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

FORM 10-Q

(Mark One)

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

FOR THE QUARTERLY PERIOD ENDED MARCH 31, 2019

OR

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

FOR THE TRANSITION PERIOD FROM___TO

Commission file number 000-24389

OneSpan Inc.
(Exact Name of Registrant as Specified in Its Charter)

DELAWARE **(State or Other Jurisdiction of Incorporation or Organization)**	**36-4169320** **(I.R.S. Employer Identification No.)**

121 West Wacker Drive, Suite 2050
Chicago, Illinois 60601
(Address of Principal Executive Offices)(Zip Code)

(312) 766-4001
(Registrant's telephone number, including area code)

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

Title of each class:	Trading Symbol	Name of each exchange on which registered:
Common Shares	OSPN	NASDAQ

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

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

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

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

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

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

There were 40,214,529 shares of Common Stock, $.001 par value per share, outstanding at April 30, 2019.

OneSpan Inc.
Form 10-Q
For the Quarter Ended March 31, 2019
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OneSpan Inc.
CONDENSED CONSOLIDATED BALANCE SHEETS
(in thousands)
(unaudited)

	March 31, 2019	December 31, 2018
ASSETS		
Current assets		
Cash and equivalents	$ 69,907	$ 76,708
Short term investments	25,363	22,789
Accounts receivable, net of allowances of $1,339 in 2019 and $1,152 in 2018	59,084	59,631
Inventories, net	15,241	14,428
Prepaid expenses	5,720	4,733
Contract assets	4,672	7,962
Other current assets	6,731	5,705
Total current assets	186,718	191,956
Property and equipment:		
Furniture and fixtures	7,688	7,613
Office equipment	11,077	11,059
Total Property and equipment:	18,765	18,672
Accumulated depreciation	(12,886)	(12,422)
Property and equipment, net	5,879	6,250
Operating lease right-of-use assets	8,768	—
Goodwill	92,730	91,841
Intangible assets, net of accumulated amortization	43,436	45,462
Deferred income taxes	5,581	5,601
Contract assets - non-current	4,027	3,316
Other assets	8,340	8,400
Total assets	$ 355,479	$ 352,826
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities		
Accounts payable	$ 14,957	$ 7,202
Deferred revenue	33,356	33,633
Accrued wages and payroll taxes	10,443	13,932
Short-term income taxes payable	3,429	6,905
Other accrued expenses	9,931	9,323
Deferred compensation	1,235	1,362
Total current liabilities	73,351	72,357
Long-term deferred revenue	10,428	10,672
Lease liability long term	7,852	—
Other long-term liabilities	5,605	7,075
Long-term income taxes payable	7,617	7,620
Deferred income taxes	2,668	2,661
Total liabilities	107,521	100,385
Stockholders' equity		
Preferred stock: 500 shares authorized, none issued and outstanding at December 31, 2019 and 2018	—	—
Common stock: $.001 par value per share, 75,000 shares authorized; 40,215 and 40,225 issued and outstanding at March 31, 2019 and December 31, 2018, respectively	40	40
Additional paid-in capital	93,644	93,310
Accumulated income	166,707	172,378
Accumulated other comprehensive loss	(12,433)	(13,287)
Total stockholders' equity	247,958	252,441
Total liabilities and stockholders' equity	$ 355,479	$ 352,826

See accompanying notes to unaudited condensed consolidated financial statements.

OneSpan Inc.
CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(in thousands, except per share data)
(unaudited)

	Three months ended March 31,			
	2019		2018	
Revenue				
Product and license	$	31,861	$	33,494
Services and other		15,747		11,938
Total revenue		47,608		45,432
Cost of goods sold				
Product and license		11,316		8,185
Services and other		4,723		2,550
Total cost of goods sold		16,039		10,735
Gross profit		31,569		34,697
Operating costs				
Sales and marketing		14,383		14,277
Research and development		10,495		5,797
General and administrative		9,870		10,774
Amortization of intangible assets		2,348		2,201
Total operating costs		37,096		33,049
Operating income (loss)		(5,527)		1,648
Interest income, net		135		393
Other income (expense), net		(551)		380
Income (loss) before income taxes		(5,943)		2,421
Provision (benefit) for income taxes		(272)		629
Net income (loss)	$	(5,671)	$	1,792
Net income (loss) per share				
Basic	$	(0.14)	$	0.04
Diluted	$	(0.14)	$	0.04
Weighted average common shares outstanding				
Basic		40,036		39,910
Diluted		40,036		40,059

See accompanying notes to unaudited condensed consolidated financial statements.

OneSpan Inc.
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)
(in thousands)
(unaudited)

	Three months ended March 31, 2019	Three months ended March 31, 2018
Net income (loss)	$ (5,671)	$ 1,792
Other comprehensive income (loss)		
Cumulative translation adjustment, net	870	1,318
Pension adjustment, net	(16)	12
Comprehensive income (loss)	$ (4,817)	$ 3,122

See accompanying notes to unaudited condensed consolidated financial statements.

OneSpan Inc.
CONDENSED CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
(in thousands)
(unaudited)

For the three months ended March 31, 2019:

Description	Common Stock Shares	Common Stock Amount	Additional Paid-In Capital	Accumulated Income	Accumulated Other Comprehensive Income (Loss)	Total Stockholders' Equity
Balance at December 31, 2018	40,225	40	93,310	172,378	(13,287)	252,441
Net income (loss)	—	—	—	(5,671)	—	(5,671)
Foreign currency translation adjustment, net	—	—	—	—	870	870
Restricted stock awards	(10)	—	552	—	—	552
Tax payments for stock issuances	—	—	(218)	—	—	(218)
Pension adjustment, net	—	—	—	—	(16)	(16)
Balance at March 31, 2019	40,215	$ 40	$ 93,644	$ 166,707	$ (12,433)	$ 247,958

For the three months ended March 31, 2018:

Description	Common Stock Shares	Common Stock Amount	Additional Paid-In Capital	Accumulated Income	Accumulated Other Comprehensive Income (Loss)	Total Stockholders' Equity
Balance at December 31, 2017	40,086	40	90,307	156,151	(8,568)	237,930
Cumulative impact of change in accounting principles, net of tax	—	—	—	12,376	—	12,376
Net income	—	—	—	1,792	—	1,792
Foreign currency translation adjustment, net	—	—	—	—	1,318	1,318
Restricted stock awards	226	—	799	—	—	799
Pension adjustment, net	—	—	—	—	12	12
Balance at March 31, 2018	40,312	$ 40	$ 91,106	$ 170,319	$ (7,239)	$ 254,226

OneSpan Inc.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(in thousands)
(unaudited)

	Three months ended March 31, 2019	Three months ended March 31, 2018
Cash flows from operating activities:		
Net income (loss)	$ (5,671)	$ 1,792
Adjustments to reconcile net income (loss) from operations to net cash provided by (used in) operations:		
Depreciation and amortization	2,862	2,747
Deferred tax expense (benefit)	(4)	(9)
Stock-based compensation	552	800
Accounts receivable, net	79	14,185
Inventories, net	(813)	535
Contract assets	2,578	(4,195)
Accounts payable	7,797	(3,360)
Income taxes payable	(3,491)	(3,012)
Accrued expenses	(5,560)	(821)
Deferred compensation	(126)	(1,258)
Deferred revenue	(455)	3,424
Other assets and liabilities	(1,485)	(1,102)
Net cash provided by (used in) operating activities	(3,737)	9,726
Cash flows from investing activities:		
Purchase of short term investments	(4,475)	—
Maturities of short term investments	2,000	40,000
Additions to property and equipment	(176)	(2,296)
Net cash provided by (used in) investing activities	(2,651)	37,704
Cash flows from financing activities:		
Tax payments for restricted stock issuances	(218)	(179)
Net cash used in financing activities	(218)	(179)
Effect of exchange rate changes on cash	(195)	572
Net increase (decrease) in cash	(6,801)	47,823
Cash, cash equivalents, and restricted cash, beginning of period	77,555	78,661
Cash, cash equivalents, and restricted cash, end of period	$ 70,754	$ 126,484

See accompanying notes to unaudited condensed consolidated financial statements.

OneSpan Inc.
Notes to Condensed Consolidated Financial Statements
(unaudited)

Unless otherwise noted, references in this Quarterly Report on Form 10-Q to "OneSpan," "Company," "we," "our," and "us," refer to OneSpan Inc. and its subsidiaries.

Note 1 – Description of the Company and Basis of Presentation

Description of the Company

OneSpan Inc. and its wholly owned subsidiaries design, develop and market digital solutions for identity, security, and business productivity that protect and facilitate electronic transactions via mobile and connected devices. OneSpan has operations in Austria, Australia, Belgium, Brazil, Canada, China, France, Japan, The Netherlands, Singapore, Switzerland, the United Arab Emirates, the United Kingdom (U.K.), and the United States (U.S.).

Our operations are reported as a single operating segment.

Basis of Presentation

The accompanying unaudited condensed consolidated financial statements include the accounts of OneSpan and its subsidiaries and have been prepared pursuant to the rules and regulations of the Securities and Exchange Commission ("SEC") regarding interim financial reporting. Accordingly, they do not include all of the information and notes required by generally accepted accounting principles in the United States ("U.S. GAAP") for complete financial statements and should be read in conjunction with the audited consolidated financial statements included in the Company's Annual Report on Form 10-K for the year ended December 31, 2018.

In the opinion of management, the accompanying unaudited condensed consolidated financial statements have been prepared on the same basis as the audited consolidated financial statements, and include all adjustments, consisting only of normal recurring adjustments, necessary for the fair presentation of the results of the interim periods presented. All significant intercompany accounts and transactions have been eliminated. The operating results for the interim periods presented are not necessarily indicative of the results expected for a full year.

Principles of Consolidation

The consolidated financial statements include the accounts of OneSpan Inc. and its wholly owned subsidiaries. Intercompany accounts and transactions have been eliminated in consolidation.

Estimates and Assumptions

The preparation of financial statements in conformity with accounting principles generally accepted in the U.S. requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

Foreign Currency Translation and Transactions

The financial position and results of the operations of the majority of the Company's foreign subsidiaries are measured using the local currency as the functional currency. Accordingly, assets and liabilities are translated into U.S. Dollars using current exchange rates as of the balance sheet date. Revenue and expenses are translated at average exchange rates prevailing during the year. Translation adjustments arising from differences in exchange rates are charged or credited to other comprehensive income (loss). Gains and losses resulting from foreign currency transactions are included in the consolidated statements of operations in other income (expense), net. For the three months ended

March 31, 2019, foreign currency transactions resulted in a net loss of $0.9 million, compared to a net gain of $0.2 million for the same period in 2018.

The financial position and results of our operations in Singapore, Switzerland, and Canada are measured in U.S. Dollars. For these subsidiaries, gains and losses that result from foreign currency transactions are included in the consolidated statements of operations in other income (expense), net.

Note 2 – Summary of Significant Accounting Policies

Revenue Recognition

We recognize revenue in accordance with ASC 606 *"Revenue from Contracts with Customers"* ("Topic 606"). See Note 4 - Revenue for further details.

