US CONCRETE INC
Form 4
August 11, 2015

FORM 4

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. *See* Instruction 1(b).

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

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

OMB APPROVAL
OMB Number: 3235-0287
Expires: January 31, 2005
Estimated average burden hours per response... 0.5

(Print or Type Responses)

1. Name and Address of Reporting Person *
Peabody Mark Baker
(Last) (First) (Middle)
C/O US CONCRETE, INC., 331 N. MAIN ST.
(Street)
EULESS, TX 76039
(City) (State) (Zip)

2. Issuer Name **and** Ticker or Trading Symbol
US CONCRETE INC [USCR]

3. Date of Earliest Transaction (Month/Day/Year)
08/07/2015

4. If Amendment, Date Original Filed(Month/Day/Year)

5. Relationship of Reporting Person(s) to Issuer
(Check all applicable)
_____ Director _____ 10% Owner
__X__ Officer (give title below) _____ Other (specify below)
VP - Human Resources

6. Individual or Joint/Group Filing(Check Applicable Line)
_X_ Form filed by One Reporting Person
___ Form filed by More than One Reporting Person

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1.Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)		4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common stock	08/07/2015		F		263	D	$ 53.19	24,519	D	

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB control number.

SEC 1474 (9-02)

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned
(*e.g.*, puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)		6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Underlying Securities (Instr. 3 and 4)		8. Price of Derivative Security (Instr. 5)	9. Nu Deriv Secur Bene Owne Follo Repo Trans (Instr
				Code	V	(A)	(D)	Date Exercisable	Expiration Date	Title	Amount or Number of Shares		

Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
Peabody Mark Baker C/O US CONCRETE, INC. 331 N. MAIN ST. EULESS, TX 76039			VP - Human Resources	

Signatures

/s/ CiCi Sepehri, as Attorney-in-Fact for Mark Baker Peabody	08/11/2015
**Signature of Reporting Person	Date

Explanation of Responses:

* If the form is filed by more than one reporting person, *see* Instruction 4(b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations. *See* 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure.
Potential persons who are to respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB number. p:1px solid #000000;">

Cost of revenue:

Subscription

27,858

17,379

12,786

Maintenance and support

11,693

13,681

12,173

Total cost of subscription, maintenance and support

39,551

31,060

24,959

License

282

246

304

Services

28,733

32,047

36,147

Total cost of revenue

68,566

63,353

61,410

Gross profit

100,250

89,923

106,836

Operating expenses:

Selling and marketing

68,116

63,980

74,146

General and administrative

40,336

38,537

38,517

Research and development

56,021

52,804

46,780

Acquisition-related

720

—

—

Impairment of internal-use software

—

—

2,890

Loss from operations

(64,943
)

(65,398
)

(55,497
)
Convertible debt interest and amortization

(13,218
)

(9,319
)

(8,914
)
Other income (expense), net

384

(38
)

(661
)
Loss before income tax provision

(77,777
)

(74,755
)

(65,072
)
Income tax provision

149

470

739

Net loss

(77,926
)

(75,225
)

(65,811
)
Net loss per share:

Basic and diluted

(2.46
)

(2.47
)

(2.23
)
Weighted average number of shares:

Basic and diluted

31,627

30,395

29,578

Other comprehensive (loss) income, net of tax:

Foreign currency translation adjustment

2,107

(594
)

(2,076
)
Unrealized gain on short-term investments

(13
)

6

3

Other comprehensive loss, net of tax

2,094

(588

)

(2,073
)
Comprehensive (loss) income

(75,832
)

(75,813
)

(67,884
)
The accompanying notes are an integral part of these consolidated financial statements.

F-5

Table of Contents

PROS Holdings, Inc.
Consolidated Statements of Cash Flows
(In thousands)

	Year Ended December 31,		
	2017	2016	2015
Operating activities:			
Net loss	$(77,926)	$(75,225)	$(65,811)
Adjustments to reconcile net loss to net cash provided by operating activities:			
Depreciation and amortization	10,531	9,507	10,395
Amortization of debt discount and issuance costs	9,264	6,439	6,039
Share-based compensation	22,796	20,466	27,864
Deferred income tax, net	(520)	40	165
Provision for doubtful accounts	—	174	(282)
Loss on disposal of assets	59	19	167
Impairment of internal-use software	—	—	2,890
Changes in operating assets and liabilities:			
Accounts and unbilled receivables	2,022	5,671	32,274
Prepaid expenses and other assets	(3,715)	(915)	229
Accounts payable and other liabilities	700	(2,905)	(4,049)
Accrued liabilities	(1,055)	2,801	800
Accrued payroll and other employee benefits	(2,344)	5,195	(2,048)
Deferred revenue	14,875	14,388	6,899
Net cash (used in) provided by operating activities	(25,313)	(14,345)	15,532
Investing activities:			
Purchase of property and equipment	(1,286)	(7,241)	(6,794)
Purchase of equity securities	—	(2,000)	—
Acquisition of Vayant, net of cash acquired	(34,130)	—	—
Capitalized internal-use software development costs	(2,797)	(1,048)	(233)
Purchase of intangible asset	(125)	(1,625)	—
Change in restricted cash	—	—	100
Purchases in short-term investment	—	(154,990)	(57,697)
Proceeds from maturities of short-term investments	15,992	141,500	55,200
Net cash used in investing activities	(22,346)	(25,404)	(9,424)
Financing activities:			
Exercise of stock options	6,331	889	706
Proceeds from employee stock plans	1,535	1,090	839
Tax withholding related to net share settlement of stock awards	(7,375)	(5,467)	(5,124)
Payment of contingent consideration for PROS France	—	—	(1,304)
Payments of notes payable	(209)	(196)	(263)
Proceeds from issuance of convertible debt, net	93,500	—	—
Debt issuance costs related to convertible debt	(2,978)	—	—
Debt issuance costs related to revolver	(150)	—	(408)
Net cash provided by (used in) financing activities	90,654	(3,684)	(5,554)
Effect of foreign currency rates on cash	(529)	(298)	197
Net increase (decrease) in cash and cash equivalents	42,466	(43,731)	751
Cash and cash equivalents:			
Beginning of period	118,039	161,770	161,019
End of period	$160,505	$118,039	$161,770

F-6

Table of Contents

PROS Holdings, Inc.
Consolidated Statements of Cash Flows
(In thousands)

Supplemental disclosure of cash flow information:			
Cash (paid) refund during period for:			
Taxes	$(271)	$968	$(3)
Interest	$(4,013)	$(3,182)	$(2,932)
Noncash investing activities:			
Purchase of property and equipment accrued but not paid	$38	$378	$2,722

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

Table of Contents

PROS Holdings, Inc.
Consolidated Statements of Stockholders' Equity
(In thousands, except share data)

	Common Stock		Additional Paid-In Capital	Treasury Stock		Accumulated (Deficit) Retained Earnings	Accumulated other comprehensive loss	Total Stockholders' Equity
	Shares	Amount		Shares	Amount			
Balance at December 31, 2014	29,060,225	$ 34	$ 134,375	4,417,585	$ (13,938)	$ (19,223)	$ (2,249)	$ 98,999
Exercise of stock options	220,031	—	706	—	—	—	—	706
Restricted and market stock net settlement	421,115	—	(5,124)	—	—	—	—	(5,124)
Proceeds from employee stock plans	37,605	—	839	—	—	—	—	839
Noncash share-based compensation	—	—	27,878	—	—	—	—	27,878
Other comprehensive loss	—	—	—	—	—	—	(2,073)	(2,073)
Net loss	—	—	—	—	—	(65,811)	—	(65,811)
Balance at December 31, 2015	29,738,976	$ 34	$ 158,674	4,417,585	$ (13,938)	$ (85,034)	$ (4,322)	$ 55,414
Exercise of stock options	96,870	—	889	—	—	—	—	889
Restricted and market stock net settlement	682,112	1	(5,467)	—	—	—	—	(5,466)
Proceeds from employee stock plans	65,693	—	1,090	—	—	—	—	1,090
Noncash share-based compensation	—	—	20,492	—	—	—	—	20,492
Other comprehensive loss	—	—	—	—	—	—	(588)	(588)
Net loss	—	—	—	—	—	(75,225)	—	(75,225)
Balance at December 31, 2016	30,583,651	$ 35	$ 175,678	4,417,585	$ (13,938)	$ (160,259)	$ (4,910)	$ (3,394)
Exercise of stock options	651,607	1	6,330	—	—	—	—	6,331
Restricted and market stock net settlement	611,708	—	(7,375)	—	—	—	—	(7,375)
Proceeds from employee stock plans	92,209	—	1,535	—	—	—	—	1,535
Equity component of the convertible notes issuance, net	—	—	8,846	—	—	—	—	8,846
Noncash share-based compensation	—	—	22,910	—	—	—	—	22,910
Other comprehensive loss	—	—		—	—	—	2,094	2,094
Net loss	—	—	—	—	—	(77,926)	—	(77,926)
Balance at December 31, 2017	31,939,175	$ 36	$ 207,924	4,417,585	$ (13,938)	$ (238,185)	$ (2,816)	$ (46,979)

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

Table of Contents

PROS Holdings, Inc.
Notes to Consolidated Financial Statements
1. Organization and Nature of Operations

PROS Holdings, Inc., a Delaware corporation, through its operating subsidiaries (collectively, the "Company"), provides cloud-based solutions to power the shift to modern commerce by helping companies create personalized and frictionless buying experiences for their customers. Fueled by artificial intelligence, machine learning and proven science, PROS solutions make it possible for companies to price, configure and sell their products and services in an omnichannel environment with speed, precision and consistency. PROS customers benefit from decades of data science expertise infused into its purpose-built industry solutions. The Company provides its solutions to enterprises across the manufacturing, distribution and services industries, including automotive and industrial, business-to-business ("B2B") services, cargo, chemicals and energy, consumer goods, insurance, food and beverage, healthcare, high tech, and travel. The Company also provides professional services to implement its software applications. In addition, the Company provides product maintenance and support to its customers through which they receive unspecified upgrades, maintenance releases and bug fixes during the term of the support period on a when-and-if-available basis.
2. Summary of Significant Accounting Policies
Principles of consolidation and basis of presentation
The Consolidated Financial Statements include the accounts of the Company, and its wholly-owned subsidiaries. All significant intercompany transactions and balances have been eliminated in consolidation. The Consolidated Financial Statements of the Company have been prepared in accordance with generally accepted accounting principles in the United States ("GAAP").

Dollar amounts
The dollar amounts presented in the tabular data within these footnote disclosures are stated in thousands of dollars, except per share amounts, or as noted within the context of each footnote disclosure.

Use of estimates
The Company's management makes estimates and assumptions in the preparation of its audited Consolidated Financial Statements in conformity with GAAP. These estimates and assumptions may affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the audited Consolidated Financial Statements and the reported amounts of revenue and expense during the reporting periods. Actual results could differ from those estimates. The complexity of the estimation process and issues related to the assumptions, risks and uncertainties inherent in the application of the percentage-of-completion method of revenue recognition affects the amount of revenue, expenses, unbilled receivables and deferred revenue. Numerous internal and external factors can affect estimates. Estimates are also used for, but not limited to, receivables, allowance for doubtful accounts, useful lives of assets, depreciation and amortization, the fair value of assets acquired and liabilities assumed for business combinations, income taxes and deferred tax asset valuation, valuation of stock options, other current liabilities and accrued liabilities.

Cash and cash equivalents
The Company considers all highly liquid investments with an original maturity of three months or less at the time of purchase, or the ability to be settled in cash within a period of three months, to be cash equivalents, except for commercial paper which is classified as short-term investments. The Company has a cash management program that provides for the investment of excess cash balances, primarily in short-term money market instruments.

Short-term investments

The Company's investments are available-for-sale commercial paper and certificate of deposit that are recorded at fair value in the consolidated balance sheets. The Company classifies all commercial paper regardless of original maturity at purchase date as investments. Unrealized gains and losses on available-for-sale securities are recorded, net of tax, as a component of accumulated other comprehensive income (loss), unless impairment is considered to be other-than-temporary. Other-than-temporary unrealized losses on available-for-sale securities are generally recorded in gain (loss) on investments, net, in the consolidated statements of comprehensive income (loss) unless certain criteria are met. The primary factors considered when determining if a charge must be recorded because a decline in the fair value of an investment is other-than-temporary include whether: (i) the fair value of the investment is significantly below the Company's cost basis; (ii) the financial condition of the issuer of the security has deteriorated; (iii) if a debt security, it is probable that the Company will be unable to collect all amounts

Table of Contents

due according to the contractual terms of the security; (iv) the decline in fair value has existed for an extended period of time; (v) if a debt security, such security has been downgraded by a rating agency; and (vi) the Company has the intent and ability to retain the investment for a period of time sufficient to allow for any anticipated recovery in fair value. Investments with remaining maturities of twelve months or less are classified as short-term investments since they are readily convertible to cash to fund short-term operations. Investments with remaining maturities of more than twelve months are classified as long-term investments. The Company had no investments as of December 31, 2017. All of the Company's investments had contractual maturities of less than twelve months as of December 31, 2016.

Cost method investment

Investments in equity securities of privately held companies without readily determinable fair value, where the Company does not exercise significant influence over the investee, are recorded using the cost method of accounting, carrying the investment at historical cost. If there are no identified events or changes in circumstances that might have an adverse effect on the cost method investments, the Company does not estimate the investments' fair value. For all investments, if a decline in the fair value of an investment below the carrying value is determined to be other-than-temporary, such investment is written down to its estimated fair value with a charge to current earnings.

