

NETSCOUT™

Q1 FY 2020 Conference Call

*NETSCOUT SYSTEMS, INC.
August 1, 2019*



Agenda

- Introduction & Safe Harbor
 - Anthony Piazza, Vice President, Corporate Finance
- CEO Perspective
 - Anil Singhal, President and CEO
- COO Update
 - Michael Szabados, Chief Operating Officer
- Financial Review and FY'20 Outlook
 - Jean Bua, EVP and CFO



Safe Harbor

Forward Looking Statements: Forward-looking statements in this communication are made pursuant to the safe harbor provisions of Section 21E of the Securities Exchange Act of 1934 and other federal securities laws. Investors are cautioned that statements in this communication, which are not strictly historical statements, including without limitation, the statements related to the Company's financial guidance; statements regarding future demand and revenue for the Company's products by specific customers, certain pipelines or by customers in general; statements related to new or enhanced products and solutions, and the timing of introduction of such products and solutions into the market, and market acceptance of such products and solutions; statements regarding the extent of the Company's deployment of our software-only platform, statements regarding shifts in market trends including revenue opportunities related to 5G networks; statements regarding go-to-market and other sales and marketing initiatives; statements related to the benefits and timelines of recent cost-reduction initiatives and related restructuring activities, and future spending and cost-control plans; and statements regarding the use of capital including repayment of debt, future share repurchases and the timing of those purchases, constitute forward-looking statements which involve risks and uncertainties. Actual results could differ materially from the forward-looking statements due to known and unknown risks, uncertainties, assumptions and other factors. Such factors include slowdowns or downturns in economic conditions generally and in the market for advanced network, service assurance and cybersecurity solutions specifically; the volatile foreign exchange environment; the Company's relationships with strategic partners and resellers; dependence upon broad-based acceptance of the Company's network performance management solutions; the presence of competitors with greater financial resources than we have, and their strategic response to our products; our ability to retain key executives and employees; the Company's ability to realize the anticipated savings from recent restructuring actions and other expense management programs; lower than expected demand for the Company's products and services; and the timing and magnitude of stock buyback activity based on market conditions, corporate considerations, debt agreements, and regulatory requirements. For a more detailed description of the risk factors associated with the Company, please refer to the Company's Annual Report on Form 10-K for the fiscal year ended March 31, 2019 which is on file with the Securities and Exchange Commission. NETSCOUT assumes no obligation to update any forward-looking information contained in this communication or with respect to the announcements described herein.



Non-GAAP Financial Metrics

Regulation G Disclosure: This presentation makes reference to the following non-GAAP metrics: non-GAAP total revenue, non-GAAP product revenue, non-GAAP service revenue, non-GAAP income from operations, non-GAAP operating margin, non-GAAP net income, and non-GAAP net income per share (diluted). Non-GAAP revenue (total, product and service) eliminates the GAAP effects of acquisitions by adding back revenue related to deferred revenue revaluation, Non-GAAP income from operations includes the aforementioned revenue adjustments and also removes expenses related to the amortization of acquired intangible assets, share-based compensation, restructuring charges, intangible asset impairment charges, loss on divestiture, costs related to new accounting standard implementation, and certain expenses relating to acquisitions including depreciation costs, compensation for post-combination services and business development and integration costs while adding back transitional service agreement income. Non-GAAP operating margin is calculated based on the non-GAAP financial metrics discussed above. Non-GAAP net income includes the aforementioned items related to non-GAAP income from operations, and also removes changes in contingent consideration, net of related income tax effects. Non-GAAP diluted net income per share also excludes these expenses as well as the related impact of all these adjustments on the provision for income taxes. Investors are encouraged to review the related GAAP financial measures and the reconciliation of these non-GAAP financial measures to their most directly comparable GAAP financial measures included in the attached tables within this press release. NETSCOUT also references organic non-GAAP revenue, which includes all of the aforementioned revenue adjustments for non-GAAP revenue and also removes revenue associated with the HNT tools business for comparability purposes with the Company's quarterly and year-to-date fiscal year 2019 results. Investors are encouraged to review the related GAAP financial measures and the reconciliation of these non-GAAP financial measures to their most directly comparable GAAP financial measures included in the appendix. These non-GAAP measures are not in accordance with GAAP, should not be considered an alternative for measures prepared in accordance with GAAP (revenue, gross profit and operating margin, net income, cash flow from operations and diluted net income per share), and may have limitations in that they do not reflect all of NETSCOUT's results of operations as determined in accordance with GAAP. These non-GAAP measures should only be used to evaluate NETSCOUT's results of operations in conjunction with the corresponding GAAP measures. The presentation of non-GAAP information is not meant to be considered superior to, in isolation from or as a substitute for results prepared in accordance with GAAP. NETSCOUT believes these non-GAAP financial measures will enhance the reader's overall understanding of NETSCOUT's current financial performance and NETSCOUT's prospects for the future by providing a higher degree of transparency for certain financial measures and providing a level of disclosure that helps investors understand how the Company plans and measures its own business. NETSCOUT believes that providing these non-GAAP measures affords investors a view of NETSCOUT's operating results that may be more easily compared to peer companies and also enables investors to consider NETSCOUT's operating results on both a GAAP and non-GAAP basis during and following the integration period of NETSCOUT's acquisitions. Presenting the GAAP measures on their own, without the supplemental non-GAAP disclosures, might not be indicative of NETSCOUT's core operating results. Furthermore, NETSCOUT believes that the presentation of non-GAAP measures when shown in conjunction with the corresponding GAAP measures provides useful information to management and investors regarding present and future business trends relating to its financial condition and results of operations. NETSCOUT management regularly uses supplemental non-GAAP financial measures internally to understand, manage and evaluate its business and to make operating decisions. These non-GAAP measures are among the primary factors that management uses in planning and forecasting. The reconciliation of these non-GAAP metrics to the comparable GAAP metrics are set forth in the accompanying tables in the appendix of this presentation and are available on our website at <http://ir.netscout.com>.