We determine revenue recognition through the following steps:

- Identification of the contract, or contracts, with a customer;

- Identification of the performance obligations in the contract;

- Determination of the transaction price;

- Allocation of the transaction price to the performance obligations in the contract; and

- Recognition of revenue when, or as, we satisfy a performance obligation.

Revenues are recognized when control of the promised goods or services is transferred to our customers, in an amount that reflects the consideration we expect to be entitled to in exchange for those products or services, which excludes any sales incentives and amounts collected on behalf of third parties. Taxes assessed by a governmental authority that are both imposed on and concurrent with a specific revenue-producing transaction, that are collected by the Company from a customer, are excluded from revenue. Shipping and handling costs associated with outbound freight after control over a product has transferred to a customer are accounted for as a fulfillment cost and are included in cost of goods sold.

Nature of Goods and Services

We derive our revenues primarily from Product and License Revenue, which includes hardware products and software licenses, and Services and Other, which is inclusive of software-as-a-service (which we refer to as "subscription"), maintenance and support, and professional services.

Product Revenue: Revenue from the sale of security hardware is recorded upon shipment, which is the point at which control of the goods are transferred and the completion of the performance obligations, unless there are specific terms that would suggest control is transferred at a later date (e.g. delivery). No significant obligations or contingencies typically exist with regard to delivery, customer acceptance or rights of return at the time revenue is recognized. Customer payments normally correspond with delivery.

License Revenue: Revenue from the sale of software licensing is recorded upon the latter of when the customer receives the ability to access the software or when they are legally allowed to use the software. No significant obligations or contingencies exist with regard to delivery, customer acceptance or rights of return at the time revenue is recognized. Contracts with customers for distinct licenses of intellectual property include perpetual licenses, which grant the customer unlimited access to the software, and term licenses which limit the customer's access to the software to a specific time period. The typical term license length is three years. Customer payments normally correspond with delivery for perpetual licenses. For term licenses, payments are made either on installment or upon initial delivery. In limited circumstances, we integrate third party software solutions into our software products. We have determined that, generally we act as the principal with respect to the satisfaction of the related performance obligation and record the corresponding revenue on a gross basis from these transactions. For transactions in which we do not act as the principal, we would recognize revenue on a net basis. The fees paid to the third parties are recognized as a component of cost of goods sold when the revenue is recognized.

Subscription Revenue: We generate subscription revenues from our cloud services offerings. Subscription revenues mostly include fees from customers for access to the OneSpan Sign and Dealflo solutions. Our standard customer arrangements do not provide the customer with the right to take possession of the software supporting the cloud-based application service at any time. As such, these arrangements are considered service contracts and revenue is recognized ratably over the service period of the contract or based on customer usage. Customer payments are normally in advance for an annual subscription period.

Maintenance, Support and Other: Maintenance and support agreements generally call for us to provide software updates and technical support, respectively, to customers. The annual fee for maintenance and technical support is recognized ratably over the term of the maintenance and support agreement. Customer payments are normally in advance for annual service.

Professional Services: Professional services revenues are primarily comprised of implementing, automating and extending business processes, technology infrastructure, and software applications. Professional services revenues are recognized over time as services are rendered. Most projects are performed on a time and materials basis, while a portion of revenues is derived from projects performed on a fixed fee basis. For time and material contracts, revenues are generally recognized and invoiced by multiplying the number of hours expended in the performance of the contract by the hourly rates. For fixed fee contracts, revenues are generally recognized using an input method based on the ratio of hours expended to total estimated hours.

Significant Judgments

We enter into contracts to deliver a combination of hardware devices, software licenses, subscriptions, maintenance and support and, in some situations, professional services. The Company evaluates the nature of the goods or services promised in these arrangements to identify the distinct performance obligations. Determining whether products and services are considered distinct performance obligations that should be accounted for separately versus together may require significant judgment. When a hardware client device and licenses to host software are sold in a contract, they are treated as a single performance obligation because the software license is deemed to be a component of the hardware that is integral to the functionality of the hardware that is used by our customers for identity authentication. When a software client device is sold in a contract with host software, the licenses are considered a single performance obligation to deliver the authentication solution to the customer. In either of these types of arrangements, maintenance and support and professional services are typically distinct separate performance obligations from the hardware or software solutions. Our contracts to deliver subscription services typically do not include multiple performance obligations; however, in certain limited cases, customers may purchase professional services that are distinct performance obligations.

For contracts that contain multiple performance obligations, the transaction price is allocated to the separate performance obligations based on their estimated relative stand-alone selling price (“SSP”). Judgment is required to determine the stand-alone selling price of each distinct performance obligation. We determine SSP for maintenance and support and professional services based on observable inputs; specifically, the range of prices charged to customers to renew annual maintenance and support contracts and the range of hourly rates we charge our customers in standalone professional services contracts. In instances where SSP is not directly observable, and when we sell at a highly variable price range, such as for transactions involving software licenses or subscriptions, we determine the SSP for those performance obligations using the residual method.

Cash and Cash Equivalents

Cash and cash equivalents are stated at cost plus accrued interest, which approximates fair value. Cash equivalents are high-quality short term money market instruments and commercial paper with maturities at acquisition of three months or less. Cash and cash equivalents are held by a number of U.S. and non-U.S. commercial banks and money market investment funds. During the year ended December 31, 2018, we entered into a new lease agreement that required a letter of credit in the amount of $0.8 million to secure the obligation. The restricted cash related to this letter of credit is recorded in other non-current assets on the Consolidated Balance Sheets at March 31, 2019 and December 31, 2018.

Short Term Investments

Short term investments consist of U.S. treasury bills and notes, U.S. government agency notes, corporate notes, and high quality commercial paper with maturities at acquisition of more than three months and less than twelve months. Fair value is determined using Level 2 inputs as defined by ASC 820, *Fair Value Measurements*.

The hierarchy requires entities to maximize the use of observable inputs and minimize the use of unobservable inputs. The three levels of inputs used to measure fair value are as follows:

- Level 1 – Quoted prices in active markets for identical assets and liabilities.
- Level 2 – Quoted prices in active markets for similar assets and liabilities, or other inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the financial investment.
- Level 3 – Unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets and liabilities. This includes certain pricing models, discounted cash flow methodologies and similar techniques that use significant unobservable inputs.

Accounts Receivable and Allowance for Doubtful Accounts

The creditworthiness of customers (including distributors and resellers) is reviewed prior to shipment. A reasonable assurance of collection is a requirement for revenue recognition. Verification of credit and/or the establishment of credit limits are part of the customer contract administration process. Credit limit adjustments for existing customers may result from the periodic review of outstanding accounts receivable. The Company records trade accounts receivable at invoice values, which are generally equal to fair value.

We maintain allowances for doubtful accounts for estimated losses resulting from the inability of our customers to make payments for goods and services. We analyze accounts receivable balances, customer credit-worthiness, current economic trends and changes in our customer payment timing when evaluating the adequacy of the allowance for doubtful accounts. The allowance is based on a specific review of all significant past-due accounts. If the financial condition of our customers deteriorate, resulting in an impairment of their ability to make payments, additional allowances may be required.

Inventories

Inventories, consisting principally of hardware and component parts, are stated at the lower of cost or net realizable value. Cost is determined using the first-in-first-out (FIFO) method. We write down inventory when it appears that the carrying cost of the inventory may not be recovered through subsequent sale of the inventory. We analyze the quantity of inventory on hand, the quantity sold in the past year, the anticipated sales volume in the form of sales to new customers as well as sales to previous customers, the expected sales price and the cost of making the sale when evaluating the valuation of our inventory. If the sales volume or sales price of a specific model declines significantly, additional write downs may be required.

Property and Equipment

Property and equipment is stated at cost. Depreciation is computed using the straight-line method over the estimated useful lives of the related assets ranging from three to ten years. Leasehold improvements are depreciated over the lesser of the remaining lease term or 10 years. Additions and improvements are capitalized, while expenditures for maintenance and repairs are charged to operations as incurred. Gains or losses resulting from sales or retirements are recorded as incurred, at which time related costs and accumulated depreciation are removed from the accounts. Depreciation expense for the three months ended March 31, 2019 and 2018 of $0.5 million and $0.5 million, respectively, is included in operating expenses.

Leases

The Company adopted ASU 2016-02 as of January 1, 2019, using the modified retrospective approach. Prior period amounts have not been adjusted. In addition, the Company elected the following practical expedients:

- The package of practical expedients permitted under the transition guidance within the new standard. The practical expedient package applies to leases commenced prior to adoption of the new standard and permits companies not to reassess whether existing or expired contracts contain a lease, the lease classification, and any initial direct costs for existing leases.
- The short-term lease practical expedient, which allowed the Company to exclude short-term leases from recognition in the unaudited consolidated balance sheets;
- We have lease agreements that contain lease and non-lease components. For automobile leases, we account for lease and non-lease components together. For office leases, we account for these components separately using a relative standalone selling price basis; and
- We apply the portfolio approach to automobile leases with similar characteristics that commence in the same period.

The adoption of this accounting standard resulted in the recording of Operating lease right-of-use (“ROU”) assets and Operating lease liabilities of $9.2 million and $11.0 million, respectively, as of January 1, 2019. The difference between the asset and liability is a result of lease incentives, such as tenant improvement allowances, and deferred rent on the balance sheet at transition. The adoption of ASU 2016-02 had no impact on Retained earnings. See Note 8 - Leases for additional information.

Long Term Investments

Included in Other Assets is a minority equity investment in a company we believe may be beneficial in executing our strategy. At March 31, 2019 and December 31, 2018, investments were $4.1 million and $4.1 million, respectively. In accordance with ASC 325, *Investments – Other* , the investments are recorded at fair value using the alternative measurement method allowed for in ASU No. 2016-01, *Recognition and Measurement of Financial Assets and Financial Liabilities* (ASU 2016-01), and are evaluated for impairment annually, or whenever events or changes in circumstances indicate that the carrying value may not be recoverable.

Cost of Goods Sold

Included in product and license cost of goods sold are direct product costs. Cost of goods sold related to service revenues are primarily costs related to subscription solutions, including personnel and equipment costs, and personnel costs of employees providing professional services and maintenance support.

Research and Development Costs

Costs for research and development, principally the design and development of hardware, and the design and development of software prior to the determination of technological feasibility, are expensed as incurred on a project-by-project basis.

Software Development Costs

Software development costs are accounted for in accordance with ASC 985-20, *Costs of Software to be Sold, Leased, or Marketed*. Research costs and software development costs, prior to the establishment of technological feasibility, determined based upon the creation of a working model, are expensed as incurred. Our software capitalization policy defines technological feasibility as a functioning beta test prototype with confirmed manufacturability (a working model), within a reasonably predictable range of costs. Additional criteria include receptive customers, or potential customers, as evidenced by interest expressed in a beta test prototype, at some suggested selling price. Our policy is to amortize capitalized costs by the greater of (a) the ratio that current gross revenue for a product bears to the total of current and anticipated future gross revenue for that product or (b) the straight-line method over the remaining estimated economic life of the product, generally two to five years, including the period being reported on. No material software development costs were capitalized during the three months ended March 31, 2019 and 2018.

