

Market Analysis

Spring 2018

Software Quarterly Report

Review of Sector Trends and M&A Activity



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Robert W. Baird & Co. (“Baird”) is a leading middle market focused investment bank serving the M&A and equity financing needs of our clients throughout the U.S., Europe and Asia. Since 2008, we have advised on 692 M&A transactions totaling \$173 billion and have served as an underwriter on 745 equity offerings totaling \$219 billion in raised capital.

Baird’s balanced buy- and sell-side practice provides expertise for public and private companies, while our dedicated financial sponsor coverage further expands opportunities and financing resources for our clients. Through close coordination between our U.S., European and Asian bankers, we work to optimize opportunities and results for clients in the international marketplace. Approximately one-third of our M&A activity over the past five years has involved international transactions.

Quarterly Report Overview

This quarterly Software industry report, created by the Technology team in Baird's Global Investment Banking Department, highlights M&A and capital market trends and events that impact companies in the sector. Presented below are the report's four segments of focus (in addition to IT Conglomerates) along with relevant public companies within each group.

Software Public Companies by Segment

Segment	Companies			
IT Conglomerates	Cisco Hewlett Packard Enterprise IBM Intel	Microsoft Oracle SAP		
Applications	ERP & HCM American Software Basware Benefitfocus Cornerstone OnDemand Intuit MindBody Software Paycom Paylocity QAD Sage Shopify TOTVS Tyler Technologies Ultimate Software Upland WageWorks Workday Xero Yonyou	Information Management & Analytics Alteryx BlackLine Box Datawatch Fair Isaac Globant Gridsum MicroStrategy OpenText ServiceNow Splunk Tableau Teradata Verint Workiva Yext	Financial IT ACI Worldwide Bottomline Cardlytics Ebix Ellie Mae Envestnet Fidessa Guidewire Q2 Holdings Sapiens SS&C Technologies Yirendai	Other Vertical Solutions 2U Amdocs AppFolio Constellation CSG Systems Evolving Systems Instructure Model N NetSol NIC PROS Holdings RealPage Redknee RPX Synchronoss
	CRM & Marketing Acxiom Adobe Blackbaud ChannelAdvisor Cision eGain Five9 Hubspot LivePerson NICE salesforce.com SendGrid ServiceSource Trade Desk Veeva Web.com Zendesk	PLM & Engineering Altair Engineering Ansys Aspen Technology Autodesk Aveva Group Cadence Dassault GSE Systems Nemetschek PDF Solutions PTC Synopsys	Healthcare IT Allscripts athenahealth Benefitfocus Castlight Cegedim Cerner CompuGroup Cotiviti CPSI Evolent Health HealthEquity Healthstream HMS iCAD Inovalon Medidata NantHealth Omnicell OSI Systems Premier Quality Systems R1 RCM Sectra AB Tabula Rasa Veeva	
		SCM & Logistics Amber Road American Software Coupa Software Descartes Kinaxis Manhattan Associates MiX Telematics SPS Commerce Telenav		

Note: ERP = Enterprise Resource Planning, HCM = Human Capital Management, CRM = Customer Relationship Management, PLM = Product Lifecycle Management, and SCM = Supply Chain Management.

Quarterly Report Overview

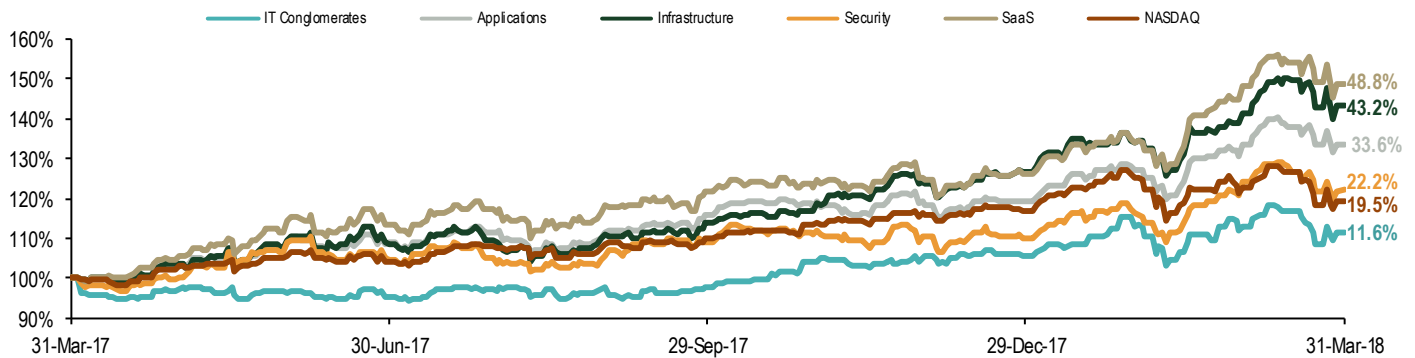
Infrastructure	<u>Application & Data</u> Adobe Appian Apptio Atlassian Cloudera Dropbox Hortonworks Magic Software Micro Focus MobileIron MongoDB Pegasystems Progress Software Red Hat SDL ServiceNow Software AG Talend Wix	<u>Network & Systems</u> A10 Aerohive Akamai Arista Attunity CA Citrix F5 j2 Global NetScout New Relic Nutanix Splunk Varonis Systems VMWare	<u>Storage</u> Carbonite CommVault NetApp Pure Storage Tintri	<u>Cloud Communications</u> 8x8 Bandwidth Casa Systems Everbridge LINE LogMeIn Nuance RingCentral Twilio Vonage
	<u>Content Providers</u> Ahnlab Cyber Ark F-Secure Proofpoint Symantec Trend Micro Zix	<u>Network Security & IAM</u> Absolute Software Check Point FireEye ForeScout Technologies Fortinet Imperva Mimecast NQ Mobile Okta Palo Alto Qualys Rapid7 SailPoint Technologies SecureWorks Vasco Verisign Zscaler		
SaaS	2U Alteryx Amber Road AppFolio Appian Apptio athenahealth Atlassian Bandwidth Benefitfocus BlackLine Box Carbonite Castlight ChannelAdvisor Cloudera Cornerstone OnDemand Coupa Software Dropbox	Ebix Ellie Mae Everbridge FireEye Five9 Hortonworks Hubspot Inovalon Instructure j2 Global Kinaxis LogMeIn Medidata MindBody MiX Telematics Model N MongoDB NantHealth New Relic	Okta Paycom Paylocity Proofpoint Q2 Holdings Qualys RealPage RedHat RingCentral SailPoint Technologies salesforce.com SendGrid ServiceNow ServiceSource Shopify SPS Commerce Synchronoss Twilio Ultimate Software	Upland Veeva Workday Workiva Xero Yext Zendesk Zix Zscaler

Note: IAM = Identity and Access Management.

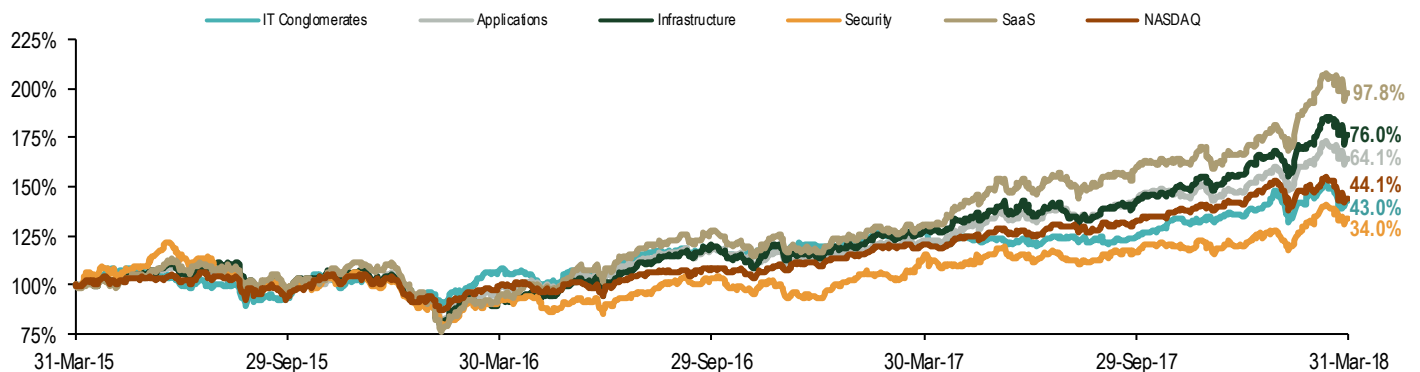
Sector Trading Statistics and Operating Metrics

During the past 12 months, the SaaS group led all software segments in terms of stock price performance, followed by the Infrastructure, Applications, and Security groups, which all topped the NASDAQ. Over the past three years, the SaaS group outperformed other software segments by a substantial margin, while the Applications and Infrastructure groups also exceeded the NASDAQ.

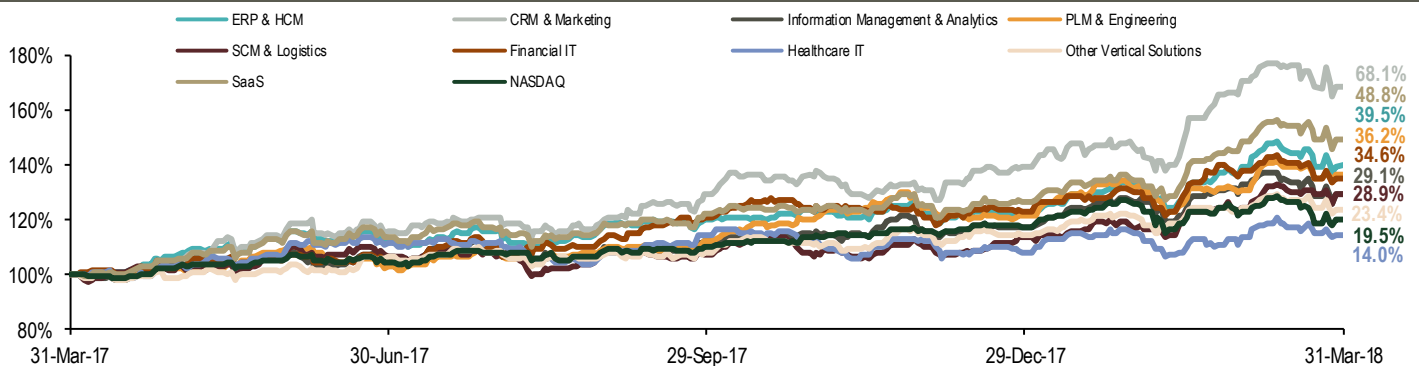
LTM Stock Price Performance – Primary Software Segments



3-Year Stock Price Performance – Primary Software Segments



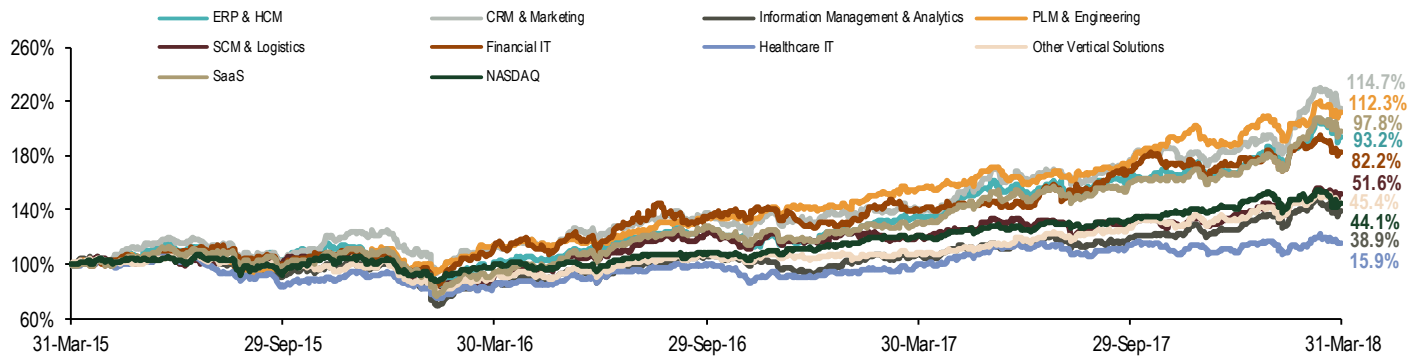
LTM Stock Price Performance – Applications Sub-Segments / SaaS



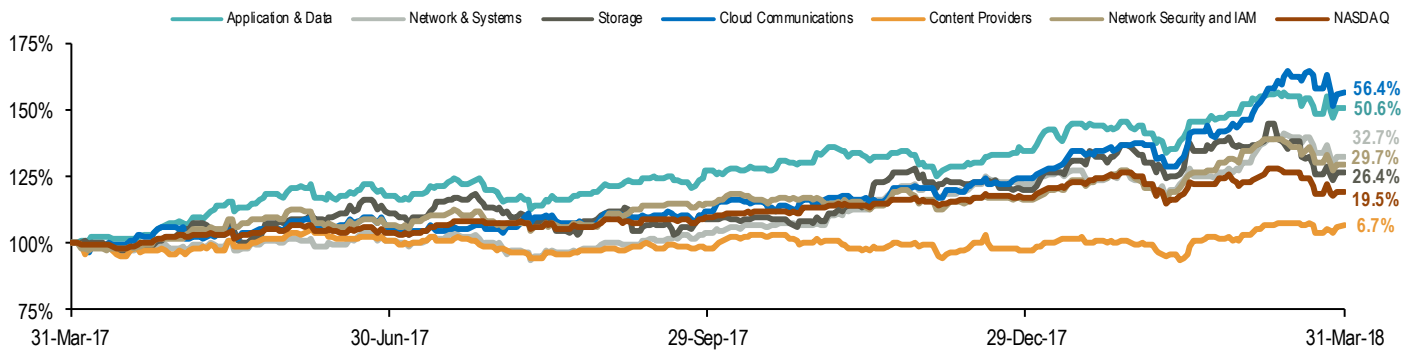
Source: Capital IQ.
Companies in various indices are listed on pages 1-2.