CEO Perspective

Anil Singhal
President and Chief Executive Officer

Q1 FY'20 Financial Highlights

Non-GAAP	Q1 FY'20	Q1 FY'19
(\$ in millions, except per share data)	6/30/2019	6/30/2018
Revenue	\$ 186.1	\$ 206.0
Gross Margin	74.9%	74.8%
Operating Margin	6.5%	3.6%
EPS	\$ 0.07	\$ 0.03

Certain numbers may not total due to rounding

- Revenue ~\$10 million lower than anticipated due to continued constrained spending and elongated purchasing cycles in the service provider market
- EPS in-line with expectations as we continued to closely manage our cost structure

See Appendix for GAAP-Non-GAAP Reconciliations.



Business Trends

- **Service Provider**
 - 5G momentum
- **Enterprise**
 - Rebuilding international sales force momentum
- **Security**
 - Arbor Threat Analytics and Cyber Threat Horizon



FY'20 Outlook & Summary

- We remain excited about the opportunities we are seeing and our ability to capitalize on them
- We remain focused on generating low-single digit organic revenue growth, which would translate into a range of \$895 million to \$915 million of non-GAAP revenue for the fiscal year
- We are committed to continue managing our cost structure and delivering diluted non-GAAP EPS in the range of \$1.40 to \$1.45

See Appendix for GAAP-Non-GAAP Reconciliations.



COO Update

Michael Szabados
Chief Operating Officer

COO Highlights

- Customer Wins

- Go-to-market Activity



Financial Review & FY'20 Outlook

Jean Bua

Executive Vice President and Chief Financial Officer

Q1 FY'20 Results

(in millions except EPS and % data)