Other Income (Expense), Net

Other income (expense), net primarily includes exchange gains (losses) on transactions that are denominated in currencies other than our subsidiaries' functional currencies, subsidies received from foreign governments in support of our research and development in those countries and other miscellaneous non-operational expenses.

Income Taxes

Our provision for income taxes includes amounts payable or refundable for the current year, the effects of deferred taxes and impacts from uncertain tax positions. We recognize deferred tax assets and liabilities for the expected future tax consequences of temporary differences between the financial statement and tax basis of our assets and liabilities, operating loss carryforwards and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply in the years in which those differences are expected to reverse.

The realization of certain deferred tax assets is dependent on generating sufficient taxable income in the appropriate jurisdiction prior to the expiration of the carryforward periods. Deferred tax assets are reduced by a valuation allowance if it is more likely than not that some portion, or all, of the deferred tax assets will not be realized. When assessing the need for a valuation allowance, we consider any carryback potential, future reversals of existing taxable temporary differences (including liabilities for unrecognized tax benefits), future taxable income and tax planning strategies.

We have significant net operating loss and other deductible carryforwards in certain jurisdictions available to reduce the liability on future taxable income. A valuation allowance has been provided to offset some of these future benefits because we have not determined that their realization is more likely than not.

We recognize tax benefits in our financial statements from uncertain tax positions only if it is more likely than not that the tax position will be sustained based on the technical merits of the position. The amount we recognize is measured as the largest amount of benefit that is greater than 50 percent likely of being realized upon resolution. Future changes related to the expected resolution of uncertain tax positions could affect tax expense in the period when the change occurs.

We monitor for changes in tax laws and reflect the impacts of tax law changes in the period of enactment.

Fair Value of Financial Instruments

At March 31, 2019 and December 31, 2018, our financial instruments were cash and equivalents, short term investments, accounts receivable, accounts payable and accrued liabilities. The estimated fair value of our financial instruments has been determined by using available market information and appropriate valuation methodologies, as defined in ASC 820, *Fair Value Measurements*. The fair values of the financial instruments were not materially different from their carrying amounts at March 31, 2019 and December 31, 2018.

Impairment of Long-Lived and Intangible Assets

Definite-lived intangible assets include proprietary technology, customer relationships, and other intangible assets. Intangible assets other than patents with definite lives are amortized over the useful life, generally three to seven years for proprietary technology and five to twelve years for customer relationships. Patents are amortized over the life of the patent, generally 20 years in the U.S. Intangible assets arising from business combinations, such as acquired technology, customer relationships, and other intangible assets, are originally recorded at fair value.

Long-lived assets, including property, plant and equipment, definite-lived intangible assets being amortized and capitalized software costs, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of the long-lived asset group may not be recoverable. An impairment loss shall be recognized if the carrying amount of a long-lived asset group exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset. If it is determined that an impairment loss has occurred, the loss is measured as the amount by which the carrying amount of the long-lived asset group exceeds its fair value. Long-lived assets held for sale are reported at the lower of carrying value or fair value less cost to sell.

Goodwill

Goodwill represents the excess of purchase price over the fair value of net identifiable assets acquired in a business combination. We assess the impairment of goodwill and intangible assets with indefinite lives each November 30 or whenever events or changes in circumstances indicate that the carrying value may not be recoverable. The Company's impairment assessment begins with a qualitative assessment to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying value. The qualitative assessment includes comparing the overall financial performance of the reporting unit against the planned results used in the last quantitative goodwill impairment test. Additionally, the reporting unit's fair value is assessed in light of certain events and circumstances, including macroeconomic conditions, industry and market considerations, cost factors, and other relevant entity- and reporting unit specific events. The selection and assessment of qualitative factors used to determine whether it is more likely than not that the fair value of the reporting unit exceeds the carrying value involves significant judgments and estimates. If it is determined under the qualitative assessment that it is more likely than not that the fair value of the reporting unit is less than its carrying value, then a two-step quantitative impairment test is performed. Under the first step, the estimated fair value of the reporting unit is compared with its carrying value (including goodwill). If the fair value of the reporting unit exceeds its carrying value, step two does not need to be performed. If the estimated fair value of the reporting unit is less than its carrying value, an indication of goodwill impairment exists for the reporting unit and the enterprise must perform step two of the impairment test (measurement). Under step two, an impairment loss is recognized for any excess of the carrying amount of the reporting unit's goodwill over the implied fair value of that goodwill. The implied fair value of goodwill is determined by allocating the fair value of the reporting unit in a manner similar to a purchase price allocation in acquisition accounting. The residual amount after this allocation is the implied fair value of the reporting unit goodwill. Fair value of the reporting unit under the two-step assessment is determined using a combination of both income and market-based variation approaches. The inputs and assumptions to valuation methods used to estimate the fair value of reporting units involves significant judgments.

We operate in one reporting unit and have had no goodwill impairment recorded for the three months ended March 31, 2019 and 2018.

Stock-Based Compensation

We have stock-based employee compensation plans, described in Note 10 – Long-Term Compensation Plan and Stock Based Compensation. ASC 718, *Stock Compensation* requires us to estimate the fair value of restricted stock granted to employees, directors and others and to record compensation expense equal to the estimated fair value. Compensation expense is recorded on a straight-line basis over the vesting period for time-based awards and on a graded basis for performance-based awards. Forfeitures are recorded as incurred.

Retirement Benefits

We record annual expenses relating to our defined benefit pension plans based on calculations which include various actuarial assumptions, including discount rates, assumed asset rates of return, compensation increases, and turnover rates. We review our actuarial assumptions on an annual basis and make modifications to the assumptions based on current rates and trends. The effects of gains, losses, and prior service costs and credits are amortized over the average service life. The funded status, or projected benefit obligation less plan assets, for each plan, is reflected in our consolidated balance sheets using a December 31 measurement date.

Recently Issued Accounting Pronouncements

In February 2016, the FASB issued ASU 2016-02, *Leases.* Since that date, the FASB has issued additional ASU's clarifying certain aspects of ASU 2016-02. The new guidance supersedes the lease guidance under FASB Accounting Standards Codification ("ASC") Topic 840, *Leases*, resulting in the creation of FASB ASC Topic 842, *Leases*. The guidance requires a lessee to recognize on the Balance Sheet a liability to make lease payments and a right-of-use asset representing its right to use the underlying asset for the lease term for both finance and operating leases. Subsequent guidance issued after February 2016 did not change the core principle of ASU 2016-02. The Company adopted the new guidance effective January 1, 2019, using the modified retrospective method, which did not require the Company to adjust comparative periods. See the *Adoption of ASU 2016-02* section in Note 2 – Summary of Significant Accounting Policies for additional information.

In January 2017, the FASB issued ASU 2017-04, *Intangibles-Goodwill and Other (Topic 350) – Simplifying the Test for Goodwill Impairment*. This standard eliminates the requirement to calculate the implied fair value of goodwill to measure a goodwill impairment charge (i.e. Step 2 of the current guidance), instead measuring the impairment charge as the excess of the reporting unit's carrying amount over its fair value (i.e. Step 1 of the current guidance). The guidance is effective for us beginning in the first quarter of 2020, and should be applied prospectively. Early adoption is permitted for impairment testing dates after January 1, 2017. We are currently evaluating the effect, if any, that the ASU will have on our consolidated financial statements and related disclosures.

In June 2018, the FASB issued ASU 2018-07, *Compensation – Stock Compensation (Topic 718): Improvements to Nonemployee share-based payment accounting,* which is intended to reduce the cost and complexity of accounting for, and improve financial reporting for share-based payments to nonemployees for goods and services. The ASU is effective for annual periods, including interim periods within those annual periods, beginning after December 15, 2018. The guidance should be applied prospectively and early adoption is permitted. We adopted this standard on January 1, 2019 on a prospective basis. The adoption of this standard did not have a material impact on our consolidated financial statements.

In August 2018, the FASB issued ASU No. 2018-13, *Disclosure Framework - Changes to the Disclosure Requirements for Fair Value Measurement* ("ASU 2018-13"), which amends ASC 820, *Fair Value Measurement*. ASU 2018-13 modifies the disclosure requirements for fair value measurements by removing, modifying, or adding certain disclosures. The ASU is effective for annual periods, including interim periods within those annual periods, beginning after December 15, 2019, with early adoption permitted for removed or modified disclosures, and delayed adoption of the additional disclosures until their effective date. We are currently evaluating the effect that the ASU will have on our consolidated financial statements and related disclosures.

In August 2018, the FASB issued ASU 2018-14, *Compensation—Retirement Benefits—Defined Benefit Plans—General (Topic 715-20): Disclosure Framework—Changes to the Disclosure Requirements for Defined Benefit Plans* (ASU 2018-14), which modifies the disclosure requirements for defined benefit pension plans and other postretirement plans. ASU 2018-14 is effective for fiscal years ending after December 15, 2020, and earlier adoption is permitted. We are currently evaluating the effect that the ASU will have on our consolidated financial statements and related disclosures.

In August 2018, the FASB issued ASU 2018-15, *Customer's Accounting for Fees Paid in a Cloud Computing Arrangement*, which helps entities evaluate the accounting for fees paid by a customer in a cloud computing arrangement (CCA) by providing guidance for determining when an arrangement includes a software license and when an arrangement is solely a hosted CCA service. Under ASU 2018-15, customers will apply the same criteria for capitalizing implementation costs as they would for an arrangement that has a software license. The new guidance also prescribes the balance sheet, income statement, and cash flow classification of the capitalized implementation costs and related amortization expense, and requires additional quantitative and qualitative disclosures. The new standard is effective for us on January 1, 2020. Early adoption is permitted, including adoption in any interim period for which financial statements have not been issued. Entities can choose to adopt the new guidance prospectively to eligible costs incurred on or after the date this guidance is first applied or retrospectively. We are currently evaluating the effect that the ASU will have on our consolidated financial statements and related disclosures.

From time to time, new accounting pronouncements are issued by the FASB or other standard setting bodies that are adopted by us as of the specified effective date. Unless otherwise discussed, our management believes that the issued standards that are not yet effective will not have a material impact on our consolidated financial statements upon adoption.

Note 3 – Business Acquisitions

On May 30, 2018, OneSpan acquired the remaining interest in Dealflo Limited and its subsidiaries (“Dealflo”), increasing our ownership percentage to 100% from 1%. Dealflo, formerly a privately-held company based in the United Kingdom, provides identity verification and end-to-end financial agreement solutions. Upon acquisition, Dealflo became a wholly-owned subsidiary of OneSpan.

Dealflo’s total purchase price consideration was $53.9 million, net of $5.7 million of cash acquired. The total purchase price consideration includes $53.1 million of cash paid to acquire the remaining 99% interest in Dealflo, as well as $0.8 million of fair value of our previous 1% ownership interest.