Sector Trading Statistics and Operating Metrics

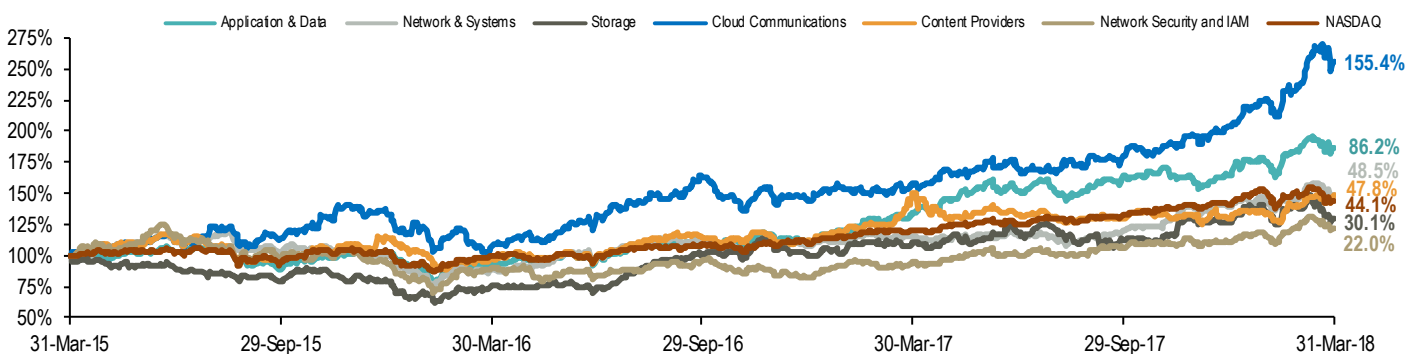
3-Year Stock Price Performance – Applications Sub-Segments / SaaS



LTM Stock Price Performance – Infrastructure and Security Sub-Segments



3-Year Stock Price Performance – Infrastructure and Security Sub-Segments



Source: Capital IQ.
Companies in various indices are listed on pages 1-2.

Sector Trading Statistics and Operating Metrics

Risers – Top 20 Stocks of the Last 12 Months

Company	Price as of 3/31/18	Market Cap (\$mil)	% Change YTD	% Change Last Quarter	% Change LTM
eGain Corporation	\$7.95	\$216.9	51.4%	51.4%	448.3%
Tabula Rasa HealthCare, Inc.	\$38.80	\$17,221.0	38.3%	38.3%	187.8%
Nutanix, Inc.	\$49.11	\$450.0	39.2%	39.2%	161.6%
Apptio, Inc.	\$28.34	\$1,418.4	20.5%	20.5%	141.6%
LivePerson, Inc.	\$16.35	\$10,087.6	42.2%	42.2%	138.7%
R1 RCM Inc.	\$7.14	\$3,743.8	61.9%	61.9%	131.1%
RingCentral, Inc.	\$63.50	\$2,629.3	31.2%	31.2%	124.4%
MiX Telematics Limited	\$0.62	\$3,368.9	12.6%	12.6%	121.4%
Alteryx, Inc.	\$34.14	\$3,181.0	35.1%	35.1%	118.4%
Yonyou Network Technology	\$6.06	\$460.9	80.6%	80.6%	116.2%
2U, Inc.	\$84.03	\$297.9	30.3%	30.3%	111.9%
Hortonworks, Inc.	\$20.37	\$10,279.8	1.3%	1.3%	107.6%
Pure Storage, Inc.	\$19.95	\$3,303.6	25.8%	25.8%	103.0%
New Relic, Inc.	\$74.12	\$2,250.5	28.3%	28.3%	99.9%
Arista Networks, Inc.	\$255.30	\$538.1	8.4%	8.4%	93.0%
Qualys, Inc.	\$72.75	\$1,351.6	22.6%	22.6%	92.0%
Varonis Systems, Inc.	\$60.50	\$3,069.5	24.6%	24.6%	90.3%
ServiceNow, Inc.	\$165.45	\$461.9	26.9%	26.9%	89.2%
Paycom Software, Inc.	\$107.39	\$4,680.4	33.7%	33.7%	86.7%
Xero Limited	\$25.76	\$22,519.3	16.7%	16.7%	84.8%

Decliners – Weakest 20 Stocks of the Last 12 Months

Company	Price as of 3/31/18	Market Cap (\$mil)	% Change YTD	% Change Last Quarter	% Change LTM
Link Motion Inc.	\$1.66	\$179.0	(58.7%)	(58.7%)	(60.2%)
Synchronoss Technologies, Inc.	\$10.55	\$501.3	18.0%	18.0%	(56.8%)
Micro Focus International plc	\$13.88	\$6,053.0	(60.4%)	(60.4%)	(54.9%)
PDF Solutions, Inc.	\$11.66	\$376.6	(25.7%)	(25.7%)	(48.5%)
AhnLab, Inc.	\$80.96	\$701.5	59.0%	59.0%	(41.1%)
Gridsum Holding Inc.	\$8.17	\$251.1	(10.7%)	(10.7%)	(38.5%)
NantHealth, Inc.	\$3.05	\$330.5	0.0%	0.0%	(38.5%)
Telenav, Inc.	\$5.40	\$240.6	(1.8%)	(1.8%)	(37.6%)
WageWorks, Inc.	\$45.20	\$1,791.6	(27.1%)	(27.1%)	(37.5%)
A10 Networks, Inc.	\$5.82	\$411.8	(24.6%)	(24.6%)	(36.4%)
Evolent Health, Inc.	\$14.25	\$1,065.7	15.9%	15.9%	(36.1%)
iCAD, Inc.	\$3.08	\$50.9	(10.5%)	(10.5%)	(36.0%)
NIC Inc.	\$13.30	\$892.7	(19.4%)	(19.4%)	(32.9%)
Sapiens International Corporation	\$8.53	\$424.4	(26.0%)	(26.0%)	(32.6%)
MicroStrategy Incorporated	\$128.99	\$1,476.5	(1.8%)	(1.8%)	(31.3%)
NetScout Systems, Inc.	\$26.35	\$2,299.5	(13.5%)	(13.5%)	(30.6%)
SDL plc	\$5.77	\$474.7	(6.6%)	(6.6%)	(28.6%)
Acxiom Corporation	\$22.71	\$1,786.5	(17.6%)	(17.6%)	(20.2%)
Manhattan Associates, Inc.	\$41.88	\$2,846.6	(15.5%)	(15.5%)	(19.5%)
ChannelAdvisor Corporation	\$9.10	\$246.1	1.1%	1.1%	(18.4%)

Source: Capital IQ.

Sector Trading Statistics and Operating Metrics

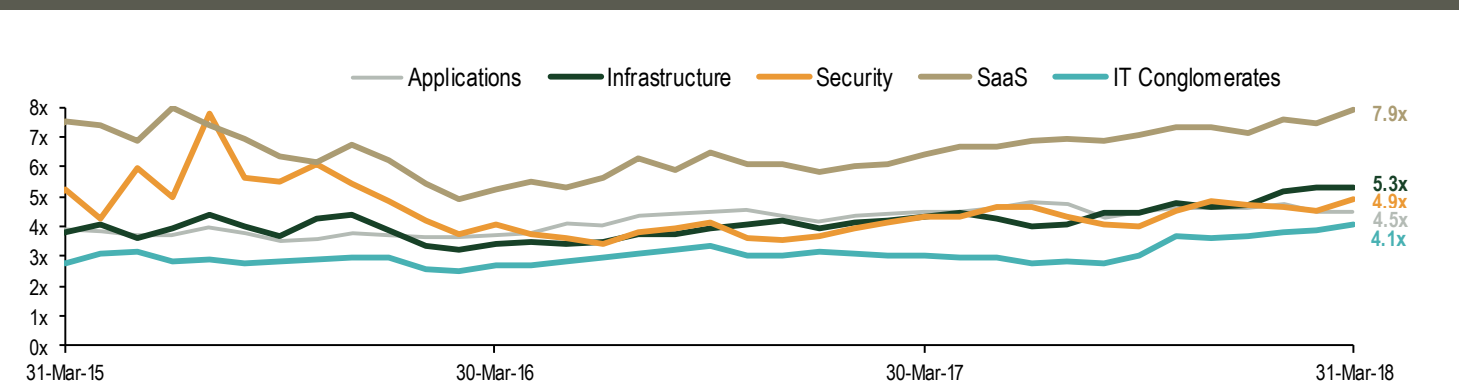
Highest Growth Companies								
(\$ in millions)								
Company	Enterprise Value	Revenue			Revenue Growth		EV/Revenue	
		LTM 2018	2018E	2019E	2018E	2019E	2018E	2019E
R1 RCM Inc.	\$770.3	\$449.8	\$869.4	\$1,068.4	93.3%	22.9%	0.9	0.7
Shopify Inc.	\$12,182.4	\$673.3	\$998.2	\$1,369.9	48.3%	37.2%	12.2	8.9
Tabula Rasa HealthCare, Inc.	\$767.8	\$134.5	\$190.5	\$231.1	41.6%	21.3%	4.0	3.3
2U, Inc.	\$4,228.9	\$286.8	\$401.5	\$531.2	40.0%	32.3%	10.5	8.0
Wix.com Ltd.	\$3,497.8	\$425.6	\$594.0	\$745.0	39.6%	25.4%	5.9	4.7
MongoDB, Inc.	\$1,916.0	\$154.5	\$214.4	\$287.4	38.7%	34.1%	8.9	6.7
Yirendai Ltd.	\$2,120.3	\$881.4	\$1,205.2	\$1,567.2	36.7%	30.0%	1.8	1.4
Upland Software, Inc.	\$688.4	\$98.0	\$133.2	\$141.8	36.0%	6.5%	5.2	4.9
Alteryx, Inc.	\$1,882.2	\$131.6	\$178.7	\$235.8	35.7%	32.0%	10.5	8.0
Talend S.A.	\$1,330.8	\$148.6	\$201.5	\$257.4	35.6%	27.7%	6.6	5.2
Proofpoint, Inc.	\$5,610.9	\$515.3	\$694.2	\$890.2	34.7%	28.2%	8.1	6.3
Okta, Inc.	\$3,940.9	\$260.0	\$347.1	\$457.6	33.5%	31.8%	11.4	8.6
Evolent Health, Inc.	\$984.1	\$435.0	\$577.3	\$673.8	32.7%	16.7%	1.7	1.5
Yext, Inc.	\$1,073.0	\$170.2	\$225.1	\$296.8	32.2%	31.9%	4.8	3.6
ServiceNow, Inc.	\$28,298.3	\$1,933.0	\$2,553.9	\$3,280.4	32.1%	28.4%	11.1	8.6
Pure Storage, Inc.	\$3,976.0	\$1,023.0	\$1,343.8	\$1,696.8	31.4%	26.3%	3.0	2.3
Atlassian Corporation Plc	\$11,843.3	\$740.7	\$972.3	\$1,235.4	31.3%	27.1%	12.2	9.6
The Trade Desk, Inc.	\$1,956.7	\$308.2	\$404.1	\$507.9	31.1%	25.7%	4.8	3.9
Instructure, Inc.	\$1,364.7	\$158.8	\$208.0	\$263.0	31.0%	26.4%	6.6	5.2
Everbridge, Inc.	\$984.8	\$104.4	\$136.5	\$172.1	30.8%	26.1%	7.2	5.7
Zendesk, Inc.	\$4,701.9	\$430.5	\$562.7	\$722.7	30.7%	28.4%	8.4	6.5
HubSpot, Inc.	\$3,894.1	\$375.6	\$483.9	\$601.0	28.8%	24.2%	8.0	6.5
New Relic, Inc.	\$3,876.3	\$329.9	\$424.0	\$528.6	28.5%	24.7%	9.1	7.3
Inovalon Holdings, Inc.	\$1,303.1	\$449.4	\$576.4	\$646.6	28.3%	12.2%	2.3	2.0
Twilio Inc.	\$3,306.9	\$399.0	\$511.8	\$631.7	28.3%	23.4%	6.5	5.2
Splunk Inc.	\$12,827.7	\$1,270.8	\$1,629.0	\$2,029.0	28.2%	24.6%	7.9	6.3

Source: Capital IQ. LTM 2018 represents last 12 months of reported revenue, as of March 31.