At December 31, 2017 and December 31, 2016, the Company held $2.0 million of equity securities in a privately held company. This investment is accounted for under the cost method and the Company measures it at fair value on a nonrecurring basis when it is deemed to be other-than-temporarily impaired. The Company estimates fair value of its cost method investment considering available information such as pricing in recent rounds of financing, current cash positions, earnings and cash flow forecasts, recent operational performance and any other readily available market data, which represents level 3 in the fair value hierarchy. As of December 31, 2017, the Company determined there were no other-than-temporary impairments on its cost method investment.

Financial instruments

The carrying amount of the Company’s financial instruments, which include cash equivalents, short-term investments, receivables and accounts payable, and cost method investment approximates their fair values at December 31, 2017 and 2016. For additional information on the Company’s fair value measurements, see Note 8 to the Consolidated Financial Statements.

Allowance for doubtful accounts

The Company maintains an allowance for doubtful accounts which reflects the Company's best estimate of potentially uncollectible receivables. The Company regularly reviews the receivables allowances by considering such factors as historical experience, credit-worthiness, the age of the receivable balances and current economic conditions that may affect a customer’s ability to pay and the Company specifically reserves for those deemed uncollectible.

Prepaid expenses and other assets

Prepaid expenses and other assets consist primarily of prepaid third-party cloud infrastructure costs and license fees, deferred project costs and prepaid income taxes.

Property and equipment, net

Property and equipment are recorded at cost, less accumulated depreciation. Maintenance, repairs and minor replacements are charged to expense as incurred. Significant renewals and betterments are capitalized. Depreciation on property and equipment, with the exception of leasehold improvements, is recorded using the straight-line method over the estimated useful lives of the assets. Depreciation on leasehold improvements is recorded using the shorter of the lease term or useful life. When property is retired or disposed of, the cost and related accumulated depreciation are removed from the accounts and any resulting gains or losses are reflected in the Consolidated Statements of Comprehensive Income in the period of disposal.

Internal-use software

Costs incurred to develop internal-use software during the application development stage are capitalized, stated at cost, and depreciated using the straight-line method over the estimated useful lives of the assets. Application development stage costs generally include salaries and personnel costs and third-party contractor expenses associated with internal-use software development, configuration and coding. Capitalization of such costs begins when the preliminary project stage is complete and ceases at the point in which the project is substantially complete and is ready for its intended purpose. Capitalized internal-use software is included in property and equipment, net in the Consolidated Balance Sheets.

Deferred commissions

F-10

Table of Contents

Sales commissions earned by the Company's sales force are considered to be direct sales commissions when they are associated specifically with a non-cancellable subscription contract. Direct sales commissions are deferred when earned and amortized over the same period that revenues are recognized for the related non-cancellable subscription contract.

Impairment of long-lived assets

Long-lived assets are reviewed for impairment whenever an event or change in circumstances indicates that the carrying amount of an asset or group of assets may not be recoverable. The impairment review includes comparison of future cash flows expected to be generated by the asset or group of assets with the associated assets' carrying value. If the carrying value of the asset or group of assets exceeds its expected future cash flows (undiscounted and without interest charges), an impairment loss is recognized to the extent that the carrying amount of the asset exceeds its fair value. The Company recorded no impairment charges in the year ended December 31, 2017 and 2016. During the year ended December 31, 2015, the Company recorded a full impairment of $2.9 million related to capitalized internal-use software associated with the expected future cash flows.

Intangible assets and goodwill

Intangible assets that have finite lives are amortized over their useful lives and are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. During this review, the Company reevaluates the significant assumptions used in determining the original cost and estimated lives of long-lived assets. Although the assumptions may vary from asset to asset, they generally include operating results, changes in the use of the asset, cash flows and other indicators of value. Management then determines whether the remaining useful life continues to be appropriate or whether there has been an impairment of long-lived assets based primarily upon whether expected future undiscounted cash flows are sufficient to support the assets' recovery. If impairment exists, the Company would adjust the carrying value of the asset to fair value, generally determined by a discounted cash flow analysis.

Goodwill represents the excess of the purchase consideration over the net of the acquisition-date fair value of identifiable assets acquired, including identifiable intangible assets, and liabilities assumed in connection with business combinations. Goodwill is not amortized, but is assessed for impairment as of November 30 of each fiscal year, or more frequently if events or changes in circumstances indicate that the fair value of the Company's sole reporting unit has been reduced below its carrying value. When conducting the annual goodwill impairment assessment, a three step process is used. The first step is to perform an optional qualitative evaluation as to whether it is more likely than not that the fair value of the Company's sole reporting unit is less than its carrying value, using an assessment of relevant events and circumstances. In performing this assessment, the Company is required to make assumptions and judgments including but not limited to an evaluation of macroeconomic conditions as they relate to the business, industry and market trends, as well as the overall future financial performance of the reporting unit and future opportunities in the markets in which it operates. If it is determined that it is not more likely than not that the fair value of the reporting unit is less than its carrying value, no additional tests are required to be performed in assessing goodwill for impairment. However, if the Company concludes otherwise or elects not to perform the qualitative assessment, the Company performs a second step, consisting of a quantitative assessment of goodwill impairment. This quantitative assessment requires us to estimate the fair value of the reporting unit and compare the estimated fair value to its respective carrying value (including goodwill) as of the date of the impairment test. The third step, employed for the reporting unit failing the second step, is used to measure the amount of any potential impairment and compares the implied fair value of the reporting unit with the carrying amount of goodwill. Based on the results of the qualitative review of goodwill performed as of November 30, 2017, the Company did not identify any indicators of impairment. As such, the second and third steps described above were not necessary.

Research and development

Research and development costs for software sold to customers are expensed as incurred. These costs include salaries and personnel costs, including employee benefits, third-party contractor expenses, software development tools, an allocation of facilities and depreciation expenses and other expenses in developing new solutions and upgrading and enhancing existing solutions.

Software development costs

Capitalization of software development costs for software to be sold, leased, or otherwise marketed begins upon the establishment of technological feasibility, which is generally the completion of a working prototype that has been certified as having no critical bugs and is a release candidate. Amortization begins once the software is ready for its intended use, generally based on the pattern in which the economic benefits will be consumed. To date, software development costs incurred between completion of a working prototype and general availability of the related product have not been material.

Treasury stock

The Company is authorized to make treasury stock purchases in the open market pursuant to the share repurchase program, which was approved by its Board of Directors on August 28, 2008. The Company accounts for the purchase of treasury stock

F-11

Table of Contents

under the cost method. For additional information on the Company's stock repurchase program, see Note 9 to the Consolidated Financial Statements. There were no treasury stock repurchases for the years ended December 31, 2017, 2016 and 2015.

Revenue recognition
The Company derives its revenues primarily from subscription services fees, professional services, the perpetual licensing of its software products and the associated software maintenance and support services.

The Company commences revenue recognition when all of the following criteria are met:
- there is persuasive evidence of an arrangement;
- the service has been or is being provided to the customer;
- collection of the fee is reasonably assured; and
- the amount of fees to be paid by the customer is fixed and determinable.

Subscription services revenue

Subscription services revenue is generally recognized ratably over the contractual term of the arrangement beginning on the date that the Company's service is made available to the customer, assuming all other revenue recognition criteria have been met. The Company's subscription contracts do not provide customers with the right to take possession of the software supporting the applications and, as a result, are accounted for as service contracts. Any revenue related to up-front activation or set-up fees are deferred and recognized ratably over the estimated period that the customer benefits from the related services. Direct and incremental costs related to up-front activation or set-up activities are capitalized until the date the Company's service is made available and then expensed ratably over the estimated period that the customer benefits from the related services.

For the Company's subscription services that include professional services, the Company determines whether the professional services have stand-alone value. Professional services deemed to have stand-alone value are accounted for separately from subscription services and the subscription services revenue recognition commences on the date that the Company's subscription services are made available to the customer. If determined that the professional services do not have stand-alone value, the transaction is treated as a single element and the subscription services and professional services revenue is deferred until the customer commences use of the subscription services, and the subscription services revenue is recognized over the remaining term of the arrangement.

Maintenance and support revenue

Maintenance and support revenue includes post-implementation customer support and the right to unspecified software updates and enhancements on a when-and-if-available basis. The Company recognizes revenue from maintenance arrangements ratably over the period in which the services are provided. There are limited instances where the Company recognizes maintenance and support revenue at the latter of when the services are provided and when payment is received based on the Company's belief that collectability is not reasonably assured.

License revenue
The Company derives the majority of its license revenue from the sale of perpetual licenses. For software license arrangements that do not require significant modification or customization of the underlying software, the Company recognizes software licenses revenues upon software delivery, assuming all other revenue recognition criteria have been met.
The Company evaluates the nature and scope of professional services for each arrangement, and if it determines that the professional services revenue should not be accounted for separately from license revenue, the license revenue is recognized together with the professional services revenue using the percentage-of-completion method or completed

contract method. The completed contract method is also used for contracts where there is a risk over final acceptance by the customer or for contracts that are short-term in nature.

The percentage-of-completion method is measured by the percentage of man-days incurred during the reporting period as compared to the estimated total man-days necessary for each contract for implementation of the software solutions. The Company believes that for each such project, man-days expended in proportion to total estimated man-days at completion represents the most reliable and meaningful measure for determining a project's progress toward completion. Under the Company's fixed-fee arrangements, should a loss be anticipated on a contract, the full amount of the loss is recorded when the loss is determinable.

Table of Contents

The Company also licenses software solutions under term license agreements that typically include maintenance during the license term. When maintenance is included for the entire term of the term license, there is no renewal rate and the Company has not established vendor specific objective evidence ("VSOE") of fair value for the maintenance on term licenses. For term license agreements, revenue and the associated costs are deferred until the delivery of the solution and recognized ratably over the remaining license term.

Professional services revenue

Professional services revenues are generally recognized as the services are rendered for time and material contracts, or on a proportional performance basis for fixed price contracts. The majority of the Company's professional services contracts are on a time and materials basis. Training revenues are recognized as the services are rendered.

For the Company's subscription services that include professional services, the Company determines whether the professional services have stand-alone value. Professional services deemed to have stand-alone value are accounted for separately from subscription services and typically recognized as the services are performed. If determined that the professional services do not have stand-alone value, the transaction is treated as a single element, the professional services revenue is deferred until the customer commences use of the subscription services, and the professional services revenue is recognized over the remaining term of the arrangement.

For software license arrangements that include professional services, the Company determines whether the professional services are considered essential to the functionality of the software using factors such as: the nature of its software products; whether they are ready for use by the customer upon receipt; the nature of professional services; the availability of services from other vendors; whether the timing of payments for license revenue coincides with performance of services; and whether milestones or acceptance criteria exist that affect the realizability of the software license fee. For professional services considered essential to the functionality of the software, the license revenue is recognized together with the professional services revenue using the percentage-of-completion method or completed contract method. The completed contract method is also used for contracts where there is a risk over final acceptance by the customer or for contracts that are short-term in nature.

Multiple element arrangements

For arrangements with multiple deliverables, the Company evaluates whether the individual deliverables qualify as separate units of accounting. In order to treat deliverables in a multiple deliverable arrangement as separate units of accounting, the deliverables must have stand-alone value upon delivery. If the deliverables have stand-alone value upon delivery, the Company accounts for each deliverable separately and revenue is recognized for the respective deliverables as they are delivered.

When multiple deliverables included in an arrangement are separable into different units of accounting, the arrangement consideration is allocated to the identified separate units of accounting based on their relative selling price. Multiple deliverable arrangement accounting guidance provides a hierarchy when determining the relative selling price for each unit of accounting. VSOE of selling price, based on the price at which the item is regularly sold by the vendor on a stand-alone basis, should be used if it exists. If VSOE of selling price is not available, third-party evidence ("TPE") of selling price is used to establish the selling price if it exists. If neither VSOE nor TPE exist for a deliverable, arrangements with multiple deliverables can be separated into discrete units of accounting based on the Company's best estimate of selling price ("BESP"). The objective of BESP is to determine the price at which the Company would transact a sale if the product or service were sold on a stand-alone basis. The amount of arrangement fee allocated is limited by contingent revenues, if any. For transactions that only include software and software-related elements, the Company continues to account for such arrangements under the software revenue recognition standards which require it to establish VSOE of fair value to allocate arrangement consideration to multiple deliverables.

For multiple-element arrangements that contain software and nonsoftware elements such as its subscription services, the Company allocates revenue between the software and software related elements as a group and any nonsoftware elements based on a relative fair value allocation. The Company determines fair value for each deliverable using the selling price hierarchy described above and utilizing VSOE of fair value if it exists.

The Company applies the residual method to recognize revenue for the delivered elements in stand-alone software transactions. Under the residual method, the amount of revenue allocated to delivered elements equals the total arrangement consideration, less the aggregate fair value of any undelivered elements, typically maintenance, provided that VSOE of fair value exists for all undelivered elements. VSOE of fair value is based on the price charged when the element is sold separately or, in the case of maintenance, substantive renewal rates for maintenance.

Table of Contents

Revenue that has been recognized, but for which the Company has not invoiced the customer, is recorded as unbilled receivables. Invoices that have been issued before revenue has been recognized are recorded as deferred revenue in the accompanying consolidated balance sheets.