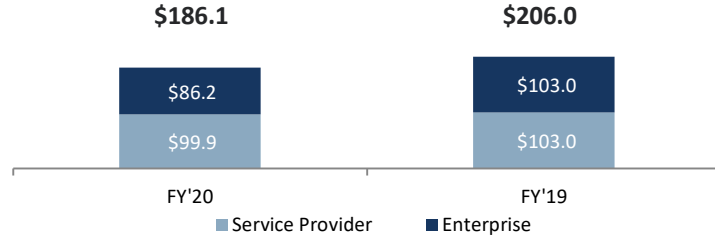
	Q1 FY'20 GAAP 6/30/2019	Q1 FY'19 GAAP 6/30/2018	% Change		Q1 FY'20 Non-GAAP 6/30/2019	Q1 FY'19 Non-GAAP 6/30/2018	% Change
Revenue:							
Product	\$ 75.7	\$ 96.9	-21.9%		\$ 75.7	\$ 97.3	-22.2%
Service	\$ 110.3	\$ 108.2	2.0%		\$ 110.4	\$ 108.7	1.6%
Total revenue	\$ 186.0	\$ 205.1	-9.3%		\$ 186.1	\$ 206.0	-9.7%
Cost of revenue	\$ 54.7	\$ 62.0	-11.7%		\$ 46.8	\$ 52.0	-10.1%
Gross profit	\$ 131.3	\$ 143.1	-8.2%		\$ 139.3	\$ 154.0	-9.5%
<i>Gross profit margin</i>	70.6%	69.8%			74.9%	74.8%	
Operating expenses	\$ 155.7	\$ 220.1	-29.3%		\$ 127.3	\$ 146.6	-13.2%
Income (loss) from operations	\$ (24.4)	\$ (77.1)	-68.3%		\$ 12.1	\$ 7.4	63.1%
<i>Income from operations margin</i>	-13.1%	-37.6%			6.5%	3.6%	
Net income (loss)	\$ (29.3)	\$ (62.5)	-53.1%		\$ 5.6	\$ 2.1	169.7%
Diluted net income (loss) per share	\$ (0.38)	\$ (0.78)	-51.3%		\$0.07	\$0.03	133.3%
Diluted shares outstanding	77.3	80.4	-3.8%		78.5	81.4	-3.6%

See Appendix for GAAP-Non-GAAP Reconciliations.
Certain numbers may not total due to rounding.

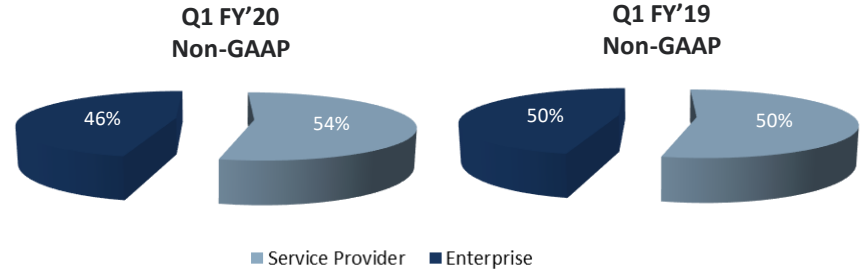


Q1 FY'20 Revenue Trends: Customer Verticals & Geographic Mix

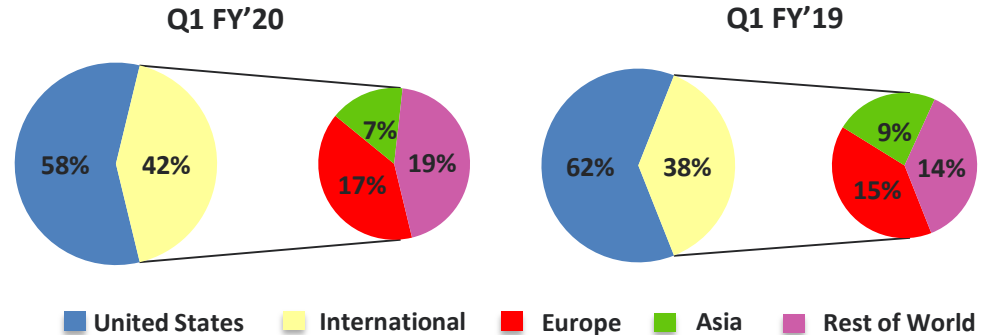
Total Non-GAAP Revenue by Customer Segment
(\$ in millions)



Total Non-GAAP Revenue Composition by Customer Segment



	Q1 FY'20 GAAP 6/30/19	Q1 FY'19 GAAP 6/30/18
Total Revenue	\$186.0	\$205.1
<i>United States</i>	\$107.1	\$127.2
<i>International</i>	\$78.9	\$77.9
<i>Europe</i>	\$31.3	\$31.0
<i>Asia</i>	\$12.6	\$17.9
<i>Rest of World</i>	\$35.1	\$28.9



Figures in charts and tables may not total due to rounding

See Appendix for GAAP-Non-GAAP Reconciliations.