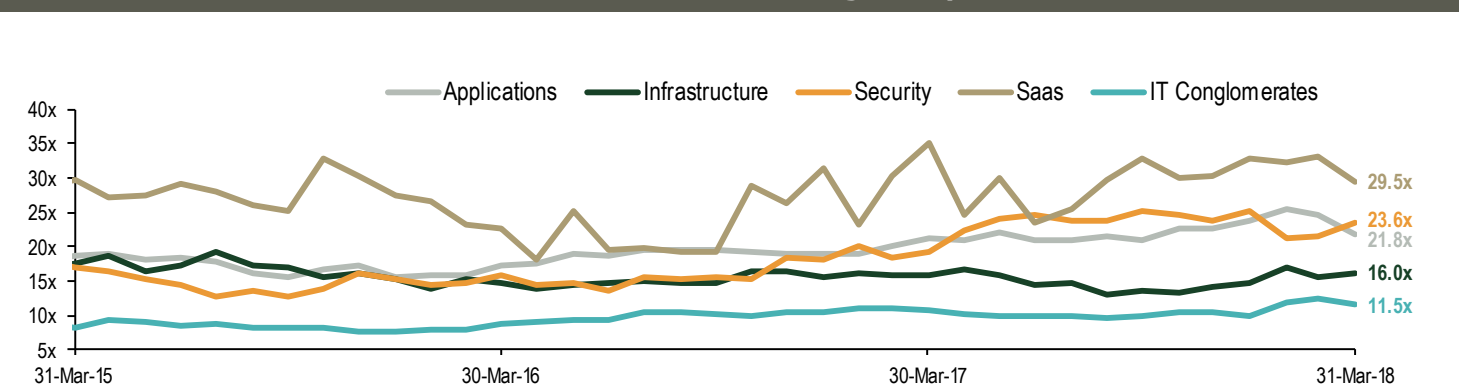
Sector Trading Statistics and Operating Metrics

On a relative basis, software stocks in the SaaS segment historically have registered the highest market multiples; this trend continued through Q1 2018.

Median LTM Revenue Trading Multiples



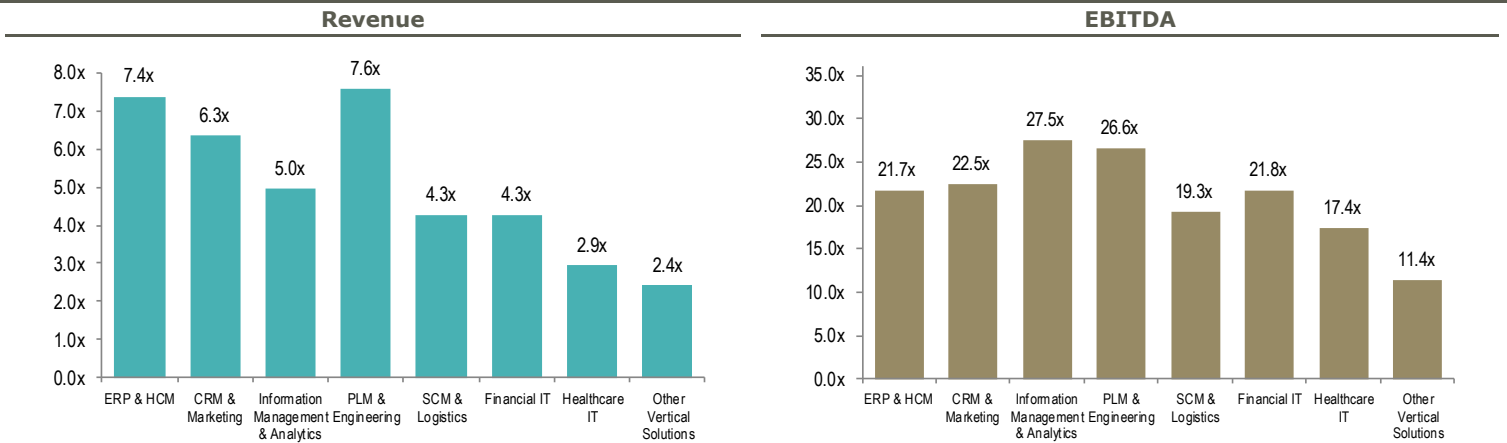
Median LTM EBITDA Trading Multiples



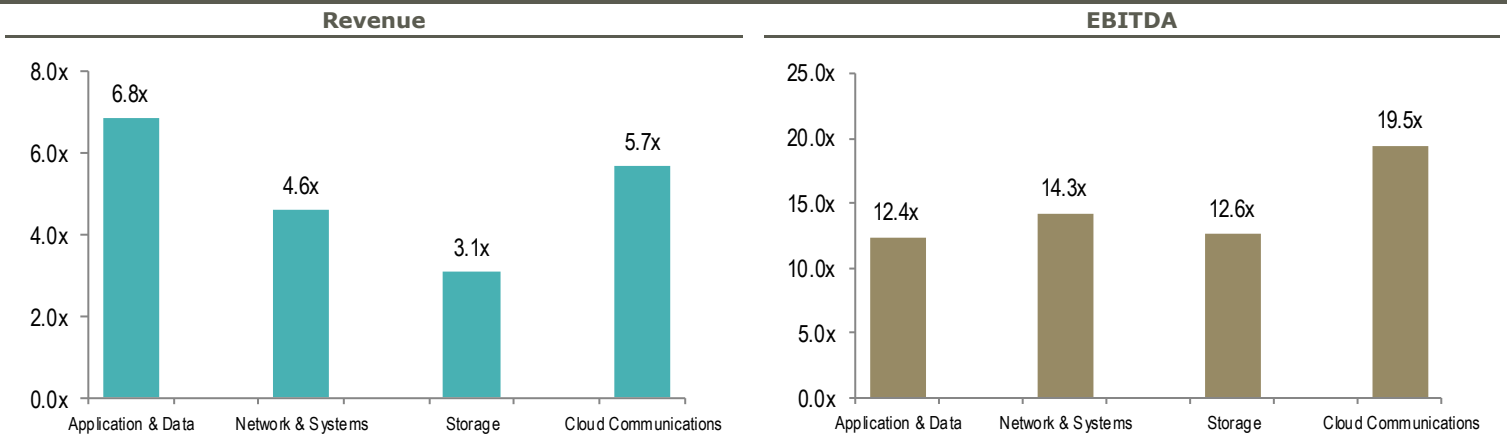
Source: Capital IQ.
Indices include the companies listed on pages 1-2.

Sector Trading Statistics and Operating Metrics

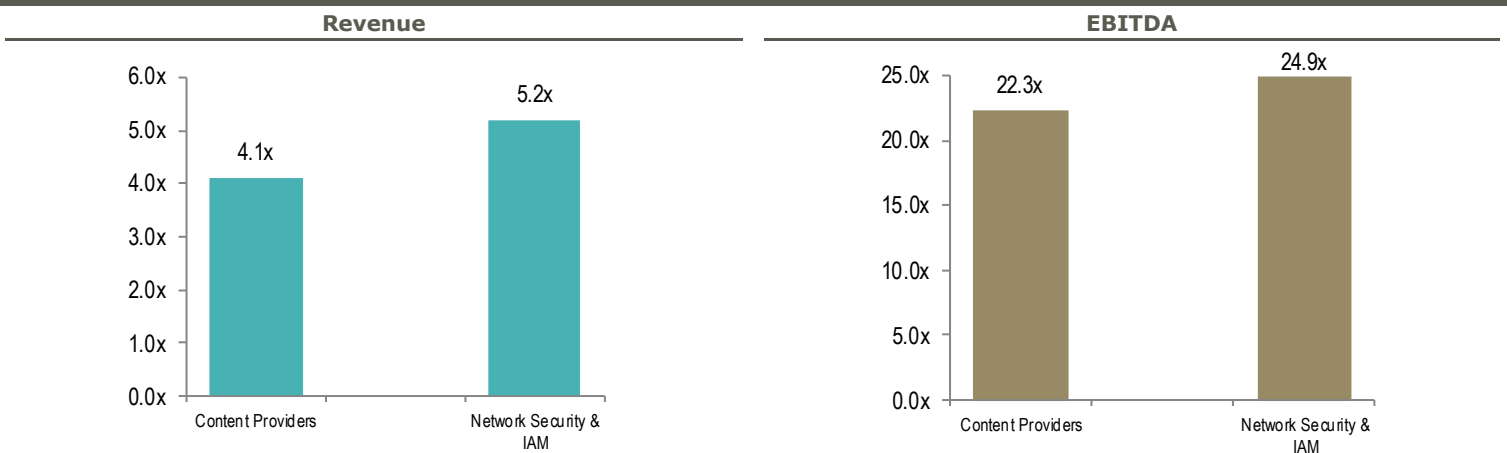
LTM Trading Multiples for Applications Sub-Segments



LTM Trading Multiples for Infrastructure Sub-Segments



LTM Trading Multiples for Security Sub-Segments

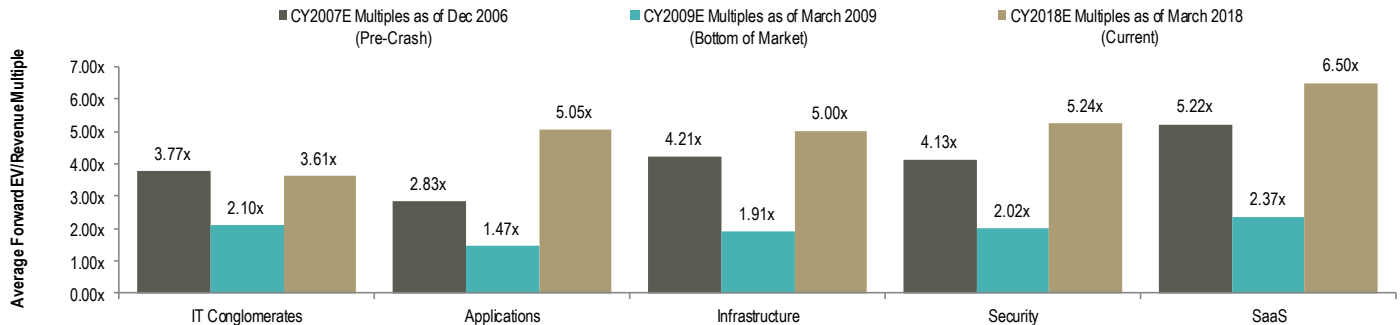


Source: Capital IQ.

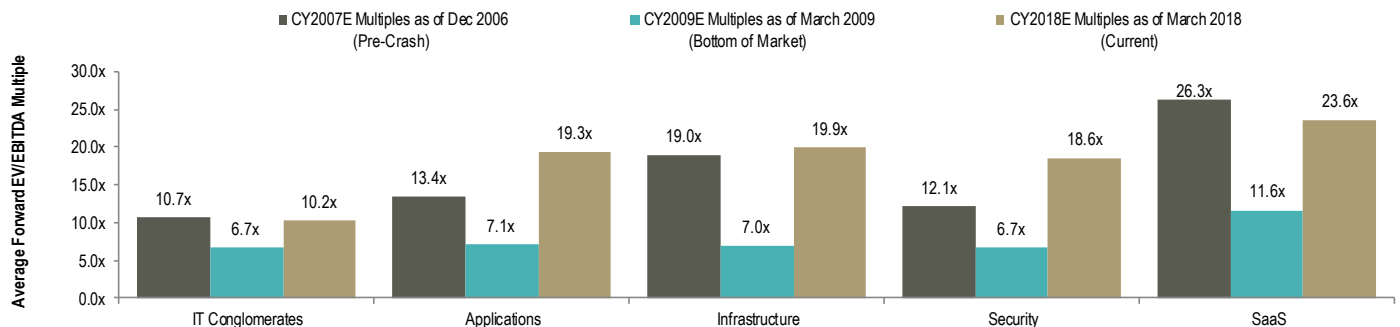
Sector Trading Statistics and Operating Metrics

The charts presented below demonstrate that for the Applications, Infrastructure, and Security segments, average valuation multiples (on forward revenue and EBITDA) have surpassed the pre-crash levels of December 2006, even though forward revenue growth estimates are below the levels seen 11 years ago. We believe the main factors contributing to this phenomenon include: (1) M&A activity driven by an abundance of corporate cash and private equity capital chasing software opportunities, (2) scarcity created by the numerous acquisitions of publicly traded software companies, and (3) the difficulty faced by investors in finding well-valued growth investments, resulting in willingness to pay more for growth.