Foreign currency
The Company has contracts denominated in foreign currencies and therefore a portion of the Company's revenue is subject to foreign currency risks. Gains and losses from foreign currency transactions, such as those resulting from the settlement of receivables, are classified in other expense, net included in the accompanying Consolidated Statements of Comprehensive Income (Loss).
The functional currency of PROS France SAS ("PROS France") is the Euro. The financial statements of this subsidiary are translated into U.S. dollars using period-end rates of exchange for assets and liabilities, historical rates of exchange for equity, and average rates of exchange for the period for revenue and expenses. Translation gains (losses) are recorded in accumulated other comprehensive income (loss) as a component of stockholders' equity.
Noncash share-based compensation
The Company has three noncash share-based compensation plans, the 1999 Equity Incentive Plan ("1999 Stock Plan"), the 2007 Equity Incentive Plan ("2007 Stock Plan") and the 2017 Equity Incentive Plan ("2017 Stock Plan"), which authorize the discretionary granting of various types of stock awards to key employees, officers, directors and consultants. The 1999 Stock Plan was terminated in March 2007 for purposes of granting any future equity awards. The 2007 Stock Plan was adopted in March 2007 and expired in March 2017 for purposes of granting any future equity awards. The 2017 Stock Plan was adopted in May 2017. The Company may provide noncash share-based compensation through the grant of: (i) restricted stock awards; (ii) restricted stock unit awards - time, performance and market-based ("RSUs"); (iii) stock options; (iv) stock appreciation rights ("SARs"); (v) phantom stock; and (vi) performance awards, such as market stock units ("MSUs"). Also in February 2014, the Company granted inducement awards in an aggregate amount of up to 308,250 shares in accordance with NYSE Rule 303A.08. These inducement awards were in the form of RSUs and MSUs granted to the Company's former Chief Operating Officer and RSUs granted to certain new employees in connection with the acquisitions of PROS France and SignalDemand Inc.
To date, the Company has granted stock options, stock appreciation rights, restricted stock units, time-based, performance-based and market-based, and market stock units. The Company issues common stock from its pool of authorized stock upon exercise of stock options, settlement of stock appreciation rights and market stock units or upon vesting of restricted stock units.
The following table presents the number of awards outstanding for each award type as of December 31, 2017 and 2016 (in thousands):

	Year Ended December 31,	
Award type	2017	2016
Stock options	135	734
Restricted stock units (time-based)	2,133	2,237
Restricted stock units (market-based)	345	460
Stock appreciation rights	356	515
Market stock units	387	342

Stock options. The Company did not grant stock options during 2017 and 2016. The fair value of each stock option was estimated on the date of grant using the Black-Scholes option pricing model.

Restricted stock units. The fair value of the RSUs (time-based and performance-based) is based on the closing price of the Company's stock on the date of grant and is amortized over the vesting period. RSUs include (i) time-based awards, (ii) performance-based awards in which the number of shares that vest are based upon satisfying certain conditions from binding customer agreements for the provision of configure, price, and quote ("CPQ") solutions, and (iii) market-based awards in which the number of shares that vest are based upon attainment of target average per share closing price over a requisite trading period. Market-based RSUs vest if the average trailing closing price of the

Company's Common Stock meets certain minimum performance hurdles for at least 105 calendar days prior to September 9, 2020, with 25% vesting at $27, an additional 25% vesting at $33, and the remaining 50% vesting at $41. The Company estimates the fair value and the derived service period of the market-based RSUs on the date of grant using a Monte Carlo simulation model. The model requires the use of a number of assumptions including the expected volatility of the Company's stock, its risk-free interest rate and expected dividends. The Company's expected volatility at the date of grant is based on the historical volatility of the Company over the performance period.

Table of Contents

Stock appreciation rights. SARs will be settled in stock at the time of exercise and vest over four years from the date of grant. The Company used the Black-Scholes option pricing model to estimate the fair value of its SARs. The determination of the fair value of SARs utilizing the Black-Scholes model is affected by the Company’s stock price and a number of assumptions, including expected volatility, expected life, deliver risk-free interest rate and expected dividends. The Company estimates the expected volatility of common stock at the date of grant based on a combination of its historical volatility and the average volatility of comparable companies. The expected life of the SARs noncash share-based payment awards is a historical weighted average of the expected lives of similar securities of comparable public companies. The risk-free interest rate assumption is based on observed interest rates appropriate for the terms of the Company’s awards. The dividend yield assumption is based on the Company's expectation of paying no dividends.

Market stock units. MSUs are performance-based awards that vest based upon the Company’s relative shareholder return. The actual number of MSUs that will be eligible to vest is based on the total shareholder return of the Company relative to the total shareholder return of the Russell 2000 Index ("Index") over a three year period ending December 31, 2016, December 31, 2017, March 2, 2018, February 28, 2019, February 28, 2020 and October 9, 2020 ("Performance Period"), respectively. The MSUs vest on January 1, 2017, January 1, 2018, March 3, 2018, March 1, 2019, March 1, 2020, and October 9, 2020, respectively. The maximum number of shares issuable upon vesting is 200% of the MSUs initially granted based on the average price of the Company's common stock relative to the Index during the Performance Period. The Company estimates the fair value of MSUs on the date of grant using a Monte Carlo simulation model. The determination of fair value of the MSUs is affected by the Company’s stock price and a number of assumptions including the expected volatility of the Company’s stock and the Index, its risk-free interest rate and expected dividends. The Company’s expected volatility at the date of grant was based on the historical volatilities of the Company and the Index over the Performance Period.

As the Company issues stock options and SARs, it evaluates the assumptions used to value its stock option awards and SARs. If factors change and the Company employs different assumptions, noncash share-based compensation expense may differ significantly from what has been recorded in the past. If there are any modifications or cancellations of the underlying unvested securities, the Company may be required to accelerate, increase or cancel any remaining unearned noncash share-based compensation expense. Future noncash share-based compensation expense and unearned noncash share-based compensation will increase to the extent that the Company grants additional equity awards to employees.

At December 31, 2017, there were an estimated $31.4 million of total unrecognized compensation costs related to noncash share-based compensation arrangements. These costs will be recognized over a weighted average period of 2.3 years. For further discussion of the Company’s noncash share-based compensation plans, see Note 10 to the Consolidated Financial Statements.

Product warranties

For software-as-a-service application subscriptions, the Company generally issues a product warranty for the subscription term, depending on the contract. For on-premise software licenses, the Company generally issues a product warranty for 90 days following the first use of the software in a production environment, depending on the contract. In the Company’s experience, warranty costs have been insignificant.

Income taxes

The Company uses the asset and liability method to account for income taxes, including recognition of deferred tax assets and liabilities for the anticipated future tax consequences attributable to differences between financial statement amounts and their respective tax basis. The Company reviews its deferred tax assets for recovery. A valuation allowance is established when the Company believes that it is more-likely than not that some portion of its deferred tax assets will not be realized. Changes in the valuation allowance from period to period are included in the Company’s tax provision in the period of change.

The Company accounts for uncertain income tax positions recognized in an enterprise's financial statements in accordance with the income tax topic of the ASC issued by the FASB. This interpretation requires companies to use a prescribed model for assessing the financial recognition and measurement of all tax positions taken or expected to be taken in its tax returns. This guidance provides clarification on recognition, classification, interest and penalties, accounting in interim periods, disclosures and transition. The Company recognized accrued interest and penalties related to income taxes as a component of income tax expense. For additional information regarding the Company's income taxes, see Note 11 to the Consolidated Financial Statements.

Segment reporting

The Company reports as one operating segment with the Chief Executive Officer ("CEO") acting as the Company's chief operating decision maker. The Company's CEO reviews financial information presented on a consolidated basis for purposes of allocating resources and evaluating financial performance. The Company has a single reporting unit, and there are no segment managers who are held accountable for operations, operating results or components below the consolidated unit level.

Table of Contents

Earnings per share

The Company computes basic earnings (loss) per share by dividing net income (loss) attributable to common stockholders by the weighted average number of common shares outstanding. Diluted earnings (loss) per share is computed by dividing net income (loss) attributable to common stockholders by the weighted average number of common shares and dilutive potential common shares then outstanding. Diluted earnings per share reflect the assumed conversion of all dilutive securities, using the treasury stock method. Dilutive potential common shares consist of shares issuable upon the exercise of stock options, shares of unvested restricted stock units, and settlement of stock appreciation rights. When the Company incurs a net loss, the effect of the Company’s outstanding stock options, stock appreciation rights, restricted stock units and market stock units are not included in the calculation of diluted earnings (loss) per share as the effect would be anti-dilutive. Accordingly, basic and diluted net loss per share are identical.

Recently adopted accounting pronouncements

In March 2016, the FASB issued ASU 2016-09, "Compensation – Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting" which is intended to simplify several aspects of the accounting for share-based payment transactions including the income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. This standard is effective for interim and annual reporting periods beginning after December 15, 2016. The Company adopted this standard on January 1, 2017. Upon adoption, the Company recognized the previously unrecognized excess tax benefits using the modified retrospective transition method, which resulted in a cumulative-effect adjustment of $4.2 million to accumulated deficit. The previously unrecognized excess tax effects were recorded as a deferred tax asset, which was fully offset by a valuation allowance and as such the cumulative adjustment had no net impact on the Company's financial statements. As required by ASU 2016-09, excess tax benefits recognized on stock-based compensation expense are reflected in the condensed consolidated statements of operations as a component of the provision for income taxes on a prospective basis. In addition, ASU 2016-09 allows companies to account for forfeitures as they occur or estimate expected forfeitures over the course of a vesting period; the Company has elected to continue to estimate forfeitures expected to occur to determine the amount of compensation cost to be recognized each period.

Recent accounting pronouncements

In May 2014, the FASB issued Accounting Standards Update No. 2014-09, "Revenue from Contracts with Customers (Topic 606)" ("ASU 2014-09"), which amended the existing FASB Accounting Standards Codification, replaces existing revenue recognition guidance with a comprehensive revenue measurement and recognition standard and expanded disclosure requirements. The standard also provides guidance on the recognition of costs related to obtaining customer contracts. ASU 2014-09, as amended, will be effective in the first quarter of 2018, including interim periods within that reporting period. The Company has evaluated the transition methods and elected to use the modified retrospective method and will adopt this standard beginning January 1, 2018, by recognizing the cumulative effect of initially applying the new standard as an adjustment to the opening balance of accumulated deficit.

The Company believes that the new standard will impact the following policies and disclosures:

- removal of the current limitation on contingent revenue will result in revenue being recognized earlier for certain contracts;
- allocation of subscription and professional services revenue;
- required disclosures including remaining revenue from remaining performance obligations and when the Company expects to recognize revenue; and
- accounting for deferred costs of obtaining a contract with a customer that qualify for deferral and the amortization period.

In the fourth quarter of fiscal 2017, the Company finalized its assessment of the new standard, including completing its contract reviews and its evaluation of the incremental costs of obtaining a contract and related disclosures. The most significant impact relates to its accounting for arrangements that include term-based software licenses bundled with maintenance and support, the deferral of incremental costs of obtaining a contract with a customer, including the period of amortization of such costs, and additional disclosures. Under Topic 605, the revenue attributable to term-based software licenses is recognized ratably over the term of the arrangement, as VSOE does not exist for the undelivered maintenance and support element as it is not sold separately. The requirement to have VSOE for undelivered elements to enable the separation of revenue for the delivered software licenses is eliminated under the new standard. Accordingly, under the new standard, the Company will be required to recognize as revenue a portion of the arrangement fee upon delivery of the software license. The Company expects the adjustment to the opening balance sheet of the accumulated deficit for all revenue related items to be a decrease of approximately $2.5 million.

Table of Contents

The costs to obtain a contract accounting under the new standard is significantly different than the Company's current capitalization policy, as it will require the Company to capitalize additional costs and amortize them over a longer period of time. Under Topic 605, the Company deferred only direct and incremental commission costs to obtain a revenue contract and amortized those costs on a straight-line basis over the term of the related contract. Under the new standard, the concept of what must be capitalized is significantly broader since a direct relationship with a revenue contract is not required. Accordingly, the new standard will result in additional types of costs being capitalized. Additionally, all amounts capitalized will be amortized over the expected period of customer benefit, which is longer than the Company's current policy of amortizing the deferred amounts over the term of the related contract, which are typically 24 to 60 months. The Company expects the adjustment to the opening balance sheet of the accumulated deficit for costs to obtain a contract to be a decrease of approximately $7.0 million.

The Company does not expect the adoption of ASU 2014-09 to have any impact on its cash flows from operating activities.

In February 2016, the FASB issued ASU 2016-02, "Leases (Topic 842)" which requires the lessee to recognize most leases on the balance sheet thereby resulting in the recognition of lease assets and liabilities for those leases currently classified as operating leases. Lessor accounting remains largely unchanged from current guidance, however, ASU 2016-02 provides improvements that are intended to align lessor accounting with the lessee model and with updated revenue recognition guidance. This standard is effective for interim and annual reporting periods beginning after December 15, 2018. The Company is currently assessing the impact of ASU 2016-02 on its condensed consolidated financial statements.

In August 2016, the FASB issued ASU 2016-15, "Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments" which is intended to reduce the diversity in practice on classification of certain transactions in the statement of cash flows. This standard is effective for interim and annual reporting periods beginning after December 15, 2017; early adoption is permitted. The Company is currently assessing the impact of ASU 2016-15 on its condensed consolidated financial statements.

In January 2017, the FASB issued ASU 2017-04, "Intangibles - Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment", which eliminates step two from the goodwill impairment test. Under the amendments in this standard, an entity should recognize an impairment charge for the amount by which the carrying amount of a reporting unit exceeds its fair value; however, the loss recognized should not exceed the total amount of goodwill allocated to that reporting unit. The standard is effective for interim and annual reporting periods beginning after December 15, 2019; earlier adoption is permitted for goodwill impairment tests performed on testing dates after January 1, 2017. The Company is currently assessing the impact of ASU 2017-04 on its condensed consolidated financial statements.