GAAP Balance Sheet Highlights & Free Cash Flow

(in millions)

<i>(Unaudited)</i>	Q1 FY'20 6/30/19	
Cash and Securities*	\$	443.2
Accounts Receivable, Net	\$	160.0
Inventories	\$	26.5
Total Long-Term Debt	\$	500.0
Total Deferred Revenue	\$	342.0
Total Stockholders' Equity	\$	2,011.4

* Cash and securities defined as cash, cash equivalents and short-term and long-term marketable securities

Free Cash Flow	
	Q1 FY'20 6/30/2019
Operating Cash Flow	\$ 49.5
Purchase of Fixed Assets & Intangible Assets	\$ (3.3)
Free Cash Flow	\$ 46.2

Financial Profile	
	Q1 FY'20 6/30/2019
Cash position	\$443.2
Liquidity	3.5x
Gross leverage	2.4x
Net Leverage	0.3x

Liquidity calculated as available credit under the Company's senior secured credit facility plus cash and securities* divided by the 12-month trailing adjusted non-GAAP EBITDA (as defined within the Company's senior secured credit facility). Available credit maximum is 4 times the 12-month trailing adjusted non-GAAP EBITDA.

As defined in the Company's senior secured credit facility, gross leverage is calculated as total debt plus contingent liabilities divided by the 12-month trailing adjusted non-GAAP EBITDA (as defined within the Company's senior secured credit facility).

Net leverage is calculated as total debt plus contingent liabilities minus cash and securities* divided by the 12-month trailing adjusted non-GAAP EBITDA (as defined within the Company's senior secured credit facility).

The Company's non-GAAP EBITDA as calculated in its press release may differ from the non-GAAP EBITDA as defined within the Company's senior secured credit facility.



FY'20 Guidance

Revenue

\$ millions	FY'19 GAAP	FY'19 Non-GAAP	FY'20 Guidance GAAP & Non-GAAP
Revenue	\$909.9	\$911.5	~\$895 to ~\$915
HNT Tools	(\$18.0)	(\$18.0)	-
Organic Revenue	\$891.9	\$893.5	~\$895 to ~\$915

EPS (Diluted)

	FY'19	FY'20 Guidance
GAAP EPS (diluted)	(\$0.93)	\$0.03 to \$0.08
Adjustments	\$2.31	\$1.37
Non-GAAP EPS (diluted)	\$1.38	\$1.40 to \$1.45

Other FY'20 Guidance Assumptions

- * Anticipated gross profit margin between 77% to 78%
- * Operating expenses expected to range from \$525 million to \$540 million
- * Tax rate anticipated to range from 23% to 25%
- * Interest & other expense of ~\$22 million
- * Weighted average of ~78.2 million diluted shares outstanding



Upcoming Investor Events

Date	Event	Location
August 7, 2019	Oppenheimer Annual Technology, Internet & Communications Conference	Boston, MA
August 13, 2019	KeyBanc Capital Markets Annual Technology Leadership Forum	Vail, CO



Appendix

The background of the slide is a dark, grayscale photograph of a long, curved tunnel. The ceiling and floor are composed of a series of parallel, curved ribs that create a strong sense of perspective and depth, leading the eye towards a vanishing point in the distance. The lighting is dim, with subtle highlights on the ribs, giving the scene a mysterious and industrial atmosphere.

FY'20 Guidance: GAAP to Non-GAAP Reconciliation

NETSCOUT SYSTEMS, INC
Reconciliation of GAAP Financial Guidance to Non-GAAP Financial Guidance
(Unaudited)
(In millions, except net income per share - diluted)

	<u>FY'19</u>	<u>FY'20</u>
GAAP revenue	\$ 909.9	~\$895 million to ~\$915 million
Deferred service revenue fair value adjustment	\$ 1.2	Less than \$1 million
Deferred product revenue fair value adjustment	\$ 0.4	-
Non-GAAP revenue	<u>\$ 911.5</u>	<u>~\$895 million to ~\$915 million</u>
HNT Tools revenue	\$ (18.0)	-
Organic non-GAAP revenue	\$ 893.5	~\$895 million to ~\$915 million
	<u>FY'19</u>	<u>FY'20</u>
GAAP Net Income (Loss)	\$ (73.3)	~\$2 million to ~\$6 million
Deferred service revenue fair value adjustment	\$ 1.2	Less than \$1 million
Deferred product revenue fair value adjustment	\$ 0.4	-
Amortization of intangible assets	\$ 105.5	~\$90 million
Share-based compensation expenses	\$ 56.3	~\$50 million
Business development & integration expenses*	\$ 2.5	~\$2 million
New accounting standard implementation	\$ 0.9	-
Restructuring costs	\$ 18.7	-
Impairment of Intangibles	\$ 35.9	-
Loss on divestiture	\$ 9.5	-
Change in contingent consideration	\$ 1.5	-
Total Adjustments	\$ 232.4	~\$142 million
Related impact of adjustments on income tax**	\$ (49.9)	(~\$34 million)
Non-GAAP Net Income	<u>\$ 109.2</u>	<u>~\$109 million to ~\$113 million</u>
GAAP net income (loss) per share (diluted)	\$ (0.93)	~\$0.03 to ~\$0.08
Non-GAAP net income per share (diluted)	<u>\$ 1.38</u>	<u>~\$1.40 to ~\$1.45</u>
Average Weighted Shares Outstanding (diluted GAAP)	78.6	78.2 million
Average Weighted Shares Outstanding (diluted Non-GAAP)	79.3	78.2 million