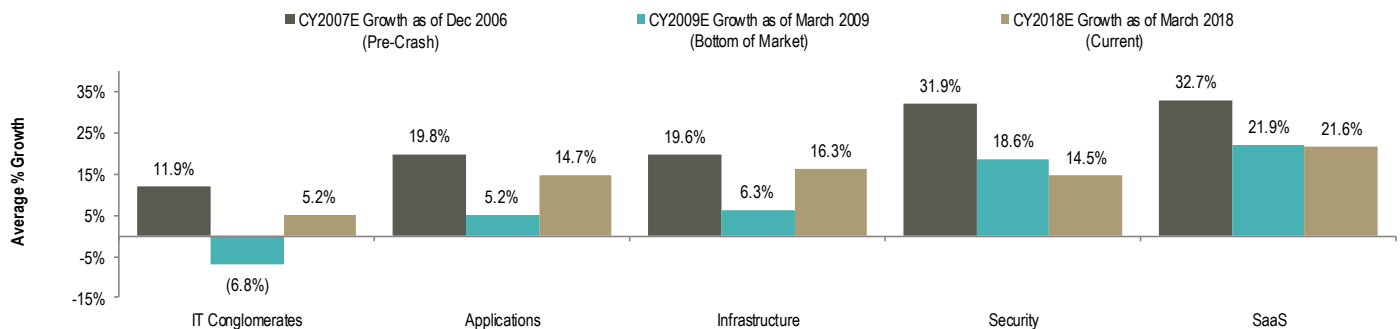
Forward Revenue Multiples



Forward EBITDA Multiples



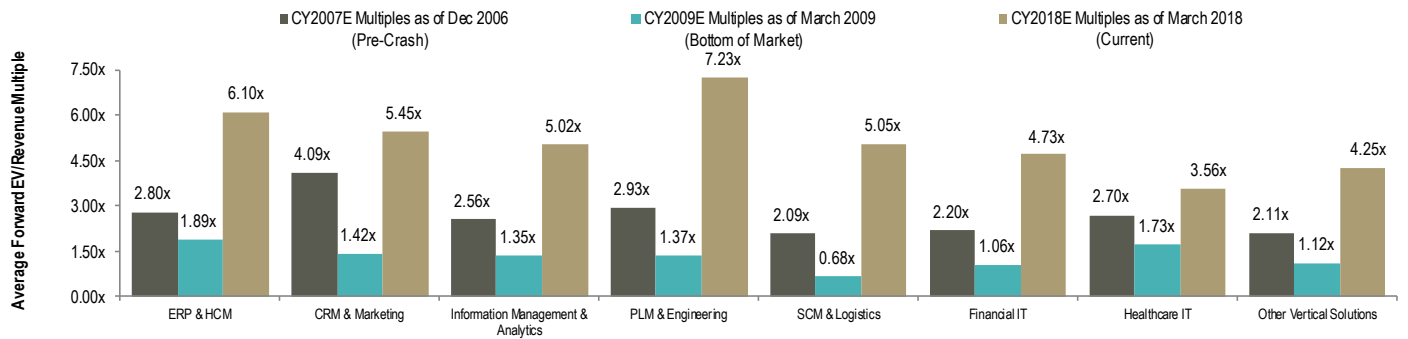
Forward Revenue Growth Estimates



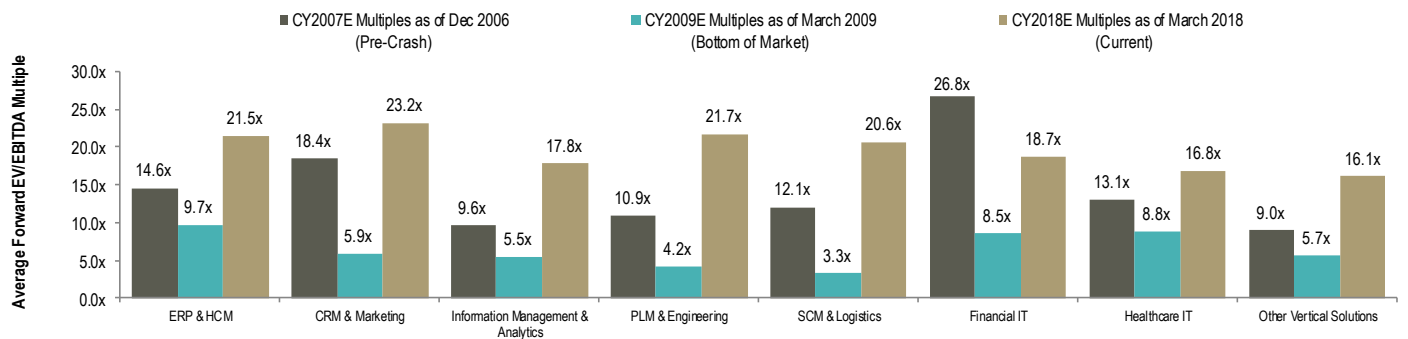
Source: Capital IQ. Current estimates as of March 31, 2018.

Sector Trading Statistics and Operating Metrics

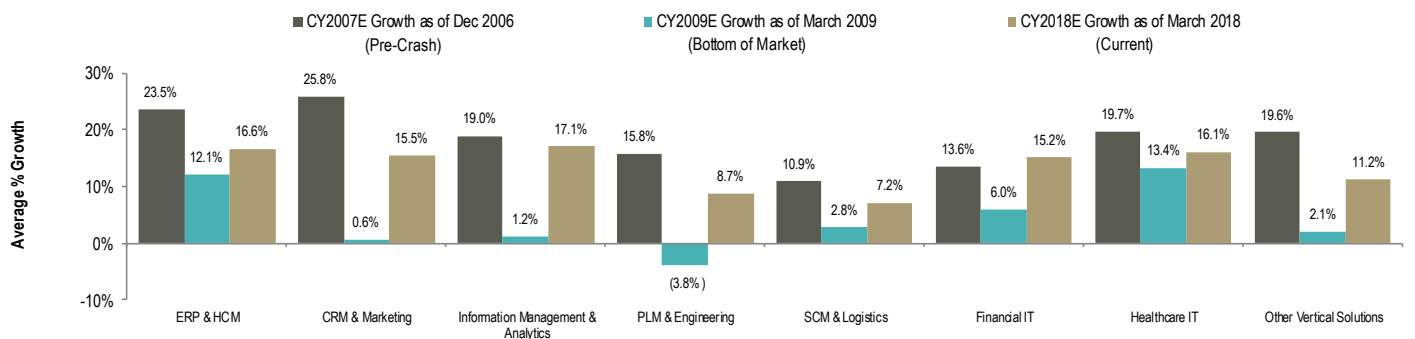
Forward Revenue Multiples for Applications Sub-Segments



Forward EBITDA Multiples for Applications Sub-Segments



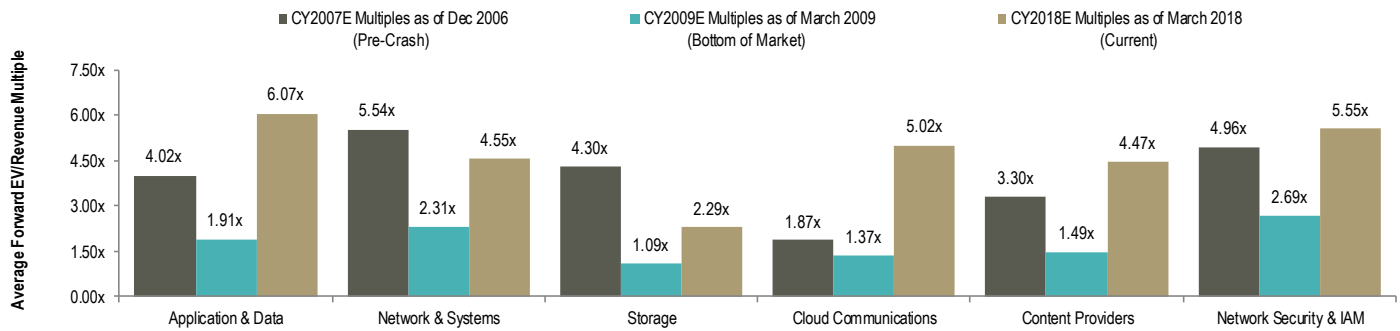
Forward Revenue Growth Estimates for Applications Sub-Segments



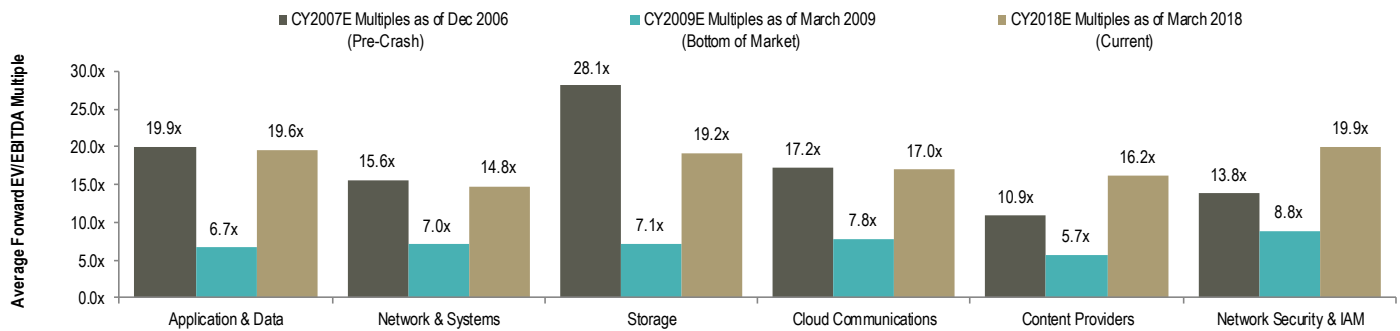
Source: Capital IQ. Current estimates as of March 31, 2018.

Sector Trading Statistics and Operating Metrics

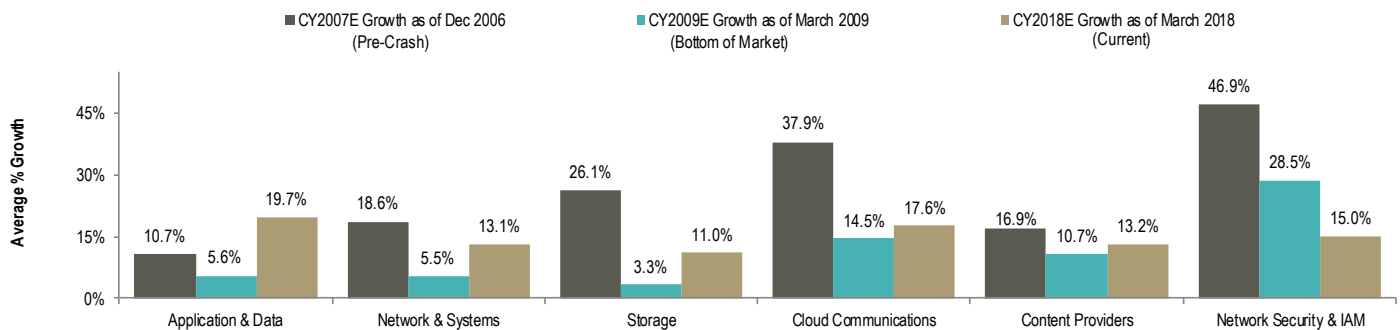
Forward Revenue Multiples for Infrastructure & Security Sub-Segments



Forward EBITDA Multiples for Infrastructure & Security Sub-Segments



Forward Revenue Growth Estimates for Infrastructure & Security Sub-Segments

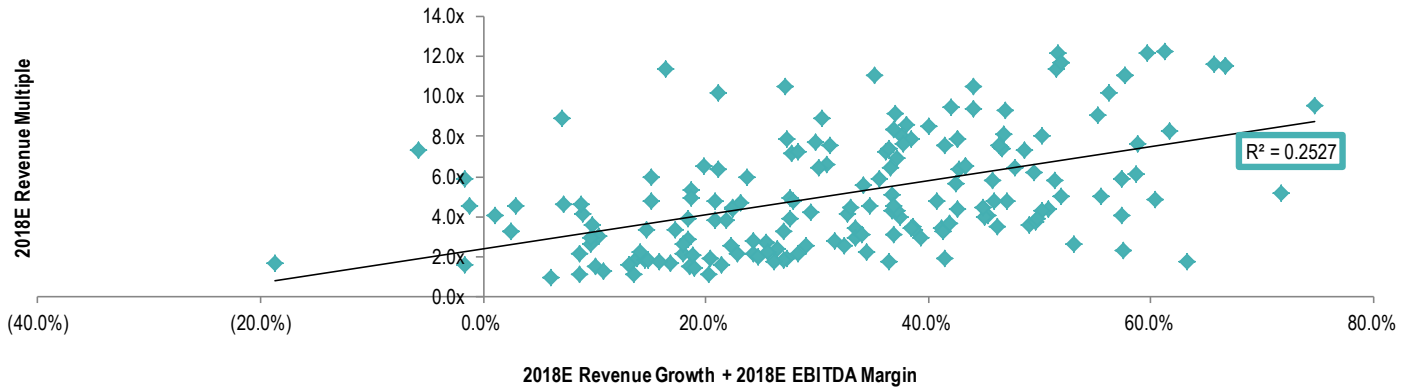


Source: Capital IQ. Current estimates as of March 31, 2018.