With the exception of the new standards discussed above, there have been no other recent accounting pronouncements or changes in accounting pronouncements during the year ended December 31, 2017, that are of significance or potential significance to the Company.

3. Business Combination

On August 3, 2017, the Company acquired 100% of the issued and outstanding stock of Vayant Travel Technologies, Inc. ("Vayant"), a privately held company based in Sofia, Bulgaria, for total cash consideration, net of cash acquired, of approximately $34.1 million. Vayant is a cloud software company that provides advanced shopping, merchandising and inspirational travel solutions. The acquisition of Vayant strengthens the Company's modern commerce solutions for the travel industry and positions it to deliver greater value to its travel customers through an end-to-end offer optimization solution designed to help travel companies deliver personalized offers and expanded choices that drive loyalty and growth.

Since the acquisition date, the Company has included $3.3 million of revenue and $1.8 million of net loss related to Vayant in its consolidated income statement. During the year ended December 31, 2017, the Company incurred acquisition-related costs of $0.7 million consisting primarily of advisory, legal fees, and retention of key employees. All of the assets acquired and the liabilities assumed in the transaction have been recognized at their acquisition date fair values at August 3, 2017.

The preliminary allocation of the total purchase price for Vayant is as follows (in thousands):

Table of Contents

Cash	$	1,822	
Other current assets	1,235		
Noncurrent assets	86		
Intangibles	18,600		
Goodwill	17,052		
Accounts payable and accrued liabilities	(1,668		)
Deferred revenue	(600		)
Deferred tax liability	(526		)
Noncurrent liabilities	(49		)
Net assets acquired	$	35,952	

The following are the identifiable intangible assets acquired (in thousands) and their respective useful lives:

	Amount	Useful Life (years)
Developed technology	$11,600	7
Customer relationships	7,000	5
Total	$18,600	

In performing the preliminary purchase price allocation, the Company considered, among other factors, its anticipated future use of the acquired assets, analysis of historical financial performance, and estimates of future cash flows from Vayant's products and services. The allocation resulted in acquired intangible assets of $18.6 million. The acquired intangible assets consisted of developed technology and customer relationships and were valued using the income approach in which the after-tax cash flows are discounted to present value. The cash flows are based on estimates used to price the transaction, and the discount rates applied were benchmarked with reference to the implied rate of return from the transaction model as well as the weighted average cost of capital. Additionally, the Company assumed certain liabilities in the acquisition, including deferred revenue to which a fair value of $0.6 million was ascribed using a cost-plus profit approach.

The Company has made a preliminary determination that $0.5 million of net deferred tax liabilities were assumed on the acquisition date. The deferred tax liability is comprised of the value of intangible assets partially offset by a deferred tax asset related to net operating losses.

The excess of the purchase price over the estimated amounts of net assets as of the effective date of the acquisition was allocated to goodwill. The factors contributing to the recognition of the amount of goodwill are based on several strategic and synergistic benefits that are expected to be realized from the Vayant acquisition. These benefits include the expectation that the combined company’s complementary products will strengthen the Company's modern commerce solutions for the travel industry.

The Company believes the combined company will benefit from a broader global presence and, with the Company’s direct sales force and larger channel coverage, significant cross-selling opportunities. None of the goodwill is expected to be currently deductible for tax purposes. In accordance with applicable accounting standards, goodwill will not be amortized but instead will be tested for impairment at least annually, or more frequently if certain indicators are present. In the event that the management of the combined company determines that the value of goodwill has become impaired, the combined company will incur a charge for the amount of the impairment during the fiscal quarter in which the impairment occurs.

Pro Forma Financial Information

The unaudited financial information in the table below summarizes the combined results of operations of the Company and Vayant, on a pro forma basis, as though the Company had acquired Vayant on January 1, 2016. The pro forma information for all periods presented also includes the effect of business combination accounting resulting from the acquisition, including amortization charges from acquired intangible assets.

Table of Contents

(in thousands, except earnings per share)	Year Ended December 31, 2017	2016
Total revenue	$173,866	$160,696
Net loss	(81,476)	(81,652)
Earnings per share - basic and diluted	$(2.58)	$(2.69)

4. Goodwill and Intangible Assets

The change in the carrying amount of goodwill for the years ended December 31, 2017 and 2016, was as follows (in thousands):

Balance as of December 31, 2015	$20,445
Foreign currency translation adjustments	(349)
Balance as of December 31, 2016	20,096
Goodwill acquired	17,052
Foreign currency translation adjustments	1,310
Balance as of December 31, 2017	$38,458

The goodwill balance related to PROS France is denominated in Euro and the goodwill balance related to Vayant is denominated in the U.S. dollar.

Intangible assets consisted of the following as of December 31, (in thousands):

		December 31, 2017		
	Weighted average useful life (years)	Gross Carrying Amount	Accumulated Amortization*	Net Carrying Amount
Developed technology	7	$26,023	$ 9,560	$16,463
Maintenance relationships	8	3,565	2,207	1,358
Customer relationships	6	11,840	4,482	7,358
Acquired technology	3	1,750	—	1,750
Total		$43,178	$ 16,249	$26,929

*Cumulative foreign currency translation adjustments, reflecting movement in the currencies of the underlying entities, increased total intangible assets by approximately $0.7 million as of December 31, 2017.

		December 31, 2016		
	Weighted average useful life (years)	Gross Carrying Amount	Accumulated Amortization*	Net Carrying Amount
Developed technology	7	$13,223	$ 5,671	$7,552
Maintenance relationships	8	3,346	1,755	1,591
Customer relationships	7	4,736	2,854	1,882
Acquired technology	4	1,625	—	1,625
Total		$22,930	$ 10,280	$12,650

*Cumulative foreign currency translation adjustments, reflecting movement in the currencies of the underlying entities, decreased total intangible assets by approximately $0.2 million as of December 31, 2016.

Customer relationships are amortized over a period ranging from five to eight years.

In the third quarter of 2015, the Company determined that the original strategy for the trade name of 'Cameleon Software SA' had changed which caused a change in estimate related to the useful life of the asset and the amortization related to this intangible asset was accelerated and fully recognized at that time.

Table of Contents

In December 2016, the Company purchased a technology-based intangible asset in connection with the equity securities investment made during the same period. The Company estimates that the intangible will be amortized approximately over a 3 year period. During the second half of 2017, the Company purchased an additional technology-based intangible asset which is expected to be amortized over a 3 year period.

Intangible asset amortization expense for the years ended December 31, 2017, 2016 and 2015 was $5.2 million, $3.0 million and $4.8 million, respectively. As of December 31, 2017, the expected future amortization expense for the acquired intangible assets for each of the five succeeding years and thereafter was as follows (in thousands):

Year Ending December 31,	Amount
2018	$7,790
2019	6,408
2020	5,735
2021	3,030
2022	1,921
2023 and thereafter	2,045
Total amortization expense	$26,929

5. Accounts receivable and contracts in progress

Accounts receivable at December 31, 2017 and 2016, consists of the following (in thousands):

	December 31,	
	2017	2016
Accounts receivable	$30,689	$31,722
Unbilled receivables	2,555	2,323
Total receivables	33,244	34,045
Less: Allowance for doubtful accounts	(760)	(760)
Accounts receivable, net	$32,484	$33,285

The bad debt expense reflected in general and administrative expenses in the accompanying Consolidated Statements of Comprehensive Income for the years ended December 31, 2017, 2016 and 2015, totaled approximately zero, $0.2 million and $(0.3) million, respectively.

Activity related to contracts in progress at December 31, 2017 and 2016, is summarized as follows (in thousands):

	December 31,	
	2017	2016
Costs and estimated earnings recognized to date	$612,565	$470,239
Progress billings to date	(705,205)	(547,654)
Total	$(92,640)	$(77,415)

The foregoing table reflects the aggregate invoiced amount of all contracts in progress and maintenance as of the respective dates, including amounts that have already been collected.

These amounts are included in the accompanying Consolidated Balance Sheets at December 31, 2017 and 2016, as follows (in thousands):

	December 31,	
	2017	2016
Unbilled receivables	$2,555	$2,323
Deferred revenue	(95,195)	(79,738)
Total	$(92,640)	$(77,415)

Table of Contents

At December 31, 2017 and 2016, the Company had approximately $22.3 million and $25.1 million, respectively, in deferred maintenance and support revenue, and $57.9 million and $36.6 million, respectively, in deferred subscription revenue both of which are reflected above within deferred revenue and progress billing.

6. Earnings per share

The following table sets forth the computation of basic and diluted earnings per share:

	For the Year Ended December 31,		
	2017	2016	2015
Numerator:			
Net loss	$(77,926)	$(75,225)	$(65,811)
Denominator:			
Weighted average shares (basic)	31,627	30,395	29,578
Dilutive effect of stock options, restricted stock units and stock appreciation rights	—	—	—
Weighted average shares (diluted)	31,627	30,395	29,578
Basic earnings per share	$(2.46)	$(2.47)	$(2.23)
Diluted earnings per share	$(2.46)	$(2.47)	$(2.23)

Dilutive potential common shares consist of shares issuable upon the exercise of stock options, settlement of SARs, and the vesting of RSUs and MSUs. Potential common shares determined to be antidilutive and excluded from diluted weighted average shares outstanding were approximately 2.0 million, 1.8 million and 2.2 million for the years ended December 31, 2017, 2016 and 2015, respectively.

Since the Company has the intention and ability to settle the principal amount of its Notes (see Note 12) in cash, the treasury stock method is expected to be used for calculating any potential dilutive effect of the conversion spread on diluted net income per share, if applicable. The conversion spread will have a dilutive impact on diluted net income per share of common stock when the average market price of common stock for a given period exceeds the conversion price of $33.79 and $48.63 per share, for the 2019 Notes and 2047 Notes, respectively.

7. Property and equipment, net

Property and equipment, net as of December 31, 2017 and 2016 consists of the following:

		December 31,	
	Estimated useful life	2017	2016
Furniture and fixtures	5-10 years	$2,958	$2,934
Computers and equipment	3-5 years	18,950	20,321
Software	3-6 years	5,430	5,907
Capitalized internal-use software development costs	3 years	4,102	1,078
Leasehold improvements	Shorter of lease term or useful life	5,650	5,601
Construction in progress		19	98
Property and equipment, gross		37,109	35,939
Less: Accumulated depreciation and amortization		(23,102)	(20,701)
Property and equipment, net		$14,007	$15,238

Depreciation and amortization was approximately $5.4 million, $6.4 million and $5.5 million for the years ended December 31, 2017, 2016 and 2015, respectively. During the years ended December 31, 2017, 2016 and 2015, the Company disposed of approximately $1.8 million, $2.3 million and $4.4 million, respectively, of fully depreciated assets. During the years ended December 31, 2017 and 2016, the Company recognized immaterial amounts of loss on disposal of certain non-fully depreciated assets, respectively. During the year ended December 31, 2015, the Company recognized $0.2 million of loss on disposal of assets. As of December 31, 2017 and 2016, the Company had approximately $11.1 million and $9.3 million, respectively, of fully depreciated assets in use.

F-21

Table of Contents

During the years ended December 31, 2017 and 2016, the Company capitalized internal-use software development costs of approximately $3.0 million and $1.1 million, respectively, related to its subscription solutions. As of December 31, 2017 and 2016, $1.0 million and zero, respectively, capitalized internal-use software development costs were subject to amortization and $0.1 million and zero capitalized internal-use software development costs was included in accumulated depreciation and amortization for the years ended December 31, 2017 and 2016.
No impairment was recorded for the years ended December 31, 2017 and 2016. During the year ended December 31, 2015, the Company recorded $2.9 million of impairment charges related to internally developed software. The impairment was triggered by a change in product strategy which resulted in a reduction in projected cash flows.

8. Fair value measurements

The Company adopted fair value measurements guidance for financial and nonfinancial assets and liabilities. The guidance defines fair value, establishes a framework for measuring fair value in GAAP and expands disclosures about fair value measurements.

The guidance defines fair value as the price that would be received to sell an asset, or paid to transfer a liability, in an orderly transaction between market participants. The guidance establishes a fair value hierarchy for valuation inputs that gives the highest priority to quoted prices in active markets for identical assets or liabilities and the lowest priority to unobservable inputs. The fair value hierarchy is as follows:

Level 1: Unadjusted quoted prices in active markets that are accessible at the measurement date for identical, unrestricted assets or liabilities;

Level 2: Quoted prices for similar assets or liabilities in markets that are not active or inputs which are observable, either directly or indirectly, for substantially the full term of the asset or liability; and

Level 3: Prices or valuation techniques that require inputs that are both significant to the fair value measurement and unobservable (i.e., supported by little or no market activity).

A portion of the Company’s existing cash and cash equivalents are invested in short-term interest bearing obligations with original maturities less than 90 days, principally various types of money market funds. In addition, the Company had short-term investments consisting of commercial papers and certificate of deposit. The Company does not enter into investments for trading or speculative purposes.

At December 31, 2017 and 2016, the Company had approximately $131.4 million and $106.3 million invested in treasury money market funds. The fair value of the treasury money market funds is determined based on quoted market prices, which represents level 1 in the fair value hierarchy as defined by Accounting Standard Codification ("ASC") 820, "Fair Value Measurement and Disclosure."