* Business development & integration expenses include compensation for post-combination services and acquisition-related depreciation expense.

** Assumes an effective non-GAAP tax rate of 24%, which represents the mid-point of the Company's FY'20 effective tax rate estimates that ranges from 23% to 25%.



Q2 FY'20 Guidance: GAAP to Non-GAAP Reconciliation

NETSCOUT SYSTEMS, INC
Reconciliation of GAAP Financial Guidance to Non-GAAP Financial Guidance
(Unaudited)

(In millions, except net income per share - diluted)

	<u>Q2 FY'19</u>	<u>Q2 FY'20</u>
GAAP revenue	\$ 223.8	~\$205 million to ~\$215 million
Deferred service revenue fair value adjustment	\$ 0.2	-
Deferred product revenue fair value adjustment	\$ -	-
Non-GAAP revenue	<u>\$ 224.0</u>	<u>~\$205 million to ~\$215 million</u>
HNT Tools revenue	\$ (7.6)	-
Organic non-GAAP revenue	<u>\$ 216.5</u>	<u>~\$205 million to ~\$215 million</u>
	<u>Q2 FY'19</u>	<u>Q2 FY'20</u>
GAAP Net Income (Loss)	\$ (26.4)	(~\$10 million) to (~\$7 million)
Deferred service revenue fair value adjustment	\$ 0.2	Less than \$1 million
Deferred product revenue fair value adjustment	\$ -	-
Amortization of intangible assets	\$ 25.7	~\$23 million
Share-based compensation expenses	\$ 17.4	~\$15 million
Business development & integration expenses*	\$ 0.7	Less than \$1 million
New accounting standard implementation	\$ 0.1	-
Restructuring costs	\$ 2.5	-
Loss on divestiture	\$ 9.2	-
Impairment of Intangibles	\$ -	-
Total Adjustments	<u>\$ 55.8</u>	<u>~\$38 million</u>
Related impact of adjustments on income tax	<u>\$ (9.4)</u>	<u>(~\$9 million)</u>
Non-GAAP Net Income	<u>\$ 20.0</u>	<u>~\$19 million to ~\$22 million</u>
GAAP net income (loss) per share (diluted)	<u>\$ (0.34)</u>	<u>(~\$0.13) to (~\$0.10)</u>
Non-GAAP net income per share (diluted)	<u>\$ 0.25</u>	<u>~\$0.25 to ~\$0.27</u>
Average Weighted Shares Outstanding (diluted GAAP)	78.6	77.6 million
Average Weighted Shares Outstanding (diluted Non-GAAP)	79.4	78.2 million

* Business development & integration expenses include compensation for post-combination services and acquisition-related depreciation expense

** Assumes an effective tax rate of 24%, which represents the mid-point of the Company's FY20 effective tax rate estimate that ranges from 23% to 25%.

*** Certain numbers may not total due to rounding



Total Revenue Composition

(in millions)

	Q1 FY'20 GAAP	Q1 FY'19 GAAP	Q1 FY'20 Non-GAAP	Q1 FY'19 Non-GAAP
Total Revenue	\$186.0	\$205.1	\$186.1	\$206.0
<i>Product Revenue</i>	<i>\$75.7</i>	<i>\$96.9</i>	<i>\$75.7</i>	<i>\$97.3</i>
<i>Service Revenue</i>	<i>\$110.3</i>	<i>\$108.2</i>	<i>\$110.4</i>	<i>\$108.7</i>

Certain numbers may not total due to rounding



GAAP to Non-GAAP Reconciliation: Q1 FY'20, Q1 FY'19, and Q4 FY'19 Revenue

NETSCOUT SYSTEMS, INC.
Reconciliation of Current GAAP to Current and Historical Non-GAAP Financial Measures
(In thousands)
(Unaudited)

