to U.S. federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such covenant defeasance had not occurred;
- (4) no Default or Event of Default has occurred and is continuing on the date of such deposit or will occur as a result of such deposit (other than a Default or an Event of Default resulting from the borrowing of funds to be applied to make such deposit and any similar and simultaneous deposit relating to other Debt and, in each case, the granting of Liens in connection therewith) and the deposit will not result in a breach or violation of, or constitute a default under, the Credit Agreement or any other material agreement or material debt instrument (other than the Indenture) to which the Issuer or any Guarantor is a party or by which the Issuer or any Guarantor is bound;
- (5) the Issuer has delivered to the Trustee an Officer's Certificate and an Opinion of Counsel (which Opinion of Counsel may be subject to customary assumptions and exclusions), each stating that all conditions precedent relating to the legal defeasance or the covenant defeasance, as the case may be, have been complied with; and
- (6) the Issuer has delivered irrevocable instructions to the Trustee to apply the deposited money toward the payment of the Notes at maturity or the redemption date, as the case may be.

Satisfaction and discharge

The Indenture will be discharged, and will cease to be of further effect as to all Notes issued thereunder, when either:

- (1) all Notes that have been authenticated and delivered (except lost, stolen or destroyed Notes that have been replaced or paid and Notes for whose payment money has been deposited in trust) have been delivered to the Trustee for cancellation; or

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- (2) (a) all Notes not theretofore delivered to the Trustee for cancellation have become due and payable by reason of the giving of a notice of redemption or otherwise, will become due and payable within one year or are to be called for redemption within one year under arrangements satisfactory to the Trustee for the giving of notice of redemption by the Trustee in the name, and at the expense, of the Issuer, and the Issuer or any Guarantor has irrevocably deposited or caused to be deposited with the Trustee, as trust funds in trust solely for the benefit of the holders, cash in U.S. dollars, Government Securities, or a combination thereof, in such amounts as will be sufficient, without consideration of any reinvestment of interest, to pay and discharge the entire Debt on the Notes not theretofore delivered to the Trustee for cancellation for principal, premium, if any, and accrued interest to the date of maturity or redemption, as the case may be;
- (b) no Default or Event of Default has occurred and is continuing on the date of such deposit or will occur as a result of such deposit (other than a Default or an Event of Default resulting from the borrowing of funds to be applied to make such deposit and any similar and simultaneous deposit relating to other Debt and, in each case, the granting of Liens in connection therewith);
- (c) the Issuer or any Guarantor has paid or caused to be paid all sums payable by the Issuer under the Indenture; and
- (d) the Issuer has delivered irrevocable instructions to the Trustee to apply the deposited money toward the payment of the Notes at maturity or the redemption date, as the case may be.

In addition, the Issuer shall deliver to the Trustee an Officer's Certificate and an Opinion of Counsel each stating that all conditions precedent to satisfaction and discharge have been satisfied.

Concerning the Trustee

The Bank of New York Mellon will be the Trustee under the Indenture and has been appointed by the Issuer as Registrar and Paying Agent and custodian for DTC with regard to the Notes in global form.

If the Trustee becomes a creditor of the Issuer or any Guarantor, the Indenture limits the right of the Trustee to obtain payment of claims in certain cases, or to realize on certain property received in respect of any such claim as security or otherwise. The Trustee will be permitted to engage in other transactions; *however*, if it acquires any conflicting interest it must eliminate such conflict within 90 days, apply to the SEC for permission to continue as Trustee or resign.

No personal liability of directors, officers, employees and stockholders

No past, present or future director, officer, employee, incorporator, member, partner or stockholder of the Issuer or any Guarantor, as such, shall have any liability for any obligations of the Issuer or any Guarantor (other than the Issuer in respect of the Notes and each Guarantor in respect of its Guarantee) under the Notes, the Guarantees or the Indenture or for any claim based on, in respect of, or by reason of, such obligations or their creation. Each holder by accepting a Note waives and releases all such liability. The waiver and release are part of the consideration for issuance of the Notes. The waiver may not be effective to waive liabilities under the federal securities law.

Governing law

The Indenture, the Notes and any future Guarantees will be governed by, and construed in accordance with, the laws of the State of New York.

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Certain definitions

Set forth below are certain defined terms used in the Indenture. Reference is made to the Indenture for a full disclosure of all defined terms used therein.

Acquired Debt means Debt (1) of a Person existing at the time such Person becomes a Subsidiary of the Issuer, or is merged with or into the Issuer or a Subsidiary of the Issuer, or (2) assumed in connection with the acquisition of assets from such Person. Acquired Debt shall be deemed to have been incurred, with respect to clause (1) of the preceding sentence, on the date such Person becomes a Subsidiary of the Issuer and, with respect to clause (2) of the preceding sentence, on the date of consummation of such acquisition of assets.

Affiliate of any specified Person means any other Person, directly or indirectly, controlling or controlled by or under direct or indirect common control with such specified Person. For the purposes of this definition, control when used with respect to any Person means the power to direct the management and policies of such Person, directly or indirectly, whether through the ownership of voting securities, by contract or otherwise; and the terms controlling and controlled have meanings correlative to the foregoing.

Asset Acquisition means:

- (1) an Investment by the Issuer or any Subsidiary of the Issuer in any other Person pursuant to which such Person shall become a Subsidiary of the Issuer, or shall be merged with or into the Issuer or any Subsidiary of the Issuer; or
- (2) the acquisition by the Issuer or any Subsidiary of the Issuer of the assets of any Person which constitute all or substantially all of the assets of such Person, any company, division, operating unit, segment, business, group of related assets or line of business of such Person or any other properties or assets of such Person other than in the ordinary course of business and consistent with past practices.

Asset Sale means any transfer, conveyance, sale, lease or other disposition (including, without limitation, dispositions pursuant to any consolidation or merger) by the Issuer or any of its Subsidiaries to any Person in any single transaction or series of transactions of:

- (1) Capital Stock in another Person (other than directors qualifying shares or shares or interests required to be held by foreign nationals pursuant to local law); or
- (2) any other property or assets or any company, division, operating unit, segment, business, group of related assets or line of business (other than in the normal course of business, including any sale or other disposition of obsolete or permanently retired equipment);
provided, however, that the term *Asset Sale* shall exclude:

- (1) any asset disposition permitted by the provisions described under Certain covenants Consolidation, merger, sale or conveyance that constitutes a disposition of all or substantially all of the assets of the Issuer and its Subsidiaries taken as a whole;
- (2) any transfer, conveyance, sale, lease or other disposition of property or assets, the gross proceeds of which (exclusive of indemnities) do not exceed in any one or related series of transactions the greater of (x) \$75.0 million and (y) 3.5% of Consolidated Total Assets;
- (3) sales or other dispositions of cash or Eligible Cash Equivalents;
- (4) the sale and leaseback of any assets within 90 days of the acquisition thereof;

- (5) the disposition of assets that, in the good faith judgment of the Issuer, are no longer used or useful in the business of such entity;

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- (6) a Restricted Payment or Investment that is otherwise permitted by the Indenture;
- (7) any trade-in of equipment in exchange for other equipment; provided, however, that in the good faith judgment of the Issuer, the Issuer or such Subsidiary receives equipment having a fair market value equal to or greater than the equipment being traded in;
- (8) the creation of a Lien (but not the sale or other disposition of the property subject to such Lien);
- (9) leases or subleases in the ordinary course of business to third Persons not interfering in any material respect with the business of the Issuer or any of its Subsidiaries and otherwise in accordance with the provisions of the Indenture;
- (10) any disposition by a Subsidiary of the Issuer to the Issuer or by the Issuer or a Subsidiary of the Issuer to a Subsidiary of the Issuer;
- (11) dispositions of accounts receivable in connection with the collection or compromise thereof in the ordinary course of business;
- (12) licensing or sublicensing of intellectual property or other general intangibles in accordance with industry practice in the ordinary course of business;
- (13) any transfer of accounts receivable, or a fractional undivided interest therein, by a Receivable Subsidiary in a Qualified Receivables Transaction;
- (14) sales of accounts receivable to a Receivable Subsidiary pursuant to a Qualified Receivables Transaction for the fair market value thereof as determined by the Issuer in good faith; including cash or other financial accommodation, such as the provision of letters of credit by such Receivable Subsidiary on behalf of or for the benefit of the transferor of such accounts receivable, in an amount at least equal to 75% of the fair market value thereof as determined by the Issuer in good faith (for the purposes of this clause (14), Purchase Money Notes will be deemed to be cash); or
- (15) sales or other dispositions of accounts receivable the gross proceeds of which do not exceed \$75.0 million in any fiscal year. For purposes of this definition, any series of related transactions that, if effected as a single transaction, would constitute an Asset Sale, shall be deemed to be a single Asset Sale effected when the last such transaction which is a part thereof is effected.

Attributable Debt in respect of a Sale/Leaseback Transaction means, as at the time of determination, the present value (discounted at the interest rate borne by the Notes, compounded annually) of the total obligations of the lessee for rental payments during the remaining term of the lease included in such Sale/Leaseback Transaction (including any period for which such lease has been extended) (other than amounts required to be paid on account of property taxes, maintenance, repairs, insurance, water rates and other items which do not constitute payments for property rights); *provided, however*, that if such Sale/Leaseback Transaction results in a Capital Lease Obligation, the amount of Debt represented thereby will be determined in accordance with the definition of Capital Lease Obligation.

Average Life means, as of any date of determination, with respect to any Debt, the quotient obtained by dividing (i) the sum of the products of (x) the number of years (calculated to the nearest one-twelfth) from the date of determination to the dates of each successive scheduled principal payment (including any sinking fund or mandatory redemption payment requirements) of such Debt multiplied by (y) the amount of such principal payment by (ii) the sum of all such principal payments.

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beneficial ownership has the meaning assigned to such term in Rule 13d-3 and Rule 13d-5 under the Exchange Act, and *beneficial owner* has a corresponding meaning.

Board of Directors means the Board of Directors of the Issuer or any Guarantor or any committee thereof duly authorized to act on behalf of such Board.

Business Day means each day other than a Saturday, Sunday or a day on which the Trustee or commercial banking institutions are authorized or required by law to close in New York City.

Capital Lease Obligation means an obligation that is required to be classified and accounted for as a capital lease for financial reporting purposes in accordance with GAAP, and the amount of Debt represented by such obligation shall be the capitalized amount of such obligation determined in accordance with GAAP; and the Stated Maturity thereof shall be the date of the last payment of rent or any other amount due under such lease prior to the first date upon which such lease may be terminated by the lessee without payment of a penalty. For purposes of the covenant described under *Certain covenants* *Limitation on liens*, a Capital Lease Obligation will be deemed to be secured by a Lien on the property being leased.

Capital Stock of any Person means any and all shares, interests, rights to purchase, warrants, options, participations or other equivalents of or interests in (however designated) equity of such Person, including any Preferred Stock, but excluding any debt securities convertible or exchangeable into such equity.

Code means the Internal Revenue Code of 1986, as amended.

Common Stock shall mean the common stock of the Issuer.

Consolidated Debt Ratio means, as of any date of determination, the ratio of (1) the aggregate amount of Debt of the Issuer and its Subsidiaries then outstanding as of such date of determination to (2) EBITDA for the Four Quarter Period ending prior to the date of determination, in each case with pro forma and other adjustments to each of Debt and EBITDA to reflect any incurrences or repayments of Debt and any Asset Sales or Asset Acquisitions since the beginning of such Four Quarter Period (which pro forma and other adjustments will be determined in good faith by a responsible financial or accounting officer of the Issuer and shall not be required to be made in accordance with Regulation S-X promulgated by the SEC).

Consolidated Fixed Charge Coverage Ratio means, with respect to any Person, the ratio of EBITDA of such Person during the Four Quarter Period ending prior to the date of the transaction giving rise to the need to calculate the Consolidated Fixed Charge Coverage Ratio (the *Transaction Date*) to Consolidated Fixed Charges of such Person for the Four Quarter Period. In addition to and without limitation of the foregoing, for purposes of this definition, EBITDA and Consolidated Fixed Charges shall be calculated after giving effect on a pro forma basis for the period of such calculation to:

- (1) the incurrence of any Debt of such Person or any of its Subsidiaries (and the application of the proceeds thereof) and the repayment of other Debt, other than the incurrence or repayment of Debt in the ordinary course of business for working capital purposes pursuant to working capital facilities, occurring during the Four Quarter Period or at any time subsequent to the last day of the Four Quarter Period and on or prior to the Transaction Date, as if such incurrence or repayment, as the case may be (and the application of the proceeds thereof), occurred on the first day of the Four Quarter Period; and
- (2) any Asset Sales or Asset Acquisitions (including, without limitation, any Asset Acquisition giving rise to the need to make such calculation as a result of such Person or one of its Subsidiaries (including any Person who becomes a Subsidiary as a result of the Asset Acquisition) incurring, assuming or otherwise being liable for Acquired Debt and also including any EBITDA attributable to the assets which are the subject of

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the Asset Acquisition) occurring during the Four Quarter Period or at any time subsequent to the last day of the Four Quarter Period and on or prior to the Transaction Date, as if such Asset Sale or Asset Acquisition (including the incurrence, assumption or liability for any such Acquired Debt) occurred on the first day of the Four Quarter Period.

For purposes of this definition, pro forma calculations shall be made in good faith by a responsible financial or accounting officer of the Issuer and shall not be required to be made in accordance with Regulation S-X promulgated under the Securities Act, and such pro forma calculations may also include operating expense reductions for such period resulting from the Asset Sale or Asset Acquisition (as determined in good faith by senior management of the Issuer) for which pro forma effect is being given (A) that have been realized or (B) for which steps have been taken or are reasonably expected to be taken within six months of the date of such transaction and are supportable and quantifiable and, in each case, including, but not limited to (a) reduction in personnel expenses, (b) reduction of costs related to administrative functions, (c) reduction of costs related to leased or owned properties and (d) reductions from the consolidation of operations and streamlining of corporate overhead.

Furthermore, in calculating Consolidated Fixed Charges for purposes of determining the denominator (but not the numerator) of this Consolidated Fixed Charge Coverage Ratio :

- (1) interest on outstanding Debt determined on a fluctuating basis as of the Transaction Date and which will continue to be so determined thereafter shall be deemed to have accrued at a fixed rate per annum equal to the rate of interest on such Debt in effect on the Transaction Date;
- (2) if interest on any Debt actually incurred on the Transaction Date may optionally be determined at an interest rate based upon a factor of a prime or similar rate, a eurocurrency interbank offered rate, or other rates, then the interest rate in effect on the Transaction Date will be deemed to have been in effect during the Four Quarter Period; and
- (3) notwithstanding clause (1) or (2) above, interest on Debt determined on a fluctuating basis, to the extent such interest is covered by agreements relating to Hedging Obligations, shall be deemed to accrue at the rate per annum resulting after giving effect to the operation of such agreements.

Consolidated Fixed Charges means, with respect to any Person for any period, the sum of, without duplication, the amounts for such period of:

- (1) Consolidated Interest Expense; and
- (2) the product of (a) all dividends and other distributions accrued during such period in respect of Disqualified Stock and Preferred Stock of such Person and its Subsidiaries (other than dividends paid in Qualified Capital Interests), times (b) a fraction, the numerator of which is one and the denominator of which is one minus the then current combined federal, state and local statutory tax rate of such Person, expressed as a decimal.