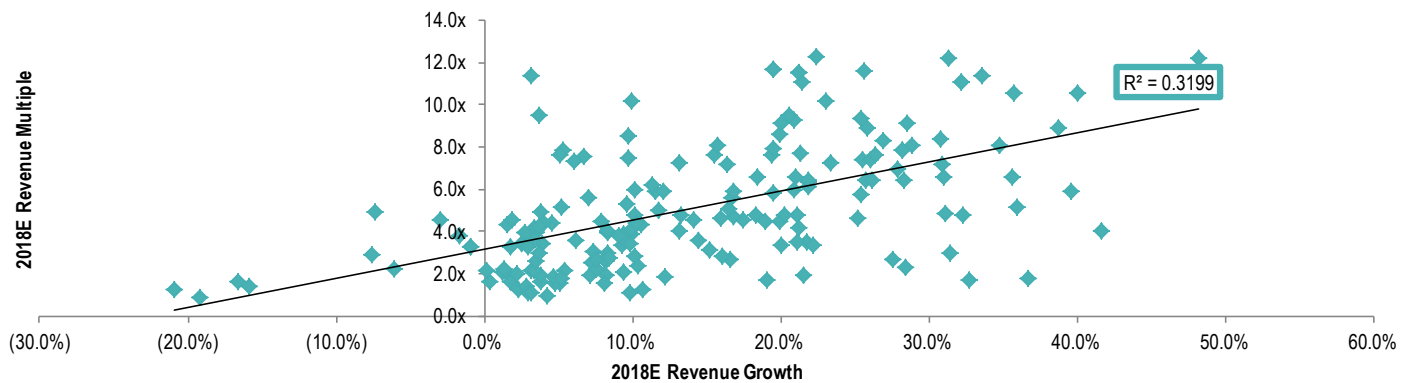
Sector Trading Statistics and Operating Metrics

The charts below depict correlations between software company revenue multiples with revenue growth, EBITDA margin, and a metric that combines these. While software revenue multiples in the large majority of recent periods were most highly correlated with the combined 'revenue growth + EBITDA margin' metric, revenue multiples at the end of Q1 were most highly correlated with revenue growth.

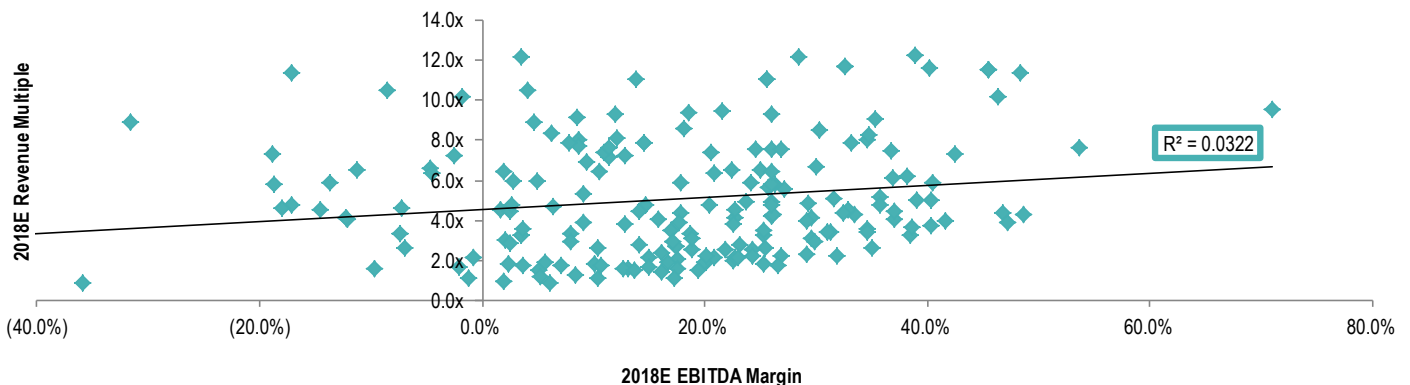
Revenue Multiple vs. Revenue Growth + EBITDA Margin



Revenue Multiple vs. Revenue Growth



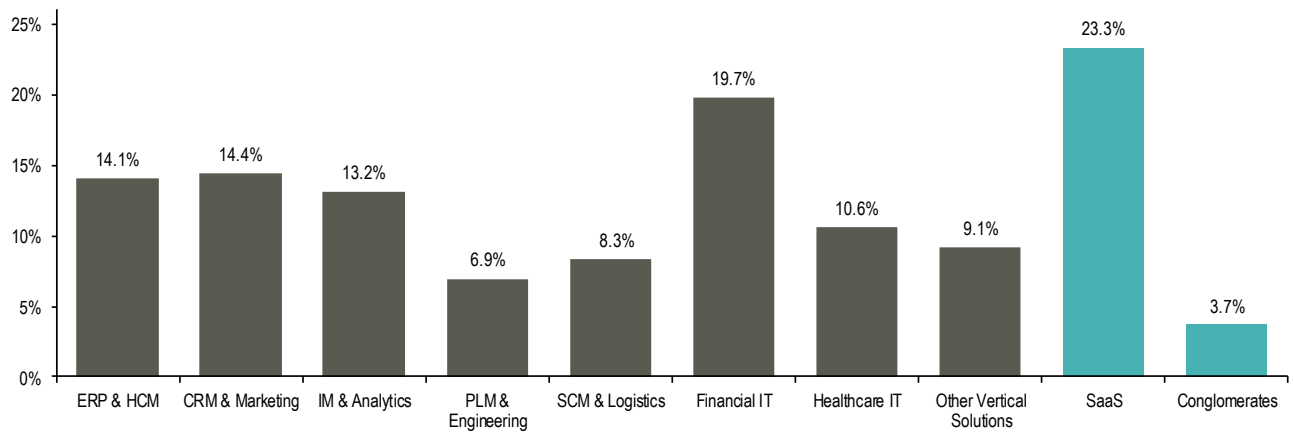
Revenue Multiple vs. EBITDA Margin



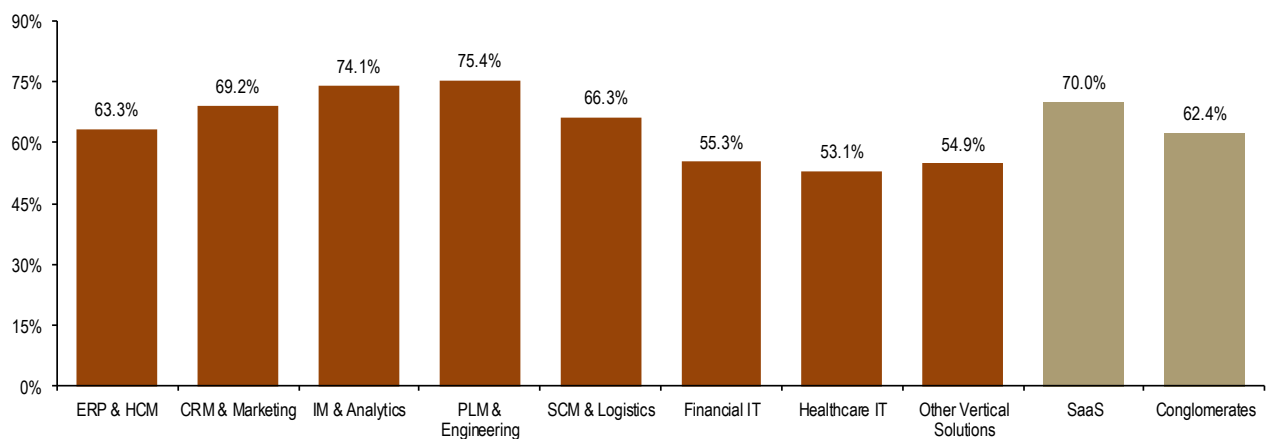
Source: Capital IQ.

Sector Trading Statistics and Operating Metrics

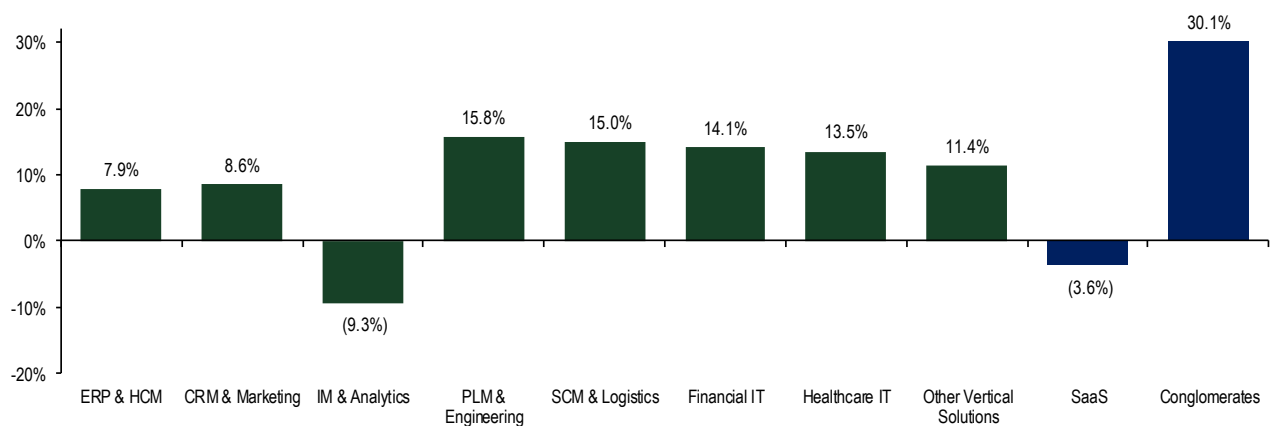
Median 2018E Revenue Growth for Applications Sub-Segments/SaaS/IT Conglomerates



Median LTM Gross Margin for Applications Sub-Segments/SaaS/IT Conglomerates



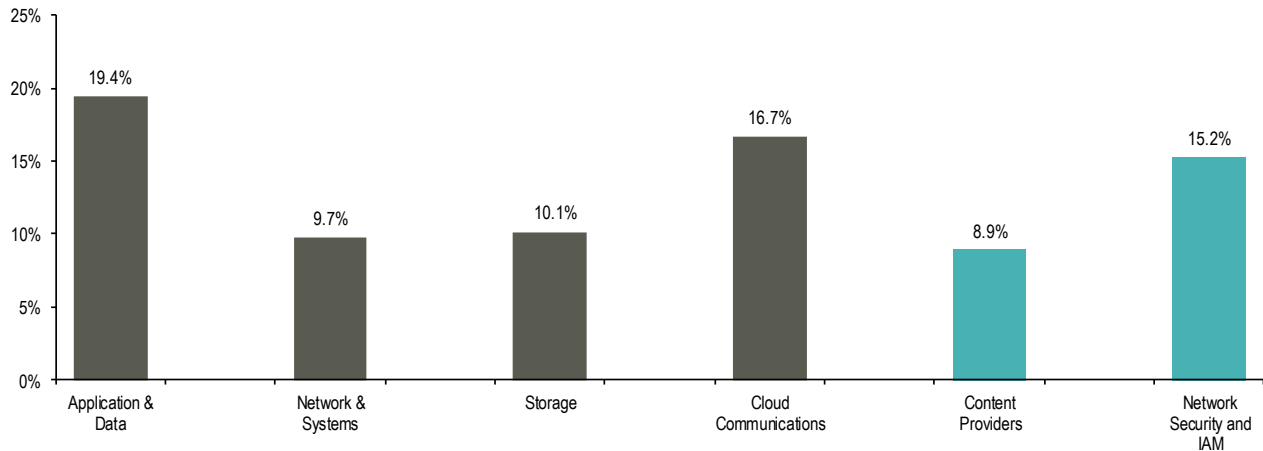
Median LTM EBITDA Margin for Applications Sub-Segments/SaaS/IT Conglomerates