The Company's short-term investments that are measured at fair value are comprised of zero and $10.0 million invested in available-for-sale commercial paper as of December 31, 2017 and 2016, respectively, and zero and $6.0 million invested in certificate of deposit at December 31, 2017 and 2016, respectively. The fair value of these accounts is determined based on quoted market prices for similar assets in active markets, which represents level 2 in the fair value hierarchy. The Company's diversified money market funds, treasury money market funds and short-term investments have a fair value that is not materially different from its carrying amount. The Company recorded an immaterial amount of unrealized gain related to the short-term investments for the years ended December 31, 2017 and 2016. Reclassification adjustments for realized gain (loss) on available-for-sale securities in net income were immaterial for the years ended December 31, 2017 and 2016.

The fair value of the Company's Notes is classified in the level 2 hierarchy. See Note 12 for further detail regarding the Notes.

In December 2016, the Company purchased $2.0 million equity securities in a privately held company. This investment is accounted for under the cost method and the Company measures it at fair value on a nonrecurring basis when it is deemed to be other-than-temporarily impaired. The Company estimates fair value of its cost method investment considering available information such as pricing in recent rounds of financing, current cash positions, earnings and cash flow forecasts, recent operational performance and any other readily available market data, which represents level 3 in the fair value hierarchy. An impairment charge to current earnings is recorded when the cost of the investment exceeds its fair value and this condition is determined to

Table of Contents

be other-than-temporary. As of December 31, 2017, the Company determined there were no other-than-temporary impairments on its cost method investment.

9. Stockholders’ equity

Stock repurchase

On August 25, 2008, the Company’s Board of Directors approved a stock repurchase program that authorized the Company to purchase up to $15.0 million of the Company’s outstanding shares of common stock. Under the board-approved repurchase program, share purchases may be made from time to time in the open market or through privately negotiated transactions depending on market conditions, share price, trading volume and other factors, and such purchases, if any, will be made in accordance with applicable insider trading and other securities laws and regulations. These repurchases may be commenced or suspended at any time or from time to time without prior notice.

The Company did not repurchase any shares under this plan for the years ended December 31, 2017 and 2016. The remaining amount available to purchase common stock under this plan was $10.0 million as of December 31, 2017.

10. Noncash share-based compensation

Employee noncash share-based compensation plans

The Company has three noncash share-based compensation plans; the 1999 Stock Plan, the 2007 Stock Plan and the 2017 Stock Plan. These plans authorize the discretionary granting of various types of stock awards to key employees, officers, directors and consultants. The discretionary issuance of stock awards generally contains vesting provisions ranging from one to four years.

1999 Stock Plan. Under the 1999 Stock Plan, the Company is authorized to grant options to purchase shares of common stock to its employees, directors and consultants at the Company’s discretion. The Company’s 1999 Stock Plan was terminated in March 2007 for purposes of granting any future equity awards. There were no issued and outstanding stock options to purchase shares of the Company’s common stock under the 1999 Stock Plan as of December 31, 2017. All outstanding options were exercised in 2016 and there were no outstanding options remaining as of December 31, 2017.

2007 Stock Plan. The Company’s 2007 Stock Plan was adopted in March 2007 and expired in March 2017 for purposes of granting future equity awards. The 2007 Stock Plan had an evergreen provision that allowed for an annual increase equal to the lesser of (i) 3.5% of the Company’s outstanding shares, (ii) 900,000 shares, or (iii) any lesser amount determined by the Compensation Committee of the Board of Directors. The Company was authorized to provide these incentives through the grant of: (i) restricted stock awards; (ii) restricted stock unit awards; (iii) stock options; (iv) stock appreciation rights; (v) phantom stock; and (vi) performance awards, such as market stock units. As of December 31, 2017, the Company had outstanding equity awards to acquire 3,244,069 shares of its common stock held by the Company’s employees, directors and consultants under the 2007 Stock Plan (assuming MSU performance at 100% of the MSUs initially granted), and inclusive of 134,600 stock options, 2,405,734 RSUs, 356,435 SARs and 347,300 MSUs. As of December 31, 2017, there were no restricted stock awards or phantom stock issued under the 2007 Stock Plan.

In February 2014, the Company granted inducement awards in an aggregate amount of up to 308,250 shares in accordance with NYSE Rule 303A.08. These inducement awards were in the form of RSUs and MSUs granted to the Company's former Chief Operating Officer and RSUs granted to certain new employees in connection with the acquisitions of PROS France and SignalDemand, Inc. As of December 31, 2017, the Company had no outstanding equity inducement awards.

2017 Stock Plan. The Company’s 2017 Stock Plan was adopted in May 2017. The purpose of the 2017 Stock Plan is to promote the Company’s long-term growth and profitability by making available incentives that will help the Company attract, retain and reward employees whose contributions are essential to its success. Under the 2017 Stock Plan, the Company's employees, officers, directors and other individuals providing services to the Company or any of its affiliates are eligible to receive awards. The 2017 Stock Plan reserved an aggregate amount of 2,500,000 shares for issuance. The Company may provide these incentives through the grant of: (i) restricted stock awards; (ii) restricted stock unit awards; (iii) stock options; (iv) stock appreciation rights; (v) phantom stock; and (vi) performance awards., such as market stock units.

As of December 31, 2017, the Company had outstanding equity awards to acquire 111,961 shares of its common stock held by the Company's employees, directors and consultants under the 2017 Stock Plan (assuming MSU performance at 100% of the MSUs initially granted), and inclusive of 72,292 RSUs and 39,669 MSUs. As of December 31, 2017, 2,348,370 shares remain

Table of Contents

available for grant under the 2017 Stock Plan. As of December 31, 2017, there were no options, SARs, restricted stock awards or phantom stock issued under the 2017 Stock Plan.

Noncash share-based compensation expense for all noncash share-based payment awards granted is determined based on the grant-date fair value of the award. The Company recognizes compensation expense, net of estimated forfeitures, which represents noncash share-based awards expected to vest on a straight-line basis over the requisite service period of the award, which is generally the vesting term. Noncash share-based awards typically vest over four years. Stock options are generally granted for a ten-year term. The Company estimates forfeiture rates based on its historical experience for grant years where the majority of the vesting terms have been satisfied. Changes in estimated forfeiture rates are recognized through a cumulative catch-up adjustment in the period of change and thus impact the amount of noncash share-based compensation expense to be recognized in future periods.
Noncash share-based compensation expense is allocated to expense categories on the Consolidated Statements of Comprehensive Income. The following table summarizes noncash share-based compensation expense, net of amounts capitalized, for the years ended December 31, 2017, 2016 and 2015 (in thousands).

	For the Year Ended December 31,		
	2017	2016	2015
Share-based compensation:			
Cost of revenue	$1,971	$2,267	$3,719
Operating expenses:			
Selling and marketing	4,348	3,824	8,536
General and administrative	11,163	9,040	10,293
Research and development	5,314	5,335	5,316
Total included in operating expenses	20,825	18,199	24,145
Total share-based compensation expense	$22,796	$20,466	$27,864

At December 31, 2017, there was an estimated $31.4 million of total unrecognized compensation costs related to noncash share-based compensation arrangements. These costs will be recognized over a weighted average period of 2.3 years.

Stock options
The following table summarizes the Company’s stock option activity for the year ended December 31, 2017 (number of shares and intrinsic value in thousands):

	Number of shares under option	Weighted average exercise price	Weighted average remaining contractual term (year)	Aggregate intrinsic value (1)
Outstanding, December 31, 2016	734	$ 12.38		
Granted	—	—		
Exercised	(592)	12.41		
Forfeited	—	—		
Expired	(7)	7.43		
Outstanding, December 31, 2017	135	$ 12.52	0.33	$ 1,875
Vested and exercisable at December 31, 2017	135	$ 12.52	0.33	$ 1,875

(1) The aggregate intrinsic value was calculated based on the positive difference between the estimated fair value of the Company’s common stock on December 31, 2017 of $26.45 and the grant date fair value.
For the years ended December 31, 2017 and 2016, respectively, the Company did not grant any stock options. The total intrinsic value of stock options exercised for the years ended December 31, 2017, 2016 and 2015 was $7.2

million, $1.0 million and $1.6 million, respectively.

F-24

Table of Contents

RSUs (time-based)

The Company has granted RSUs under the 2017 Stock Plan, the 2007 Stock Plan and as part of the February 2014 inducement awards grant. Time-based RSUs granted to employees, directors and consultants vest in equal annual installments over a one to four year period from the grant date.

The following table summarizes the Company's unvested time-based RSUs as of December 31, 2017, and changes during the year then ended (number of shares and intrinsic value in thousands):

	Number of shares	Weighted average grant date fair value	Weighted average remaining contractual term (year)	Aggregate intrinsic value (1)
Unvested at December 31, 2016	2,237	$ 18.05		
Granted	964	21.63		
Vested	(813)	19.75		
Forfeited	(255)	19.07		
Unvested at December 31, 2017	2,133	$ 18.90	2.15	$ 56,419
Expected to vest at December 31, 2017	2,073	$ 18.92	2.14	$ 54,836

(1) The aggregate intrinsic value was calculated based on the fair value of the Company’s common stock on December 31, 2017 of $26.45.

The weighted average grant-date fair value of the time and performance-based RSUs granted during the years ended December 31, 2017, 2016 and 2015 was $21.63, $11.69 and $25.29, respectively.

RSUs (market-based)

During 2016, under the 2007 Stock Plan, the Company granted 460,000 RSUs with a market-based vesting condition to certain executive employees. These market-based RSUs will vest if the average trailing closing price of the Company's Common Stock meets certain minimum performance hurdles for at least 105 calendar days prior to September 9, 2020, with 25% vesting at $27, an additional 25% vesting at $33, and the remaining 50% vesting at $41.

The following table summarizes the Company's unvested market-based RSUs as of December 31, 2017, and changes during the year then ended (number of shares and intrinsic value in thousands):

	Number of shares	Weighted average grant date fair value	Weighted average remaining contractual term (year)	Aggregate intrinsic value (1)
Unvested at December 31, 2016	460	$ 11.92		
Granted	—	—		
Vested	(115)	15.09		
Forfeited	—	—		
Unvested at December 31, 2017	345	$ 10.86	2.69	$ 9,125
Expected to vest at December 31, 2017	331	$ 10.86	2.69	$ 8,753

(1) The aggregate intrinsic value was calculated based on the fair value of the Company’s common stock on December 31, 2017 of $26.45.

The Company estimates the fair value and the derived service period of the market-based RSUs on the date of grant using a Monte Carlo simulation model. The model requires the use of a number of assumptions including the expected volatility of the Company's stock, its risk-free interest rate and expected dividends. The Company's expected volatility at the date of grant was based on the historical volatility of the Company over the performance period.

The assumptions used to value the market-based RSUs granted in 2016 were as follows:

Table of Contents

	December 31, 2016
Volatility	44.98%
Risk-free interest rate	1.08%
Dividend yield	—

The fair value of the market-based RSUs is expensed over the derived service period for each separate vesting tranche. The derived service period for the vesting tranches of the market-based RSUs ranges between 1.01 and 1.98 years.

SARs

The Company has granted SARs under the 2007 Stock Plan. The SARs will be settled in stock at the time of exercise and vest four years from the date of grant subject to the recipient’s continued employment with the Company. The number of shares issued upon the exercise of the SARs is calculated as the difference between the share price of the Company’s stock on the date of exercise and the date of grant multiplied by the number of SARs divided by the share price on the exercise date.

The following table summarizes the Company's SARs activity for the year ended December 31, 2017 (number of shares and intrinsic value in thousands):

	Stock appreciation rights	Weighted average exercise price	Weighted average remaining contractual term (year)	Aggregate intrinsic value (1)
Outstanding, December 31, 2016	515	$ 10.86		
Granted	—	—		
Exercised	(159)	10.61		
Forfeited	—	—		
Expired	—	—		
Outstanding, December 31, 2017	356	$ 10.97	2.88	$ 5,518
Exercisable at December 31, 2017	356	$ 10.97	2.88	$ 5,518
Vested and expected to vest at December 31, 2017	356	$ 10.97	2.88	$ 5,518

(1) The aggregate intrinsic value was calculated based on the positive difference between the estimated fair value of the Company’s common stock on December 31, 2017 of $26.45 and the exercise price of the underlying SARs.

The Company did not grant SARs in 2017, 2016 and 2015.

MSUs

In 2017, 2016 and 2015, the Company granted MSUs to certain executives employees under the 2007 and 2017 Stock Plans. The MSUs are performance-based awards that vest based upon the Company’s relative shareholder return. The actual number of MSUs that will be eligible to vest is based on the total shareholder return of the Company relative to the total shareholder return of the Index over the three year Performance Period. The MSUs vest on January 1, 2017, January 1, 2018, March 3, 2018, March 1, 2019, March 1, 2020 and October 9, 2020, respectively. The MSUs maximum number of shares issuable upon vesting is 200% of the MSUs initially granted.

The following table summarizes the Company's MSUs activity for the year ended December 31, 2017 (number of shares and intrinsic value in thousands):

Table of Contents

	Number of unvested awards	Weighted average grant date fair value	Weighted average remaining contractual term (year)	Aggregate intrinsic value (1)
Unvested at December 31, 2016	342	$ 29.06		
Granted	150	28.13		
Exercised	(105)	48.32		
Forfeited	—	—		
Expired	—	—		
Unvested at December 31, 2017	387	$ 23.48	1.37	$ 10,235

(1) The aggregate intrinsic value was calculated based on the positive difference between the estimated fair value of the Company’s common stock on December 31, 2017 of $26.45 and the grant date fair value of the underlying MSUs.