The acquisition is accounted for as a business combination using the acquisition method of accounting, which requires the net assets acquired and liabilities assumed to be recognized at their fair values on the acquisition date. The values assigned to the assets acquired and liabilities assumed are based on preliminary estimates of fair value available as of the date of this Quarterly Report on Form 10-Q, and may be adjusted during the measurement period of up to twelve months from the date of acquisition. Any changes in the estimated fair values of the assets acquired and liabilities assumed during the measurement period may result in adjustments to goodwill.

As of March 31, 2019, the primary areas that are not yet finalized are the estimations of deferred tax assets and liabilities and income taxes payable as of the acquisition date. We are still in the process of seeking and evaluating information used in the estimation of these fair value estimates as of the acquisition date.

The following table summarizes our preliminary allocation of the purchase price consideration based on the estimated fair values of the assets acquired and liabilities assumed at the date of acquisition (net of cash acquired):

		Total (in thousands)
Acquired tangible assets	$	2,037
Acquired intangible assets		17,900
Liabilities assumed		(4,250)
Goodwill		38,167
Total purchase price consideration	$	53,854

The excess of purchase consideration over net assets assumed was recorded as goodwill, which represents the strategic value assigned to Dealflo, including expected benefits from synergies resulting from the acquisition, as well as the knowledge and experience of the workforce in place. In accordance with applicable accounting standards, goodwill is not amortized and will be tested for impairment at least annually, or more frequently, if certain indicators are present. Goodwill and intangible assets related to this acquisition are not deductible for foreign tax purposes.

Based on the final results of the acquisition valuation, $17.9 million of the purchase price consideration has been allocated to identifiable intangible assets. The following table summarizes the major classes of intangible assets, as well as the estimated weighted-average amortization periods:

Identifiable Intangible Assets		Estimated Fair Value (in thousands)	Weighted Average Amortization Period (Years)
Customer relationships	$	11,800	7
Technology		5,900	4
Trademarks		200	3
	$	17,900	

The results of operations of Dealflo subsequent to the acquisition date have been included in the consolidated statement of operations for the three months ended March 31, 2019. Revenue generated by Dealflo for the three months ended March 31, 2019 was $1.9 million. Dealflo net losses included in the results of operations for the three months ended March 31, 2019 was $1.4 million.

Unaudited Pro Forma Financial Information

The following presents the unaudited pro forma combined results of operations of the Company with Dealflo for the three months ended March 31, 2018, assuming Dealflo was acquired at the beginning of 2017, and after giving effect to certain pro forma adjustments. Pro forma adjustments for the three months ended March 31, 2018 reflect estimated amortization expense for intangible assets purchased of $0.8 million, and the elimination of $0.1 million of revenue related to intercompany transactions.

These unaudited pro forma results are not necessarily indicative of the actual consolidated results of operations had the acquisition actually occurred on January 1, 2017 or of the future results of operations of the consolidated entities (in thousands except per share data):

		Three months ended March 31, 2018
Revenue	$	47,493
Net loss		(698)
Basic net loss per share		(0.02)
Diluted net loss per share		(0.02)
Shares used in computing basic and diluted net loss per share		39,910

Note 4 – Revenue

We recognize revenue in accordance with ASC 606 *"Revenue from Contracts with Customers"* ("Topic 606"), as described below.

Term Licenses

The Company considers revenue from arrangements that include term licenses to our software to be functional intellectual property. This requires recognition at the point in time all of the revenue recognition criteria under Topic 606 are met, which for the Company is generally when the customer is provided access to the software and the license term has commenced.

Revenue from the license of software is recorded upon shipment or, if an acceptance period is allowed, at the latter of shipment or customer acceptance. No significant obligations or contingencies exist with regard to delivery, customer acceptance or rights of returns at the time revenue is recognized. We have established a stand-alone selling price (SSP) for all other performance obligations in the contract. Accordingly, the Company recognizes revenue from these licenses, based on the residual approach due to highly variable pricing, at the beginning of the license period and recognizes the transaction price allocated to the other performance obligations in the contract (typically maintenance and support) over the period in which those performance obligations are satisfied. This is consistent with the method of recognizing revenue for perpetual licenses of intellectual property. Fees paid to third party software providers in term license arrangements are recognized when the term license revenues are recognized.

For large-volume transactions, we may negotiate a specific price that is based on the number of users of the software license or quantities of hardware supplied. The per unit prices for large-volume transactions are generally lower than transactions for smaller quantities and the price differences are commonly referred to as volume-purchase discounts.

Disaggregation of Revenues

The following tables present our revenues disaggregated by major products and services, geographical region and timing of revenue recognition.

Revenue by major products (in thousands)

	Three Months Ended March 31,	
	2019	2018
Hardware products	$ 24,290	$ 17,491
Software licenses	7,571	16,003
Subscription	5,251	2,970
Professional services	809	964
Maintenance, support and other	9,686	8,004
Total Revenue	$ 47,608	$ 45,432

Revenue by location of customer for the three months ended March 31, 2019 and 2018 (in thousands)

	EMEA	Americas	APAC	Total
Total Revenue:				
2019	$ 25,599	$ 12,731	$ 9,278	$ 47,608
2018	$ 18,387	$ 15,921	$ 11,124	$ 45,432
Percent of Total:				
2019	54 %	27 %	19 %	100 %
2018	40 %	35 %	25 %	100 %

Timing of revenue recognition (in thousands)

	Three months ended	
	March 31, 2019	March 31, 2018
Products and Licenses transferred at a point in time	$ 31,861	$ 33,494
Services transferred over time	15,747	11,938
Total Revenue	$ 47,608	$ 45,432

Contract balances

The following table provides information about receivables, contract assets and contract liabilities from contracts with customers.

	March 31, 2019	December 31, 2018
Receivables, inclusive of trade and unbilled	$ 59,084	$ 59,631
Contract Assets (current and non-current)	$ 8,699	$ 11,278
Contract Liabilities (Deferred Revenue current and non-current)	$ 43,784	$ 44,305

Contract assets relate primarily to multi-year term license arrangements and the remaining contractual billings. These contract assets are transferred to receivables when the right to billing occurs, which is normally over 3-5 years. The contract liabilities primarily relate to the advance consideration received from customers for subscription and maintenance services. Revenue is recognized for these services over time.

As a practical expedient, we do not adjust the promised amount of consideration for the effects of a significant financing component when we expect, at contract inception, that the period between our transfer of a promised product or service to a customer and when the customer pays for that product or service will be one year or less. We do not typically include extended payment terms in our contracts with customers.

During the three months ended March 31, 2019, the Company's contract asset balances decreased approximately $2.6 million, primarily due to billings exceeding new term contracts during the period. Deferred revenue decreased in the same period due to timing of annual renewals.

Transaction price allocated to the remaining performance obligations

The following table includes estimated revenue expected to be recognized in the future related to performance obligations that are unsatisfied (or partially unsatisfied) at the end of the reporting period.

in thousands	2019	2020	2021	Beyond 2021	Total
Future revenue related to current unsatisfied performance obligations	$ 6,615	$ 6,226	$ 4,090	$ 10,251	$ 27,182

The Company applies practical expedients and does not disclose information about remaining performance obligations (a) that have original expected durations of one year or less, or (b) where revenue is recognized as invoiced.

Costs of obtaining a contract

The Company incurs incremental costs related to commissions, which can be directly tied to obtaining a contract. The Company capitalizes commissions associated with certain new contracts and amortizes the costs over a period of benefit based on the transfer of goods or services that we have determined to be up to seven years. The Amortization is reflected in Sales and Marketing in the Statements of Operations. We determined the period of benefit by taking into consideration our customer contracts, our technology and other factors, including customer attrition. Commissions are earned upon receipt of payment by the customer and requires the employee to be a current employee. For contracts with multiple year payment terms, as the commissions that are payable after year 1 are payable based on continued employment, they are expensed when incurred. Commissions and amortization expense are included in Sales and Marketing expenses on the consolidated statements of operations.

Applying the practical expedient, the Company recognizes the incremental costs of obtaining contracts as an expense when incurred if the amortization period for the assets that the Company otherwise would have recognized is one year or less. These costs are included in Sales and Marketing expense in the consolidated statements of operations.

The following tables provide information related to the capitalized costs and amortization recognized in the current and prior periods:

in thousands	March 31, 2019	December 31, 2018
Capitalized costs to obtain contracts, current	$ 459	$ 413
Capitalized costs to obtain contracts, non-current	$ 2,307	$ 2,150

in thousands	Three months ended March 31, 2019	Three months ended March 31, 2018
Amortization of capitalized costs to obtain contracts	$ 109	$ 65
Impairments of capitalized costs to obtain contracts	$ -	$ -

Note 5 – Inventories, net

Inventories, net, consisting principally of hardware and component parts, are stated at the lower of cost or net realizable value. Cost is determined using the FIFO method.

Inventories, net are comprised of the following:

	March 31, 2019	December 31, 2018
	(in thousands)	
Component parts	$ 8,371	$ 5,445
Work-in-process and finished goods	6,870	8,983
Total	$ 15,241	$ 14,428

Note 6 – Goodwill

Goodwill activity for the three months ended March 31, 2019 consisted of the following:

in thousands	
Net balance at December 31, 2018	$ 91,841
Net foreign currency translation	889
Net balance at March 31, 2019	$ 92,730

Certain portions of goodwill are denominated in local currencies and are subject to currency fluctuations. No impairment of goodwill was recorded during the three months ended March 31, 2019 or March 31, 2018.

Note 7 – Intangible Assets

Intangible asset activity for the three months ended March 31, 2019 is detailed in the following table.

in thousands	Acquired Technology	Customer Relationships	Other	Total Intangible Assets
Net balance at December 31, 2018	$ 8,795	$ 30,408	$ 6,259	$ 45,462
Net foreign currency translation	120	214	(12)	322
Amortization expense	(882)	(912)	(554)	(2,348)
Net balance at March 31, 2019	$ 8,033	$ 29,710	$ 5,693	$ 43,436
March 31, 2019 balance at cost	$ 42,612	$ 39,359	$ 13,705	$ 95,676
Accumulated amortization	(34,579)	(9,649)	(8,012)	(52,240)
Net balance at March 31, 2019	$ 8,033	$ 29,710	$ 5,693	$ 43,436

Certain intangible assets are denominated in local currencies and are subject to currency fluctuations.

Note 8 – Leases

As mentioned in Note 2 – Summary of Significant Accounting Policies, the Company adopted ASU 2016-02, *Leases* on January 1, 2019, using the modified retrospective approach. The adoption of this accounting standard resulted in the recording of operating lease right-of-use ("ROU") assets of $9.2 million in Operating lease right-of use assets, and operating lease liabilities of $2.5 million and $8.5 million in Other accrued expenses and Long-term lease liabilities, respectively, as of January 1, 2019, to capture the cumulative effect of the standard. The difference between the asset and liability is a result of lease incentives, such as tenant improvement allowances, and deferred rent on the balance sheet at transition.

The Company leases certain real estate and automobiles. Leases with an initial term of 12 months or less ("short-term leases") are not recorded on the unaudited consolidated balance sheet; the Company recognizes lease expense for these leases on a straight-line basis over the lease term. The Company determines if an arrangement is a lease at inception. All of our leases are operating leases.