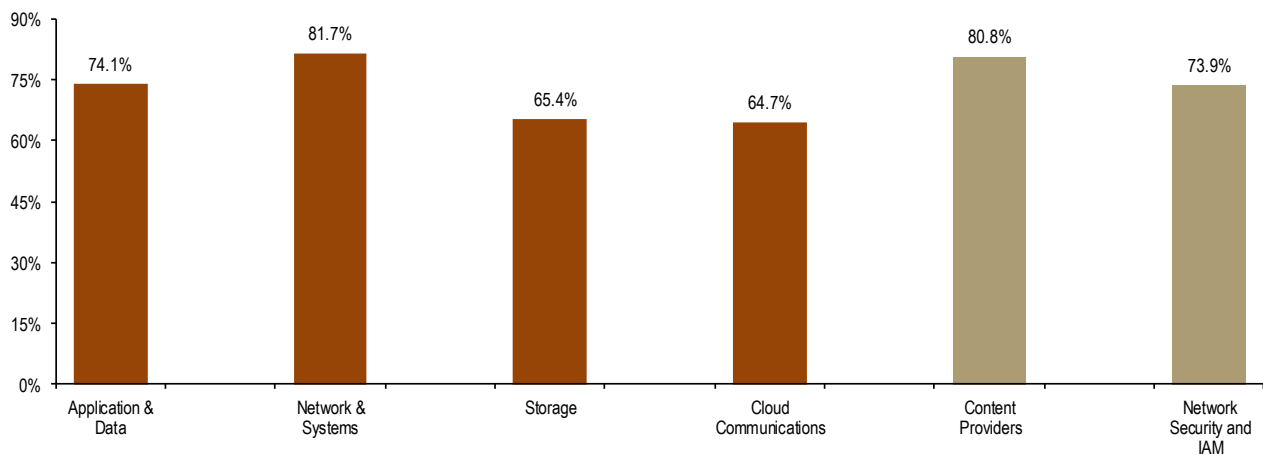
Source: Capital IQ. As of March 31, 2018.

Sector Trading Statistics and Operating Metrics

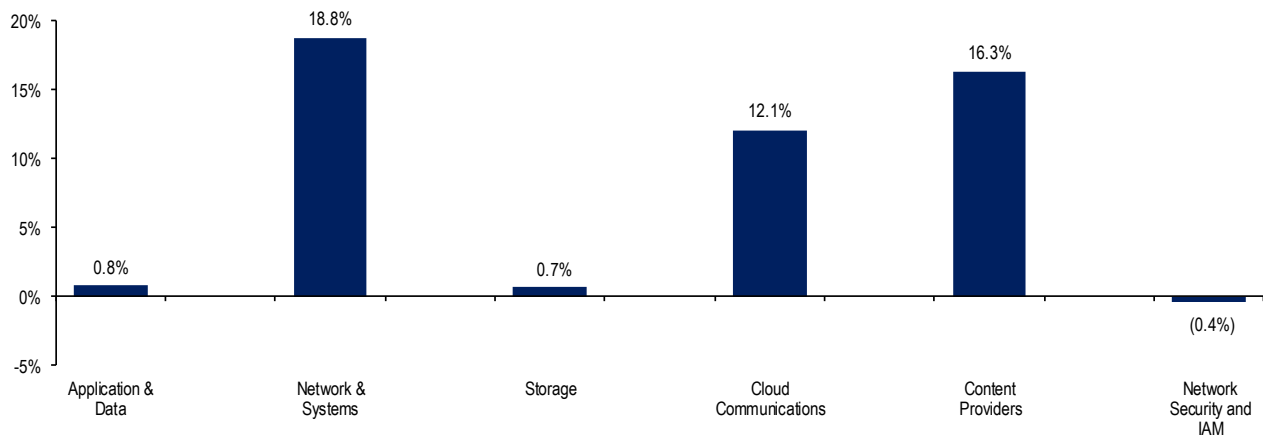
Median 2018E Revenue Growth for Infrastructure and Security Sub-Segments



Median LTM Gross Margin for Infrastructure and Security Sub-Segments



Median LTM EBITDA Margin for Infrastructure and Security Sub-Segments



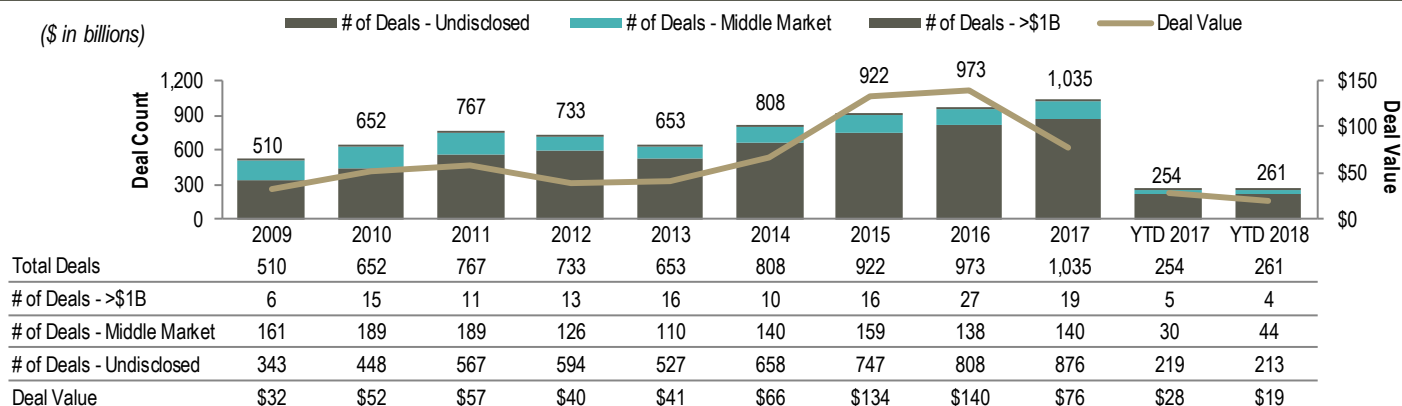
Source: Capital IQ. As of March 31, 2018.

Software M&A Analysis

The software sector has registered substantial levels of M&A activity in recent years. Since the start of 2007, the category has witnessed more than 8,600 majority-stake M&A transactions (within the scope of this report), with aggregate reported value exceeding \$750 billion for the nearly 2,000 deals with a disclosed value.

Acquisitions will continue to be a key part of successful growth strategies for leading software companies. Drivers of consolidation activity include portfolio expansion, strong balance sheets, access to innovation, vendor consolidation, private equity activity, diversification, and scale economies.

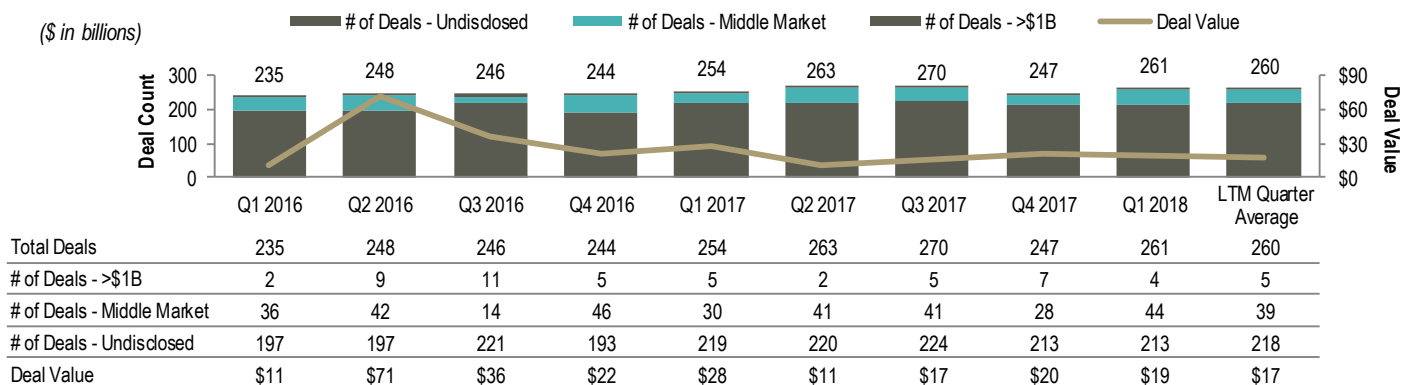
Software M&A Activity by Deal Size



Source: Capital IQ, Dealogic, and Robert W. Baird & Co. M&A analysis.

The M&A deal count in Q1 2018 in line with the average of the past four quarters. For the eighteenth consecutive quarter, the deal count was above the level registered in the year-ago period. Aggregate disclosed dollar volume of \$19 billion (for the 48 deals with a disclosed value in Q1) was slightly below the Q4 2017 figure, but was above the LTM average of \$17 billion.

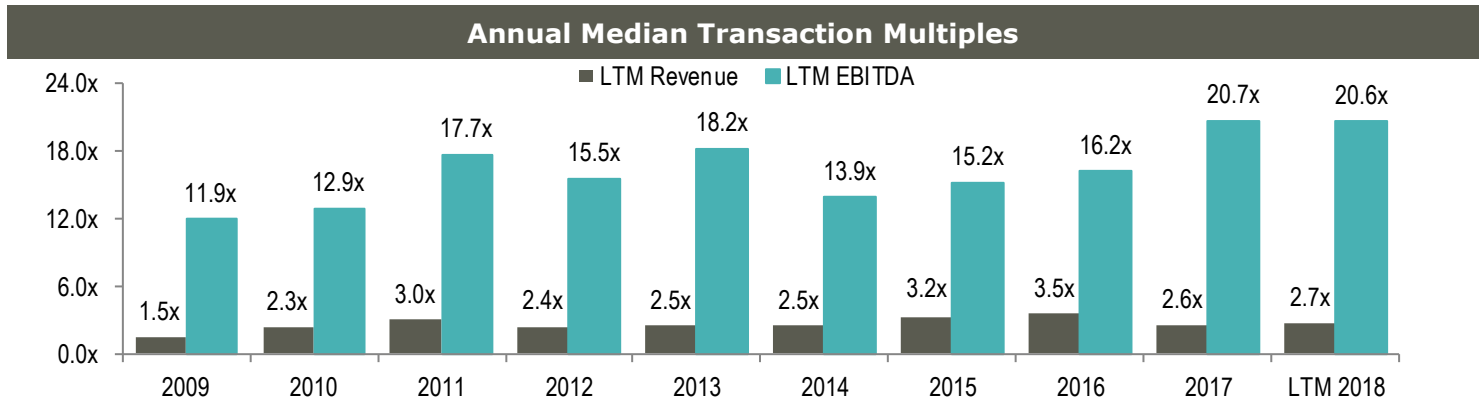
Software M&A Activity by Quarter



Source: Capital IQ, Dealogic, and Robert W. Baird & Co. M&A analysis.



Software M&A Analysis

Software companies continue to trade at attractive valuations and multiples in M&A transactions. From 2007 through March 31, 2018, the median EV/revenue ratio was 2.4x (for a total of 567 deals with this data available). The median EV/EBITDA ratio was 16.0x over the same period (for a total of 239 transactions). Narrowing the scope to deals with public company targets since the start of 2010, the median EV/revenue ratio for this group was 3.3x, and the median EV/EBITDA multiple was 23.2x.



Source: Capital IQ, Dealogic, and Robert W. Baird & Co. M&A analysis.