The Company estimates the fair value of MSUs on the date of grant using a Monte Carlo simulation model. The determination of fair value of the MSUs is affected by the Company's stock price and a number of assumptions including the expected volatilities of the Company's stock and the Index, its risk-free interest rate and expected dividends. The Company's expected volatility at the date of grant was based on the historical volatilities of the Company and the Index over the Performance Period. The Company did not estimate a forfeiture rate for the MSUs due to the limited size, the vesting period and nature of the grantee population and the lack of history of granting this type of award.

Significant assumptions used in the Monte Carlo simulation model for MSUs granted during the years ended December 31, 2017, 2016 and 2015 are as follows:

	For the Year Ended December 31,		
	2017	2016	2015
Volatility	45.38%	44.06%	42.06%
Risk-free interest rate	1.56%	1.04%	0.89%
Expected option life in years	3.07	2.93	2.95
Dividend yield	—	—	—

The assumptions related to fiscal years 2017 and 2015 are presented on weighted average basis for the various awards granted throughout the period.

Employee stock purchase plan

In June 2013, the Board of Directors authorized an Employee Stock Purchase Plan ("ESPP") which provides for eligible employees to purchase shares on an after-tax basis in an amount between 1% and 10% of their annual pay: (i) on June 30 of each year at a 5% discount of the fair market value of the Company's common stock on January 1 or June 30, whichever is lower, and (ii) on December 31 of each year at a 5% discount of the fair market value of the Company's common stock on July 1 or December 31, whichever is lower. An employee may not purchase more than $5,000 in either of the six-month measurement periods described above or more than $10,000 annually. In November 2015, the Board of Directors amended the ESPP plan to increase the discount to 15% of the fair market value of the Company's common stock effective January 1, 2016. The amendment did not change the accounting treatment of the ESPP plan. During the year ended December 31, 2017, the Company issued 92,209 shares under the ESPP. As of December 31, 2017, 291,101 shares remain authorized and available for issuance under the ESPP. As of December 31, 2017, the Company held approximately $0.8 million on behalf of employees for future purchases under the ESPP and this amount was recorded in accrued liabilities in the Company's Consolidated Balance Sheet.

F-27

Table of Contents

11. Income taxes

The income tax provision (benefit) consisted of the following for the years ended December 31, 2017, 2016 and 2015 (in thousands):

	Year Ended December 31,		
	2017	2016	2015
Current:			
Federal	$—	$19	$(51)
State and Foreign	669	402	621
	669	421	570
Deferred:			
Federal	(488)	51	159
State	(32)	(2)	10
Income tax provision	$149	$470	$739

The differences between the effective tax rates reflected in the total provision for income taxes and the U.S. federal statutory rate of 34% for the years ended December 31, 2017, 2016 and 2015, respectively, were as follows (in thousands):

	Year Ended December 31,		
	2017	2016	2015
Provision at the U.S. federal statutory rate	$(26,443)	$(25,338)	$(22,124)
Increase (decrease) resulting from:			
State income taxes, net of federal taxes	18	3	74
Nondeductible expenses	373	457	1,195
Acquisition-related expense	245	(4)	(4)
Statutory to GAAP income adjustment	(77)	(274)	119
Foreign Tax Expense	—	2	350
Noncash share-based compensation	(3,405)	604	2,201
Incremental benefits for tax credits	(1,711)	(1,663)	(1,947)
Change in tax rate/income subject to lower tax rates and other	2,625	49	(15)
Change related to US tax reform	31,359	—	—
Change in valuation allowance	(2,835)	26,634	20,890
Income tax provision	$149	$470	$739

The Company’s effective tax rate was a provision of 0%, 1% and 1% for the years ended December 31, 2017, 2016 and 2015, respectively. During the year ended December 31, 2017, the Company's effective tax rate was impacted primarily by a valuation allowance, foreign taxes and other nondeductible expenses, partially offset by the R&E credit and the tax law changes under the Tax Cuts and Jobs Act.

On December 22, 2017, the Tax Cuts and Jobs Act was signed into law by the President of the United States and included a broad range of tax reform proposals affecting businesses, including corporate tax rates, business deductions, and international tax provisions. The Tax Cuts and Jobs Act reduced the United States corporate income tax rate to 21% effective January 1, 2018. The Company has remeasured the deferred tax assets as of December 31, 2017 to reflect the tax rate reduction and this resulted in a deferred tax expense of $31.4 million. The tax expense is offset by a release of valuation allowance of $31.4 million resulting in no expense for the year ended December 31, 2017.

The Tax Cuts and Jobs Act imposes a repatriation tax on any accumulated offshore earnings and profit. As of December 31, 2017, the Company has reviewed the offshore earnings and profits and has no additional earnings to repatriate and has provided for no tax. The Company continues to review the changes surrounding the deductibility of business expenses and stock compensation for executives as more guidance is issued.

Although PROS has included what it believes to be a reasonable estimate of the impact of the income tax effects of the Act on the Company's consolidated financial statements as of December 31, 2017, it should be considered provisional. As the

F-28

Table of Contents

Company finalizes certain tax positions and reviews additional guidance available on tax reform, it will be able to conclude whether any further adjustments to current and deferred tax, current tax payable and receivable, and deferred income tax balances are required to the net deferred tax assets as well as to a liability related to the one-time repatriation tax. Any adjustments to these provisional amounts will be reported as a component of income tax expense in the reporting period in which the adjustments are determined, which will occur no later than the fourth quarter of 2018.

The tax effects of temporary differences and other tax attributes that give rise to significant portions of the deferred tax assets and liabilities as of December 31, 2017 and 2016 are as follows (in thousands):

	Year Ended December 31,	
	2017	2016
Noncurrent deferred taxes:		
Property and equipment	$(847)	$(2,114)
Noncash share based compensation	6,373	8,053
State deferred	—	242
Capitalized software	(1,397)	(1,591)
Amortization	(5,096)	(2,187)
R&E tax credit carryforwards	9,340	6,852
Deferred revenue	2,996 2,673	2,265
Federal Net Operating Losses ("NOLs")	46,907	40,671
State NOLs	1,050	1,517
State Credits	1,613	1,348
Foreign NOLs	9,057	10,663
Foreign tax credit carryforward	2,521	1,795
Other	1,425	1,317
Total noncurrent deferred tax assets	73,942	68,831
Less: valuation allowance	(74,153)	(69,049)
Total noncurrent deferred tax liability	(211)	(218)
Total net deferred tax liability	$(211)	$(218)

The net deferred tax liability is classified as other noncurrent liabilities in the accompanying Consolidated Balance Sheets.

The Company has federal and state net operating loss carryforwards related to past acquisitions and current year losses. Internal Revenue Code Section 382 ("Section 382") places certain limitations on the annual amount of U.S. net operating loss carryforwards that can be utilized when a change of ownership occurs. The Company believes the past acquisitions were changes in ownership pursuant to Section 382, subjecting federal acquired net operating losses to limitations. According to French law the net operating loss carryforwards are not subject to ownership change limitations.

The federal and foreign net operating loss and R&E tax credit carryforward amount available to be used in future periods, taking into account the 382 annual limitation and current year losses, is approximately $260.1 million and $11.0 million, respectively. The Company’s net operating losses will begin to expire in 2024, R&E credits will begin to expire in 2031, and foreign tax credits will begin to expire in 2022. Also included in net operating losses are $36.2 million of French carryforwards which have no expiration.

As of December 31, 2014, the Company determined it was more likely than not that it would be unable to fully utilize the majority of its U.S. and state deferred tax assets. As a result, the Company had recorded a valuation allowance against those assets to the extent that they cannot be realized through net operating loss carrybacks to prior years. This valuation allowance is evaluated periodically and will be reversed partially or in whole if business results and the economic environment have sufficiently improved to support realization of some or all of the Company's deferred tax assets. In performing the analysis throughout 2017, the Company determined that there was no sufficient positive evidence to outweigh the current and historic negative evidence to determine that it was more likely than not that the deferred assets would not be realized. Therefore, the Company continues to have a valuation allowance against net deferred tax assets as of December 31, 2017 and 2016.

Undistributed earnings of the Company's foreign subsidiaries are considered permanently reinvested and, accordingly, no provision for U.S. federal or state income taxes has been provided thereon. The cumulative amount of undistributed earnings of the Company's non-U.S. subsidiaries was immaterial for the years ended December 31, 2017 and 2016. The determination of

F-29

Table of Contents

the related deferred tax liability, which requires complex analysis of international tax situations related to repatriation, is not practical at this time. The Company is presently investing in international operations located in Europe, North America, and Australia. The Company is funding the working capital needs of its foreign operations through its U.S. operations. In the future, the Company plans to utilize its foreign undistributed earnings, as well as continued funding from its U.S. operations, to support its continued foreign investment.

For the years ended December 31, 2017, 2016 and 2015, the Company had $0.2 million, $0.2 million and $0.2 million, respectively, of net unrecognized tax benefits which, if recognized, would impact the Company's effective tax rate. The Company recorded immaterial amounts for interest and penalties as of December 31, 2017, 2016 and 2015, respectively. The Company believes that it is reasonably possible that there will be no change in the unrecognized tax benefits within the next twelve months.

The Company is not aware of any significant income tax examinations in progress at this time. The Company files tax returns in the United States and various state and foreign jurisdictions. The Company is subject to U.S. federal income tax examination for the calendar tax years 2016, 2015 and 2014 and state and foreign income tax examination for various years depending on the statutes of limitation of those jurisdictions.

The following table sets forth the changes to the Company's unrecognized tax benefit for the year ended December 31, 2017, 2016 and 2015 (in thousands):

	Year Ended December 31,		
	2017	2016	2015
Beginning balance	$192	$192	$395
Changes based on tax positions related to prior year	—	—	21
Changes due to settlement	(9)	—	(224)
Ending balance	$183	$192	$192

The table above has been updated to reflect gross tax liability, exclusive of interest and penalties and other offsetting amounts.

12. Convertible Senior Notes

The Company issued $143.8 million principal amount of convertible senior notes in December 2014 (the "2019 Notes") and $106.3 million principal amount of convertible senior notes in June 2017 (the "2047 Notes" and collectively with the 2019 Notes, the "Notes"). The interest rates for the Notes are fixed at 2.0% per annum. Interest is payable semi-annually in arrears on June 1 and December 1 of each year, commencing on June 1, 2015 for the 2019 Notes, and on December 1, 2017 for the 2047 Notes. The 2019 Notes mature on December 1, 2019, unless redeemed or converted in accordance with their terms prior to such date. The 2047 Notes mature on June 1, 2047, unless repurchased, redeemed or converted in accordance with their terms prior to such date.

Each $1,000 of principal of the 2019 Notes will initially be convertible into 29.5972 shares of the Company’s common stock, which is equivalent to an initial conversion price of approximately $33.79 per share. Each $1,000 of principal amount at maturity of the 2047 Notes had an issue price of $880, and will initially be convertible into 20.5624 shares of the Company’s common stock, which is equivalent to an initial conversion price of approximately $48.63 per share. The initial conversion price for each of the Notes is subject to adjustment upon the occurrence of certain specified events. An amount equal to the difference between the issue price and the principal amount at maturity will accrete to the 2047 Notes in accordance with the schedule set forth in the 2047 Notes. The issue price plus such accreted amount of the 2047 Notes is referred to herein as the “accreted principal amount.” On June 1, 2022, the accreted principal amount will accrete to 100% of the principal amount at maturity.

The Notes are each general unsecured obligations and rank senior in right of payment to all of the Company's indebtedness that is expressly subordinated in right of payment to the Notes, rank equally in right of payment with all of the Company's existing and future liabilities that are not so subordinated, are effectively junior to any of the

Company's secured indebtedness to the extent of the value of the assets securing such indebtedness and are structurally subordinated to all indebtedness and other liabilities (including trade payables but excluding intercompany obligations owed to the Company or its subsidiaries).

On or after September 1, 2019 to the close of business on the second scheduled trading day immediately preceding the maturity date, holders may convert all or any portion of their 2019 Notes regardless of the contingent conversion conditions described herein. Upon conversion, the Company will pay or deliver cash, shares of its common stock or a combination of cash and shares of its common stock, at its election, as described in the indenture governing the 2019 Notes.

Table of Contents

On or before June 1, 2021, and subject to the satisfaction of certain conditions, the Company is entitled to elect to redeem all or any portion of the 2047 Notes at a redemption price equal to 100% of the accreted principal amount of the 2047 Notes, plus accrued and unpaid interest to, but excluding, the redemption date, if the daily volume weighted average price of the Company’s common stock is greater than or equal to 130% of the conversion price for at least 20 trading days during any 30 consecutive trading day period. After June 1, 2021, the Company will be entitled to elect to redeem all or any portion of the 2047 Notes (without regard to the price of the Company’s common stock) at a redemption price equal to the then current accreted principal amount of the 2047 Notes, plus accrued and unpaid interest to, but excluding, the redemption date.

Holders may convert their 2019 Notes at their option at any time prior to the close of business on the business day immediately preceding September 1, 2019 only under the following circumstances:

- during any calendar quarter commencing after the calendar quarter ending on March 31, 2015, if the last reported sale price of the common stock for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter is greater than or equal to 130% of the conversion price on each applicable trading day;
- during the five consecutive business day period immediately following any five consecutive trading day period in which the trading price per $1,000 principal amount of 2019 Notes for each trading day of the measurement period was less than 98% of the product of the last reported sale price of the Company's common stock and the conversion rate on each such trading day; or
- upon the occurrence of specified corporate events.