Consolidated Interest Expense means, with respect to any Person for any period, without duplication, the sum of:

- (1) the total interest expense of such Person and its Subsidiaries for such period as determined on a consolidated basis in accordance with GAAP, including, without limitation:
 - (a) any amortization of debt discount;
 - (b) the net cost under any Hedging Obligation or Swap Contract in respect of interest rate protection (including any amortization of discounts);

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- (c) the interest portion of any deferred payment obligation;
 - (d) all commissions, discounts and other fees and charges owed with respect to financing activities or similar activities; and
 - (e) all accrued interest;
- (2) the interest component of Capital Lease Obligations paid, accrued and/or scheduled to be paid or accrued by such Person and its Subsidiaries during such period determined on a consolidated basis in accordance with GAAP; and
- (3) all capitalized interest of such Person and its Subsidiaries for such period; less interest income of such Person and its Subsidiaries for such period; *provided, however*, that Consolidated Interest Expense will exclude (I) the amortization or write-off of debt issuance costs and deferred financing fees, commissions, fees and expenses and (II) any expensing of interim loan commitment and other financing fees.

Consolidated Net Income means, for any period, the net income or loss of the Issuer and its Subsidiaries for such period determined on a consolidated basis in accordance with GAAP; *provided, however*, that there shall be excluded:

- (1) the income of any such consolidated Subsidiary to the extent that the declaration or payment of dividends or similar distributions by such consolidated Subsidiary of that income is not at the time permitted by operation of the terms of the charter, by-laws or similar governing document of such Subsidiary; and
- (2) the income or loss of any Person accrued prior to the date it becomes a consolidated Subsidiary of the Issuer or is merged into or consolidated with the Issuer or any of its consolidated Subsidiaries or the date that such Person's assets are acquired by the Issuer or any of its consolidated Subsidiaries;

provided further, however, that Consolidated Net Income for any period shall be determined after excluding the effects of adjustments (including the effects of such adjustments pushed down to the Issuer and its Subsidiaries) in any line item in the Issuer's consolidated financial statements in such period pursuant to GAAP resulting from the application of purchase accounting in relation to any completed acquisition.

Consolidated Secured Debt Ratio means, as of any date of determination, the ratio of (1) the aggregate amount of Funded Debt of the Issuer and its Subsidiaries then outstanding that is secured by Liens as of such date of determination to (2) EBITDA for the most recent Four Quarter Period, in each case with pro forma and other adjustments to each of Funded Debt and EBITDA to reflect any incurrences or repayments of Funded Debt (which pro forma and other adjustments will be determined in good faith by a responsible financial or accounting officer of the Issuer and shall not be required to be made in accordance with Regulation S-X promulgated by the SEC) and any Asset Sales or Asset Acquisitions since the beginning of such Four Quarter Period; *provided, however*, that for purposes of calculating the amount under clause (1) above on any date of determination, amounts of revolving credit Debt committed pursuant to the Credit Agreement or any Debt Facility that may be incurred by the Issuer or its Subsidiaries and which, upon incurrence, will be secured by a Lien, shall be deemed to be outstanding at all times and subsequent borrowings, reborrowings, renewals, replacements and extensions of such revolving credit Debt, up to such maximum committed amount, shall not be deemed additional incurrences of Funded Debt requiring calculations under this definition (but subsequent incremental borrowings in connection with increases in such maximum committed amount shall require calculations under this definition or shall otherwise comply with the covenants described under Certain covenants Limitation on debt and Limitation on liens).

Consolidated Total Assets means the total consolidated assets of the Issuer and its Subsidiaries, as shown on the most recent consolidated balance sheet of the Issuer and its Subsidiaries, determined on a pro forma basis.

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Continuing Director means, as of any date of determination, any member of the Issuer's Board of Directors who (i) was a member of such Board of Directors on the first date that any of the Notes were issued or (ii) was nominated for election or elected to the Issuer's Board of Directors with the approval of a majority of the Continuing Directors who were members of the Issuer's Board of Directors at the time of such nomination or election.

Credit Agreement means the Amended and Restated Credit Agreement, dated as of November 4, 2015, among PTC Inc., the foreign subsidiary borrowers from time to time party thereto, the lenders party thereto, JPMorgan Chase Bank, N.A., as administrative agent, and the other agents party thereto, together with the related documents thereto (including the term loans and revolving loans thereunder, any guarantees and security documents), as amended, amended and restated, extended, renewed, restated, supplemented or otherwise modified (in whole or in part, and without limitation as to amount, terms, conditions, covenants and other provisions) from time to time, and any agreement (and related document) governing Debt, including an indenture, incurred to refinance, in whole or in part, the borrowings and commitments then outstanding or permitted to be outstanding under such Credit Agreement or a successor Credit Agreement.

Debt means, with respect to any Person on any date of determination (without duplication):

- (1) the principal of and premium (if any) in respect of indebtedness of such Person for borrowed money;
- (2) the principal of and premium (if any) in respect of obligations of such Person evidenced by bonds, debentures, notes or other similar instruments;
- (3) the principal component of all obligations of such Person in respect of letters of credit, bankers' acceptances or other similar instruments (including reimbursement obligations with respect thereto except to the extent such reimbursement obligation relates to a trade payable and such obligation is satisfied within 30 days of incurrence);
- (4) the principal component of all obligations of such Person to pay the deferred and unpaid purchase price of property (including earn-out obligations), which purchase price is due after the date of placing such property in service or taking delivery and title thereto, except (a) any such balance that constitutes a trade payable or similar obligation to a trade creditor, in each case accrued in the ordinary course of business, and (b) any earn-out obligation until the amount of such obligation becomes a liability on the balance sheet of such Person in accordance with GAAP;
- (5) Capital Lease Obligations and all Attributable Debt of such Person (whether or not such items would appear on the balance sheet of such Person in accordance with GAAP);
- (6) the greater of the maximum mandatory redemption or repurchase price (not including, in either case, any redemption or repurchase premium) or the principal component or liquidation preference of all obligations of such Person with respect to the redemption, repayment or other repurchase of any Disqualified Stock or, with respect to any Non-Guarantor Subsidiary, any Preferred Stock (but excluding, in each case, any accrued dividends);
- (7) the principal component of all Debt of other Persons secured by a Lien on any asset of such Person, whether or not such Debt is assumed by such Person; *provided, however*, that the amount of such Debt will be the lesser of (a) the fair market value of such asset at such date of determination as determined by the Issuer in good faith and (b) the amount of such Debt of such other Persons;
- (8) the principal component of Debt of other Persons to the extent guaranteed by such Person (whether or not such items would appear on the balance sheet of such Person in accordance with GAAP);

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(9) to the extent not otherwise included in this definition, net obligations of such Person under Hedging Obligations (the amount of any such obligations to be equal at any time to the termination value of such agreement or arrangement giving rise to such obligation that would be payable by such Person at such time); and

(10) to the extent not otherwise included in this definition, the Receivables Transaction Amount outstanding relating to a Qualified Receivables Transaction.

Notwithstanding the foregoing, money borrowed and set aside at the time of the incurrence of any Debt in order to pre-fund the payment of interest on such Debt shall not be deemed to be *Debt*; *provided* that such money is held to secure the payment of such interest.

Notwithstanding the foregoing, the amount of any Debt outstanding as of any date shall (i) be the accreted value thereof in the case of any Debt issued with original issue discount or the aggregate principal amount outstanding in the case of Debt issued with interest payable in kind and (ii) include any interest (or in the case of Preferred Stock, dividends) thereon that is more than 30 days past due. Except to the extent provided in the preceding sentence, the amount of any Debt that is convertible into or exchangeable for Capital Stock of the Issuer outstanding as of any date shall be deemed to be equal to the principal and premium, if any, in respect of such Debt, notwithstanding the provisions of GAAP (including Accounting Standards Codification Topic 470-20, *Debt Debt with Conversion and Other Options*).

Notwithstanding anything in the foregoing to the contrary, Debt shall not include trade payables or accrued expenses for property or services incurred in the ordinary course of business, any liability for federal, state, local or other taxes, any settlements or judgments relating to governmental litigations and/or investigations or contingent obligations incurred in the ordinary course of business.

In addition, *Debt* of any Person shall include Debt described in the preceding paragraph that would not appear as a liability on the balance sheet of such Person if:

- (1) such Debt is the obligation of a partnership or joint venture that is not a Subsidiary of such Person (a *Joint Venture*);
- (2) such Person or a Subsidiary of such Person is a general partner of the Joint Venture (a *General Partner*); and
- (3) there is recourse, by contract or operation of law, with respect to the payment of such Debt to property or assets of such Person or a Subsidiary of such Person; and then such Debt shall be included in an amount not to exceed:
 - (a) the lesser of (i) the net assets of the General Partner and (ii) the amount of such obligations to the extent that there is recourse, by contract or operation of law, to the property or assets of such Person or a Subsidiary of such Person; or
 - (b) if less than the amount determined pursuant to clause (a) immediately above, the actual amount of such Debt that is recourse to such Person or a Subsidiary of such Person, if the Debt is evidenced by a writing and is for a determinable amount.

Debt Facilities means one or more debt facilities (including, without limitation, the Credit Agreement) or commercial paper facilities, securities purchase agreements, indentures or similar agreements, in each case, with banks or other institutional lenders or investors providing for revolving loans, term loans, receivables financing (including through the sale of receivables to lenders or to special purpose entities formed to borrow from lenders against such receivables), letters of credit or the issuance of debt securities, including any related

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notes, guarantees, collateral documents, instruments and agreements executed in connection therewith, and, in each case, as amended, restated, replaced (whether upon or after termination or otherwise), refinanced, supplemented, modified or otherwise changed (in whole or in part, and without limitation as to amount, terms, conditions, covenants and other provisions) from time to time.

Default means any event which is, or after notice or passage of time or both would be, an Event of Default.

Designated Non-cash Consideration means the fair market value as determined in good faith by the Issuer of non-cash consideration received by the Issuer or a Subsidiary of the Issuer in connection with an Asset Sale that is so designated as Designated Non-cash Consideration pursuant to an Officer's Certificate delivered to the Trustee, setting forth the basis of such valuation less the amount of cash or Eligible Cash Equivalents received in connection with a subsequent sale of or collection on such Designated Non-cash Consideration.

Disqualified Stock means, with respect to any Person, any Capital Stock which by its terms (or by the terms of any security into which it is convertible or for which it is exchangeable at the option of the holder) or upon the happening of any event:

- (1) matures (excluding any maturities as a result of an optional redemption by the issuer thereof) or is mandatorily redeemable pursuant to a sinking fund obligation or otherwise;
- (2) is convertible or exchangeable at the option of the holder for Debt or Disqualified Stock; or
- (3) is mandatorily redeemable or must be purchased upon the occurrence of certain events or otherwise, in whole or in part; in each case on or prior to 91 days after the earlier of the Stated Maturity of the Notes or the date the Notes are no longer outstanding; *provided, however*, that if such Capital Stock is issued to any employee or to any plan for the benefit of employees of the Issuer or its Subsidiaries or by any such plan to such employees, such Capital Stock shall not constitute Disqualified Stock solely because it may be required to be repurchased by the Issuer or its Subsidiaries in order to satisfy obligations as a result of such employee's death or disability; *provided, further, however*, that any Capital Stock that would not constitute Disqualified Stock but for provisions thereof giving holders thereof the right to require such Person to purchase or redeem such Capital Stock upon the occurrence of a change of control occurring on or prior to 91 days after the Stated Maturity of the Notes shall not constitute Disqualified Stock if:
 - (1) the change of control provisions applicable to such Capital Stock are not more favorable to the holders of such Capital Stock than the terms applicable to the Notes and described under *Change of control*; and
 - (2) any such requirement only becomes operative after compliance with such terms applicable to the Notes, including the purchase of any Notes tendered pursuant thereto.

DTC means The Depository Trust Company.

EBITDA for any period means Consolidated Net Income for such period *plus*

- (a) without duplication and to the extent deducted in determining such Consolidated Net Income, the sum of
 - (i) Consolidated Interest Expense for such period,
 - (ii) consolidated income tax expense for such period,

(iii) consolidated depreciation and amortization for such period,

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- (iv) any costs, expenses or charges (including advisory, legal and professional fees) related to any Equity Offering, investments, acquisition, disposition, recapitalization or incurrence of any Debt (including a refinancing thereof (whether or not successful)), including (A) such fees, expenses or charges related to the offering of the Notes and any Debt Facilities and (B) any amendment or modification of the Notes or any Debt Facility,
 - (v) any restructuring expenses or charges for such period, including charges or expenses related to employee severance or facilities consolidation,
 - (vi) any unusual or non-recurring fees, expenses or charges for such period, in each case, representing transaction or integration costs incurred in connection with acquisitions,
 - (vii) all other non-cash losses, expenses and charges of Issuer and its Subsidiaries for such period (excluding (x) the write down of current assets and (y) any such non-cash charge to the extent that it represents an accrual of or reserve for cash expenditures in any future period),
 - (viii) any non-cash compensation expense, including expenses recorded from grants of stock appreciation or similar rights, stock options, restricted stock or other rights to officers, directors or employees, and in connection with options, restricted stock, restricted stock units or other equity level awards under any PTC incentive plan,
 - (ix) any losses attributable to sales of assets out of the ordinary course of business,
 - (x) any net after tax losses on disposal of discontinued operations,
 - (xi) any modifications to pension and post-retirement employee benefit plans, settlement costs incurred to annuitize retirees or facilitate lump-sum buyout offers under pension and post-retirement employee benefit plans or mark-to-market adjustments under pension and post-retirement employee benefit plans, provided that for any period of calculation after March 31, 2017 amounts under this clause (xi) shall not comprise more than 5% of EBITDA for such period,
 - (xii) costs and expenses, including any settlement amounts and any fines or penalties, for such period relating to settlements with government agencies of previously disclosed regulatory matters, or any third party legal proceedings related to such previously disclosed regulatory matters, in an amount not to exceed \$60.0 million in the aggregate for all such periods,
 - (xiii) the net increase in the amount, if any, of consolidated deferred revenue as reflected on the annual or interim balance sheets of the Issuer during the eight consecutive full fiscal quarters following the Issue Date, and
 - (xiv) any net noncash unrealized loss resulting in such period from Hedging Obligations incurred in the ordinary course of business and made in accordance with ASC No. 815 Derivatives and Hedging; minus
- (b) without duplication
- (i) consolidated income tax benefit for such period,

- (ii) any gains attributable to sales of assets out of the ordinary course of business,
- (iii) the net decrease in the amount, if any, of consolidated deferred revenue as reflected on the annual or interim balance sheets of the Issuer during the eight consecutive full fiscal quarters following the Issue Date,

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(iv) any net after tax gains on disposal of discontinued operations, and

(v) any net noncash unrealized gain resulting in such period from Hedging Obligations incurred in the ordinary course of business and made in accordance with ASC No. 815 Derivatives and Hedging.

Eligible Bank means a bank or trust company that (i) is licensed, chartered or organized and existing under the laws of the United States of America, or any state, territory, province or possession thereof, (ii) as of the time of the making or acquisition of an Investment in such bank or trust company, has combined capital and surplus in excess of \$500.0 million and (iii) the senior Debt of which is rated at least A-2 by Moody's or at least A by S&P.