Selected Noteworthy Software M&A Transactions

Date Announced	Acquiror	Target	Total Transaction Value (\$mil)	Enterprise Value / LTM	
				Revenue	EBITDA
03/20/18	 Salesforce	 MuleSoft	\$6,811.6	22.3x	N/A
03/07/18	 inovalon [®] <small>healthcare empowered</small>	 ABILITY [®] <small>An Inovalon Company</small>	1,200.0	8.6	16.6x
03/06/18	 GTCR  SYCAMORE PARTNERS	 CommerceHub	1,109.5	9.8	34.1
03/06/18	 S&P Global	 KENSHO	550.0	28.2	N/D
02/26/18	 R1 SM	 intermedix	460.0	2.4	9.6
02/05/18	 Capgemini	 liquidhub	500.0	2.0	N/D
02/02/18	 Trimble	 e-Builder	500.0	9.4	N/D
01/29/18	 SAP	 CallidusCloud	2,576.4	9.6	N/A
12/17/17	 THALES	 gemalto [®] <small>security to be free</small>	6,718.5	1.8	13.1
12/17/17	 ORACLE [®]	 aconex	1,254.0	10.0	84.4x ⁽¹⁾
12/11/17	 xylem <small>Let's Solve Water</small>	 pure [®] TECHNOLOGIES	401.6	4.0	26.5
11/27/17	 THOMA BRAVO	 Barracuda	1,611.9	3.8	43.1
11/27/17	 MARLIN EQUITY PARTNERS	 b: bazaar voice.	521.2	2.2	19.6 ⁽¹⁾
10/26/17	 ELLIOTT [®]	 Gigamon [®]	1,483.6	4.4	17.5 ⁽¹⁾
10/23/17	 CISCO	 broadsoft	2,288.0	5.3	80.7
10/17/17	 SIRIS	 INTRA LINKS	1,081.6	3.5	46.1
09/28/17	 DASSAULT SYSTEMES	 Exa	400.3	5.3	N/A
09/18/17	 Itron	 SilverSpring NETWORKS	958.3	1.9	N/A
09/06/17	 pitney bowes	 newgistics.	475.0	1.0	N/D
08/30/17	 KÖRBER	 HighJump [™]	750.0	4.3 ⁽²⁾	N/D
08/21/17	 Verisk	 sequel	322.5	9.6	20.8
07/26/17	 OPENTEXT	 GUIDANCE SOFTWARE	258.9	2.3	N/A
07/25/17	 sage	 Intacct	850.0	9.7	N/A
06/22/17	 enel <small>Green Power</small>	 ENERNOC	367.6	0.7	N/A

Source: Dealogic, Capital IQ, and Robert W. Baird & Co. M&A analysis. N/A = Not Applicable. N/D = Not Disclosed.

(1) Forward multiple.

(2) Multiple based on media report of 2016 revenue.

Selected Noteworthy Software M&A Transactions

Date Announced	Acquiror	Target	Total Transaction Value (\$mil)	Enterprise Value / LTM	
				Revenue	EBITDA
06/19/17	 		\$483.0	3.9x	N/D
06/14/17			217.6	2.3	N/A
05/30/17	 Vista Equity Partners	 Inspire Performance	576.8	5.5	N/A
05/23/17	 Cloud communications made smarter		412.0	1.0	17.5x
05/15/17			3,285.7	10.7	20.8
05/03/17			1,350.0	0.3	N/D
05/01/17			462.2	1.7 ⁽¹⁾	15.1 ⁽¹⁾
04/28/17			215.0	7.2	N/D
04/03/17			900.0	4.2	N/D
04/03/17		 (Email/Cross-Channel Marketing Business)	300.0	N/D	7.7 ⁽²⁾
03/13/17			15,403.2	41.9	120.0
03/07/17			317.3	5.3	N/A
03/06/17			614.0	6.1 ⁽³⁾	N/D
02/23/17			212.3	2.4	27.5
02/02/17			834.0	3.6	N/A
01/24/17			4,032.8	18.9	N/A
01/09/17			425.0	53.1 ⁽¹⁾	N/D
01/03/17			1,150.0	2.6	9.0
12/06/16			902.4	2.9	42.7
11/20/16			2,513.2	3.6	N/A
11/14/16			4,544.0	3.8	23.2
11/09/16			626.3	2.6	N/A
10/31/16		 Powering connections. Improving results.	631.0	4.2 ⁽⁴⁾	N/D

Source: Dealogic, Capital IQ, and Robert W. Baird & Co. M&A analysis. N/A = Not Applicable. N/D = Not Disclosed.







(1) Forward multiple.

(2) LTM EBITD Multiple

(3) Forward multiple based on midpoint of guidance.

(4) Forward run rate multiple.

Recent Software IPOs






















Trade Date	Issuer	Ticker	Filing Range	Offer Price	Gross Proceeds ⁽¹⁾ (\$ in millions)	Offer to Current ⁽²⁾	LTM Revenue	Forward Year Revenue Growth
03/22/18	 Dropbox	DBX	\$18.00 - 20.00	\$21.00	\$869.4	48.8%	\$1,106.8	15.3%
03/15/18	 zscaler™	ZS	13.00 - 15.00	16.00	220.8	75.4%	154.3	N/A
02/08/18	 cardlytics	CDLX	13.00 - 15.00	13.00	75.7	12.5%	130.4	47.3%
12/14/17	 casa systems	CASA	15.00 - 17.00	13.00	89.7	125.7%	332.8	10.0%
11/16/17	 SailPoint	SAIL	9.00 - 11.00	12.00	240.0	72.4%	162.6	16.3%
11/14/17	 SendGrid	SEND	13.50 - 15.50	16.00	150.9	75.9%	103.2	22.1%
11/09/17	 bandwidth	BAND	20.00 - 22.00	20.00	80.0	63.3%	159.3	11.3%
10/31/17	 Altair	ALTR	11.00 - 13.00	13.00	179.4	141.2%	326.3	7.7%
10/26/17	 ForeScout	FSCT	20.00 - 22.00	22.00	116.2	47.5%	204.3	17.8%
10/18/17	 mongoDB	MDB	20.00 - 22.00	24.00	192.0	80.8%	124.2	33.2%
06/29/17	 Tintri	TNTR	7.00 - 8.00	7.00	67.0	(75.6%)	132.6	62.5%
05/24/17	 Appian	APPN	11.00 - 13.00	12.00	86.3	109.8%	135.3	5.2%
04/27/17	 cloudera	CLDR	12.00 - 14.00	15.00	258.8	43.9%	261.0	19.4%
04/12/17	 yext	YEXT	8.00 - 11.00	11.00	132.8	15.0%	124.3	32.3%
04/06/17	 okta	OKTA	15.00 - 17.00	17.00	215.1	134.4%	160.3	21.3%
03/23/17	 alteryx	AYX	12.00 - 14.00	14.00	144.9	143.9%	85.8	27.0%
03/16/17	 MuleSoft™	MULE	14.00 - 16.00	17.00	254.2	158.7%	187.7	24.5%
10/27/16	 BLACKLINE	BL	16.00 - 17.00	17.00	168.1	130.6%	112.3	31.7%
10/05/16	 coupa	COUP	16.00 - 18.00	18.00	153.2	153.4%	109.5	39.6%
09/30/16	 NUTANIX™	NTNX	11.00 - 13.00	16.00	273.6	206.9%	444.9	58.8%
09/28/16	 TABULARASA HEALTHCARE	TRHC	13.00 - 15.00	12.00	59.3	223.3%	80.3	43.0%
09/22/16	 APPTIO™	APTI	13.00 - 15.00	16.00	110.4	77.1%	142.7	19.4%
09/22/16	 GRIDSUM 国双	GSUM	10.50 - 12.50	13.00	100.2	(37.2%)	43.3	55.3%
09/20/16	 theTradeDesk	TTD	16.00 - 18.00	18.00	96.6	175.7%	149.0	28.8%
09/15/16	 everbridge®	EVBG	11.00 - 13.00	12.00	103.5	205.0%	67.0	35.8%

Source: Dealogic and Capital IQ.

(1) Includes proceeds from exercised overallotments.

(2) Represents the percentage change in stock price from trade date to March 31, 2018.

Recent Software IPOs

Trade Date	Issuer	Ticker	Filing Range	Offer Price	Gross Proceeds ⁽¹⁾ (\$ in millions)	Offer to Current ⁽²⁾	LTM Revenue	Forward Year Revenue Growth
07/28/16		TLND	\$15.00 - 17.00	\$18.00	\$108.7	167.3%	\$88.7	29.6%
07/11/16		TSE:3938	28.25 - 32.15	32.15	791.7	22.9%	1,184.6	24.3%
06/22/16		TWLO	12.00 - 14.00	15.00	172.5	154.5%	192.9	18.4%
06/01/16		NH	12.50 - 15.50	14.00	71.9	(78.2%)	66.0	306.2%
05/25/16		COTV	17.00 - 19.00	19.00	245.8	81.3%	564.4	5.7%
04/21/16		SCWX	15.50 - 17.50	14.00	112.0	(42.3%)	339.5	18.6%
12/18/15	 www.yirendai.com	YRD	9.00 - 11.00	10.00	75.0	302.3%	142.6	103.4%
12/09/15		TEAM	19.00 - 20.00	21.00	531.3	156.8%	325.8	30.9%
11/18/15		MIME	10.00 - 12.00	10.00	77.5	254.3%	128.4	19.4%
11/12/15		INST	16.00 - 18.00	16.00	81.0	163.4%	65.1	43.0%
10/06/15		PSTG	16.00 - 18.00	17.00	488.8	17.4%	273.8	47.6%
07/16/15		RPD	13.00 - 15.00	16.00	118.7	59.8%	91.6	24.9%
06/25/15		APPF	12.00 - 14.00	12.00	85.6	240.4%	53.7	43.1%
06/25/15	 <small>Inspire Performance™</small>	XTLY	10.00 - 12.00	8.00	64.7	N/A ⁽³⁾	63.7	23.5%
06/18/15	 <small>LOVE YOUR BUSINESS</small>	MB	13.00 - 15.00	14.00	100.1	177.9%	76.6	31.5%
06/04/15		EVH	14.00 - 16.00	17.00	224.8	(16.2%)	100.9	34.8%
05/20/15		PGND	22.00 - 24.00	25.00	255.9	N/A ⁽³⁾	291.1	8.1%
05/20/15		SHOP	14.00 - 16.00	17.00	150.5	632.9%	123.6	33.0%
04/23/15		APIC	16.00 - 18.00	17.00	87.0	N/A ⁽³⁾	61.9	29.7%
02/11/15	 <small>medication management</small>	INOV	24.00 - 26.00	27.00	684.8	(60.7%)	361.5	21.7%
01/22/15		BOX	11.00 - 13.00	14.00	201.3	46.8%	192.6	29.4%
12/11/14		HDP	12.00 - 14.00	16.00	115.0	27.3%	44.2	70.6%
12/11/14		NEWR	20.00 - 22.00	23.00	132.3	222.3%	85.0	31.8%
12/11/14		WK	13.00 - 15.00	14.00	100.8	69.3%	106.1	22.7%
11/05/14		UPLD	12.00 - 14.00	12.00	46.2	139.9%	60.2	18.9%

Source: Dealogic and Capital IQ.

(1) Includes proceeds from exercised overallocments.

(2) Represents the percentage change in stock price from trade date to March 31, 2018.

(3) Company has been acquired.

Biographies

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Mike Magluilo is a Managing Director in Baird's Technology & Services Group with a focus on the enterprise software, SaaS, and information technology sectors. Mike's career includes 20+ years as an investment banker, corporate executive, and technology investor. In addition to a 12-year career as an investment banker with Kidder Peabody, Robert W. Baird and Daniels & Associates, he held senior corporate development roles with Level 3 Communications and VIA Networks. Mike's prior role with Baird involved several years as a senior investment banker in London helping build Baird's European investment banking practice. Prior to re-joining Baird in 2014, Mike was a growth stage private technology investor with Delta-v Capital, where he participated in the firm's investments in Borderfree, Cloud Sherpas, Lytx, LogRhythm, Zayo, and Kony. He was also involved in the firm's exit of its investment in Drillinginfo. Mike graduated summa cum laude with a BS in Finance from the University of Illinois at Urbana-Champaign, where he was an Evans Scholar.

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Andrew M. Rippy is a Managing Director in Baird's Technology & Services Group with a focus on the I.T. infrastructure, software and communications sectors. Andrew's career encompasses 20+ years in corporate finance and mergers & acquisitions, with 17 years focused exclusively on the technology segment. In 2017, Andrew joined Baird from Pacific Crest Securities ("Pacific Crest"), now a part of KeyCorp, where he was instrumental in establishing Pacific Crest as a leading independent I.T. and software investment banking platform. In his role at Pacific Crest, Andrew led an M&A team in over 70 successful advisory transactions in software and infrastructure, while also completing over 50 equity and debt financing transactions.

Earlier in his career, Andrew worked at hedge fund management firm, Watermark Management, as well as Sumitomo Bank. Andrew graduated from Dartmouth College with an AB in Government and Economics, and received his MBA in Finance and Management from the Stern School of Business at New York University.

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Chase Sanders is a Managing Director in Baird's Technology & Services group, where he focuses on Enterprise Software, SaaS and Healthcare IT. Chase has 23 years of total experience, including 18 years as an advisor to technology businesses and five years as CEO of a growth company. Prior to joining Baird, Chase was a partner and Managing Director with Signal Hill Capital Group, a boutique investment bank focused on growth stage IT companies. Prior to that, Chase was CEO of Atlantis LLC, a consumer home services company that he took from start-up to operations in eight states before successfully exiting the business.

Previously, Chase was the senior east coast software banker with Bear, Stearns in New York, and also served in the media and telecom investment banking group at Bank of America Securities. Chase began his career as a corporate and M&A attorney with the leading law firms of DLA Piper and Hogan Lovells. Chase received a BA in Economics from the University of Virginia, where he was elected to Phi Beta Kappa, a Master in Public Policy from the Harvard Kennedy School of Government, and a JD cum laude from Harvard Law School.