Holders may convert their 2047 Notes at their option on any day prior to the close of business on the business day immediately preceding March 1, 2047 under the following circumstances:

- during any calendar quarter commencing after the calendar quarter ending September 30, 2017, if the last reported sale price of the Company's common stock for 20 or more trading days (whether or not consecutive) in a period of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter exceeds 130% of the applicable conversion price in effect on each such trading day;
- during the five consecutive business day period immediately following any five consecutive trading day period (the "Measurement Period") in which the trading price per 2047 Note for each day of that Measurement Period was less than 98% of the product of the last reported sale price of the Company's common stock and the conversion rate on each such day; or
- upon the occurrence of specified corporate events.

The 2047 Notes will also be convertible, regardless of the foregoing circumstances, at any time from, and including, March 1, 2047 until the close of business on the second scheduled trading day immediately preceding the applicable maturity date. Each holder of the 2047 Notes has the right to require the Company to repurchase for cash all or any portion of such holder's 2047 Notes on June 1, 2022 at a price per $1,000 principal amount of the 2047 Notes equal to the accreted principal amount at maturity plus accrued and unpaid interest to, but excluding, the repurchase date.

If a fundamental change (as defined in the relevant indenture governing the applicable series of Notes) occurs prior to the maturity date, holders of each of the 2019 Notes and 2047 Notes may require the Company to repurchase all or a portion of their notes for cash at a repurchase price equal to 100% of the principal amount at maturity of the Notes, plus any accrued and unpaid interest to, but excluding, the repurchase date. If such a fundamental change occurs prior to June 1, 2022, holders of the 2047 Notes may also require the Company to repurchase all or a portion of their notes for cash at a repurchase price equal to the then current accreted principal amount of the Notes, plus any accrued and unpaid interest to, but excluding, the repurchase date. In addition, if specific corporate events occur prior to the applicable maturity date, the Company will be required to increase the conversion rate for holders who elect to convert their notes in certain circumstances. Holders who convert their 2047 Notes in connection with a Make-Whole Fundamental Change (as defined in the indenture governing the 2047 Notes) or in connection with a redemption of such 2047 Notes on or prior to June 1, 2021 will, under certain circumstances, be entitled to a make-whole premium in the form of an increase in the conversion rate determined by reference to a make-whole table set forth in such indenture.

As of December 31, 2017, the 2019 Notes and the 2047 Notes are not yet convertible.

Table of Contents

In accordance with accounting guidance on embedded conversion features, the Company valued and bifurcated the conversion options associated with each of the 2019 Notes and 2047 Notes from the respective host debt instrument, which is referred to as debt discount and recorded the conversion option of each of the Notes in stockholders' equity. The equity component for each Note is not remeasured as long as such Note continues to meet the conditions for equity classification.

In accounting for the transaction costs for each of the notes issuance, the Company allocated the costs incurred to the liability and equity components in proportion to the allocation of the proceeds from issuance to the liability and equity components. Issuance costs attributable to the liability component, totaling $4.3 million for the 2019 Notes and $2.7 million for the 2047 Notes, are being amortized to expense over the expected life of each notes using the effective interest method. Issuance costs attributable to the equity component related to the conversion option, totaling $1.2 million for the 2019 Notes and $0.3 million for the 2047 Notes, were netted with the equity component in stockholders' equity.

The Notes consist of the following (in thousands):

	December 31, 2017	December 31, 2016
Liability component:		
Principal	$250,000	$143,750
Less: debt discount, net of amortization	(36,797)	(21,451)
Net carrying amount	$213,203	$122,299
Equity component [(1)]	$37,560	$28,714

(1) Recorded within additional paid-in capital in the consolidated balance sheet. As of December 31, 2017, it included $28.7 million and $8.8 million related to the 2019 Notes and the 2047 Notes, respectively, net of $1.2 million and $0.3 million issuance cost in equity, respectively.

The following table sets forth total interest expense recognized related to the Notes (in thousands):

	Year Ended December 31, 2017	Year Ended December 31, 2016
2.0% coupon	$ 3,991	$ 2,880
Amortization of debt issuance costs	1,127	831
Amortization of debt discount	8,100	5,608
Total	$ 13,218	$ 9,319

As of December 31, 2017 and December 31, 2016, the fair value of the principal amount of the Notes was $246.6 million and $141.1 million, respectively. The estimated fair value was determined based on inputs that are observable in the market or that could be derived from, or corroborated with, observable market data, including the Company's stock price and interest rates, which represents level 2 in the fair value hierarchy.

As of December 31, 2017, the remaining life of the 2019 Notes and the 2047 Notes is approximately 23 months and 53 months, respectively.

Note Hedge and Warrant Transactions

Concurrently with the offering of the 2019 Notes, the Company entered into separate convertible note hedge (the "Note Hedge") and warrant (the "Warrant") transactions. Taken together, the purchase of the Note Hedge and the sale of the Warrant are intended to offset any actual dilution from the conversion of the 2019 Notes and to effectively increase the overall conversion price of the 2019 Notes from $33.79 to $45.48 per share. The total cost of the Note

Hedge transaction was $29.4 million. The Company received $17.1 million in cash proceeds from the sale of the Warrant.

Pursuant to the Warrants, if the average market value per share of the Company's common stock for the reporting period, as measured under the Warrant, exceeds the strike price of the Warrant, the Warrant will have a dilutive effect on the Company's earnings per share. Holders of the 2019 Notes and Note Hedge will not have any rights with respect to the Warrant, as the Note Hedge is not part of the 2019 Notes or the Warrant. The Warrant is not part of the 2019 Notes or Note Hedge. Both the Note Hedge and Warrant have been accounted for as part of additional paid-in capital.

Table of Contents

13. Credit Facility

In January 2017, the Company, through its wholly owned subsidiary PROS, Inc., entered into an amendment to extend its $50 million secured Credit Agreement (the "Revolver") with the lenders party thereto and Wells Fargo Bank, National Association as agent for the lenders party thereto.

The Revolver is for a five year term expiring in July 2022, with interest paid at the end of the applicable one month, three month or six month interest period at a rate per annum equal to LIBOR plus an applicable margin of 1.5% to 2.25% or the Federal Funds Rate plus an applicable margin of 1.5% to 2.25%. Borrowings under the Revolver are collateralized by a first priority interest in and lien on all of the Company's material assets.

The Revolver contains affirmative and negative covenants, including covenants which restrict the ability of the Company to, among other things, create liens, incur additional indebtedness and engage in certain other transactions, in each case subject to certain exclusions. In addition, the Revolver contains certain financial covenants which become effective in the event the Company's liquidity falls below $50 million or upon the occurrence of an event of default. As of December 31, 2017, the Company was in compliance with all financial covenants in the Revolver.

As of December 31, 2017 and 2016, $0.2 million and less than $0.1 million, respectively, of unamortized debt issuance costs related to the Revolver is included in prepaid and other current assets and other long-term assets in the consolidated balance sheets, respectively. For the years ended December 31, 2017 and 2016, the Company recorded an immaterial amount of amortization of debt issuance cost which is included in Other Expense, net in the Consolidated Statements of Comprehensive Income (Loss).

As of December 31, 2017, the Company had no outstanding borrowings under the Revolver.

14. Commitments and contingencies

Litigation

In the ordinary course of the Company’s business, the Company regularly becomes involved in contract and other negotiations and, in more limited circumstances, becomes involved in legal proceedings, claims and litigation. The outcomes of these matters are inherently unpredictable. The Company is not currently involved in any outstanding litigation that it believes, individually or in the aggregate, will have a material adverse effect on its business, financial condition, results of operations or cash flows.

Purchase commitments

In the ordinary course of business, the Company enters in various purchase commitments for goods and services.

In June 2017, the Company entered in a noncancellable agreement with a computing infrastructure vendor that expires on June 30, 2020. The purchase commitment as of December 31, 2017 was $19.7 million for the remaining period under the three-year agreement.

Indemnification

The Company’s software agreements generally include certain provisions for indemnifying customers against liabilities if the Company’s software solutions infringe a third party’s intellectual property rights. To date, the Company has not incurred any losses as a result of such indemnifications and has not accrued any liabilities related to such obligations in the Company’s Consolidated Financial Statements.

Lease commitments

The Company leases office space and office equipment under non-cancellable operating leases that expire at various dates. The Company incurred approximately $3.9 million, $4.1 million and $3.5 million of total rent expense for the years ended December 31, 2017, 2016 and 2015, respectively. As of December 31, 2017, the future minimum lease commitments related to lease agreements were as follows:

Table of Contents

Year Ending December 31,	Amount
2018	$ 3,674
2019	2,964
2020	1,479
2021	969
2022	683
2023 and thereafter	45
Total minimum lease payments	$ 9,814

The Company's headquarters are located in Houston, Texas, where it leases approximately 98,000 square feet of office space. In June 2016, the Company entered into a fifth amendment to this corporate office lease (the "Fifth Lease Amendment"). The Fifth Lease Amendment, among other things, provides for a three year extension, until October 31, 2019, unless earlier terminated or extended pursuant to the terms of the lease. The Company also has smaller regional offices, including in London, England; Toulouse, France; San Francisco, California; and Sofia, Bulgaria. The Company leases approximately 3,000 square feet of office space in London, approximately 14,000 square feet of space in Toulouse, approximately 6,600 of space in San Francisco, and approximately 23,000 square feet of space in Sofia.

As a result of the Vayant acquisition in August 2017, the Company assumed an operating lease in Sofia, Bulgaria that expires in early 2018. In August 2017, the Company entered into a new operating lease in Sofia to replace the expiring Sofia lease. The new lease expires in January 2023.

The Company had no capital leases at December 31, 2017 and 2016.

15. Segment and geographic information

Operating segments are the components of an enterprise about which separate financial information is available that is evaluated on a regular basis by the chief operating decision-maker ("CODM") in deciding how to allocate resources to an individual segment and in assessing performance of the segment. The Company’s CODM is its CEO, who reviews financial information presented on a consolidated basis for purposes of allocating resources and evaluating financial performance. The Company sells its pricing and revenue management software to customers in multiple industries and geographies, but has no segment managers who are held accountable for operations, operating results or components below the consolidated unit level. The company does not allocate costs at a level that would give segment managers the ability to meaningfully evaluate financial performance below the level presented to the CODM. Therefore, the Company believes that it operates in one segment and has a single reporting unit.

Revenue by geography

The Company presents financial information on a consolidated basis and does not assess the profitability of its geographic regions. Accordingly the Company does not attempt to comprehensively assign or allocate costs to these regions and does not produce reports for, or measure the performance of, its geographic regions based on any asset-based metrics.

International revenue for the years ended December 31, 2017, 2016 and 2015, amounted to approximately $105.7 million, $96.5 million and $104.5 million, respectively, representing 63%, 63% and 62%, respectively, of annual revenue.

Table of Contents

The following geographic information is presented for the years ended December 31, 2017, 2016 and 2015. The Company categorizes geographic revenues based on the location of the customer's headquarters.

	Year Ended December 31,					
	2017		2016		2015	
	Revenue	Percent	Revenue	Percent	Revenue	Percent
The Americas:						
United States of America	$63,097	37 %	$56,774	37 %	$63,754	38 %
Other	13,645	8 %	9,335	6 %	10,680	6 %
Subtotal	76,742	45 %	66,109	43 %	74,434	44 %
Europe	51,273	30 %	44,655	29 %	47,514	28 %
Asia Pacific	26,528	16 %	30,457	20 %	30,110	18 %
The Middle East	11,437	7 %	10,567	7 %	14,198	8 %
Africa	2,836	2 %	1,488	1 %	1,990	1 %
Total revenue	$168,816	100 %	$153,276	100 %	$168,246	100 %

16. Concentrations of credit risk

For the years ended December 31, 2017, 2016 and 2015, no customer accounted for 10% or more of revenue. For the year ended December 31, 2017, no customer accounted for 10% or more of accounts receivables, net and unbilled. The Company's cash and cash equivalents and short-term investments on deposit with any one party and at any point in time may exceed federally insured limits. To date, the Company has not incurred any losses in connection with short-term investments.

17. Related-party transactions

The Company currently has employment agreements with its executive officers. The employment agreements provide for twelve to eighteen months of salary upon termination without cause or, in some cases, for good reason and the vesting of certain stock options or other equity awards.

18. Employee retirement savings plan

The Company sponsors a 401(k) savings plan ("401(k) Plan"). The 401(k) Plan is available to substantially all United States employees and is designed to provide eligible employees with an opportunity to make regular contributions to a long-term investment and savings program. Historically, the Company's matching contribution is defined as 50% of the first 6% of employee contributions. The Company may also make discretionary contributions. Matching contributions by the Company in 2017, 2016 and 2015 totaled approximately $2.0 million, $1.9 million and $1.8 million, respectively.

19. Quarterly results (Unaudited)

The following table presents certain unaudited quarterly financial data for the years ended December 31, 2017 and 2016. This information has been prepared on the same basis as the accompanying Consolidated Financial Statements and all necessary adjustments have been included in the amounts below to state fairly the selected quarterly information when read in conjunction with the accompanying Consolidated Financial Statements and Notes thereto.