	Three Months Ended June 30,		Three Months Ended March 31,
	2019	2018	2019
Product Revenue (GAAP)	\$ 75,719	\$ 96,927	\$ 125,474
Product deferred revenue fair value adjustment	-	391	-
Non-GAAP Product Revenue	<u>\$ 75,719</u>	<u>\$ 97,318</u>	<u>\$ 125,474</u>
Service Revenue (GAAP)	\$ 110,305	\$ 108,184	\$ 109,528
Service deferred revenue fair value adjustment	48	471	242
Non-GAAP Service Revenue	<u>\$ 110,353</u>	<u>\$ 108,655</u>	<u>\$ 109,770</u>
Revenue (GAAP)	\$ 186,024	\$ 205,111	\$ 235,002
Product deferred revenue fair value adjustment	-	391	-
Service deferred revenue fair value adjustment	48	471	242
Non-GAAP Revenue	<u>\$ 186,072</u>	<u>\$ 205,973</u>	<u>\$ 235,244</u>



GAAP to Non-GAAP Reconciliation: Q1 FY'20 and Q1 FY'19 Organic Non-GAAP Revenue

NETSCOUT SYSTEMS, INC.
Reconciliation of GAAP Revenue to Non-GAAP Organic Revenue
(In thousands)
(Unaudited)

	Three Months Ended	
	June 30,	
	2019	2018
GAAP Product Revenue	\$ 75,719	\$ 96,927
Adjustments	-	391
Non-GAAP Product Revenue	<u>\$ 75,719</u>	<u>\$ 97,318</u>
HNT Tools Product Revenue	-	(8,007)
Organic Non-GAAP Product Revenue	<u><u>\$ 75,719</u></u>	<u><u>\$ 89,311</u></u>
GAAP Service Revenue	\$ 110,305	\$ 108,184
Adjustments	48	471
Non-GAAP Service Revenue	<u>\$ 110,353</u>	<u>\$ 108,655</u>
HNT Tools Service Revenue	-	(2,410)
Organic Non-GAAP Service Revenue	<u><u>\$ 110,353</u></u>	<u><u>\$ 106,245</u></u>
GAAP Revenue	\$ 186,024	\$ 205,111
Adjustments	48	862
Non-GAAP Revenue	<u>\$ 186,072</u>	<u>\$ 205,973</u>
HNT Tools Revenue	-	(10,417)
Organic Non-GAAP Revenue	<u><u>\$ 186,072</u></u>	<u><u>\$ 195,556</u></u>



GAAP to Non-GAAP Reconciliation: Q1 FY'20, Q1 FY'19 and Q4 FY'19 Gross Profit, Income from Operations and Net Income

NETSCOUT SYSTEMS, INC.
Reconciliation of Current GAAP to Current and Historical Non-GAAP Financial Measures
(In thousands, except per share data)
(Unaudited)

	Three Months Ended June 30,		Three Months Ended March 31,
	2019	2018	2019
Gross Profit (GAAP)	\$ 131,281	\$ 143,084	\$ 176,466
Product deferred revenue fair value adjustment	-	391	-
Service deferred revenue fair value adjustment	48	471	242
Share-based compensation expense (1)	1,734	1,599	1,540
Amortization of acquired intangible assets (2)	6,230	8,402	7,551
Acquisition related depreciation expense (6)	13	33	12
Non-GAAP Gross Profit	\$ 139,306	\$ 153,980	\$ 185,811
Income (Loss) from Operations (GAAP)	\$ (24,448)	\$ (77,053)	\$ 29,231
Product deferred revenue fair value adjustment	-	391	-
Service deferred revenue fair value adjustment	48	471	242
Share-based compensation expense (1)	12,743	12,965	12,186
Amortization of acquired intangible assets (2)	22,373	31,867	23,977
Business development and integration expense (3)	(21)	19	488
New standard implementation expense (4)	9	762	26
Compensation for post-combination services (5)	193	449	72
Restructuring charges	123	1,147	1,179
Impairment of intangible assets	-	35,871	-
Acquisition related depreciation expense (6)	121	498	121
Loss on divestiture	-	-	295
Transitional service agreement income (7)	909	-	912
Non-GAAP Income from Operations	\$ 12,050	\$ 7,387	\$ 68,729
Net Income (Loss) (GAAP)	\$ (29,343)	\$ (62,504)	\$ 19,211
Product deferred revenue fair value adjustment	-	391	-
Service deferred revenue fair value adjustment	48	471	242
Share-based compensation expense (1)	12,743	12,965	12,186
Amortization of acquired intangible assets (2)	22,373	31,867	23,977
Business development and integration expense (3)	(21)	19	488
New standard implementation expense (4)	9	762	26
Compensation for post-combination services (5)	193	449	72
Restructuring charges	123	1,147	1,179
Impairment of intangible assets	-	35,871	-
Acquisition related depreciation expense (6)	121	498	121
Loss on divestiture	-	-	295
Change in contingent consideration	523	-	1,495
Income tax adjustments (8)	(1,175)	(19,862)	(7,314)
Non-GAAP Net Income	\$ 5,594	\$ 2,074	\$ 51,978
Diluted Net Income (Loss) Per Share (GAAP)	\$ (0.38)	\$ (0.78)	\$ 0.24
Share impact of non-GAAP adjustments identified above	0.45	0.81	0.42
Non-GAAP Diluted Net Income Per Share	\$ 0.07	\$ 0.03	\$ 0.66
Shares used in computing non-GAAP diluted net income per share	78,487	81,424	78,562