Eligible Cash Equivalents means any of the following Investments: (i) securities issued or directly and fully guaranteed or insured by the United States or any agency or instrumentality thereof (provided that the full faith and credit of the United States is pledged in support thereof) maturing not more than one year after the date of acquisition; (ii) time deposits in and certificates of deposit of any Eligible Bank, *provided* that such Investments have a maturity date not more than two years after date of acquisition and that the Average Life of all such Investments is one year or less from the respective dates of acquisition; (iii) repurchase obligations with a term of not more than 180 days for underlying securities of the types described in clause (i) above entered into with any Eligible Bank; (iv) direct obligations issued by any state of the United States or any political subdivision or public instrumentality thereof, *provided* that such Investments mature, or are subject to tender at the option of the holder thereof, within 365 days after the date of acquisition and, at the time of acquisition, have a rating of at least A from S&P or A-2 from Moody's (or an equivalent rating by any other nationally recognized rating agency); (v) commercial paper of any Person other than an affiliate of the Issuer and other than structured investment vehicles, *provided* that such Investments have one of the two highest ratings obtainable from either S&P or Moody's and mature within 180 days after the date of acquisition; (vi) overnight and demand deposits in and bankers' acceptances of any Eligible Bank and demand deposits in any bank or trust company to the extent insured by the Federal Deposit Insurance Corporation against the Bank Insurance Fund; (vii) money market funds 95% of the assets of which comprise Investments of the types described in clauses (i) through (vi); and (viii) instruments equivalent to those referred to in clauses (i) through (vi) above or funds equivalent to those referred to in clause (vii) above denominated in U.S. dollars, Euros or any other foreign currency comparable in credit quality and tender to those referred to in such clauses and customarily used by corporations for cash management purposes in jurisdictions outside the United States to the extent reasonably required in connection with any business conducted by any Subsidiary of the Issuer organized in such jurisdiction, all as determined in good faith by the Issuer.

Equity Offering means any primary offering of Capital Stock of the Issuer (other than Disqualified Stock) to Persons who are not Subsidiaries of the Issuer other than (1) public offerings with respect to the Issuer's Common Stock registered on Form S-4 or Form S-8 and (2) issuances upon exercise of options by employees of the Issuer or any of its Subsidiaries.

Exchange Act means the Securities Exchange Act of 1934, as amended.

Foreign Subsidiary means any Subsidiary that (1) is not organized under the laws of any state of the United States or the District of Columbia or (2) is organized under the laws of any state of the United States or the District of Columbia and is a Subsidiary of a Subsidiary described in the foregoing clause (1).

Four Quarter Period means the most recent four consecutive fiscal quarters for which internal financial statements of the Issuer are available.

Free Cash Flow means, for the most recent Four Quarter Period, cash provided by operating activities less capital expenditures (other than acquisitions), each as determined on a consolidated basis in accordance with GAAP.

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Funded Debt means all Debt having a maturity of more than 12 months from the date as of which the determination is made or having a maturity of 12 months or less but by its terms being renewable or extendable beyond 12 months from such date at the option of the borrower, excluding any Debt owed to PTC or its Subsidiaries.

GAAP means, for purposes of this section Description of notes , generally accepted accounting principles in the United States of America as in effect from time to time, including those set forth in:

(1) the opinions and pronouncements of the Accounting Principles Board of the American Institute of Certified Public Accountants;

(2) statements and pronouncements of the Financial Accounting Standards Board; and

(3) such other statements by such other entity as approved by a significant segment of the accounting profession; *provided, however*, lease liabilities and associated expenses recorded by the Issuer and its Subsidiaries pursuant to ASU 2016-02, Leases, shall not be treated as Debt and shall not be included in Consolidated Interest Expense or Consolidated Fixed Charges, unless the lease liabilities would have been treated as capital lease obligations under GAAP as in effect prior to the adoption of ASU 2016-02, Leases (in which case such lease liabilities and associated expenses shall be treated as Capital Lease Obligations and included in Consolidated Interest Expense and Consolidated Fixed Charges under the Indenture).

Except as otherwise provided herein, all ratios and computations based on GAAP contained in the Indenture shall be computed in conformity with GAAP.

Government Securities means securities that are (1) direct obligations of the United States for the timely payment of which its full faith and credit is pledged or (2) obligations of a Person controlled or supervised by and acting as an agency or instrumentality of the United States the timely payment of which is unconditionally guaranteed as a full faith and credit obligation of the United States, which, in either case, are not callable or redeemable at the option of the issuer thereof, and shall also include a depositary receipt issued by a bank (as defined in Section 3(a)(2) of the Securities Act), as custodian with respect to any such Government Securities or a specific payment of principal of or interest on any such Government Securities held by such custodian for the account of the holder of such depositary receipt; *provided* that (except as required by law) such custodian is not authorized to make any deduction from the amount payable to the holder of such depositary receipt from any amount received by the custodian in respect of the Government Securities or the specific payment of principal of or interest on the Government Securities evidenced by such depositary receipt.

Guarantee means a guarantee by a Subsidiary of the Issuer's obligations with respect to the Notes.

Guarantor means each Subsidiary of the Issuer that hereafter executes a supplemental indenture providing its Guarantee pursuant to the terms of the Indenture.

Hedging Obligations of any Person means the obligations of such Person pursuant to any interest rate agreement, currency agreement or commodity agreement.

holder or *noteholder* means the Person in whose name a Note is registered on the Registrar's books.

Investment by any Person means any direct or indirect loan, advance, guarantee for the benefit of (or other extension of credit) or capital contribution to (by means of any transfer of cash or other property or assets to another Person or any other payments for property or services for the account or use of another Person) another Person, including, without limitation, the following: (i) the purchase or acquisition of any Capital Stock

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or other evidence of beneficial ownership in another Person; (ii) the purchase, acquisition or guarantee of the Debt of another Person; and (iii) the purchase or acquisition of the business or assets of another Person substantially as an entirety but shall exclude: (a) accounts receivable and other extensions of trade credit in accordance with the Issuer's customary practices; (b) the acquisition of property and assets from suppliers and other vendors in the normal course of business; and (c) prepaid expenses and workers' compensation, utility, lease and similar deposits, in the normal course of business.

Investment Grade Rating means a rating equal to or higher than Baa3 (or the equivalent) and BBB (or the equivalent) by Moody's and S&P.

Issue Date means May 12, 2016.

Lien means any mortgage, pledge, security interest, encumbrance, lien or charge of any kind (including any conditional sale or other title retention agreement or lease in the nature thereof). For the avoidance of doubt, the grant by any Person of a non-exclusive license to use intellectual property owned by, licensed to, or developed by such Person and such license activity shall not constitute a grant by such Person of a Lien on such intellectual property.

Material Capital Markets Debt means any Debt consisting of bonds, debentures, notes or other similar debt securities issued in (a) a public offering registered under the Securities Act, (b) a private placement to institutional investors that is resold in accordance with Rule 144A or Regulation S of the Securities Act, or (c) a placement to institutional investors, in each case in aggregate principal amount of \$50.0 million or more. The term *Material Capital Markets Debt* shall not include any Debt under commercial bank facilities or similar Debt or any other type of Debt incurred in a manner not customarily viewed as a securities offering.

Moody's means Moody's Investors Service, Inc. (or any successor to the rating agency business thereof).

Net Cash Proceeds means, with respect to Asset Sales of any Person, cash and Eligible Cash Equivalents received, net of: (i) all out-of-pocket costs and expenses of such Person incurred in connection with such a sale, including, without limitation, all legal, accounting, title and recording tax expenses, commissions and other fees and expenses incurred and all federal, state, foreign and local taxes arising in connection with such an Asset Sale that are paid or required to be accrued as a liability under GAAP by such Person; (ii) all payments made by such Person on any Debt that is secured by such properties or other assets in accordance with the terms of any Lien upon or with respect to such properties or other assets or that must, by the terms of such Lien or such Debt, or in order to obtain a necessary consent to such transaction or by applicable law, be repaid to any other Person (other than the Issuer or a Subsidiary thereof) in connection with such Asset Sale; and (iii) all contractually required distributions and other payments made to minority interest holders in Subsidiaries of such Person as a result of such transaction; *provided, however,* that: (a) in the event that any consideration for an Asset Sale (which would otherwise constitute Net Cash Proceeds) is required by (I) contract to be held in escrow pending determination of whether a purchase price adjustment will be made or (II) GAAP to be reserved against other liabilities in connection with such Asset Sale, such consideration (or any portion thereof) shall become Net Cash Proceeds only at such time as it is released to such Person from escrow or otherwise; and (b) any non-cash consideration received in connection with any transaction, which is subsequently converted to cash, shall become Net Cash Proceeds only at such time as it is so converted.

Non-Guarantor Subsidiary means any Subsidiary of the Issuer that is not a Guarantor.

Officer means the chairman of the Board of Directors, the chief executive officer, the president, the chief financial officer, any executive vice president, senior vice president or vice president, the treasurer or any assistant treasurer or the secretary or any assistant secretary of the Issuer or any Guarantor, as the case may be.

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Officer's Certificate means a certificate signed on behalf of the Issuer or any Guarantor by an Officer of the Issuer or any Guarantor, as the case may be.

Opinion of Counsel means a written opinion signed by legal counsel, who may be an Officer or employee of or counsel to the Issuer or any Guarantor, as the case may be, or other counsel reasonably satisfactory to the Trustee.

Permitted Asset Swap means the concurrent purchase and sale or exchange of properties or assets (other than securities) that are used or useful in a Permitted Business or a combination of such assets and cash or Eligible Cash Equivalents between the Issuer or any of its Subsidiaries and another Person; *provided, however*, that any cash and Eligible Cash Equivalents must be applied in accordance with the covenant described under Certain covenants Limitation on asset sales.

Permitted Business means any business similar in nature to any business conducted by the Issuer and the Subsidiaries of the Issuer on the Issue Date and any business reasonably ancillary, incidental, complementary or related to, or a reasonable extension, development or expansion of, the business conducted by the Issuer and the Subsidiaries of the Issuer on the Issue Date, in each case, as determined in good faith by the Issuer.

Permitted Debt means

- (1) Debt incurred by the Issuer or any Guarantor pursuant to any Debt Facilities in an aggregate principal amount at any one time outstanding not to exceed the greater of (x) \$1,250.0 million minus any amount used to permanently repay such obligations (or permanently reduce commitments with respect thereto) pursuant to the covenant described under Certain covenants Limitation on asset sales and (y) an amount of Debt that at the time of incurrence does not cause the Consolidated Secured Debt Ratio to exceed 3.00 to 1.00 (provided that any Debt incurred pursuant to this clause (y) shall be deemed to be secured Debt solely for the purpose of such calculation);
- (2) Debt under the Notes issued on the Issue Date;
- (3) Guarantees of the Notes;
- (4) Debt of the Issuer or any Subsidiary of the Issuer outstanding on the Issue Date (other than Debt incurred pursuant to clauses (1), (2) or (3) above);
- (5) guarantees incurred by the Issuer of Debt of a Subsidiary of the Issuer otherwise permitted to be incurred under the Indenture;
- (6) guarantees by any Subsidiary of the Issuer of Debt of the Issuer or any other Subsidiary of the Issuer, including guarantees by any Subsidiary of the Issuer of Debt under the Credit Agreement; provided, however, that (a) such Debt is permitted to be incurred under the Indenture and (b) if the Debt being guaranteed is subordinated in right of payment to the Notes, such guarantees are subordinated to the Guarantees to the same extent, if any, as the Debt being guaranteed;
- (7) Debt incurred in respect of (a) workers' compensation claims and self-insurance obligations, and, for the avoidance of doubt, indemnity, value added or other tax, bid, performance, warranty, release, appeal, surety and similar bonds, (b) completion guarantees provided or incurred (including guarantees thereof) by the Issuer or a Subsidiary of the Issuer in the ordinary course of business, (c) the honoring by a bank or other financial institution of a check, draft or similar instrument drawn against insufficient funds in the ordinary course of business or consistent with past practices; provided, however, that such Debt is extinguished within five Business Days of incurrence, (d) customer deposits and advance payments received in the ordinary course of business or consistent with past practices from customers for goods or

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- services purchased in the ordinary course of business or consistent with past practices, (e) letters of credit, bankers' acceptances, guarantees or other similar instruments or obligations issued or relating to liabilities or obligations incurred in the ordinary course of business or consistent with past practices, and (f) any customary cash management, cash pooling or netting or setting off arrangements in the ordinary course of business or consistent with past practices;
- (8) Debt under Swap Contracts and Hedging Obligations incurred in the ordinary course of business and not for speculative purposes;
- (9) Debt owed by the Issuer to any of its Subsidiaries, or by any Subsidiary of the Issuer to the Issuer or to any other Subsidiary of the Issuer, provided that if for any reason such Debt ceases to be held by the Issuer or a Subsidiary of the Issuer, as applicable, such Debt shall cease to be Permitted Debt under this clause (9) and shall be deemed incurred as Debt of the Issuer for purposes of the Indenture;
- (10) Debt of the Issuer or a Guarantor pursuant to Capital Lease Obligations, synthetic lease obligations and Purchase Money Debt and any Refinancing Debt that refinances any Debt incurred pursuant to this clause (10); provided, however, that the aggregate principal amount of all Debt incurred under this clause (10) and outstanding at any time may not exceed the greater of (x) \$75.0 million and (y) 3.5% of Consolidated Total Assets in the aggregate;
- (11) Debt arising from agreements of the Issuer or a Subsidiary of the Issuer providing for indemnification, contribution, earnout, adjustment of purchase price or similar obligations, in each case, incurred or assumed in connection with the acquisition or disposition of any business, assets or Capital Stock of a Subsidiary of the Issuer otherwise permitted under the Indenture;
- (12) the issuance by any of the Issuer's Subsidiaries to the Issuer or to any of its Subsidiaries of shares of Disqualified Stock or Preferred Stock; provided, however, that:
- (a) any subsequent issuance or transfer of Capital Stock that results in any such Disqualified Stock being held by a Person other than the Issuer or a Subsidiary of the Issuer; and
- (b) any sale or other transfer of any such Disqualified Stock to a Person that is not either the Issuer or a Subsidiary of the Issuer; shall be deemed, in each case, to constitute an issuance of such Disqualified Stock or Preferred Stock by such Subsidiary of the Issuer that was not permitted by this clause (12);
- (13) Debt arising from the honoring by a bank or other financial institution of a check, draft or similar instrument drawn against insufficient funds in the ordinary course of business; provided, however, that such Debt is extinguished within five Business Days of incurrence;
- (14) Debt of the Issuer or a Subsidiary of the Issuer not otherwise permitted pursuant to this definition and any Refinancing Debt that refinances any Debt incurred pursuant to this clause (14), in an aggregate principal amount not to exceed the greater of (x) \$100.0 million and (y) 5.0% of Consolidated Total Assets at any time outstanding;
- (15) Debt of Foreign Subsidiaries and any Refinancing Debt that refinances any Debt incurred pursuant to this clause (15) in an aggregate principal amount not to exceed the greater of (x) \$100.0 million and (y) 5.0% of Consolidated Total Assets at any one time outstanding;