Operating lease right-of-use ("ROU") assets and operating lease liabilities are recognized based on the present value of lease payments over the lease term at commencement date. Because most of the Company's leases do not provide an implicit rate of return, the Company uses its imputed collateralized rate based on the information available at the commencement date in determining the present value of lease payments. Operating lease ROU assets are comprised of the lease liability plus prepaid rents and are reduced by lease incentives or deferred rents. The Company has lease agreements with non-lease components which are not bifurcated.

Some of our leases include one or more options to renew, with renewal terms that can extend the lease from one to five years. The exercise of a lease renewal option typically occurs at the discretion of both parties. Certain leases also include options to purchase the leased property at fair value. For purposes of calculating operating lease liabilities, lease terms are deemed not to include options to extend the lease termination until it is reasonably certain that the Company will exercise that option. Certain of the Company's lease agreements include payments adjusted periodically for inflation based on the consumer price index. The Company's lease agreements do not contain any material residual value guarantees or material restrictive covenants. Operating lease costs for the three months ended March 31, 2019 included $0.9 million attributable to building rent, and $0.3 million attributable to automobile rentals. Operating lease costs for the three months ended March 31, 2018 included $0.8 million attributable to building rent, and $0.3 million attributable to automobile rentals.

Supplemental unaudited consolidated balance sheet information related to leases is as follows:

in thousands		March 31, 2019	Balance Sheet Classification
Leases			
Assets		8,768	Operating lease right-of-use assets
Operating lease assets	$	8,768	
Liabilities			
Current			
Operating lease liabilities	$	3,075	Other accrued expenses
Noncurrent			
Operating lease liabilities		7,852	Lease liability long term
Total lease liabilities	$	10,927	

The weighted average remaining lease term for our operating leases is 5.8 years. The weighted-average discount rate for our operating leases is 4.9%.

Supplemental unaudited interim consolidated cash flow information related to leases is as follows:

		Three Months Ended March 31, 2019 (in $ thousands)
Cash paid for amounts included in the measurement of lease liabilities		
Operating cash flows from operating leases	$	323
ROU assets obtained in exchange for new operating lease liabilities	$	387

Maturities of our operating leases are as follows:

		As of March 31, 2019 (in $ thousands)
2019	$	2,760
2020		2,450
2021		1,940
2022		1,526
2023		1,198
Later years		2,942
Less imputed interest		(1,889)
Total lease obligations	$	10,927

Disclosures related to periods prior to adoption of ASU 2016-02

Operating lease rent expense was $4.9 million for the year ended December 31, 2018. Future minimum lease payments under non-cancelable rental and lease agreements which had initial or remaining terms in excess of one year are as follows:

	As of December 31, 2018 (in $ thousands)
2019	$ 3,817
2020	3,081
2021	2,671
2022	2,244
2023	1,941
Later years	8,870
Minimum lease commitments	$ 22,624

During the year ended December 31, 2018, we entered into a new lease agreement which will commence during the three months ended September 30, 2019. We estimate that the undiscounted future minimum obligations related to this lease will be approximately $7.4 million. This obligation is disclosed as part of our future minimum lease obligations table above.

Note 9 – Income Taxes

Our estimated annual tax rate for 2019 before discrete items is expected to be approximately 59%. Our global effective tax rate is higher than the U.S. statutory tax rate of 21% primarily due to forecasted losses in jurisdictions for which a valuation allowance will be required. Our ultimate tax expense will depend on the mix of earnings in various jurisdictions. Income taxes paid during the three months ended March 31, 2019 was $4.0 million.

At December 31, 2018, we had deferred tax assets of $24.6 million resulting from foreign and state NOL carryforwards of $132.2 million and other foreign deductible carryforwards of $37.0 million. At December 31, 2018, we had a valuation allowance of $15.2 million against deferred tax assets related to certain carryforwards.

Certain of our non-U.S. operations have incurred net operating losses (NOLs), which may become deductible to the extent these operations become profitable. For each of our operations, we evaluate whether it is more likely than not that the tax benefits related to NOLs will be realized. As part of this evaluation, we consider evidence such as tax planning strategies, historical operating results, forecasted taxable income, and recent financial performance. In the year that certain non-U.S. operations record a loss, we do not recognize a corresponding tax benefit, thus increasing our effective tax rate. Upon determining that it is more likely than not that the NOLs will be realized, we reduce the tax valuation allowances related to these NOLs, which results in a reduction to our income tax expense and our effective tax rate in the period.

Note 10 – Long-Term Compensation Plan and Stock Based Compensation (share counts in thousands)

In prior periods, the Company has awarded shares of time-based restricted stock and unissued shares subject to future performance criteria under the OneSpan Inc. 2009 Equity Incentive Plan.

The 2009 Equity Incentive Plan terminated on December 19, 2018, and no additional securities remained for issuance. The 2019 Omnibus Incentive Plan was adopted by the Board of Directors on February 1, 2019 and is being submitted to stockholders for approval at the annual shareholder meeting to be held in the second quarter of 2019.

The following table details long-term compensation plan and stock-based compensation expense for the three and months ended March 31, 2019 and 2018:

in thousands	Three months ended March 31, 2019	2018
	(in thousands)	
Restricted stock	$ 552	$ 800
Long-term compensation plan	503	552
Total compensation	$ 1,055	$ 1,352

Note 11 – Earnings per Share (share counts in thousands)

Basic earnings per share is based on the weighted average number of shares outstanding and excludes the dilutive effect of common stock equivalents. Diluted earnings per share is based on the weighted average number of shares outstanding and includes the dilutive effect of common stock equivalents to the extent they are not anti-dilutive. Because the Company is in a net loss position for the three months ended March 31, 2019, diluted net loss per share for this period excludes the effects of common stock equivalents, which are anti-dilutive.

The details of the earnings per share calculations for the three months ended March 31, 2019 and 2018 are as follows:

in thousands, except per share data	Three months ended March 31, 2019	2018
Net income (loss)	$ (5,671)	$ 1,792
Weighted average common shares outstanding:		
Basic	40,036	39,910
Incremental shares with dilutive effect:		
Restricted stock awards	—	149
Diluted	40,036	40,059
Net income (loss) per share:		
Basic	$ (0.14)	$ 0.04
Diluted	$ (0.14)	$ 0.04

Note 12 – Legal Proceedings and Contingencies

We are a party to or have intellectual property subject to litigation and other proceedings that arise in the ordinary course of our business. These types of matters could result in fines, penalties, compensatory or treble damages or non-monetary sanctions or relief. We believe the probability is remote that the outcome of each of these matters, including the legal proceedings described below, will have a material adverse effect on the corporation as a whole, notwithstanding that the unfavorable resolution of any matter may have a material effect on our financial results in any particular interim reporting period. Among the factors that we consider in this assessment are the nature of existing legal proceedings and claims, the asserted or possible damages or loss contingency (if estimable), the progress of the case, existing law and precedent, the opinions or views of legal counsel and other advisers, our experience in similar cases and the experience of other companies, the facts available to us at the time of assessment and how we intend to respond to the proceeding or claim. Our assessment of these factors may change over time as individual proceedings or claims progress.

Although we cannot predict the outcome of legal or other proceedings with certainty, where there is at least a reasonable possibility that a loss may have been incurred, U.S. GAAP requires us to disclose an estimate of the reasonably possible loss or range of loss or make a statement that such an estimate cannot be made. We follow a process in which we seek to estimate the reasonably possible loss or range of loss, and only if we are unable to make such an estimate do we conclude and disclose that an estimate cannot be made. Accordingly, unless otherwise indicated below in our discussion of legal proceedings, a reasonably possible loss or range of loss associated with any individual legal proceeding cannot be estimated.

We include various types of indemnification clauses in our agreements. These indemnifications may include, but are not limited to, infringement claims related to our intellectual property, direct damages and consequential damages. The type and amount of such indemnifications vary substantially based on our assessment of risk and reward associated with each agreement. We believe the estimated fair value of these indemnification clauses is minimal, and we cannot determine the maximum amount of potential future payments, if any, related to such indemnification provisions. We have no liabilities recorded for these clauses as of March 31, 2019.

On March 14, 2017, a complaint was filed in the United States District Court for the District of Massachusetts, captioned StrikeForce Technologies, Inc. v. Vasco Data Security International, Inc., et al., claiming the Company infringed on certain patent rights of the plaintiff. On May 8, 2017, the Company answered the complaint denying the allegations of patent infringement. The parties then engaged in motion practice and discovery in the case. The plaintiff has also brought suit against various other companies in the cybersecurity industry. In one such suit in the federal district court for the Central District of California, on December 1, 2017, the court granted defendant's motion to dismiss, finding that the StrikeForce asserted claims are invalid. StrikeForce appealed such decision. In light of such ruling, on December 20, 2017, the court in the Company's case granted a stay of the proceedings pending the appeal in the related case. On April 16, 2019, the Court dismissed the claims of StrikeForce against us with prejudice. We consider this case to be closed.

From time to time, we have been involved in the litigation incidental to the conduct of our business. Excluding matters disclosed above, we are not a party to any lawsuit or proceeding that, in management's opinion, is likely to have a material adverse effect on its business, financial condition or results of operations.

Item 2 - Management's Discussion and Analysis of Financial Condition and Results of Operations (in thousands, except headcount, ratios, time periods and percentages)

Unless otherwise noted, references in this Quarterly Report on Form 10-Q to "OneSpan," "Company," "we," "our," and "us" refer to OneSpan Inc. and its subsidiaries.

Cautionary Note Regarding Forward-Looking Statements

This Quarterly Report on Form 10-Q, contains forward-looking statements within the meaning of applicable U.S. Securities laws, including statements regarding the potential benefits, performance, and functionality of our products and solutions, including future offerings; our expectations, beliefs, plans, operations and strategies relating to our business and the future of our business; our acquisitions to date and our strategy related to future acquisitions; and our expectations regarding our financial performance in the future. Forward-looking statements may be identified by words such as "seek", "believe", "plan", "estimate", "anticipate", expect", "intend", and statements that an event or result "may", "will", "should", "could", or "might" occur or be achieved and any other similar expressions. These forward-looking statements involve risks and uncertainties, as well as assumptions which, if they do not fully materialize or prove incorrect, could cause our results to differ materially from those expressed or implied by such forward-looking statements. Factors that could materially affect our business and financial results include, but are not limited to: market acceptance of our products and solutions and competitors' offerings; the potential effects of technological changes; our ability to effectively identify, purchase and integrate acquisitions; the execution of our transformative strategy on a global scale; the increasing frequency and sophistication of hacking attacks; claims that we have infringed the intellectual property rights of others; changes in customer requirements; price competitive bidding; changing laws, government regulations or policies; pressures on price levels; investments in new products or businesses that may not achieve expected returns; impairment of goodwill or amortizable intangible assets causing a significant charge to earnings; exposure to increased economic and operational uncertainties from operating a global business as well as those factors set forth in our Form 10-K (and other forms) filed with the Securities and Exchange Commission. In particular, we direct you to the risk factors contained under the captions "*Risk Factors*" and "*Management's Discussion and Analysis of Financial Condition and Results of Operations*" in our

Form 10-K. In addition, we direct you to our financial statements and the accompanying Notes to Financial Statements contained in this Report. Our SEC filings and other important information can be found on the Investor Relations section of our website at *ir.onespan.com*. We do not have any intent, and disclaim any obligation, to update the forward-looking information to reflect events that occur, circumstances that exist, or changes in our expectations after the date of this Report.