	Quarter Ended			
	December 31, 2017	September 30, 2017	June 30, 2017	March 31, 2017
Total revenue	$46,344	$ 41,937	$40,406	$40,129
Gross profit	$28,197	$ 24,213	$24,320	$23,520
Loss from operations	$(12,815)	$ (17,750)	$(16,710)	$(17,668)
Net loss attributable to PROS Holdings, Inc.	$(16,980)	$ (21,226)	$(19,513)	$(20,207)
Net loss attributable to common stockholders per share:				
Basic	$(0.53)	$ (0.67)	$(0.62)	$(0.65)
Diluted	$(0.53)	$ (0.67)	$(0.62)	$(0.65)

Explanation of Responses:

Table of Contents

	Quarter Ended December 31, 2016	September 30, 2016	June 30, 2016	March 31, 2016
Total revenue	$39,926	$38,384	$37,038	$37,928
Gross profit	$23,974	$22,742	$20,990	$22,217
Loss from operations	$(16,258)	$(13,116)	$(18,050)	$(17,974)
Net loss attributable to PROS Holdings, Inc.	$(18,513)	$(15,708)	$(20,527)	$(20,477)
Net loss attributable to common stockholders per share:				
Basic	$(0.61)	$(0.52)	$(0.68)	$(0.68)
Diluted	$(0.61)	$(0.52)	$(0.68)	$(0.68)

F-36

Table of Contents

Schedule II
Valuation and Qualifying Accounts

	Balance at beginning of period	Additions charged to costs and expenses	Deductions (1)	Other (2)	Balance at end of period
Allowance for doubtful accounts					
2017	$ 760	$ —	$ —	$—	$ 760
2016	$ 586	$ 887	$ (713)	$—	$ 760
2015	$ 868	$ 319	$ (601)	$—	$ 586
Valuation allowance					
2017	$ 69,049	$ 5,872	$ —	$(768)	$ 74,153
2016	$ 44,321	$ 26,634	$ —	$(1,906)	$ 69,049
2015	$ 24,027	$ 20,890	$ —	$(596)	$ 44,321

(1) Deductions column represents the reversal of additions previously charged to costs and expenses and uncollectible accounts written off, net of recoveries.
(2) Other column represents the cumulative translation adjustment impact on the valuation allowance.

Table of Contents

Item 16. Form 10-K summary

Registrants may voluntarily include a summary of information required by Form 10-K under this Item 16. The Registrant has elected not to include such summary information.

Signatures

Pursuant to the requirements of Section 13 or 15(d) of the Exchange Act, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on February 15, 2018.

PROS Holdings, Inc.

By: /s/ Andres Reiner
Andres Reiner
President and Chief Executive Officer

KNOW BY THESE PRESENT, that each person whose signature appears below constitutes and appoints each of Andres Reiner and Stefan Schulz, his attorney-in-fact, with the power of substitution, for him in any and all capacities, to sign any amendments to this report on Form 10-K and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission, hereby ratifying and confirming all that each of the attorney-in-fact, or his substitute or substitutes, may do or cause to be done by virtue hereof. Pursuant to the requirement of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Signatures	Title	Date
/s/ Andres Reiner Andres Reiner	President, Chief Executive Officer, and Director (Principal Executive Officer)	February 15, 2018
/s/ Stefan Schulz Stefan Schulz	Executive Vice President and Chief Financial Officer (Principal Accounting Officer)	February 15, 2018
/s/ William Russell William Russell	Chairman of the Board	February 15, 2018
/s/ Ellen Keszler Ellen Keszler	Director	February 15, 2018
/s/ Greg B. Petersen Greg B. Petersen	Director	February 15, 2018
/s/ Leslie J. Rechan Leslie J. Rechan	Director	February 15, 2018
/s/ Timothy V. Williams Timothy V. Williams	Director	February 15, 2018
/s/ Mariette M. Woestemeyer Mariette M. Woestemeyer	Director	February 15, 2018
/s/ Ronald F. Woestemeyer	Director	February 15, 2018

Ronald Woestemeyer

F-38

Table of Contents

Exhibit Index

Exhibit No.	Description	Provided Herewith	Incorporated by Reference Form	Filing Date
3.1	Amended and Restated Certificate of Incorporation.		S-1/A	6/15/2007
3.2	Amended and Restated Bylaws.		8-K	8/21/2013
4.1	Specimen certificate for shares of common stock.		S-1/A	6/11/2007
4.2	Indenture, dated December 10, 2014, between Registrant and Wilmington Trust, National Association, as trustee.		8-K	12/10/2014
4.3	Global Note, dated December 10, 2014, between Registrant and Wilmington Trust, National Association, as trustee.		8-K	12/10/2014
4.4	Indenture, dated June 21, 2017, between Registrant and Wilmington Trust, National Association, as trustee.		8-K	6/22/2017
10.1+	1999 Equity Incentive Plan, as amended to date, and form of stock option agreement.		S-1	4/4/2007
10.2+	2007 Equity Incentive Plan.		S-1/A	6/11/2007
10.3+	Form of Non-Qualified Stock Option Agreement under the 2007 Equity Incentive Plan.		10-K	2/22/2013
10.4+	Form of Stock Appreciation Rights Agreement under the 2007 Equity Incentive Plan.		10-K	2/22/2013
10.5+	Form of Restricted Stock Units Agreement under the 2007 Equity Incentive Plan.		10-K	2/22/2013
10.10+	Form of Market Stock Units Agreement under the 2007 Equity Incentive Plan.		10-Q	5/2/2013
10.11+	Form of Market Stock Units Agreement under the 2007 Equity Incentive Plan.		10-K	2/15/2017
10.12+	2017 Equity Incentive Plan.		10-Q	8/3/2017
10.13+	Form of Notice of Grant of Market Stock Units and Award Agreement under the 2017 Equity Incentive Plan.		10-Q	8/3/2017
10.14+	Form of Notice of Grant of Stock Option and Award Agreement under the 2017 Equity Incentive Plan.		10-Q	8/3/2017

10.15+	Form of Notice of Grant of Performance Restricted Stock Units and Award Agreement under the 2017 Equity Incentive Plan.	10-Q	8/3/2017
10.16+	Form of Notice of Grant of Restricted Stock Units and Award Agreement under the 2017 Equity Incentive Plan.	10-Q	8/3/2017
10.17+	Form of Notice of Grant of Stock Appreciation Rights and Award Agreement under the 2017 Equity Incentive Plan.	10-Q	8/3/2017
10.18+	Form of Non-Plan Market Stock Units Agreement.	S-8	2/24/2014
10.19+	Form of Non-Plan Restricted Stock Units Agreement.	S-8	2/24/2014
10.20+	Form of Non-Plan Restricted Stock Units Agreement (France).	S-8	2/24/2014
10.21+	Form of Non-Plan Restricted Stock Units Agreement (Performance France).	S-8	2/24/2014
10.22+	Form of Performance Restricted Stock Unit Agreement.	8-K	9/12/2016
10.23+	2013 Employee Stock Purchase Plan.	8-K	6/7/2013
10.24+	Stock Purchase and Stockholders Agreement, dated June 8, 1998, by and among Registrant (as successor in interest to PROS Strategic Solutions, Inc.) and certain stockholders.	S-1	4/4/2007
10.24.1+	Amendment to Stock Purchase and Stockholders Agreement, dated March 26, 2007, by and among Registrant and certain stockholders.	S-1	4/4/2007
10.25+	Registration Rights Agreement, dated June 8, 2007, by and among Registrant, Mariette M. Woestemeyer and Ronald F. Woestemeyer.	S-1/A	6/11/2007
10.26	Office Lease, dated January 31, 2001, by and between PROS, Inc. (as successor in interest to PROS Revenue Management L.P.) and Houston Community College System.	S-1	4/7/2007
10.26.1	First Amendment to Office Lease, dated March 31, 2006, by and between PROS, Inc. (as successor in interest to PROS Revenue Management L.P.) and Houston Community College System.	S-1	4/7/2007
10.26.2	Second Amendment to Office Lease, dated March 1, 2007, by and between PROS, Inc. (as successor in interest to PROS Revenue Management L.P.) and Houston Community College System.	10-K	2/22/2013
10.26.3	Third Amendment to Office Lease, dated July 29, 2011, by and between PROS, Inc. (as successor in interest to PROS Revenue Management L.P.) and Houston Community College System.	8-K	8/3/2011
10.26.4	Fourth Amendment to Office Lease, dated June 27, 2012, by and between PROS, Inc. (as successor in interest to PROS Revenue Management L.P.) and Houston Community College System.	10-K	2/22/2013

10.26.5	Fifth Amendment to Office Lease, dated June 9, 2016, by and between PROS, Inc., and Houston Community College System.	8-K	6/14/2016
10.27+	Amended and Restated Employment Agreement, dated May 2, 2013, by and between PROS, Inc., Registrant and Andres Reiner.	10-Q	5/2/2013
10.28+	Offer Letter, dated as of January 15, 2015, by and between PROS, Inc. and Stefan Schulz.	8-K	1/20/2015
10.29+	Employment Agreement, dated March 3, 2015, by and between PROS, Inc., Registrant, and Stefan B. Schulz.	8-K	3/5/2015
10.30+	Offer Letter by and between PROS, Inc. and Thomas Dziersk, dated as of October 6, 2017.	8-K	10/6/2017
10.31+	Employment Agreement by and between PROS, Inc., Registrant and Thomas Dziersk, dated as of October 9, 2017.	8-K	10/10/2017
10.32+	Form of Indemnity Agreement entered into among Registrant, its affiliates and its directors and officers.	8-K	8/21/2013
10.33+	Form of Indemnification Agreement to be entered into among Registrant, its affiliates and its directors and officers.	10-K	2/15/2017
10.34	Tender Offer Agreement, dated October 24, 2013, by and between Registrant and Cameleon Software.	8-K	10/24/2013
10.35	Agreement and Plan of Merger, dated December 16, 2013, by and among PROS, Inc., Pandora Merger Sub Corporation, SignalDemand, Inc. and Fortis Advisors LLC.	8-K	12/16/2013
10.36	Agreement and Plan of Merger, dated August 3, 2017, by and among Registrant, Wisdom U.S. Merger Sub Corporation, Vayant Travel Technologies, Inc. and NEVEQ Capital Partners, as agent for Target's securityholders thereunder.	8-K	8/3/2017
10.37	Credit Agreement, dated July 2, 2012, by and among PROS, Inc., Wells Fargo Bank, National Association, as administrative agent, and the Lenders party thereto.	8-K	7/9/2012
10.37.1	Third Amendment to Credit Agreement, dated December 3, 2014, by and among PROS, Inc., Wells Fargo Bank, National Association, as administrative agent, and the Lenders party thereto.	8-K	12/5/2014
10.37.2	Seventh Amendment to Credit Agreement, dated January 27, 2017, by and among PROS, Inc., Wells Fargo Bank, National Association, as administrative agent, and the Lenders party thereto.	8-K	2/2/2017
10.37.3	Ninth Amendment to Credit Agreement, dated June 15, 2017, by and between PROS, Inc., Wells Fargo Bank, National Association, as administrative agent, and the Lenders party thereto.	8-K	6/16/2017

10.38	Purchase Agreement, dated December 4, 2014 by and among Registrant, Goldman, Sachs & Co. and Deutsche Bank Securities Inc., as representatives of the several initial purchasers named therein.		8-K	12/10/2014
10.39	Base Bond Hedge Confirmation, dated December 4, 2014 by and between Registrant and Goldman, Sachs & Co.		8-K	12/10/2014
10.40	Base Bond Hedge Confirmation, dated December 4, 2014 by and between Registrant and Deutsche Bank AG, London Branch.		8-K	12/10/2014
10.41	Additional Bond Hedge Confirmation, dated December 5, 2014 by and between Registrant and Goldman, Sachs & Co.		8-K	12/10/2014
10.42	Additional Bond Hedge Confirmation, dated December 5, 2014 by and between Registrant and Deutsche Bank AG, London Branch.		8-K	12/10/2014
10.43	Base Warrant Confirmation, dated December 4, 2014 by and between Registrant and Goldman, Sachs & Co.		8-K	12/10/2014
10.44	Base Warrant Confirmation, dated December 4, 2014 by and between Registrant and Deutsche Bank AG, London Branch.		8-K	12/10/2014
10.45	Additional Warrant Confirmation, dated December 5, 2014 by and between Registrant and Goldman, Sachs & Co.		8-K	12/10/2014
10.46	Additional Warrant Confirmation, dated December 5, 2014 by and between Registrant and Deutsche Bank AG, London Branch.		8-K	12/10/2014
10.47	Form of Private Placement Purchase Agreement, dated June 15, 2017, between Registrant and each purchaser named therein.		8-K	6/21/2017
21.1	List of Subsidiaries.	X		
23.1	Consent of PricewaterhouseCoopers LLP.	X		
24.1*	Power of Attorney.	X		
31.1	Certification of Chief Executive Officer Pursuant to Exchange Act Rule 13a-14(a)/15d-14(a).	X		
31.2	Certification of Chief Financial Officer Pursuant to Exchange Act Rule 13a-14(a)/ 15d-14(a).	X		
32.1**	Certifications of Chief Executive Officer and Chief Financial Officer Pursuant to 18 U.S.C. Section 1350.	X		

Exhibit No.	Description
101.INS	XBRL Instance Document.

101.SCH	XBRL Taxonomy Extension Schema Document.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.

* Reference is made to page F-38 of this Annual Report on Form 10-K.

** This certification shall not be deemed "filed" for purposes of Section 18 of the Securities Act of 1934, or otherwise subject to the liability of that Section, nor shall it be deemed to be incorporated by reference into any filing under the Securities Act of 1933 or the Securities Exchange Act of 1934.

\+ Indicates a management contract or compensatory plan or arrangement.