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- (16) (x) Debt of the Issuer or any Guarantor incurred or issued to finance an acquisition or (y) Acquired Debt; provided, however, that after giving pro forma effect to such acquisition, merger or consolidation, and the incurrence of such Debt (including pro forma application of the proceeds thereof), either:
- (a) the Issuer would be permitted to incur at least \$1.00 of additional Coverage Debt pursuant to the first paragraph of the covenant described under Certain covenants Limitation on debt ;
 - (b) the Consolidated Fixed Charge Coverage Ratio of the Issuer and its Subsidiaries would not be lower than such ratio immediately prior to such acquisition, merger or consolidation; or
 - (c) such Debt constitutes Acquired Debt (other than Debt incurred in contemplation of the transaction or series of transactions pursuant to which such Person became a Subsidiary of the Issuer or was otherwise acquired by the Issuer or a Subsidiary of the Issuer); provided that the only obligors with respect to such Debt shall be those Persons who were obligors of such Debt prior to such acquisition, merger or consolidation;
- (17) Refinancing Debt that Refinances Coverage Debt or Debt incurred pursuant to clauses (2), (4), (16) or this clause (17) of this definition of Permitted Debt;
- (18) Debt representing the obligation of the Issuer or any of its Subsidiaries to make payments to any current or former employee, director or consultant of the Issuer or any of its Subsidiaries (or permitted transferees, assigns, estates, or heirs of such employee, director or consultant), to finance the purchase or redemption of Capital Stock of the Issuer that is permitted by the covenant described under Limitation on restricted payments; and
- (19) Debt of the Issuer or any of its Subsidiaries consisting of the financing of insurance premiums incurred in the ordinary course of business. *Permitted Investments* means:
- (1) Investments in existence on the Issue Date;
 - (2) Investments required pursuant to any agreement or obligation of the Issuer or a Subsidiary of the Issuer, in effect on the Issue Date, to make such Investments;
 - (3) Investments in cash and Eligible Cash Equivalents;
 - (4) Investments in property and other assets, owned or used by the Issuer or any Subsidiary of the Issuer in the normal course of business;
 - (5) Investments by the Issuer or any of its Subsidiaries in the Issuer or any Subsidiary of the Issuer;
 - (6) Investments by the Issuer or any Subsidiary of the Issuer in a Person, if as a result of such Investment (A) such Person becomes a Subsidiary of the Issuer or (B) such Person is merged, consolidated or amalgamated with or into, or transfers or conveys substantially all of its assets to, or is liquidated or wound-up into, the Issuer or a Subsidiary of the Issuer;

- (7) Swap Contracts and Hedging Obligations;
- (8) receivables owing to the Issuer or any of its Subsidiaries and advances to suppliers, in each case if created, acquired or made in the ordinary course of business and payable or dischargeable in accordance with customary trade terms;
- (9) Investments received in settlement of obligations owed to the Issuer or any Subsidiary of the Issuer and as a result of bankruptcy or insolvency proceedings or upon the foreclosure or enforcement of any Lien in favor of the Issuer or any Subsidiary of the Issuer;

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- (10) Investments by the Issuer or any Subsidiary of the Issuer not otherwise permitted under this definition, in an aggregate amount not to exceed the greater of (x) \$200.0 million and (y) 10.0% of Consolidated Total Assets at any one time outstanding;
- (11) loans and advances to officers, directors and employees of the Issuer and Subsidiaries of the Issuer in an aggregate amount not to exceed \$10.0 million in the aggregate at any one time outstanding, for travel, entertainment, relocation and analogous ordinary business purposes;
- (12) Investments the payment for which consists solely of Capital Stock of the Issuer;
- (13) any Investment in any Person to the extent such Investment represents the non-cash portion of the consideration received in connection with an Asset Sale consummated in compliance with the covenant described under Certain covenants Limitation on asset sales or any other disposition of property not constituting an Asset Sale;
- (14) payroll, travel and similar advances to cover matters that are expected at the time of such advances ultimately to be treated as expenses for accounting purposes and that are made in the ordinary course of business and consistent with past practice;
- (15) guarantees by the Issuer or any Subsidiary of the Issuer of Debt of the Issuer or a Subsidiary of the Issuer (other than a Receivables Subsidiary) of Debt otherwise permitted by the covenant described under Certain covenants Limitation on debt ;
- (16) any Investment by the Issuer or any Subsidiary of the Issuer in a Receivable Subsidiary or any Investment by a Receivable Subsidiary in any other Person in connection with a Qualified Receivables Transaction, so long as any Investment in a Receivable Subsidiary is in the form of a Purchase Money Note or an Investment in Capital Stock; and
- (17) other Investments in any Person that is a joint venture engaged in a Permitted Business having an aggregate fair market value as determined by the Issuer in good faith (measured on the date each such Investment was made and without giving effect to subsequent changes in value), when taken together with all other Investments made pursuant to this clause (17) since the Issue Date and existing at the time of the Investment, which is the subject of the determination, was made, not to exceed the greater of (x) \$50.0 million and (y) 2.5% of Consolidated Total Assets.

Person means any individual, corporation, partnership, limited liability company, joint venture, association, joint-stock company, trust, unincorporated organization, government or any agency or political subdivision thereof or any other entity.

Preferred Stock, as applied to the Capital Stock of any corporation, means Capital Stock of any class or classes (however designated) which is preferred as to the payment of dividends, or as to the distributions of assets upon any voluntary or involuntary liquidation or dissolution of such corporation, over shares of capital of any other class of such corporation.

Property means any property or asset, whether real, personal or mixed, including current assets, but excluding deposit or other control accounts, owned on the Issue Date or thereafter acquired by the Issuer or any Subsidiary of the Issuer.

Purchase Money Debt means Debt

- (1) incurred to finance the purchase or construction (including additions and improvements thereto) of any assets (other than Capital Stock) of such Person or any Subsidiary of the Issuer; and

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(2) that is secured solely by a Lien on the assets so purchased or constructed (or any facility which such assets constitute a part of); in either case, that does not exceed 100% of the cost.

Purchase Money Note means a promissory note of a Receivable Subsidiary issued to the Issuer or any Subsidiary of the Issuer, to pay all or a portion of the purchase price of receivables and assets related thereto described in the definition of *Qualified Receivables Transaction* that are purchased in connection with a *Qualified Receivables Transaction*. The repayment of a *Purchase Money Note* may be subordinated to the repayment of other liabilities of the Receivable Subsidiary on terms determined in good faith by the Issuer to be substantially consistent with market practice in connection with *Qualified Receivables Transactions*.

Qualified Capital Interests in any Person means a class of Capital Stock other than *Disqualified Stock* and *Preferred Stock* of a Subsidiary that is not a Guarantor.

Qualified Receivables Transaction means any transaction or series of transactions entered into by the Issuer or any of its Subsidiaries pursuant to which the Issuer or such Subsidiary transfers to (a) a Receivable Subsidiary (in the case of a transfer by the Issuer or any of its Subsidiaries) or (b) any other Person (in the case of a transfer by a Receivable Subsidiary), or grants a security interest in, any accounts receivable (whether now existing or arising in the future) of the Issuer or any of its Subsidiaries, and any assets related thereto, including, without limitation, all collateral securing such accounts receivable, all contracts and all guarantees or other obligations in respect of such accounts receivable, proceeds of such accounts receivable and other assets which are customarily transferred or in respect of which security interests are customarily granted in connection with an accounts receivable financing transaction; *provided* such transaction is on market terms as determined in good faith by the Issuer at the time the Issuer or such Subsidiary enters into such transaction.

Rating Agencies means S&P and Moody's.

Receivable Subsidiary means a Subsidiary of the Issuer:

- (1) that is formed solely for the purpose of, and that engages in no activities other than activities in connection with, financing accounts receivable of the Issuer and/or its Subsidiaries, including providing letters of credit on behalf of or for the benefit of the Issuer and/or its Subsidiaries;
- (2) that is designated by the Board of Directors of the Issuer as a Receivable Subsidiary pursuant to an Officer's Certificate that is delivered to the Trustee;
- (3) no portion of the Debt or any other obligation (contingent or otherwise) of which (a) is at any time guaranteed by the Issuer or any Subsidiary of the Issuer (excluding guarantees of obligations (other than any guarantee of Debt) pursuant to Standard Securitization Undertakings), (b) is at any time recourse to or obligates the Issuer or any Subsidiary of the Issuer in any way, other than pursuant to Standard Securitization Undertakings or (c) subjects any asset of the Issuer or any Subsidiary of the Issuer, directly or indirectly, contingently or otherwise, to the satisfaction thereof, other than pursuant to Standard Securitization Undertakings;
- (4) with which neither the Issuer nor any Subsidiary of the Issuer has any material contract, agreement, arrangement or understanding other than (a) contracts, agreements, arrangements and understandings entered into in connection with a *Qualified Receivables Transaction*, (b) fees payable in the ordinary course of business in connection with servicing accounts receivable in connection with such a *Qualified Receivables Transaction* as determined in good faith by the Board of Directors of the Issuer and (c) any *Purchase Money Note* issued by such Receivable Subsidiary to the Issuer or a Subsidiary of the Issuer or any letters of credit provided by such Receivable Subsidiary on behalf of or for the benefit of the Issuer or any Subsidiary of the Issuer; and

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- (5) with respect to which neither the Issuer nor any Subsidiary of the Issuer has any obligation (a) to subscribe for additional shares of Capital Stock therein or make any additional capital contribution or similar payment or transfer thereto except in connection with a Qualified Receivables Transaction or (b) to maintain or preserve the solvency or any balance sheet term, financial condition, level of income or results of operations thereof.

Receivables Transaction Amount means the amount of obligations outstanding under the legal documents entered into as part of such Qualified Receivables Transaction on any date of determination that would be characterized as principal if such Qualified Receivables Transaction were structured as a secured lending transaction rather than as a purchase.

refinance means, in respect of any Debt, to refinance, extend, renew, refund, repay, prepay, redeem, defease or retire, or to issue other Debt in exchange or replacement for, such Debt. *Refinanced* and *refinancing* shall have correlative meanings.

Refinancing Debt means Debt that refinances any Debt incurred by the Issuer or any Subsidiary of the Issuer pursuant to the terms of the Indenture, whether involving the same or any other lender or creditor or group of lenders or creditors, but only to the extent that

- (1) if the Debt being refinanced is subordinated in right of payment to the Notes or the Guarantees, the Refinancing Debt is subordinated to the Notes or the Guarantees to at least the same extent as the Debt being refinanced if such Debt was subordinated to the Notes or the Guarantees,
- (2) the Refinancing Debt is scheduled to mature either (a) no earlier than the Debt being refinanced or (b) if earlier, at least 91 days after the maturity date of the Notes,
- (3) the Refinancing Debt has an Average Life at the time such Refinancing Debt is incurred that is equal to or greater than the Average Life of the Debt being refinanced,
- (4) such Refinancing Debt is in an aggregate principal amount (or if incurred with original issue discount, an aggregate issue price) that is equal to or less than the aggregate principal amount (or if incurred with original issue discount, the aggregate accreted value) then outstanding (plus all accrued interest and the amount of all fees and expenses, including any premium and defeasance costs) with respect to the Debt being Refinanced, and
- (5) Refinancing Debt shall not include Debt of a Non-Guarantor Subsidiary that refinances Debt of the Issuer or a Guarantor.
- Restricted Payment* is defined to mean any of the following:

- (1) any dividend or other distribution declared and paid on the Capital Stock of the Issuer or on the Capital Stock of any Subsidiary of the Issuer that is held by, or declared and paid to, any Person other than the Issuer or a Subsidiary of the Issuer (other than (i) dividends, distributions or payments made solely in Qualified Capital Interests of the Issuer and (ii) dividends or distributions payable to the Issuer or a Subsidiary of the Issuer or to other holders of Capital Stock of a Subsidiary of the Issuer on a pro rata basis);
- (2) any payment (including, without limitation, in connection with a merger, consolidation or amalgamation) made by the Issuer or any of its Subsidiaries to purchase, redeem, acquire or retire for value any Capital Stock of the Issuer (including the conversion into, or exchange for, Debt, of any Capital Stock) other than any such Capital Stock owned by the Issuer or any Subsidiary of the Issuer (other than a payment made solely in Qualified Capital Interests of the Issuer);

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(3) any payment made by the Issuer or any of its Subsidiaries (other than a payment made solely in Qualified Capital Interests of the Issuer) to redeem, repurchase, defease (including an in substance or legal defeasance) or otherwise acquire or retire for value (including pursuant to mandatory repurchase covenants), prior to any scheduled maturity, scheduled sinking fund or mandatory redemption payment, Debt of the Issuer or any Guarantor that is subordinate in right of payment to the Notes or Guarantees (excluding any Debt owed to the Issuer or any Subsidiary of the Issuer); except payments of principal and interest in anticipation of satisfying a sinking fund obligation, principal installment or final maturity, in each case, within one year of the due date thereof; and

(4) any Investment by the Issuer or a Subsidiary of the Issuer in any Person, other than a Permitted Investment.
S&P means Standard & Poor's Ratings Group (or any successor to the rating agency business thereof).

Sale/Leaseback Transaction means an arrangement relating to a Property owned by the Issuer or a Subsidiary of the Issuer on the Issue Date or thereafter acquired by the Issuer or a Subsidiary of the Issuer whereby the Issuer or a Subsidiary of the Issuer transfers such property to a Person and the Issuer or the Subsidiary of the Issuer leases it from such Person.

SEC means the Securities and Exchange Commission.

Securities Act means the Securities Act of 1933, as amended.

Significant Subsidiary means any Subsidiary of the Issuer that would be a significant subsidiary of the Issuer within the meaning of Rule 1-02 under Regulation S-X promulgated by the SEC.

Standard Securitization Undertakings means representations, warranties, covenants and indemnities entered into by the Issuer or any Subsidiary of the Issuer which are reasonably customary in an accounts receivable securitization transaction as determined in good faith by the Issuer, including guarantees by the Issuer or any Subsidiary of the Issuer of any of the foregoing obligations of the Issuer or a Subsidiary of the Issuer.

Stated Maturity means, with respect to any security, the date specified in such security as the fixed date on which the final payment of principal of such security is due and payable, including pursuant to any mandatory redemption provision (but excluding any provision providing for the repurchase of such security at the option of the holder thereof upon the happening of any contingency unless such contingency has occurred).

Subsidiary means, with respect to any Person, any corporation, association, partnership, limited liability company or other business entity of which more than 50% of the total voting power of shares of Voting Stock is at the time owned or controlled, directly or indirectly, by:

(1) such Person;

(2) such Person and one or more Subsidiaries of such Person; or

(3) one or more Subsidiaries of such Person.

Swap Contract means (a) any and all rate swap transactions, basis swaps, credit derivative transactions, forward rate transactions, commodity swaps, commodity options, forward commodity contracts, equity or equity index swaps or options, bond or bond price or bond index swaps or options or forward bond or forward bond price or forward bond index transactions, interest rate options, forward foreign exchange transactions, cap transactions, floor transactions, collar transactions, currency swap transactions, cross-currency rate swap transactions, currency options, spot contracts, or any other similar transactions or any combination of any of the foregoing, whether or not any such transaction is governed by or subject to any master agreement, and

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(b) any and all transactions of any kind, and the related confirmations, which are subject to the terms and conditions of, or governed by, any form of master agreement published by the International Swaps and Derivatives Association, Inc., any International Foreign Exchange Master Agreement, or any other master agreement (any such master agreement, together with any related schedules, a *Master Agreement*), including any such obligations or liabilities under any Master Agreement.