Overview

We design, develop and market digital solutions for identity, security, and business productivity that protect and facilitate electronic transactions via mobile and connected devices. We are a global leader in providing anti-fraud and digital transaction management solutions to financial institutions and other businesses. Our solutions secure access to online accounts, data, assets, and applications for global enterprises; provide tools for application developers to easily integrate security functions into their web-based and mobile applications; and facilitate end-to-end financial agreement automation including digital identity verification, customer due diligence, electronic signature, secure storage and document management. Our core technologies, multi-factor authentication, identity verification and transaction signing, strengthen the process of preventing hacking attacks against online and mobile transactions to allow companies to transact business safely with remote customers.

We offer cloud based and on premises solutions using both open standards and proprietary technologies. Some of our proprietary technologies are patented. Our products and services are used for authentication, fraud mitigation, e-signing transactions and documents, and identity management in Business-to-Business ("B2B"), Business-to-Employee ("B2E") and Business-to-Consumer ("B2C") environments. Our target market is business processes using electronic interface, particularly the Internet, where there is risk of unauthorized access. Our products can increase security associated with accessing business processes, reduce losses from unauthorized access and reduce the cost of the process by automating activities previously performed manually.

Our Business Model

We offer our products through a product sales and licensing model or through our services platform, which includes our cloud-based service offering.

Our solutions are sold worldwide through our direct sales force, as well as through distributors, resellers, systems integrators, and original equipment manufacturers. Our sales force is able to offer customers a choice of an on-site implementation using our traditional on-premises model or a cloud implementation for some solutions using our services platform.

Industry Growth

We believe there are no reliable measurements of the industry size or growth rates for the segments that we serve. However, we believe the market for authentication, anti-fraud, and electronic signature solutions will continue to grow driven by new government regulations, growing awareness of the impact of cyber-crime, and the growth in electronic commerce. The issues driving growth are global however, the rate of adoption in each country is a function of culture, competitive position, economic conditions, and use of technology.

Economic Conditions

Our revenue may vary significantly with changes in the economic conditions in the countries in which we currently sell products. With our current concentration of revenue in Europe and specifically in the banking and finance vertical market, significant changes in the economic outlook for the European banking market may have a significant effect on our revenue.

Cybersecurity Risks

Our use of technology is increasing and is critical in three primary areas of our business:

1. Software and information systems that we use to help us run our business more efficiently and cost effectively;
2. The products we have traditionally sold and continue to sell to our customers for integration into their software applications contain technology that incorporates the use of secret numbers and encryption technology; and
3. New products and services that we introduced to the market are focused on processing information through our servers or in the cloud.

We believe that the risks and consequences of potential incidents in each of the above areas are different.

In the case of the information systems we use to help us run our business, we believe that an incident could disrupt our ability to take orders or deliver product to our customers, but such a delay in these activities would not have a material impact on our overall results. To minimize this risk, we actively use various forms of security and monitor the use of our systems regularly to detect potential incidents as soon as possible.

In the case of products that we have traditionally sold, we believe that the risk of a potential cyber incident is minimal. We offer our customers the ability to either create the secret numbers themselves or have us create the numbers on their behalf. When asked to create the numbers, we do so in a secure environment with limited physical access and store the numbers on a system that is not connected to any other network, including other OneSpan networks, and similarly, is not connected to the Internet.

In the case of our cloud-based solutions, which involve the processing of customer information, we believe a cyber incident could have a material impact on our business. While our revenue from cloud-based solutions comprises a minority of our revenue today, we believe that these solutions will provide substantial future growth. A cyber incident involving these solutions in the future could substantially impair our ability to grow the business and we could suffer significant monetary and other losses and significant reputational harm.

To minimize the risk, we review our product security and procedures on a regular basis. Our reviews include the processes and software code we are currently using as well as the hosting platforms and procedures that we employ. We mitigate the risk of cyber incidents through a series of reviews, tests, tools and training. Certain insurance coverages may apply to certain cyber incidents. Overall, we expect the cost of securing our networks will increase in future periods, whether through increased staff, systems or insurance coverage.

While we did not experience any cyber incident in the first three months of 2019 that had a significant impact on our business, it is possible that we could experience an incident in 2019 or future years, which could result in unanticipated costs.

Currency Fluctuation

During the three months ended March 31, 2019, approximately 73% of our revenue was generated outside of the United States. While the majority of our revenues are generated outside of the United States, the majority of our revenue earned during the three months ended March 31, 2019 was denominated in U.S. Dollars. We estimate that approximately 65% of our revenue for the three months ended March 31, 2019 was denominated in U.S. Dollars.

In addition, during the three months ended March 31, 2019, approximately 70% of our operating expenses were incurred outside of the United States. As a result, changes in currency exchange rates, especially the Euro exchange rate and the Canadian Dollar exchange rate, can have a significant impact on revenue and expenses.

In general, to minimize the net impact of currency fluctuations on operating income, we attempt to denominate an amount of billings in a currency such that it would provide a hedge against the operating expenses incurred in that currency. We expect that changes in currency rates may also impact our future results if we are unable to match amounts of revenue with our operating expenses in the same currency. If the amount of our revenue in Europe denominated in Euros continues as it is now or declines, we may not be able to balance fully the exposures of currency exchange rates on revenue and operating expenses.

The financial position and the results of operations of our foreign subsidiaries, with the exception of our subsidiaries in Switzerland, Singapore and Canada, are measured using the local currency as the functional currency. Accordingly, assets and liabilities are translated into U.S. Dollars using current exchange rates as of the balance sheet date. Revenues and expenses are translated at average exchange rates prevailing during the period. Translation adjustments arising from differences in exchange rates generated other comprehensive income of $0.9 million and $1.3 million for the three months ended March 31, 2019 and March 31, 2018, respectively. These amounts are included as a separate component of stockholders' equity. The functional currency for our subsidiaries in Switzerland, Singapore and Canada is the U.S. Dollar.

Gains and losses resulting from foreign currency transactions are included in the consolidated statements of operations in other income (expense), net. Foreign exchange transaction losses aggregated $0.9 million for the three months ended March 31, 2019 compared to gains of $0.2 million for the three months ended March 31, 2018.

Components of Operating Results

Revenue

We generate revenue from the sale of our hardware products, software licenses, subscriptions, maintenance and support, and professional services. We believe comparison of revenues between periods is heavily influenced by the timing of orders and shipments reflecting the transactional nature of significant parts of our business.

- *Product* and *license revenue*. Product and license revenue includes hardware products and software licenses.
- *Service and other revenue*. Service and other revenue includes subscription solutions (which is our definition of software-as-a-service solutions), maintenance and support, and professional services.

Cost of Goods Sold

Our total cost of goods sold consists of cost of product and license revenue and cost of service and other revenue. We expect our cost of goods sold to increase in absolute dollars as our business grows, although it may fluctuate as a percentage of total revenue from period to period.

- *Cost of product and license revenue*. Cost of product and license revenue primarily consists of direct product and license costs.
- *Cost of service and other revenue*. Cost of service and other revenue primarily consists of costs related to subscription solutions, including personnel and equipment costs, and personnel costs of employees providing professional services and maintenance and support.

Gross Profit

Gross profit as a percentage of total revenue, or gross margin, has been and will continue to be affected by a variety of factors, including our average selling price, manufacturing costs, the mix of products sold, and the mix of revenue among products, subscriptions and services. We expect our gross margins to fluctuate over time depending on these factors.

Operating Expenses

Our operating expenses are generally based on anticipated revenue levels and fixed over short periods of time. As a result, small variations in revenue may cause significant variations in the period-to-period comparisons of operating income or operating income as a percentage of revenue.

Generally, the most significant factor driving our operating expenses is headcount. Direct compensation and benefit plan expenses generally represent between 55% and 60% of our operating expenses, respectively. In addition, a number of other expense categories are directly related to headcount. We attempt to manage our headcount within the context of the economic environments in which we operate and the investments we believe we need to make for our infrastructure to support future growth and for our products to remain competitive.

Historically, operating expenses have been impacted by changes in foreign exchange rates. We estimate the change in currency rates in the first three months of 2019 compared to the same period in 2018 resulted in a decrease in operating expenses of approximately $1.1 million.

The comparison of operating expenses can also be impacted significantly by costs related to our stock-based and long-term incentive plans. Operating expenses for the three months ended March 31, 2019 included $0.5 million of expenses related to long-term incentive plan costs compared to $0.6 million of long-term incentive plan costs for the three months ended March 31, 2018.

- *Sales and marketing*. Sales and marketing expenses consist primarily of personnel costs, commissions and bonuses, trade shows, marketing programs and other marketing activities, travel, outside consulting costs, and long-term incentive compensation. We expect sales and marketing expenses to increase in absolute dollars as we continue to invest in sales resources in key focus areas, although our sales and marketing expenses may fluctuate as a percentage of total revenue.
- *Research and development*. Research and development expenses consist primarily of personnel costs and long-term incentive compensation. We expect research and development expenses to increase in absolute dollars as we continue to invest in our future solutions, although our research and development expenses may fluctuate as a percentage of total revenue.
- *General and administrative*. General and administrative expenses consist primarily of personnel costs, legal and other professional fees, and long term incentive compensation. We expect general and administrative expenses to increase in absolute dollars although our general and administrative expenses may fluctuate as a percentage of total revenue.
- *Amortization and impairment of intangible assets*. Acquired intangible assets are amortized over their respective amortization periods, and are periodically evaluated for impairment.

Interest Income, Net

Interest income, net consists of income earned on our cash equivalents and short term investments. Our cash equivalents and short term investments are invested in short-term instruments at current market rates.

Other Income (Expense), Net

Other income (expense), net primarily includes exchange gains (losses) on transactions that are denominated in currencies other than our subsidiaries' functional currencies, subsidies received from foreign governments in support of our research and development in those countries and other miscellaneous non-operational expenses.

Income Taxes

Our effective tax rate reflects our global structure related to the ownership of our intellectual property ("IP"). All our IP in our traditional authentication business is owned by two subsidiaries, one in the U.S. and one in Switzerland.

These two subsidiaries have entered into agreements with most of the other OneSpan entities under which those other entities provide services to our U.S. and Swiss subsidiaries on either a percentage of revenue or on a cost plus basis or both. Under this structure, the earnings of our service provider subsidiaries are relatively constant. These service provider companies tend to be in jurisdictions with higher effective tax rates. Fluctuations in earnings tend to flow to the U.S. company and Swiss company. In 2019, earnings flowing to the U.S. company are expected to be taxed at a rate of 21% to 25%, while earnings flowing to the Swiss company are expected to be taxed at a rate ranging from 11% to 12%. A Canadian subsidiary currently sells and services global customers directly.