GAAP to Non-GAAP Reconciliation: Q1 FY'20, Q1 FY'19 and Q4 FY'19 Itemization

NETSCOUT SYSTEMS, INC.
Reconciliation of Current GAAP to Current and Historical Non-GAAP Financial Measures - Continued
(In thousands)
(Unaudited)

	Three Months Ended June 30,		Three Months Ended
	2019	2018	March 31, 2019
(1) Share-based compensation expense included in these amounts is as follows:			
Cost of product revenue	\$ 267	\$ 269	\$ 275
Cost of service revenue	1,467	1,330	1,265
Research and development	3,819	4,151	3,777
Sales and marketing	4,135	4,359	3,872
General and administrative	3,055	2,856	2,997
Total share-based compensation expense	<u>\$ 12,743</u>	<u>\$ 12,965</u>	<u>\$ 12,186</u>
(2) Amortization expense related to acquired software and product technology, trademarks, customer relationships included in these amounts is as follows:			
Cost of product revenue	\$ 6,230	\$ 8,402	\$ 7,551
Operating expenses	16,143	23,465	16,426
Total amortization expense	<u>\$ 22,373</u>	<u>\$ 31,867</u>	<u>\$ 23,977</u>
(3) Business development and integration expense included in these amounts is as follows:			
Research and development	\$ 43	\$ -	\$ -
General and administrative	(64)	19	488
Total business development and integration expense	<u>\$ (21)</u>	<u>\$ 19</u>	<u>\$ 488</u>
(4) New standard implementation expense included in these amounts is as follows:			
General and administrative	\$ 9	\$ 762	\$ 26
Total new standard implementation expense	<u>\$ 9</u>	<u>\$ 762</u>	<u>\$ 26</u>
(5) Compensation for post-combination services included in these amounts is as follows:			
Research and development	\$ 193	\$ 385	\$ 85
Sales and marketing	-	12	-
General and administrative	-	52	(13)
Total compensation for post-combination services	<u>\$ 193</u>	<u>\$ 449</u>	<u>\$ 72</u>
(6) Acquisition related depreciation expense included in these amounts is as follows:			
Cost of product revenue	\$ 10	\$ 13	\$ 9
Cost of service revenue	3	20	3
Research and development	83	306	84
Sales and marketing	10	43	10
General and administrative	15	116	15
Total acquisition related depreciation expense	<u>\$ 121</u>	<u>\$ 498</u>	<u>\$ 121</u>
(7) Transitional service agreement income included in these amounts is as follows:			
Research and development	\$ 102	\$ -	\$ 101
Sales and marketing	126	-	124
General and administrative	681	-	687
Other income (expense), net	(809)	-	(812)
Total transitional service agreement income	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>
(8) Total income tax adjustment included in these amounts is as follows:			
Tax effect of non-GAAP adjustments above	\$ (1,175)	\$ (19,862)	\$ (7,314)
Total income tax adjustments	<u>\$ (1,175)</u>	<u>\$ (19,862)</u>	<u>\$ (7,314)</u>





Thank You