Voting Stock of a Person means all classes of Capital Stock or other interests (including partnership interests) of such Person then outstanding and normally entitled (without regard to the occurrence of any contingency) to vote in the election of directors, managers or trustees thereof (or the controlling managing member or general partner, as applicable).

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The notes will be represented by one or more global notes in definitive, fully registered form. Each global note will be deposited with The Bank of New York Mellon (the Trustee) as custodian for The Depository Trust Company (DTC) and registered in the name of DTC or its nominees in New York, New York for the accounts of participants in DTC.

Investors may hold their interests in a global note directly through DTC if they are DTC participants, or indirectly through organizations that are DTC participants. Except in the limited circumstances described below, holders of notes represented by interests in a global note will not be entitled to receive their notes in fully registered certificated form. Unless it is exchanged in whole or in part for a certificated note, a global note may not be transferred. DTC, its nominees and their successors may, however, transfer a global note as a whole to one another, and these transfers are required to be recorded on our records or a register to be maintained by the Trustee. Beneficial interests in a global note will be shown on, and transfers of beneficial interests in the global note will be made only through, records maintained by DTC and its participants.

Depository procedures

The following description of the operations and procedures of DTC, Euroclear Bank SA/NV (Euroclear) and Clearstream Banking, société anonyme (Clearstream) is provided solely as a matter of convenience. These operations and procedures are solely within the control of the respective settlement systems and are subject to changes by them. PTC takes no responsibility for these operations and procedures and urges investors to contact the system or their participants directly to discuss these matters.

DTC has advised us that DTC is a limited-purpose trust company organized under the laws of the State of New York, a banking organization within the meaning of the New York Banking Law, a member of the Federal Reserve System, a clearing corporation within the meaning of the Uniform Commercial Code and a clearing agency registered pursuant to the provisions of Section 17A of the Exchange Act of 1934, as amended (the Exchange Act). DTC holds securities that its direct participants deposit with DTC. DTC also records the settlements among direct participants of securities transactions, such as transfers and pledges, in deposited securities through computerized records for direct participants accounts. This book-entry system eliminates the need to exchange certificated securities. Direct participants include securities brokers and dealers, banks, trust companies, clearing corporations and certain other organizations.

DTC's book-entry system is also used by other organizations such as securities brokers and dealers, banks and trust companies that work through a direct participant. The rules that apply to DTC and its participants are on file with the SEC. DTC is a wholly owned subsidiary of the Depository Trust & Clearing Corporation (DTCC). DTCC is the holding company for DTC, National Security Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries.

When you purchase notes through the DTC system, the purchases must be made by or through a direct participant, which will receive credit for the notes on DTC's records. When you actually purchase the notes, you will become their beneficial owner. Your ownership interest will be recorded only on the direct or indirect participants' records. DTC will have no knowledge of your individual ownership of the notes. DTC's records will show only the identity of the direct participants and the principal amount of the notes held by or through them. You will not receive a written confirmation of your purchase or sale or any periodic account statement directly from DTC. You should instead receive these from your direct or indirect participant. As a result, the direct or indirect participants are responsible for keeping accurate account of the holdings of their customers. The Trustee will wire payments on the notes to DTC's nominee. We and the Trustee will treat DTC's nominee as the

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owner of each global note for all purposes. Accordingly, we, the Trustee and the paying agent will have no direct responsibility or liability to pay amounts due on a global note or any other beneficial owners of that global note.

DTC's current practice is to, upon receipt of any payment of distributions or liquidation amounts, proportionately credit direct participants accounts on the payment date based on their holdings. Additionally, it is DTC's current practice to pass through any consenting or voting rights, if applicable, to such participants by using an omnibus proxy. Those participants will, in turn, make payments to and solicit votes, if applicable, from the beneficial owners of notes, based on their customary practices. Payments to the beneficial owner will be the responsibility of the participants and not of DTC, the Trustee or PTC.

If the depository for a global security is DTC, then you may hold interests in the global notes through Clearstream or Euroclear, in each case, as a participant in DTC.

Noteholders may hold their notes through the accounts maintained by Euroclear or Clearstream in DTC only if they are participants of those systems, or indirectly through organizations that are participants in those systems.

Euroclear and Clearstream will hold omnibus book-entry positions on behalf of their participants through their customers' securities accounts in Euroclear's and Clearstream's names on the books of their respective depositories, which in turn will hold such positions in customer's securities accounts in the names of the nominees of the depositories on the books of DTC. All securities in Euroclear and Clearstream are held on a fungible basis without attribution of specific certificates to specific securities clearance accounts.

Payments, deliveries, transfers, exchanges, notices and other matters relating to the notes made through Euroclear and Clearstream will be effected through DTC, in accordance with DTC rules, on behalf of the relevant European international clearing system by its depositories; however, such transactions will require delivery of exercise instructions to the relevant European international clearing system by the participant in such system in accordance with its rules and procedures and within its established deadlines (European time). The relevant European international clearing system, will, if the exercise meets its requirements, deliver instructions to its depositories to take action to effect the exercise of the notes on its behalf by delivering notes through DTC and receiving payment in accordance with its normal procedures for next-day funds settlement. Payments with respect to the notes held through Euroclear and Clearstream will be credited to the cash amounts of Euroclear participants or Clearstream participants in accordance with the relevant system's rules and procedures, to the extent received by its depositories.

Euroclear and Clearstream may change any of their policies without notice.

Exchange of global notes for certificated notes

A global note is exchangeable for a certificated note if:

DTC (a) notifies PTC that it is unwilling or unable to continue as depository for the global notes or (b) has ceased to be a clearing agency registered under the Exchange Act and, in each case, a successor depository is not appointed; or

PTC, at its option, notifies the Trustee in writing that it elects to cause the issuance of certificated notes.

In addition, beneficial interests in a global note may be exchanged for certificated notes upon prior written notice given to the Trustee by or on behalf of DTC in accordance with the Indenture. In all cases, certificated notes delivered in exchange for any global note or beneficial interests in a global note will be registered in the names, and issued in any approved denominations, requested by or on behalf of the depository (in accordance with its customary procedures).

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Same day settlement and payment

PTC will make payments in respect of notes represented by global notes, including payments of principal, premium, if any, and interest by wire transfer of immediately available funds to the accounts specified by DTC or its nominee. PTC will make all payments of principal of and premium, if any, and interest on certificated notes by wire transfer of immediately available funds to the accounts specified by the holders of the certificated notes or, if no account is specified, by mailing a check to each holder's registered address. See Description of notes Principal, maturity and interest. Notes represented by global notes are expected to trade in DTC's Same-Day Funds Settlement System, and any permitted secondary market trading activity in notes represented by global notes will, therefore, be required by DTC to be settled in immediately available funds. Because of time zone differences, the securities account of a Euroclear or Clearstream participant purchasing an interest in a global note from a participant will be credited, and any such crediting will be reported to the relevant Euroclear or Clearstream participant, during the securities settlement processing day (which must be a business day for Euroclear and Clearstream) immediately following the settlement date of DTC. DTC has advised us that cash received in Euroclear or Clearstream as a result of sales of interests in a global note by or through a Euroclear or Clearstream participant to a participant will be received with value on the settlement date of DTC but will be available in the relevant Euroclear or Clearstream cash account only as of the business day for Euroclear or Clearstream following DTC's settlement date.

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Material United States federal income tax considerations

The following is a summary of material United States federal income tax considerations relating to the acquisition, ownership, and disposition of the notes, but does not purport to be a complete analysis of all tax effects. This summary is based on the Internal Revenue Code of 1986, as amended (the Code), final, temporary and proposed Treasury regulations promulgated thereunder (the Treasury Regulations), administrative pronouncements and judicial decisions, all in effect or proposed on the date hereof and all of which are subject to change or to different interpretations. Any such change could be applied retroactively in a way that could cause the tax consequences to differ from the consequences described below, possibly with adverse effect. No ruling from the Internal Revenue Service (the IRS) has been or will be sought by us with respect to any aspect of the transactions described herein. Accordingly, no assurance can be given that the IRS will agree with the views expressed in this summary, or that a court will not sustain any challenge by the IRS in the event of litigation.

The following relates only to notes that are acquired on the initial issuance for an amount of cash equal to the price indicated on the cover page and that are held as capital assets within the meaning of Section 1221 of the Code (i.e., generally, property held for investment) and does not address tax consequences to subsequent purchasers of the notes.

This summary does not address all of the United States federal income tax consequences that may be relevant to particular holders in light of their personal circumstances, or to certain types of holders that may be subject to special tax treatment (such as banks and other financial institutions, retirement plans, employee stock ownership plans, regulated investment companies or real estate investment trusts, partnerships or other pass-through entities for United States federal income tax purposes (or investors in such entities), United States expatriates, corporations that accumulate earnings to avoid United States federal income tax, insurance companies, tax-exempt organizations, dealers in securities and foreign currencies, traders in securities that elect to use a mark-to-market method of accounting for their securities, brokers, persons who hold the notes as a straddle, hedge or other integrated transaction or who hedge the interest rate on the notes, U.S. holders (as defined below) whose functional currency is not the U.S. dollar, persons subject to the alternative minimum tax, or persons who have ceased to be United States citizens or to be taxed as resident aliens). In addition, this summary does not include any description of the tax laws of any state, local, or non-U.S. jurisdiction that may be applicable to a particular holder and does not consider any aspects of United States federal tax law other than income taxation (such as estate and gift tax, alternative minimum tax or Medicare contribution tax laws).

The United States federal income tax treatment of a partner in an entity or arrangement classified as a partnership for United States federal income tax purposes that holds the notes generally will depend on the status of the partner and the activities of the partnership. Holders of the notes that are partnerships and partners in those partnerships are urged to consult their own tax advisors regarding the United States federal income tax consequences of acquiring, owning and disposing of the notes.

HOLDERS ARE URGED TO CONSULT THEIR OWN TAX ADVISORS REGARDING THE APPLICATION OF UNITED STATES FEDERAL INCOME TAX LAWS TO THEIR PARTICULAR SITUATION AND THE CONSEQUENCES OF FEDERAL ESTATE AND GIFT TAX LAWS AND THE LAWS OF ANY STATE, LOCAL, FOREIGN OR OTHER TAXING JURISDICTION AND THE POSSIBLE EFFECT OF CHANGES IN THESE TAX LAWS.

For purposes of this discussion, the term U.S. holder means a beneficial owner of a note that is, for United States federal income tax purposes:

an individual who is a citizen or resident of the United States;

a corporation (or other business entity treated as a corporation for United States federal income tax purposes) created or organized in or under the laws of the United States or any state thereof or the District of Columbia;

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an estate the income of which is subject to United States federal income taxation regardless of its source; or

a trust if (i) a court within the United States can exercise primary supervision over the administration of the trust, and one or more United States persons have the authority to control all of the substantial decisions of the trust or (ii) a valid election in place to treat the trust as a United States person.

For purposes of this discussion, the term **non-U.S. holder** means a beneficial owner of a note (other than an entity or arrangement classified as a partnership for United States federal income tax purposes) that is not a U.S. holder.

United States federal income tax consequences to U.S. holders

Treatment of interest

Stated interest on the notes will generally be taxable to a U.S. holder as ordinary income at the time it is paid or accrues in accordance with the U.S. holder's regular method of accounting for United States federal income tax purposes.

Sale, exchange, or other taxable disposition of the notes

In general, upon the sale, exchange, redemption, or retirement at maturity, or other taxable disposition of a note, a U.S. holder will recognize taxable gain or loss equal to the difference, if any, between (1) the amount of cash and the fair market value of any property received (less any portion allocable to any accrued and unpaid interest, which will be taxed as ordinary income to the extent not previously included in income) and (2) the U.S. holder's adjusted tax basis in the note at the time of disposition. A U.S. holder's adjusted tax basis in a note generally will be the U.S. holder's cost paid for the note. Any gain or loss recognized by a U.S. holder on the sale, exchange, redemption, retirement, or other taxable disposition of a note will generally be capital gain or loss and will be long-term capital gain or loss if the U.S. holder held the note for more than one year. Long-term capital gain of non-corporate U.S. holders is generally subject to tax at preferential rates. The deductibility of capital losses is subject to limitations.

Treatment of notes as contingent payment debt instruments

In certain circumstances, we may be obligated to make payments on the notes in addition to stated principal and stated fixed interest. See **Description of notes** **Change of control**. Our obligation to pay such additional amounts in excess of the stated principal and stated fixed interest may implicate the provisions of Treasury Regulations relating to contingent payment debt instruments. Under these Treasury Regulations, however, one or more contingencies will not cause a debt instrument to be treated as a contingent payment debt instrument if, as of the issue date, each such contingency is **remote** or is considered to be **incidental**. As of the issue date, we believe and intend to take the position that the likelihood that we will make any such additional payment is **remote** and/or **incidental**. Therefore, we intend to take the position that the notes should not be treated as contingent payment debt instruments and this discussion generally assumes that the regulations relating to contingent payment debt instruments are not applicable. However, the determination of whether such contingencies are **remote** and/or **incidental** is inherently factual. Therefore, we can give you no assurance that our position would be sustained if challenged by the IRS. A successful challenge of this position by the IRS could affect the timing and amount of a holder's income and could cause the gain from the sale or other disposition of a note to be treated as ordinary income, rather than capital gain. Our position for purposes of the contingent debt regulations as to the likelihood of these additional payments being **remote** or **incidental** is binding on a holder, unless the holder discloses in the proper manner to the IRS that it is taking a different position.

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Information reporting and backup withholding

In general, a U.S. holder will be subject to backup withholding with respect to payments of interest or proceeds from the sale or other disposition (including a retirement or redemption) of the notes, at the applicable tax rate of 28%, unless such holder (a) is an entity that is exempt from backup withholding (including corporations) and, when required, demonstrates this fact, or (b) provides the payor with its correct taxpayer identification number (TIN), certifies that the TIN provided to the payor is correct and that the holder has not been notified by the IRS that such holder is subject to backup withholding due to underreporting of interest or dividends, and otherwise complies with applicable requirements of the backup withholding rules. In addition, such payments to U.S. holders that are not exempt entities will generally be subject to information reporting requirements (IRS Form 1099). A U.S. holder who does not provide the payor with its correct TIN may also be subject to penalties imposed by the IRS. Backup withholding is not an additional tax. Amounts withheld as backup withholding will be allowed as a credit against a U.S. holder's United States federal income tax liability and may entitle such holder to a refund, provided that the required information is timely furnished to the IRS.

United States federal income tax consequences to non-U.S. holders

The following discussion applies only to non-U.S. holders. This discussion does not address all aspects of United States federal income taxation that may be relevant to such non-U.S. holders in light of their special circumstances. For example, special rules may apply to a non-U.S. holder that is a controlled foreign corporation or passive foreign investment company, and such non-U.S. holders should consult their own tax advisors to determine the United States federal, state, local and other tax consequences that may be relevant to them.