As the majority of our revenues are generated outside of the U.S., our consolidated effective tax rate is strongly influenced by the effective tax rate of our foreign operations. Changes in the effective rate related to foreign operations reflect changes in the geographic mix of earnings and the tax rates in each of the countries in which it is earned. The statutory tax rate for the primary foreign tax jurisdictions ranges from 11% to 35%.

The geographic mix of earnings of our foreign subsidiaries primarily depends on the level of pretax income of our service provider subsidiaries and the benefit realized in Switzerland through the sales of product. The level of pretax income in our service provider subsidiaries is expected to vary based on:

1. the staff, programs and services offered on a yearly basis by the various subsidiaries as determined by management, or

2. the changes in exchange rates related to the currencies in the service provider subsidiaries, or

3. the amount of revenues that the service provider subsidiaries generate.

For items 1 and 2 above, there is a direct impact in the opposite direction on earnings of the U.S. and Swiss entities. Any change from item 3 is generally expected to result in a larger change in income in the U.S. and Swiss entities in the direction of the change (increased revenues expected to result in increased margins/pretax profits and conversely decreased revenues expected to result in decreased margins/pretax profits).

In addition to the provision of services, the intercompany agreements transfer the majority of the business risk to our U.S. and Swiss subsidiaries. As a result, the contracting subsidiaries' pretax income is reasonably assured while the pretax income of the U.S. and Swiss subsidiaries varies directly with our overall success in the market.

In November 2015, we acquired OneSpan Canada Inc. (formerly eSignLive), a foreign company with substantial IP and net operating losses and other tax carryforwards. The tax benefit of the carryforwards has been fully reserved as realization has not been deemed more likely than not.

In May 2018, we acquired Dealflo Limited ("Dealflo"), a foreign company with substantial IP and net operating losses. The tax benefit of the loss carryforwards will be reserved to the extent they exceed the deferred tax liabilities recognized upon acquisition as realization has not been deemed more likely than not.

Results of Operations

Revenue

Revenue by Product: We generate revenue from the sale of our hardware products, software licenses, subscriptions, professional services, and maintenance and support. Product and license revenue includes hardware products and software licenses. Service and other revenue includes subscription solutions (which is our definition of software-as-a-service solutions), maintenance and support, and professional services.

	Three months ended March 31,		
	2019	2018	% Change
	(in thousands)		
Revenue			
Product and license	$ 31,861	$ 33,494	-5%
Services and other	15,747	11,938	32%
Total revenue	$ 47,608	$ 45,432	5%
% of Total Revenue			
Product and license	67%	74%	
Services and other	33%	26%	

Total revenue increased $2.2 million or 5%, during the three months ended March 31, 2019 compared to the three months ended March 31, 2018.

Product and license revenue decreased by $1.6 million or 5% during the three months ended March 31, 2019 compared to the three months ended March 31, 2018, which was driven by lower sales of software licenses, partially offset by higher hardware revenue.

Services and other revenue increased by $3.8 million, or 32% during the three months ended March 31, 2019 compared to the three months ended March 31, 2018. The increase was due to higher subscription and maintenance revenue.

We believe comparison of revenues between periods is heavily influenced by the timing of orders and shipments reflecting the transactional nature of significant parts of our business. As a result of the volatility in our business, we believe that the overall strength of our business is best evaluated over a longer term where the impact of transactions in any given period is not as significant as in a quarter-over-quarter comparison.

Revenue by Geographic Regions: We classify our sales by customer location in three geographic regions: 1) EMEA, which includes Europe, Middle East and Africa; 2) the Americas, which includes sales in North, Central, and South America; and 3) Asia Pacific (APAC), which also includes Australia, New Zealand, and India. The breakdown of revenue in each of our major geographic areas was as follows:

	Three months ended March 31, 2019	2018	% Change
	(in thousands)		
Revenue			
EMEA	$ 25,599	$ 18,387	39%
Americas	12,731	15,921	-20%
APAC	9,278	11,124	-17%
Total revenue	$ 47,608	$ 45,432	5%
% of Total Revenue			
EMEA	54%	40%	
Americas	27%	35%	
APAC	19%	24%	

Revenue generated in EMEA during the three months ended March 31, 2019 was $25.6 million, or 39% higher than the three months ended March 31, 2018. The increase in revenue is driven by higher hardware revenue.

Revenue generated in the Americas during the three months ended March 31, 2019 was $12.7 million, or 20% lower than the three months ended March 31, 2018, driven by a decrease in perpetual license software revenue.

Revenue generated in the Asia Pacific region during the three months ended March 31, 2019 was $9.3 million, or 17% lower than the three months ended March 31, 2018. The revenue decrease was driven by lower revenue from software licenses.

Cost of Goods Sold and Gross Margin

	Three months ended March 31,		Change	
	2019	2018	$	%
	(in thousands)			
Cost of goods sold				
Product and license	$ 11,316	$ 8,185	$ 3,131	38%
Services and other	4,723	2,550	2,173	85%
Total cost of goods sold	$ 16,039	$ 10,735	$ 5,304	49%
Gross profit	$ 31,569	$ 34,697	(3,128)	-9%
Gross margin				
Product and license	64%	76%		
Services and other	70%	79%		
Total gross margin	66%	76%		

The cost of product and license revenue increased $3.1 million, or 38% during the three months ended March 31, 2019 compared to the three months ended March 31, 2018, due to a product mix of higher hardware revenue as a percentage of total revenue.

The cost of services and other revenue increased by $2.2 million, or 85% during the three months ended March 31, 2019 compared to the three months ended March 31, 2018, driven primarily by higher cloud service costs. Increased software costs from Dealflo contributed to $0.4 million of the increase.

Gross profit decreased $3.1 million, or 9% during the three months ended March 31, 2019 compared to the three months ended March 31, 2018. Gross profit margin was 66% for the three months ended March 31, 2019, compared to 76% for the three months ended March 31, 2018. The decrease in profit margin for the three months ended March 31, 2019 was driven by higher hardware revenue as a percentage of total revenue and a decrease in service margins.

The majority of our inventory purchases are denominated in U.S. Dollars. Our sales are denominated in various currencies including the Euro. As the U.S. Dollar strengthened against the Euro for the three months ended March 31, 2019 compared to the same period of 2018, revenue from sales made in Euros decreased, as measured in US Dollars, without a corresponding change in the cost of goods sold. The impact of changes in currency rates are estimated to have decreased revenue by approximately $1.8 million for the three months ended March 31, 2019. Had currency rates in 2019 been equal to rates in 2018, the gross profit margin would have been approximately 3.8 percentage points higher for the three months ended March 31, 2019.

Operating Expenses

	Three months ended March 31,		Change	
	2019	2018	$	%
	(in thousands)			
Operating costs				
Sales and marketing	$ 14,383	$ 14,277	$ 106	1%
Research and development	10,495	5,797	4,698	81%
General and administrative	9,870	10,774	(904)	-8%
Amortization of intangible assets	2,348	2,201	147	7%
Total operating costs	$ 37,096	$ 33,049	$ 4,047	12%

Sales and Marketing Expenses

Sales and marketing expenses for the three months ended March 31, 2019 were $14.4 million, an increase of $0.1 million, or 1%, from the three months ended March 31, 2018.

Average full-time sales, marketing, support, and operating employee headcount for the three months ended March 31, 2019 was 320, compared to 317 for the three months ended March 31, 2018. Headcount was 1% higher for the three months ended March 31, 2019, compared to the same period in 2018.

Research and Development Expenses

Research and development expenses for the three months ended March 31, 2019, were $10.5 million, an increase of $4.7 million, or 81%, from the three months ended March 31, 2018. The increase in expense was driven by higher cloud services costs for our test environment and increased headcount. Additional investment in research and development from Dealflo accounted for $1.7 million of costs during the three months ended March 31, 2019.

Average full-time research and development employee headcount for the three months ended March 31, 2019 was 298, compared to 209 for the three months ended March 31, 2018. Average headcount was approximately 42% higher for the three months ended March 31, 2019, when compared to the same period in 2018.

General and Administrative Expenses

General and administrative expenses for the three months ended March 31, 2019 were $9.9 million, a decrease of $0.9 million, or 8%, from the three months ended March 31, 2018 which was driven by lower long-term incentive plan spend and other lower employee benefits spend.

Average full-time general and administrative employee headcount for the three months ended March 31, 2019 was 110, compared to 100 for the three months ended March 31, 2018. Average headcount was approximately 10% higher for the three months ended March 31, 2019, when compared to the same period in 2018.

Amortization of Intangible Assets

Amortization of intangible assets for the three months ended March 31, 2019 was $2.3 million, an increase of $0.1 million or 7% from the comparable period in 2018. The increase in amortization expense was driven by additional expense for intangible assets acquired during the second quarter of 2018 as a result of the Dealflo acquisition, partially offset by decreased amortization expense as a result of writing off certain intangible assets as a result of the rebranding during 2018.

Interest Income, net

	Three months ended March 31,		Change	
	2019	2018	$	%
	(in thousands)			
Interest income, net	$ 135	$ 393	$ (258)	-66%

Interest income, net was $0.1 million for the three months ended March 31, 2019, compared to $0.4 million for the same period in 2018. The decrease in interest income, net for the three months ended March 31, 2019 compared to the same periods in 2018 reflects a decrease in our short term investment balance.

Other Income (Expense), net

	Three months ended March 31,		Change	
	2019	2018	$	%
	(in thousands)			
Other income (expense), net	$ (551)	$ 380	$ (931)	**NM**

Other income (expense), net primarily includes subsidies received from foreign governments in support of our research and development in those countries, exchange gains (losses) on transactions that are denominated in currencies other than our subsidiaries' functional currencies, and other miscellaneous non-operational, non-recurring expenses.

Other income (expense), net for the three months ended March 31, 2019 was $(0.6) million, compared to $0.4 million for the comparable period of 2018. Higher expense was driven by losses resulting from foreign currency transactions, partially offset by government subsidies.

Provision (Benefit) for Income Taxes

	Three months ended March 31,		Change	
	2019	2018	$	%
	(in thousands)			
Provision (benefit) for income taxes	$ (272)	$ 629	$ (901)	**NM**

The Company recorded an income tax benefit for the three months ended March 31, 2019 of $0.3 million, compared to expense of $0.6 million for the three months ended March 31, 2018. The benefit recorded for the three months ended March 31, 2019 was attributable to the loss in the period (See Note 9 – Income Taxes).

Liquidity and Capital Resources

At March 31, 2019, we had net cash balances (total cash and cash equivalents) of $69.9 million and short-term investments of $25.4 million. Short term investments consist of U.S. treasury bills and notes, government agency notes, corporate notes, and high quality commercial paper with maturities at acquisition of more than three months and less than twelve months.

At December 31, 2018, we had net cash balances (total cash and cash equivalents) of $76.7 million and short-term investments of $22.8 million.

During the year ended December 31, 2018, we entered into a new lease agreement that required a letter of credit in the amount of $0.8 million to secure the obligation. The restricted cash related to this letter of credit is recorded in other non-current assets on the Consolidated Balance Sheet at March 31, 2019 and December 31, 2018.