Treatment of interest

Subject to the discussions concerning effectively connected income, backup withholding and FATCA below, a non-U.S. holder will not be subject to United States federal income or withholding tax in respect of interest paid or accrued on a note if the interest qualifies for the portfolio interest exemption. This generally will be the case if each of the following requirements is satisfied:

the interest is not effectively connected with the non-U.S. holder's conduct of a United States trade or business;

the non-U.S. holder does not actually or constructively own 10% or more of the total combined voting power of all classes of our stock entitled to vote;

the non-U.S. holder is not, and is not treated as, a bank receiving interest on an extension of credit made pursuant to a loan agreement entered into in the ordinary course of its trade or business;

the non-U.S. holder is not a controlled foreign corporation that is related to us through actual or constructive ownership; and

certain certification requirements are met. Under current law, the certification requirement will be satisfied in any of the following circumstances:

If a non-U.S. holder provides to the applicable withholding agent a statement on an applicable IRS Form W-8 (generally IRS Form W-8BEN or W-8BEN-E or suitable successor or substitute form), together with all appropriate attachments, signed under penalties of perjury, identifying the non-U.S. holder by name and address and certifying, among other things, that the non U.S. holder is not a United States person.

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If a note is held through a securities clearing organization, bank, or another financial institution that holds customers' securities in the ordinary course of its trade or business, (i) the non-U.S. holder provides such a form to such organization or institution, and (ii) such organization or institution, under penalties of perjury, certifies to the applicable withholding agent that it has received an applicable IRS Form W-8 from the beneficial owner and furnishes such agent with a copy thereof (either directly or through another intermediary).

If a financial institution or other intermediary that holds the note on behalf of the non-U.S. holder has entered into a withholding agreement with the IRS and submits an IRS Form W-8IMY (or suitable successor or substitute form) and certain other required documentation to the applicable withholding agent.

If the requirements of the portfolio interest exemption described above are not satisfied, a 30% withholding tax will apply to the gross amount of interest on the notes that is paid to a non-U.S. holder, unless either: (a) an applicable income tax treaty reduces or eliminates such tax, and the non-U.S. holder claims the benefit of that treaty by providing a properly completed and duly executed IRS Form W-8BEN or Form W-8BEN-E, as applicable (or suitable successor or substitute form) establishing qualification for benefits under the treaty, or (b) the interest is effectively connected with the non-U.S. holder's conduct of a trade or business in the United States and the non-U.S. holder satisfies the applicable certification and disclosure requirements, which include providing an appropriate statement to that effect on a properly completed and duly executed IRS Form W-8ECI (or suitable successor or substitute form). A non-U.S. holder eligible for a reduced rate of United States withholding tax pursuant to an income tax treaty may obtain a refund of any excess amounts withheld by filing an appropriate claim for refund with the IRS.

Effectively connected income

If a non-U.S. holder is engaged in a trade or business in the United States and the holder's investment in a note is effectively connected with the conduct of that trade or business, the non-U.S. holder generally will be required to pay regular United States federal income tax on any interest and gain with respect to the note on a net income basis generally in the same manner as a U.S. holder (but the 30% withholding tax described above will not apply provided the previously described certification requirement, generally on IRS Form W-8ECI, is met). If a non-U.S. holder is eligible for the benefits of an income tax treaty between the United States and its country of residence, and the non-U.S. holder claims the benefit of the treaty by properly submitting an IRS Form W-8BEN or Form W-8BEN-E, as applicable (or a suitable successor or substitute form), any interest income or gain that is effectively connected with a United States trade or business will be subject to United States federal income tax in the manner specified by the treaty and generally will only be subject to such tax if such income is attributable to a permanent establishment (or a fixed base in the case of an individual) maintained by the non-U.S. holder in the United States. In addition, a non-U.S. holder that is treated as a foreign corporation for United States federal income tax purposes may be subject to a branch profits tax equal to 30% (or lower applicable treaty rate) of its earnings and profits for the taxable year, subject to adjustments, that are effectively connected with its conduct of a trade or business in the United States.

Sale, exchange, or other taxable disposition of the notes

Subject to the discussions of effectively connected income above and backup withholding and FATCA below, a non-U.S. holder generally will not be subject to United States federal income tax (or any withholding thereof) on any gain realized by such holder upon a sale, exchange, redemption, retirement at maturity, or other taxable disposition of a note, unless:

the non-U.S. holder is an individual present in the United States for 183 days or more during the taxable year of disposition of the note and certain other conditions are met; or

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the gain is effectively connected with the conduct of a United States trade or business of the non-U.S. holder (and, in the case of certain income tax treaties, is attributable to a permanent establishment or fixed base within the United States). If the first exception applies, the non-U.S. holder generally will be subject to United States federal income tax at a rate of 30% (except as otherwise provided by an applicable income tax treaty) on the amount by which its U.S.-source capital gains exceed its U.S.-source capital losses. If the second exception applies, the non-U.S. holder will generally be subject to United States federal income tax on the net gain derived from the sale, exchange, redemption, retirement at maturity, or other taxable disposition of the note in the same manner as a U.S. holder unless, as discussed above, an applicable income tax treaty provides otherwise. In addition, corporate non-U.S. holders may be subject to a 30% (or lower applicable treaty rate) branch profits tax on any such effectively connected earnings and profits attributable to such gain.

Treatment of notes as contingent payment debt instruments

Please refer to United States federal income tax consequences to U.S. holders Treatment of notes as contingent payment debt instruments for a discussion of issues related to the possible recharacterization of the notes as contingent payment debt instruments by the IRS.

Information reporting and backup withholding

In general, information reporting requirements will apply to the amount of any interest paid on the notes to a non-U.S. holder in each calendar year, and the amount of United States federal income tax withheld, if any, with respect to these payments. Copies of the information returns reporting such interest payments and any withholding may also be made available to the tax authorities in the country in which the non-U.S. holder resides under an applicable income tax treaty or other information exchange agreement.

Non-U.S. holders who have provided certification as to their non-U.S. status as described above under United States federal income tax consequences to non-U.S. holders Treatment of interest or who have otherwise established an exemption will generally not be subject to backup withholding tax on payments of interest if the applicable withholding agent does not have actual knowledge or reason to know that such certification is unreliable or that the conditions of the exemption are in fact not satisfied.

In addition, a non-U.S. holder will not be subject to backup withholding with respect to the proceeds of the sale of a note (including on redemption or retirement) made within the United States or conducted through certain United States-related financial intermediaries if the payor receives the certification described above and does not have actual knowledge or reason to know that such holder is a United States person or such holder otherwise establishes an exemption. Non-U.S. holders should consult their tax advisors regarding the application of information reporting and backup withholding in their particular situations, the availability of exemptions and the procedure for obtaining such exemptions, if available.

Backup withholding is not an additional tax. Amounts withheld as backup withholding will be allowed as a credit against a non-U.S. holder's United States federal income tax liability, if any, and may entitle such holder to a refund, provided that the required information is timely furnished to the IRS.

FATCA

Sections 1471 through 1474 of the Code and the Treasury Regulations and administrative guidance issued thereunder (FATCA) generally impose a 30% United States withholding tax on certain U.S. source payments, including interest and, after December 31, 2018, gross proceeds from a disposition of property of a type which

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can produce U.S. source interest or dividends (withholdable payments), paid to a foreign financial institution, or to a non-financial foreign entity, unless (a) the foreign financial institution agrees to comply with certain diligence, reporting and withholding obligations with respect to its U.S. accounts, (b) the non-financial foreign entity identifies and provides information relating to its greater than 10% U.S. owners (or confirms the absence of substantial U.S. owners), or (c) the foreign financial institution or non-financial foreign entity otherwise qualifies for an exemption from these rules. For these purposes, a foreign financial institution generally is defined as any non-U.S. entity that (i) accepts deposits in the ordinary course of a banking or similar business, (ii) is engaged in the business of holding financial assets for the account of others, or (iii) is engaged or holds itself out as being engaged primarily in the business of investing, reinvesting or trading in securities, partnership interests, commodities, or any interest in such assets. Foreign financial institutions located in jurisdictions that have an intergovernmental agreement with the United States with respect to FATCA may be subject to different rules. A non-financial foreign entity is generally any non-U.S. entity that is not a financial institution. The 30% withholding tax under FATCA applies regardless of whether the applicable payment otherwise is exempt from United States withholding (e.g., as portfolio interest or as capital gain upon the sale, exchange, redemption or other disposition of a note).

Interest paid with respect to the notes and, after December 31, 2018, gross proceeds from the sale or disposition of the notes, will be subject to the 30% withholding tax if the holder fails to comply with FATCA. Non-U.S. holders are urged to consult their own tax advisors with respect to these information reporting rules and due diligence requirements and the potential application of FATCA to them.

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Table of Contents**Certain ERISA considerations**

The following is a summary of certain considerations associated with the purchase of the notes by employee benefit plans that are subject to Title I of the Employee Retirement Income Security Act of 1974, as amended (ERISA), plans, individual retirement accounts and other arrangements that are subject to Section 4975 of the Code, plans subject to provisions under any federal, state, local, non-U.S. or other laws or regulations that are similar to such provisions of ERISA or the Code (collectively, Similar Laws), and entities whose underlying assets are considered to include plan assets by reason of any such employee benefit or retirement plan s investment in such entity (each, a Plan).

General fiduciary matters

ERISA and the Code impose certain duties on persons who are fiduciaries of a Plan subject to Title I of ERISA or Section 4975 of the Code (an ERISA Plan) and prohibit certain transactions involving the assets of an ERISA Plan and its fiduciaries or other interested parties. Under ERISA and the Code, any person who exercises any discretionary authority or control over the administration of such an ERISA Plan or the management or disposition of the assets of such an ERISA Plan, or who renders investment advice for a fee or other compensation to such an ERISA Plan, is generally considered to be a fiduciary of the ERISA Plan. Plans that are governmental plans (as defined in Section 3(32) of ERISA), certain church plans (as defined in Section 3(33) of ERISA or Section 4975(g)(3) of the Code) and non-U.S. plans (as described in Section 4(b)(4) of ERISA) are not subject to the requirements of ERISA or Section 4975 of the Code but may be subject to similar prohibitions under Similar Laws.

In considering an investment in the notes of a portion of the assets of any Plan, a fiduciary should determine whether the investment is in accordance with the documents and instruments governing the Plan and the applicable provisions of ERISA, the Code or any Similar Law relating to a fiduciary s duties to the Plan including, without limitation, the prudence, diversification, delegation of control and prohibited transaction provisions of ERISA, the Code and any other applicable Similar Laws.

Prohibited transaction issues

Section 406 of ERISA and Section 4975 of the Code prohibit ERISA Plans from engaging in specified transactions involving plan assets with persons or entities who are parties in interest, within the meaning of ERISA, or disqualified persons, within the meaning of Section 4975 of the Code, unless an exemption is available. A party in interest or disqualified person who engages in a non-exempt prohibited transaction may be subject to excise taxes and other penalties and liabilities under ERISA and the Code. In addition, the fiduciary of the ERISA Plan that engages in such a non-exempt prohibited transaction may be subject to penalties and liabilities under ERISA and the Code. The underwriters, PTC or our or their affiliates may be parties in interest or disqualified persons with respect to ERISA Plan, and the acquisition and/or holding of notes by an ERISA Plan with respect to which the issuer, the underwriter or any subsidiary guarantor (or certain of our or their affiliates) is considered a party in interest or a disqualified person may constitute or result in a direct or indirect prohibited transaction under Section 406 of ERISA and/or Section 4975 of the Code, unless the investment is acquired and is held in accordance with an applicable statutory, class or individual prohibited transaction exemption. Moreover, the occurrence of a prohibited transaction could cause an individual retirement account to lose its tax-exempt status.

In this regard, the U.S. Department of Labor has issued prohibited transaction class exemptions, or PTCEs, that may provide exemptive relief for direct or indirect prohibited transactions resulting from the sale, purchase or holding of the notes. These class exemptions include, without limitation, PTCE 84-14 respecting

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transactions determined by independent qualified professional asset managers, PTCE 90-1 respecting insurance company pooled separate accounts, PTCE 91-38 respecting bank collective investment funds, PTCE 95-60 respecting life insurance company general accounts, and PTCE 96-23 respecting transactions determined by in-house asset managers. In addition, Section 408(b)(17) of ERISA and Section 4975(d)(20) of the Code each provides a limited exemption from the prohibited transaction provisions of ERISA and Section 4975 of the Code for certain transactions, provided that (i) neither the issuer of the securities nor any of its affiliates directly or indirectly have or exercise any discretionary authority or control or renders any investment advice with respect to the assets of any ERISA Plan involved in the transaction and (ii) the ERISA Plan pays no more than adequate consideration in connection with the transaction. There can be no, and we do not provide any, assurance that all of the conditions of any such exemptions will be satisfied at the time the notes are acquired by a purchaser or transferee, or thereafter, if the facts relied upon for utilizing a prohibited transaction exemption change.

Because of the foregoing, the notes should not be purchased or held by any person investing plan assets of any Plan, unless such purchase and holding will not constitute a non-exempt prohibited transaction under ERISA and the Code or similar violation of any applicable Similar Laws.

Representation

Accordingly, by acceptance of a note each purchaser and subsequent transferee will be deemed to have represented and warranted that either (i) no portion of the assets used by such purchaser or transferee to acquire or hold the notes constitutes assets of any Plan or (ii) the purchase and holding of the notes by such purchaser or transferee will not constitute a non-exempt prohibited transaction under Section 406 of ERISA or Section 4975 of the Code or similar violation under any applicable Similar Laws.

The foregoing discussion is general in nature and is not intended to be all-inclusive. Due to the complexity of these rules and the penalties that may be imposed upon persons involved in non-exempt prohibited transactions, it is particularly important that fiduciaries, or other persons considering purchasing the notes (and/or holding the notes) on behalf of, or with the assets of, any Plan, consult with their counsel regarding the potential applicability of ERISA, Section 4975 of the Code and any Similar Laws to such investment and whether an exemption would be applicable to the purchase and holding of the notes.

Purchasers of the notes have the exclusive responsibility for ensuring that their purchase and holding of the notes complies with the fiduciary responsibility rules of ERISA and does not violate the prohibited transaction rules of ERISA, the Code or applicable Similar Laws. The purchase and holding of notes by any Plan is in no respect a representation by us or any of our affiliates or representatives that such an investment meets all relevant legal requirements with respect to investments by such Plans generally or by any particular plan, or that such an investment is appropriate for Plans generally or any particular plan.

Table of Contents**Underwriting (conflicts of interest)**

Subject to the terms and conditions contained in the underwriting agreement among us and the underwriters, we have agreed to sell to each underwriter, and each underwriter has severally agreed to purchase from us, the principal amount of notes that appears opposite its name in the table below:

Underwriter	Principal amount
J.P. Morgan Securities LLC	\$ 325,750,000
Barclays Capital Inc.	23,250,000
Fifth Third Securities, Inc.	14,500,000
HSBC Securities (USA) Inc.	14,500,000
Janney Montgomery Scott LLC	8,750,000
KeyBanc Capital Markets Inc.	23,250,000
RBC Capital Markets, LLC	14,500,000
RBS Securities Inc.	14,500,000
Santander Investment Securities Inc.	14,500,000
SunTrust Robinson Humphrey, Inc.	8,750,000
TD Securities (USA) LLC	14,500,000
The Huntington Investment Company	14,500,000
U.S. Bancorp Investments, Inc.	8,750,000
Total	\$ 500,000,000

The obligations of the underwriters under the underwriting agreement, including their agreement to purchase notes from us, are several and not joint. The obligations are also subject to various conditions in the underwriting agreement being satisfied. The underwriting agreement provides that the underwriters will purchase all of the notes being sold pursuant to the underwriting agreement if any of them are purchased. The offering of the notes by the underwriters is subject to receipt and acceptance and subject to the underwriters' right to reject any order in whole or in part.

The underwriters initially propose to offer the notes to the public at the public offering price that appears on the cover page of this prospectus supplement. The underwriters may offer the notes to selected dealers at the public offering price minus a concession of up to 0.375% of the principal amount. In addition, the underwriters may allow, and those selected dealers may reallow, a concession of up to 0.250% of the principal amount to certain other dealers. After the initial offering, the underwriters may change the public offering price and any other selling terms. The underwriters may offer and sell notes through certain of their affiliates.

The following table shows the underwriting discounts and commissions to be paid to the underwriters in connection with this offering (expressed as a percentage of the principal amount of the notes).

	Paid by us
Per note	0.875%

In the underwriting agreement, we have agreed that:

We will not offer, sell, contract to sell or otherwise dispose of any debt securities (other than the notes) issued or guaranteed by us for a period of 60 days after the date of this prospectus supplement without the prior consent of J.P. Morgan Securities LLC.

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We will pay our expenses related to the offering, which we estimate will be approximately \$2.4 million. We have agreed to reimburse the underwriters for certain expenses in connection with this offering up to \$25,000.

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We will indemnify the underwriters against certain liabilities, including liabilities under the Securities Act, or contribute to payments that the underwriters may be required to make in respect of those liabilities.

The notes are a new issue of securities and there is currently no established trading market for the notes. We do not intend to apply for the notes to be listed on any securities exchange or to arrange for the notes to be quoted on any quotation system. The underwriters have advised us that they intend to make a market in the notes, but they are not obligated to do so. The underwriters may discontinue any market making in the notes at any time in their sole discretion. Accordingly, we cannot assure you that a liquid trading market will develop for the notes, that you will be able to sell your notes at a particular time or that the prices that you receive when you sell will be favorable.

In connection with the offering of the notes, the underwriters may engage in overallotment, stabilizing transactions and syndicate covering transactions. Overallotment involves sales in excess of the offering size, which creates a short position for the underwriters. Stabilizing transactions involve bids to purchase the notes in the open market for the purpose of pegging, fixing or maintaining the price of the notes. Syndicate covering transactions involve purchases of the notes in the open market after the distribution has been completed in order to cover short positions. Stabilizing transactions and syndicate covering transactions may have the effect of preventing or retarding a decline in the market price of the notes or may cause the price of the notes to be higher than it would otherwise be in the absence of those transactions. If the underwriters engage in stabilizing or syndicate covering transactions, they may discontinue them at any time.

Certain of the underwriters and their affiliates have engaged, and may in the future engage, in investment banking, commercial banking and other financial advisory and commercial dealings with us and our affiliates. In particular, certain of the underwriters and/or their affiliates act as agents and/or lenders under our senior credit facility. People's United Bank, a lender under our senior credit facility, is a party to a relationship agreement with Janney Montgomery Scott LLC, an underwriter in this offering, and may receive a referral fee from Janney Montgomery Scott LLC in connection therewith. Citizens Bank National Association, a lender under our senior credit facility, is a party to a relationship agreement with RBS Securities Inc., an underwriter in this offering, and may receive a referral fee from RBS Securities Inc. in connection therewith. We will use the net proceeds of this offering to repay a portion of the outstanding indebtedness under our senior credit facility. Accordingly, affiliates of certain of the underwriters will receive a portion of the net proceeds of this offering. See [Conflicts of interest](#).

In the ordinary course of their various business activities, the underwriters and their respective affiliates, officers, directors and employees may purchase, sell or hold a broad array of investments and actively trade securities, derivatives, loans, commodities, currencies, credit default swaps and other financial instruments for their own accounts and for the accounts of their customers, and such investment and trading activities may involve or relate to assets, securities and/or instruments of PTC (directly, as collateral securing other obligations or otherwise) and/or persons and entities with relationships with us. The underwriters and their respective affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such assets, securities or instruments and may at any time hold, or recommend to clients that they should acquire, long and/or short positions in such assets, securities and instruments. If any of the underwriters or their affiliates has a lending relationship with us, certain of those underwriters or their affiliates routinely hedge, and certain other of those underwriters or their affiliates may hedge, their credit exposure to us consistent with their customary risk management policies. Typically, these underwriters and their affiliates would hedge such exposure by entering into transactions which consist of either the purchase of credit default swaps or the creation of short positions in our securities, including potentially the notes offered hereby. Any such credit default swaps or short positions could adversely affect future trading prices of the notes offered hereby.

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Conflicts of interest

Affiliates of certain of the underwriters will receive at least 5% of the net proceeds of this offering in connection with the repayment of a portion of the outstanding amounts under our senior credit facility. See Use of proceeds. Accordingly, this offering is being made in compliance with the requirements of FINRA Rule 5121. This rule requires, among other things, that a qualified independent underwriter has participated in the preparation of, and has exercised the usual standards of due diligence with respect to, the registration statement and prospectus supplement. The Huntington Investment Company has agreed to act as qualified independent underwriter for this offering and to undertake the legal responsibilities and liabilities of an underwriter under the Securities Act. The Huntington Investment Company will not receive any additional fees for serving as qualified independent underwriter in connection with this offering. We have agreed to indemnify The Huntington Investment Company against liabilities incurred in connection with acting as qualified independent underwriter, including liabilities under the Securities Act. Pursuant to FINRA Rule 5121, the underwriters subject to the Rule will not confirm sales of notes to any account over which they exercise discretionary authority without the prior written approval of the customer.

Notice to investors in Canada

The notes may be sold only to purchasers purchasing, or deemed to be purchasing, as principal that are accredited investors, as defined in National Instrument 45-106 Prospectus Exemptions or subsection 73.3(1) of the Securities Act (Ontario), and are permitted clients, as defined in National Instrument 31-103 Registration Requirements, Exemptions and Ongoing Registrant Obligations. Any resale of the notes must be made in accordance with an exemption from, or in a transaction not subject to, the prospectus requirements of applicable securities laws.

Securities legislation in certain provinces or territories of Canada may provide a purchaser with remedies for rescission or damages if this prospectus supplement (including any amendment thereto) contains a misrepresentation, provided that the remedies for rescission or damages are exercised by the purchaser within the limit prescribed by the securities legislation of the purchaser's province or territory. The purchaser should refer to any applicable provisions of the securities legislation of the purchaser's province or territory for particulars of these rights or consult with a legal advisor.

Pursuant to section 3A.3 of National Instrument 33-105 Underwriting Conflicts (NI 33-105), the underwriters are not required to comply with the disclosure requirements of NI 33-105 regarding underwriter conflicts of interest in connection with this offering.

Notice to investors in the European Economic Area

Each underwriter has represented and agreed that, in relation to each Member State of the European Economic Area (each, a Relevant Member State), with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State, it has not made and will not make an offer of notes which are the subject of the offering contemplated by this prospectus supplement to the public in that Relevant Member State other than:

- (1) to any legal entity that is a qualified investor as defined in the Prospectus Directive;
- (2) to fewer than 150 natural or legal persons (other than qualified investors as defined in the Prospectus Directive), subject to obtaining the prior consent of the representative or representatives nominated by us for any such offer; or
- (3) in any other circumstances falling within Article 3(2) of the Prospectus Directive;

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provided that no such offer of notes shall require us or any underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Directive.

For the purposes of this provision, the expression an offer of notes to the public in relation to any notes in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the notes to be offered so as to enable an investor to decide to purchase or subscribe for the notes, as the same may be varied in that Relevant Member State by any measure implementing the Prospectus Directive in that Relevant Member State; and the expression Prospectus Directive means European Council Directive 2003/71/EC (as amended, including by Directive 2010/73/EU), and includes any relevant implementing measure in the Relevant Member State.

Notice to investors in the United Kingdom

Each underwriter has represented and agreed that:

it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000 (the FSMA)) received by it in connection with the issue or sale of the notes in circumstances in which Section 21(1) of the FSMA does not apply to us; and

it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the notes in, from or otherwise involving the United Kingdom.

Notice of settlement timing

We expect that the delivery of the notes will be made against payment therefor on or about May 12, 2016, which will be the sixth business day following the date of pricing of the notes (such settlement cycle being herein referred to as T+6). Under Rule 15c6-1 under the Exchange Act, trades in the secondary market generally are required to settle in three business days, unless the parties to any such trade expressly agree otherwise. Accordingly, purchasers who wish to trade notes on the date of pricing or the next three succeeding business days will be required, by virtue of the fact that the notes initially will settle T+6, to specify an alternative settlement cycle at the time of any such trade to prevent a failed settlement. Purchasers of notes who wish to trade notes on the date of pricing or the next three succeeding business days should consult their advisor.

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Legal matters

Locke Lord LLP will provide an opinion regarding the validity of the notes. The validity of the notes will be passed upon for the underwriters by Simpson Thacher & Bartlett LLP.

Experts

The financial statements and management's assessment of the effectiveness of internal control over financial reporting (which is included in Management's Annual Report on Internal Control over Financial Reporting) incorporated in this prospectus supplement by reference to the Annual Report on Form 10-K of PTC Inc. for the year ended September 30, 2015 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

Where you can find more information

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our internet website is www.ptc.com and through the Investor Relations section of our website, you may access, free of charge, our filings, as soon as reasonably practicable after we electronically file such materials with, or furnish them to, the SEC. The information on or accessible through our website is not incorporated by reference into this prospectus supplement and does not constitute a part of this prospectus supplement. You may also read and copy any document we file at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Copies of all or a portion of such materials can be obtained from the Public Reference Section of the SEC upon payment of prescribed fees. Please call the SEC at 1-800-SEC-0330 for further information. Our SEC filings are also available to the public at the SEC's website at www.sec.gov.

We have filed with the SEC a registration statement on Form S-3 with respect to the securities offered hereby. This prospectus supplement and the accompanying prospectus do not contain all the information set forth in the registration statement, parts of which are omitted in accordance with the rules and regulations of the SEC. For further information with respect to us and the securities offered hereby, reference is made to the registration statement.

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Incorporation by reference

The SEC allows us to incorporate by reference in this prospectus supplement the information in other documents that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be a part of this prospectus supplement.

Any reports that we file with the SEC after the date of this prospectus supplement and before the date that the offering of the notes by means of this prospectus supplement is terminated will automatically update and, where applicable, supersede any information contained in this prospectus supplement or incorporated by reference into this prospectus supplement. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus supplement or in any documents previously incorporated by reference have been modified or superseded. We specifically incorporate by reference into this prospectus supplement the following documents filed with the SEC (other than, in each case, documents or information deemed furnished and not filed in accordance with SEC rules, including pursuant to Item 2.02 or Item 7.01 of Form 8-K, and no such information shall be deemed specifically incorporated by reference hereby in this prospectus supplement):

our Annual Report on Form 10-K for the fiscal year ended September 30, 2015, filed with the SEC on November 23, 2015;

our Quarterly Report on Form 10-Q for the three months ended January 2, 2016, filed with the SEC on February 10, 2016;

our Current Reports on Form 8-K filed with the SEC on October 13, 2015, October 28, 2015, November 4, 2015, November 13, 2015, December 23, 2015, February 16, 2016, February 26, 2016 and March 2, 2016;

the portions of our Definitive Proxy Statement on Schedule 14A filed on January 20, 2016, which are incorporated by reference into our Annual Report on Form 10-K for the fiscal year ended September 30, 2015, filed with the SEC on November 23, 2015; and

any future filings that we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus supplement and before the date that the offering of the notes by means of this prospectus supplement is terminated. You may request a copy of these filings, at no cost, by telephoning our Investor Relations department at (781) 370-5951 or writing us at:

Investor Relations

PTC Inc.

140 Kendrick Street

Needham, Massachusetts 02494

S-150

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Prospectus

Debt securities

We may from time to time offer to sell the debt securities described in this prospectus, in one or more series. Each time we offer debt securities using this prospectus, we will provide specific terms of the debt securities, including the offering price, in supplements to this prospectus. The prospectus supplements may also add to, update or change the information in this prospectus and will also describe the specific manner in which we will offer the debt securities. You should read the applicable prospectus supplement and this prospectus, along with the documents incorporated by reference herein and therein, prior to investing in our debt securities. This prospectus may not be used to offer or sell any securities unless accompanied by a prospectus supplement.

We may offer and sell the debt securities to or through underwriters, dealers and agents, or directly to purchasers. The names and compensation of any underwriters, dealers or agents involved in the sale of debt securities will be described in a prospectus supplement. If any underwriters, dealers or agents are involved in the sale of any debt securities, the applicable prospectus supplement will set forth any applicable commissions or discounts.

In this prospectus, PTC, we, us, and our refer to PTC Inc., including, unless otherwise stated or the context otherwise requires, its subsidiaries.

Investing in these debt securities involves risks. You should carefully consider the information under Risk factors on page 4 of this prospectus as well as the risk factors contained in the applicable prospectus supplement and the documents incorporated by reference herein and therein.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these debt securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is May 2, 2016.

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About this prospectus

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission (the "SEC") using a shelf registration process. Under the shelf registration process, we may, at any time and from time to time, sell the debt securities described in this prospectus in one or more offerings.

This prospectus provides you with a general description of the debt securities that we may offer. Each time we offer debt securities using this prospectus, we will provide specific terms of the debt securities, including the offering price, in supplements to this prospectus. The prospectus supplements may also add to, update or change the information in this prospectus and will also describe the specific manner in which we will offer the debt securities. You should read the applicable prospectus supplement and this prospectus, along with the documents incorporated by reference herein and therein and described under the heading "Where you can find more information," prior to investing in our debt securities. You should also read and consider the information set forth in the section entitled "Risk factors" in both the applicable prospectus supplement and this prospectus, and the documents incorporated by reference in the applicable prospectus supplement and this prospectus, before you make an investment decision.

We have filed or incorporated by reference exhibits to the registration statement of which this prospectus forms a part. You should read the exhibits carefully for provisions that may be important to you.

References in this prospectus to "PTC," "the Company," "we," "us" and "our" refer to PTC Inc. and its subsidiaries, unless otherwise stated or the context otherwise requires.

You should rely only on the information contained or incorporated by reference in this prospectus. We have not authorized any person to provide you with any information or represent anything about us or this offering that is not contained or incorporated by reference in this prospectus. If given or made, any such other information or representation should not be relied upon as having been authorized by us. We are not making an offer to sell securities in any jurisdiction where an offer or sale is not permitted.

Under no circumstances should the delivery to you of this prospectus create any implication that the information contained in or incorporated by reference in this prospectus is correct as of any time after the date of this prospectus or the date of the document incorporated by reference. Our business, financial condition, results of operations and prospects may have changed since those respective dates.