Our working capital at March 31, 2019 was $113.4 million, a decrease of $6.2 million or 5% from $119.6 million at December 31, 2018. The decrease is driven largely by the operating losses incurred during the quarter.

As of March 31, 2019, we held $67.5 million of cash and cash equivalents in subsidiaries outside of the United States. Of that amount, $67.3 million is not subject to repatriation restrictions, but may be subject to taxes upon repatriation.

We believe that our financial resources are adequate to meet our operating needs over the next twelve months.

Our cash flows are as follows:

	Three Months ended March 31,	
	2019	2018
	(in thousands)	
Cash provided by (used in):		
Operating activities	$ (3,737)	$ 9,726
Investing activities	(2,651)	37,704
Financing activities	(218)	(179)
Effect of foreign exchange rate changes on cash and cash equivalents	(195)	572

Operating Activities

Cash generated by operating activities is primarily comprised of net income, as adjusted for non-cash items, and changes in operating assets and liabilities. Non-cash adjustments consist primarily of amortization and impairment of intangible assets, depreciation of property and equipment, and stock-based compensation. We expect cash inflows from operating activities to be affected by increases or decreases in sales and timing of collections. Our primary uses of cash from operating activities have been for personnel costs. We expect cash outflows from operating activities to be affected by increases in personnel cost as we grow our business.

For the three months ended March 31, 2019, net cash used in operating activities was $3.7 million, compared to net cash provided by operating activities of $9.7 million during the three months ended March 31, 2018. The decrease is primarily due to lower working capital and a net loss of $5.7 million for the three months ended March 31, 2019, compared to net income of $1.8 million for the three months ended March 31, 2018.

Investing Activities

The changes in cash flows from investing activities primarily relate to timing of purchases, maturities and sales of investments, purchases of property and equipment, and activity in connection with acquisitions. We expect to continue to purchase property and equipment to support the continued growth of our business as well to continue to invest in our infrastructure and activity in connection with acquisitions.

For the three months ended March 31, 2019, net cash used in investing activities was $2.7 million, compared to net cash provided by investing activities of $37.7 million for the three months ended March 31, 2018. The decrease is largely driven by the maturity of $40.0 million of investments during the three months ended March 31, 2018.

Critical Accounting Policy

Our accounting policies are fully described in Note 1 - Summary of Significant Accounting Policies, to our Consolidated Financial Statements in our Annual Report on Form 10-K for the year ended December 31, 2018 and Note 2 – Summary of Significant Accounting Policies to our Interim Unaudited Condensed Consolidated Financial Statements in this Quarterly Report on Form 10-Q for the three months ended March 31, 2019. We believe our most critical accounting policies include revenue recognition, purchase accounting and related fair value measurements and accounting for income taxes.

Item 3 - Quantitative and Qualitative Disclosures about Market Risk

There have been no material changes in our market risk during the three months ended March 31, 2019. For additional information, refer to “Item 7A. Quantitative and Qualitative Disclosures about Market Risk”, included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2018.

Item 4 - Controls and Procedures

Our management, with the participation of our Chief Executive Officer and Chief Financial Officer, who, respectively, are our principal executive officer and principal financial officer, conducted an evaluation of the effectiveness of our disclosure controls and procedures (as defined in Rule 13a-15(e) and Rule 15d-15(e) under the Securities Exchange Act of 1934, as amended, (the “Exchange Act”)) as of the end of the period covered by this Quarterly Report on Form 10-Q. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure (i) the information required to be disclosed by us in our reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission’s rules and forms, and (ii) information required to be disclosed by us in our reports that we file or submit under the Exchange Act is accumulated and communicated to our management, including our principal executive and principal financial officers, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer concluded that due to the material weakness in our internal control over financial reporting described below and further in our Annual Report on Form 10-K for the year ended December 31, 2018, that our disclosure controls and procedures were not effective as of March 31, 2019.

Changes in Internal Controls

As discussed in Item 9A. of our Annual Report on Form 10-K for the year ended December 31, 2018, Management identified control deficiencies that constituted a material weakness in our internal control over financial reporting as of December 31, 2018.

The Company has implemented additional controls and is in the process of executing a remediation plan. Management expects remediation of the material weakness will be completed in the fiscal year 2019.

Additionally, the Company concluded the implementation of a new global enterprise resource planning (“ERP”) system during the three months ended March 31, 2019. This ERP system has replaced our existing operating and financial systems and is designed to accurately maintain the Company’s financial records, enhance operational functionality, and provide timely information to the Company’s management team related to the operation of the business.

We also implemented internal controls to ensure we adequately evaluated our contracts and properly assessed the impact of ASC 842 to facilitate the adoption on January 1, 2019, as well as our on-going accounting.

Subject to the foregoing, there were no changes in our internal control over financial reporting during the three months ended March 31, 2019 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Inherent Limitations on the Effectiveness of Controls

Our disclosure controls and procedures are designed to provide reasonable assurance of achieving their objectives. However, our management, including our Chief Executive Officer and Chief Financial Officer, do not expect that our disclosure controls and procedures or internal control over financial reporting will prevent all error and all fraud. A control system, no matter how well designed and implemented, can provide only reasonable, not absolute, assurance that the control system's objectives will be met. Further, the design of a control system must reflect the fact that there are resource constraints, and the benefits of controls must be considered relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within a company are detected. The inherent limitations include the realities that judgments in decision-making can be faulty, and that breakdowns can occur because of simple errors or mistakes. Controls can also be circumvented by the individual acts of some persons, by collusion of two or more people, or by management override of the controls. The design of any system of controls is based in part on certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Projections of any evaluation of controls' effectiveness to future periods are subject to risks. Over time, controls may become inadequate because of changes in conditions or deterioration in the degree of compliance with policies or procedures. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and may not be detected.

PART II. OTHER INFORMATION

Item 1 - Legal Proceedings

We are a party to or have intellectual property subject to litigation and other proceedings that arise in the ordinary course of our business. These types of matters could result in fines, penalties, compensatory or treble damages or non-monetary sanctions or relief. We believe the probability is remote that the outcome of each of these matters, including the legal proceedings described below, will have a material adverse effect on the corporation as a whole, notwithstanding that the unfavorable resolution of any matter may have a material effect on our financial results in any particular interim reporting period.

We cannot predict the outcome of legal or other proceedings with certainty, including the legal proceedings which are summarized in "Note 12 – Legal Proceedings and Contingencies" included in our Notes to Condensed Consolidated Financial Statements, incorporated herein by reference, and "Note 12 – Commitments and Contingencies" in our Annual Report on Form 10-K for the year ended December 31, 2018 filed with the U.S. Securities and Exchange Commission. Any reasonably possible loss or range of loss associated with any individual legal proceeding that can be estimated, is provided in Note 12 to Condensed Consolidated Financial Statements contained herein.

Item 2 – Unregistered Sales of Equity Securities and Use of Proceeds

The following table provides information about purchases by the Company of its shares of common stock during the first quarter of 2019:

Period	Total Number of Shares Purchased (1)	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (2)	Maximum Number of Shares that May Yet Be Purchased Under the Plans or Programs (2)
January 1, 2019 through January 31, 2019	13,785	$ 12.90	—	—
February 1, 2019 through February 28, 2019	—	—	—	—
March 1, 2019 through March 31, 2019	1,144	$ 21.35	—	—

(1.) All transactions represent surrender of vested shares in satisfaction of tax withholdings by grantees under the 2009 Equity Incentive Plan.

(2.) The Company has no publicly announced plans or programs to repurchase its shares.

Item 6 - Exhibits

Exhibit 31.1 - Rule 13a-14(a)/15d-14(a) Certification of Principal Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, dated May 7, 2019.

Exhibit 31.2 - Rule 13a-14(a)/15d-14(a) Certification of Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002, dated May 7, 2019.

Exhibit 32.1 - Section 1350 Certification of Principal Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, dated May 7, 2019.

Exhibit 32.2 - Section 1350 Certification of Principal Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, dated May 7, 2019.

Exhibit 101.INS – XBRL Instance Document

Exhibit 101.SCH – XBRL Taxonomy Extension Schema Document

Exhibit 101.CAL – XBRL Taxonomy Extension Calculation Linkbase Document

Exhibit 101.LAB – XBRL Taxonomy Extension Label Linkbase Document

Exhibit 101.PRE – XBRL Taxonomy Extension Presentation Linkbase Document

Exhibit 101.DEF – XBRL Taxonomy Extension Definition Linkbase Document

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***Certain exhibits, schedules and annexes have been omitted pursuant to Item 601(b)(2) of Regulation S-K. OneSpan undertakes to furnish copies of any such omitted items upon request by the Securities and Exchange Commission.**

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this Report to be signed on its behalf by the undersigned, thereunto duly authorized, on May 7, 2019.

OneSpan Inc.

/s/ Scott Clements
Scott Clements
Chief Executive Officer
(Principal Executive Officer)

/s/ Mark S. Hoyt
Mark S. Hoyt
Chief Financial Officer
(Principal Financial Officer and Principal Accounting Officer)

EXHIBIT 31.1

Certification of Principal Executive Officer
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Scott Clements, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of OneSpan Inc.;

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

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

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

   (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

   (b) Designed such internal control over financial reporting or caused such internal control over financial reporting to be designed under our supervision to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by the report based on such evaluation; and

   (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons fulfilling the equivalent functions):

   (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

   (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: May 7, 2019

/s/ Scott Clements
Scott Clements
Chief Executive Officer
(Principal Executive Officer)

EXHIBIT 31.2

Certification of Principal Financial Officer
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Mark S. Hoyt, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of OneSpan Inc.;

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

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

4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    (a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    (b) Designed such internal control over financial reporting or caused such internal control over financial reporting to be designed under our supervision to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    (c) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by the report based on such evaluation; and

    (d) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons fulfilling the equivalent functions):

    (a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

    (b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: May 7, 2019

/s/ Mark S. Hoyt
Mark S. Hoyt
Chief Financial Officer
(Principal Financial Officer and Principal
Accounting Officer)

EXHIBIT 32.1

CERTIFICATION OF CHIEF EXECUTIVE OFFICER
Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to
Section 906 of the Sarbanes-Oxley Act of 2002

I, Scott Clements, certify, based upon a review of the Quarterly Report on Form 10-Q for OneSpan Inc. for the first quarter ended March 31, 2019, that to the best of my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Registrant.

/s/ Scott Clements
Scott Clements
Chief Executive Officer

May 7, 2019

EXHIBIT 32.2

CERTIFICATION OF CHIEF FINANCIAL OFFICER
Pursuant to 18 U.S.C. Section 1350, as adopted pursuant to
Section 906 of the Sarbanes-Oxley Act of 2002

I, Mark S. Hoyt, certify, based upon a review of the Quarterly Report on Form 10-Q for OneSpan Inc. for the quarter ended on March 31, 2019, that to the best of my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Registrant.

/s/ Mark S. Hoyt
Mark S. Hoyt
Chief Financial Officer

May 7, 2019