THIS PROSPECTUS MAY NOT BE USED TO SELL ANY SECURITIES UNLESS ACCOMPANIED BY A PROSPECTUS SUPPLEMENT.

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PTC Inc.

PTC is a global provider of technology platforms and solutions, comprised of software and services, that enable our customers to transform the way they create, operate and service their products for a smart, connected world.

PTC generates revenue through the sale of software licenses, subscriptions (which include license access and support for a period of time and optional cloud services), support (which includes technical support and software updates when and if available), and services (which include consulting and implementation, training and cloud services). We derive most of our revenue from products and services sold directly by our sales force to end-user customers, while approximately 20% to 25% of our products and services are sold through third-parties.

Our Solutions and Software Products

Our solutions and software products address the challenges our customers face in the following areas:

Solutions group

Computer-Aided Design (CAD)

Our CAD products enable users to create conceptual and detailed designs, analyze designs, perform engineering calculations and leverage the information created downstream using 2D, 3D, parametric and direct modeling.

Application Lifecycle Management (ALM)

Our ALM products are designed for discrete manufacturers where coordination and collaboration between software and hardware teams is critical to understand product release readiness, support variant complexity, automate development processes, ensure complete lifecycle traceability and manage change.

Product Lifecycle Management (PLM)

Our PLM products are designed to address common challenges that companies, particularly manufacturing companies, face over the life of the product, from concept to retirement. These software products help customers manage product configuration information through each stage of the product lifecycle and communicate and collaborate across the entire enterprise, including product development, manufacturing and the supply chain, including sourcing and procurement.

Service Lifecycle Management (SLM)

Our SLM products help manufacturers and their service providers improve service efficiency and quality. These include capabilities to support product service and maintenance requirements, service information delivery, service parts planning and optimization, service knowledge management, and service analytics.

Technology Platform group

Our Technology Platform products allow manufacturers and their service providers to enable connectivity and optimize data intelligence for smart, connected products for the Internet of Things (IoT). Our solutions support the development of applications to gather, analyze and visualize product data, which in turn helps our customers design, operate and service smart, connected products.

Our market opportunities

We have adopted varied strategies to address the diverse growth opportunities for the markets we serve. We see greater opportunity for market growth in our Technology Platform solutions, followed by our SLM, PLM and ALM solutions.

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Our investments in research and development

We invest heavily in research and development to improve the quality and expand the functionality of our products. Approximately one-third of our employees are dedicated to research and development initiatives conducted primarily in the United States, India and Israel.

Our company

We were incorporated in Massachusetts in 1985. Our principal executive offices are located at 140 Kendrick Street, Needham, Massachusetts 02494, and our telephone number at that address is (781) 370-5000. We maintain a website at www.ptc.com where general information about us is available. The information on or accessible through our website is not incorporated by reference into or otherwise made a part of this prospectus.

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Risk factors

Investing in our debt securities involves risk. Prior to making a decision about investing in our debt securities, you should consider the risks described in the section entitled "Risk factors" in the applicable prospectus supplement and the risks described under the caption "Risk Factors" in our most recent Annual Report on Form 10-K filed with the SEC, as these risk factors are amended or supplemented by subsequent Quarterly Reports on Form 10-Q. The risks and uncertainties we have described are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect our business operations. Any adverse effect on our business, financial condition, results of operations or prospects could result in a decline in the value of our debt securities and the loss of all or part of your investment.

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Where you can find more information

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our internet website is www.ptc.com and through the Investor Relations section of our website, you may access, free of charge, our filings, as soon as reasonably practicable after we electronically file such materials with, or furnish them to, the SEC. The information on or accessible through our website is not incorporated by reference into this prospectus and does not constitute a part of this prospectus. You may also read and copy any document we file at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Copies of all or a portion of such materials can be obtained from the Public Reference Section of the SEC upon payment of prescribed fees. Please call the SEC at 1-800-SEC-0330 for further information. Our SEC filings are also available to the public at the SEC's website at www.sec.gov.

We have filed with the SEC a registration statement on Form S-3 with respect to the securities offered hereby. This prospectus does not contain all the information set forth in the registration statement, parts of which are omitted in accordance with the rules and regulations of the SEC. For further information with respect to us and the securities offered hereby, reference is made to the registration statement.

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Incorporation by reference

The SEC allows us to incorporate by reference in this prospectus the information in other documents that we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be a part of this prospectus.

Any reports that we file with the SEC after the date of this prospectus and before the date that the offering of the debt securities by means of this prospectus is terminated will automatically update and, where applicable, supersede any information contained in this prospectus or incorporated by reference into this prospectus. This means that you must look at all of the SEC filings that we incorporate by reference to determine if any of the statements in this prospectus or in any documents previously incorporated by reference have been modified or superseded. We specifically incorporate by reference into this prospectus the following documents filed with the SEC (other than, in each case, documents or information deemed furnished and not filed in accordance with SEC rules, including pursuant to Item 2.02 or Item 7.01 of Form 8-K, and no such information shall be deemed specifically incorporated by reference hereby or in any accompanying prospectus supplement):

our Annual Report on Form 10-K for the fiscal year ended September 30, 2015, filed with the SEC on November 23, 2015;

our Quarterly Report on Form 10-Q for the three months ended January 2, 2016, filed with the SEC on February 10, 2016;

our Current Reports on Form 8-K filed with the SEC on October 13, 2015, October 28, 2015, November 4, 2015, November 13, 2015, December 23, 2015, February 16, 2016, February 26, 2016 and March 2, 2016;

the portions of our Definitive Proxy Statement on Schedule 14A filed on January 20, 2016, which are incorporated by reference into our Annual Report on Form 10-K for the fiscal year ended September 30, 2015, filed with the SEC on November 23, 2015; and

any future filings that we make with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934, as amended, after the date of this prospectus and before the date that the offering of the debt securities by means of this prospectus is terminated. You may request a copy of these filings, at no cost, by telephoning our Investor Relations department at (781) 370-5951 or writing us at:

Investor Relations PTC Inc. 140 Kendrick Street Needham, Massachusetts 02494

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Cautionary statement regarding forward-looking statements

This prospectus and the documents we incorporate herein by reference contain disclosures that are forward-looking statements as defined in the Private Securities Litigation Reform Act of 1995, as amended. Forward-looking statements include all statements that do not relate solely to historical or current facts, which can be identified by the use of words such as may, will, expect, project, estimate, anticipate, plan, potential, should and continue, including but not limited to statements about our anticipated financial results and growth, subscription adoption, the development of our products and markets, and anticipated tax rates. These forward-looking statements are based on our current plans and assumptions and involve risks and uncertainties that could cause actual results to differ materially from those projected. These risks include: macroeconomic and/or global manufacturing climates may not improve or may deteriorate; customers may not purchase our solutions when or at the rates we expect; our businesses, including our Technology Platform and SLM businesses, may not expand and/or generate the revenue we expect; our market size and growth estimates may be incorrect and we may be unable to grow our business at or in excess of market growth rates; new products released and planned products, including Technology Platform-enabled core products, may not generate the revenue we expect or be released as we expect; foreign currency exchange rates may vary from our expectations and thereby affect our reported revenue and expense; the mix of revenue between license, subscription, support and professional services could be different than we expect, which could impact our earnings per share results and cash flows; our customers may purchase more of our solutions as subscriptions than we expect, which would adversely affect near-term revenue, operating margins and earnings per share; customers may not purchase subscriptions at the rate we expect, which could affect our longer-term business projections; sales of our solutions as subscriptions may not have the longer-term positive effect on revenue that we expect; our workforce realignment may adversely affect our operations and may not achieve the expense savings we expect; we may be unable to generate sufficient operating cash flow to return 40% of free cash flow to shareholders and other uses of cash could preclude share repurchases; the settlements with the U.S. Securities and Exchange Commission and the U.S. Department of Justice to resolve our Foreign Corrupt Practices Act investigation in China (the China FCPA Investigation) may have collateral effects on our business in China, the U.S. or elsewhere; we may incur material damages in connection with a recently-filed securities law action concerning disclosures about the China FCPA Investigation; and material fines and penalties may be assessed against us in connection with the investigation by the China Administration for Industry and Commerce. In addition, our assumptions concerning our future GAAP and non-GAAP effective income tax rates are based on estimates and other factors that could change, including the geographic mix of our revenue, expenses and profits and loans and cash repatriations from foreign subsidiaries. Other important information about factors that may cause our actual results to differ materially from those contemplated by these statements is discussed under Risk factors in this prospectus, as well as in our latest Annual Report on Form 10-K, which is incorporated by reference herein.

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Use of proceeds

Unless another use is specified in a prospectus supplement accompanying this prospectus, the net proceeds from the sale of the debt securities to which this prospectus relates will be used for general corporate purposes, including, but not limited to, repayment of debt, acquisitions, additions to working capital, capital expenditures, investments, contributions of capital to our subsidiaries, share repurchases, and redemptions of our debt securities. Pending any specific application, net proceeds may initially be temporarily invested in short-term marketable securities.

Table of Contents**Ratio of earnings to fixed charges**

The following table sets forth our ratio of earnings to fixed charges for the periods indicated:

	Three months ended		Year ended September 30,				
	January 2, 2016	January 3, 2015	2015	2014	2013	2012	2011
Ratio of earnings to fixed charges ⁽¹⁾	(2)	5.9x	2.0x	9.8x	7.3x	7.8x	7.7x

- (1) The ratio of earnings to fixed charges is calculated by dividing earnings by fixed charges. For this purpose, earnings are determined by adding fixed charges to our income (loss) before income taxes. Fixed charges consists of interest expense on our indebtedness as well as the estimated interest component of rental expense under our operating lease commitments.
- (2) Our earnings were insufficient to cover our fixed charges during the three months ended January 2, 2016 by \$19.5 million. Our loss before income taxes for the three months ended January 2, 2016 included a \$37.1 million restructuring charge.

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Description of securities

We may from time to time offer debt securities in one or more offerings. Any debt securities that we offer by this prospectus and an accompanying prospectus supplement will be issued under an indenture to be entered into by PTC and The Bank of New York Mellon, as trustee. The terms of the debt securities will include those stated in the indenture and those made part of the indenture by reference to the Trust Indenture Act of 1939, as in effect on the date of the indenture. The form of the indenture has been filed as an exhibit to the registration statement for these debt securities that we have filed with the SEC.

General

In this section entitled Description of securities, when we refer to PTC, the Company, we, our or us, we are referring to PTC Inc., as issuer of debt securities, and we do not include any of PTC's subsidiaries.

This prospectus describes certain general terms and provisions of the debt securities. When we offer to sell the debt securities, we will describe the specific terms of the debt securities in a supplement to this prospectus.

Governing law

The indenture and the debt securities will be governed by, and construed in accordance with, the laws of the State of New York.

Concerning the trustee

The Bank of New York Mellon is the trustee under the indenture. You should note that if the trustee becomes a creditor of PTC, the indenture and the Trust Indenture Act of 1939 limit the rights of the trustee to obtain payment of claims in certain cases, or to realize on certain property received in respect of certain claims, as security or otherwise. The trustee and its affiliates may engage in, and will be permitted to continue to engage in, other transactions with us and our affiliates, including certain of our subsidiaries. If, however, the trustee acquires any conflicting interest within the meaning of the Trust Indenture Act of 1939, it must eliminate the conflict or resign.

The holders of a majority in principal amount of the then outstanding debt securities of any series may direct the time, method and place of conducting any proceeding for exercising any remedy available to the trustee. If an event of default occurs and is continuing, the trustee, in the exercise of its rights and powers, must use the degree of care and skill of a prudent person in the conduct of his or her own affairs. Subject to this provision, the trustee will be under no obligation to exercise any of its rights or powers under the indenture at the request of any of the holders of the debt securities, unless they have offered to the trustee indemnity or security satisfactory to it.

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Plan of distribution

We may sell the debt securities from time to time in one or more of the following ways:

through underwriters or dealers;

directly to one or more purchasers;

through agents; or

through a combination of any such methods of sale.

The prospectus supplement with respect to the offered debt securities will set forth the terms of the offering, including:

the name or names of any underwriters or agents;

the purchase price of the offered debt securities and the proceeds to us from their sale;

the maturity date or dates of the debt securities;

the rate or rates, which may be fixed or variable, at which the debt securities will bear interest and the date from which such interest will accrue;

any underwriting discounts or sales agents' commissions and other items constituting underwriters' or agents' compensation;

any public offering price;

any discounts or concessions allowed or reallocated or paid to dealers;

any securities exchanges on which those debt securities may be listed; and

any other material terms of the debt securities.

Only underwriters or agents named in the accompanying prospectus supplement are deemed to be underwriters or agents in connection with the debt securities offered thereby.

If underwriters are used in the sale, the debt securities will be acquired by the underwriters for their own account and may be resold from time to time in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of

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sale. The obligations of the underwriters to purchase those debt securities will be subject to certain conditions precedent, and unless otherwise specified in the accompanying prospectus supplement, the underwriters will be obligated to purchase all the debt securities of the series offered by such accompanying prospectus supplement relating to that series if any of such debt securities are purchased. Any initial public offering price and any discounts or concessions allowed or reallocated or paid to dealers may be changed from time to time.

We may also sell debt securities directly or through agents we designate from time to time. Any agent involved in the offering and sale of the offered debt securities will be named in the accompanying prospectus supplement, and any commissions payable by us to that agent will be set forth in the accompanying prospectus supplement. Unless otherwise indicated in such accompanying prospectus supplement, any agent will be acting on a best efforts basis for the period of its appointment.

If so indicated in an accompanying prospectus supplement, we will authorize agents, underwriters or dealers to solicit offers by certain institutional investors to purchase debt securities, which offers provide for payment and

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delivery on a future date specified in such accompanying prospectus supplement. There may be limitations on the minimum amount that may be purchased by any such institutional investor or on the portion of the aggregate principal amount of the particular debt securities that may be sold pursuant to these arrangements.

Institutional investors to which offers may be made, when authorized, include commercial and savings banks, insurance companies, pension funds, investment companies, educational and charitable institutions and such other institutions as may be approved by us. The obligations of any purchasers pursuant to delayed delivery and payment arrangements will only be subject to the following two conditions:

the purchase by an institution of the particular debt securities will not, at the time of delivery, be prohibited under the laws of any jurisdiction in the United States to which that institution is subject; and

if the particular debt securities are being sold to underwriters, we will have sold to those underwriters the total principal amount or number of those debt securities less the principal amount or number thereof, as the case may be, covered by such arrangements. Underwriters will not have any responsibility in respect of the validity of these arrangements or the performance by us or institutional investors thereunder.

Legal matters

Unless otherwise specified in the prospectus supplement accompanying this prospectus, Locke Lord LLP will provide an opinion regarding the validity of the debt securities and any underwriters, agents or dealers will be advised about the validity of the debt securities by their own counsel named in the applicable prospectus supplement.

Experts

The financial statements and management's assessment of the effectiveness of internal control over financial reporting (which is included in Management's Annual Report on Internal Control over Financial Reporting) incorporated in this prospectus by reference to the Annual Report on Form 10-K of PTC Inc. for the year ended September 30, 2015 have been so incorporated in reliance on the report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, given on the authority of said firm as experts in auditing and accounting.

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