Biographies

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Peter Kies is a Managing Director and Head of Baird's Technology & Services Group. From 2010-2013, Peter was Co-Head of Equity Capital Markets, where he led the group to achieve three consecutive record years. He is a member of the Investment Banking Management Committee, the Capital Commitment Committee and a Director of the Baird Foundation. Prior to assuming joint leadership of the capital markets effort, Peter built and led several investment banking industry teams and, over the past 20+ years, he has extensive experience in originating and executing mergers, acquisitions and equity transactions across a wide range of industries. Since joining Baird in 1992, he has served the firm in numerous capacities, including Chairman of the Investment Banking and firm-wide Recruiting Committees and as a member of the Investment Committee of the Baird Venture Fund. Prior to joining Baird, Peter was a Director of Investments for The Equitable and on the Executive Staff of Governor Tommy Thompson. Peter received his BBA and MS from the University of Wisconsin-Madison and is a member of the University of Wisconsin Foundation Board of Directors.

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John Moriarty joined Baird in December 2007 and is a Managing Director in the Technology Investment Banking Group. Prior to joining Baird, Mr. Moriarty spent 13 years in the investment banking group at A.G. Edwards (now Wachovia Securities) and established A.G. Edwards' West Coast Technology Investment Banking practice. During his tenure at A.G. Edwards, Mr. Moriarty led his clients in a variety of transactions including public and private equity financings, convertible securities offerings, buy- and sell-side merger and acquisition assignments, and other financial advisory activities. From 1989 to 1992, Mr. Moriarty worked for KPMG Peat Marwick where he was a senior level auditor responsible for public and private company financial audits.

John received a BS degree in Accounting, cum laude, from Georgetown University, and a MBA in Finance and Marketing from The Kellogg Graduate School of Management at Northwestern University. John is also a graduate from the Securities Industry Institute at The Wharton School of the University of Pennsylvania. John is a member of the Board of Directors of the Second Harvest Food Bank of Santa Clara and San Mateo Counties.

MATHEW KESSLER – *DIRECTOR, TECHNOLOGY INVESTMENT BANKING*



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Matt Kessler is a Director in Baird's Technology and Services Investment Banking Group with a focus on Technology and Energy Technology sector. Matt began his career in 2004 as a member of Baird's Industrial Investment Banking team in Milwaukee where he spent three years as a Financial Analyst focused on equity offerings, mergers and acquisitions, and other advisory services. In 2007, Matt began a 2-year secondment in London with Baird's European Investment Banking team as an Associate providing analytical and execution support on European and transatlantic mergers and acquisitions. Matt received an MBA from Stanford University's Graduate School of Business, and he also graduated with highest honors from the University of Illinois at Urbana-Champaign, with a double BS in Finance and Marketing.

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CRAIG ROGOWSKI – *DIRECTOR, TECHNOLOGY INVESTMENT BANKING*



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Craig Rogowski is a Director in Baird's Global Technology & Services team focused on the software sector. Craig has more than 17 years of technology investment banking and corporate development experience. Most recently, he spent over 10 years focused on the software sector at Pacific Crest Securities, the tech division of KeyBanc Capital Markets. In this role, Craig worked on a broad range of M&A advisory, private placement, and public offering transactions and played a key role in building the firm's software practice.

Earlier in his career, Craig worked in a corporate development role at Seagate Technology, a data storage company, and held investment banking positions at UBS and Donaldson, Lufkin and Jenrette. He graduated from the University of Michigan with a bachelor's degree in Business Administration.

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John Sun is a Director in Baird's European Technology and Services Investment Banking team. Prior to joining Baird in 2010, John was an Associate with Bank of America Merrill Lynch in the Multi-Industries Investment Banking team. John started his career as an Investment Banking Analyst at a Canadian investment bank in Toronto. John received his MBA from INSEAD.

Appendix

Appendix

IT Conglomerates – Operating Statistics & Valuation Multiples

(\$ in millions except per share data)

Company Name	3/31/2018	% of		Market Cap	Enterprise Value	Revenue		EBITDA		Valuation Multiples					
	Price per Share	52-Week High	LTM Change			2018E	2018E Growth	2018E Margin	2018E Growth	EV/LTM Revenue	EV/2018E Revenue	EV/2019E Revenue	EV/LTM EBITDA	EV/2018E EBITDA	EV/2019E EBITDA
Cisco Systems, Inc.	\$42.89	92.9%	31.3%	\$206,623	\$172,332	\$49,981	3.9%	34.5%	19.3%	3.6 x	3.4 x	3.4 x	11.9 x	10.0 x	10.0 x
Hewlett Packard Enterprise	17.54	90.1%	29.5%	27,243	33,843	30,511	2.9%	17.3%	63.4%	1.1	1.1	1.1	10.5	6.4	6.4
Intel Corporation	52.08	96.8%	48.4%	243,734	256,545	64,970	3.5%	41.6%	1.9%	4.1	3.9	3.8	9.7	9.5	8.9
International Business Machines	153.43	87.0%	(8.3%)	141,335	175,742	80,170	1.3%	24.3%	17.1%	2.2	2.2	2.2	10.6	9.0	8.9
Microsoft Corporation	91.27	93.9%	41.5%	702,760	657,413	111,733	16.8%	40.5%	36.2%	6.9	5.9	5.4	19.8	14.5	12.7
Oracle Corporation	45.75	85.5%	4.2%	186,766	177,593	40,458	4.0%	46.8%	25.0%	4.5	4.4	4.2	11.5	9.4	9.0
SAP SE	104.69	84.6%	(6.3%)	124,935	127,742	29,926	4.0%	33.4%	36.0%	4.4	4.3	4.0	17.3	12.8	11.7
Mean			20.0%	\$233,342	\$228,744	\$58,250	5.2%	34.1%	28.4%	3.8 x	3.6 x	3.4 x	13.0 x	10.2 x	9.6 x
Median			29.5%	186,766	175,742	49,981	3.9%	34.5%	25.0%	4.1	3.9	3.8	11.5	9.5	9.0

Application Software – Operating Statistics & Valuation Multiples

ERP & HCM

(\$ in millions except per share data)

Company Name	3/31/2018	% of		Market Cap	Enterprise Value	Revenue		EBITDA		Valuation Multiples					
	Price per Share	52-Week High	LTM Change			2018E	2018E Growth	2018E Margin	2018E Growth	EV/LTM Revenue	EV/2018E Revenue	EV/2019E Revenue	EV/LTM EBITDA	EV/2018E EBITDA	EV/2019E EBITDA
American Software, Inc.	\$13.00	95.0%	31.6%	\$395	\$317	\$118	8.1%	17.4%	25.0%	2.9 x	2.7 x	2.6 x	19.3 x	15.4 x	13.3 x
Basware Oyj	53.76	91.8%	29.3%	772	808	178	(2.7%)	1.7%	N/A	4.4	4.5	4.2	N/A	N/A	N/A
Benetfocis, Inc.	24.40	65.8%	(12.7%)	764	824	254	(0.9%)	3.5%	N/A	3.2	3.2	2.9	N/A	N/A	39.6
Cornerstone OnDemand, Inc.	39.11	84.7%	0.6%	2,242	2,212	504	4.6%	17.8%	N/A	4.6	4.4	4.0	N/A	24.6	17.3
Intuit Inc.	173.35	96.7%	51.0%	44,397	44,774	5,964	9.8%	36.8%	33.9%	8.2	7.5	6.8	27.4	20.4	18.6
MINDBODY, Inc.	38.90	89.5%	41.7%	1,834	1,617	234	27.9%	9.3%	N/A	8.9	6.9	5.6	N/A	N/A	43.7
Paycom Software, Inc.	107.39	93.0%	86.7%	6,343	6,333	544	25.6%	40.1%	139.9%	14.6	11.6	9.4	N/A	29.0	23.7
Paylocity Holding Corporation	51.23	89.6%	32.6%	2,695	2,584	407	21.8%	20.9%	241.0%	7.7	6.4	5.2	N/A	30.4	23.4
QAD Inc.	41.65	82.7%	50.8%	768	635	330	8.2%	5.7%	596.5%	2.1	1.9	1.8	N/A	33.9	27.6
The Sage Group plc	8.98	77.5%	3.6%	9,722	10,759	2,630	9.7%	29.6%	8.1%	4.5	4.1	3.8	16.6	13.8	12.7
Shopify Inc.	124.59	80.5%	83.0%	13,126	12,182	998	48.2%	3.5%	N/A	N/A	12.2	8.9	N/A	N/A	N/A
The Ultimate Software Group	243.70	94.5%	24.8%	7,451	7,296	1,114	18.4%	24.9%	274.2%	7.8	6.6	5.6	N/A	26.3	21.7
TOTVS S.A.	8.70	81.0%	5.0%	1,421	1,507	694	3.4%	14.9%	49.3%	2.2	2.2	2.0	21.7	14.6	12.1
Tyler Technologies, Inc.	210.96	98.4%	36.5%	8,066	7,837	922	9.7%	30.3%	44.8%	9.3	8.5	7.7	40.6	28.0	24.6
Upland Software, Inc.	28.79	90.8%	81.2%	598	688	133	36.0%	35.7%	199.7%	7.0	5.2	4.9	43.4	14.5	13.3
WageWorks, Inc.	45.20	59.0%	(37.5%)	1,792	1,144	523	8.8%	31.9%	14.1%	2.5	2.2	2.0	12.5	6.9	6.1
Workday, Inc.	127.11	90.8%	52.6%	26,947	25,171	2,688	25.4%	18.6%	N/A	11.7	9.4	7.6	N/A	N/A	37.3
Xero Limited	25.63	92.9%	84.8%	3,519	3,462	371	34.3%	12.0%	407.6%	13.9	9.3	7.3	N/A	N/A	39.6
Yonyou Network Technology	6.08	89.1%	116.2%	8,906	9,036	1,246	23.5%	12.9%	10.2%	8.9	7.3	6.2	44.8	N/A	48.6
Mean			40.1%	\$7,461	\$7,326	\$1,045	16.8%	19.3%	157.3%	6.9 x	6.1 x	5.2 x	28.3 x	21.5 x	24.9 x
Median			36.5%	2,695	2,584	523	9.8%	17.8%	49.3%	7.4	6.4	5.2	24.5	22.5	23.4

Source: Capital IQ. Figures are as reported and have not been adjusted for any recent acquisitions or divestitures.

Appendix

CRM & Marketing

(\$ in millions except per share data)

	3/31/2018					Revenue		EBITDA		Valuation Multiples					
	Price per	% of	LTM	Market	Enterprise	2018E	2018E	2018E	2018E	EV/LTM	EV/2018E	EV/2019E	EV/LTM	EV/2018E	EV/2019E
Company Name	Share	52-Week	Change	Cap	Value	2018E	Growth	Margin	Growth	Revenue	Revenue	Revenue	EBITDA	EBITDA	EBITDA
Axiom Corporation	\$22.71	69.0%	(20.2%)	\$1,787	\$1,839	\$962	7.2%	20.1%	135.8%	2.0 x	1.9 x	1.8 x	22.5 x	9.5 x	8.3 x
Adobe Systems Incorporated	216.08	93.4%	66.0%	106,413	102,148	8,847	21.2%	45.5%	61.4%	13.3	11.5	9.8	37.5	25.4	21.1
Blackbaud, Inc.	101.81	87.7%	33.5%	4,767	5,175	879	11.5%	24.1%	58.3%	6.6	5.9	5.4	38.7	24.4	21.7
ChannelAdvisor Corporation	9.10	71.9%	(18.4%)	246	194	129	5.1%	5.0%	N/A	1.6	1.5	1.4	N/A	30.1	21.0
Cision Ltd.	11.57	84.6%	N/A	1,439	2,570	723	14.4%	34.7%	20.8%	4.1	3.6	3.4	12.4	10.3	9.1
eGain Corporation	7.95	93.5%	448.3%	217	213	64	9.3%	7.9%	N/A	3.7	3.3	3.1	N/A	42.2	N/A
Five9, Inc.	29.79	91.7%	81.0%	1,690	1,668	233	16.3%	11.4%	500.8%	8.3	7.2	6.1	N/A	N/A	44.1
HubSpot, Inc.	108.30	87.0%	78.9%	4,100	3,894	484	28.8%	8.7%	N/A	10.4	8.0	6.5	N/A	N/A	N/A
LivePerson, Inc.	16.35	98.5%	138.7%	983	927	239	9.4%	9.1%	127.9%	4.2	3.9	3.5	N/A	42.8	31.5
NICE Ltd.	92.52	95.0%	33.8%	5,663	5,718	1,443	8.4%	29.1%	36.8%	4.3	4.0	3.7	18.6	13.6	12.3
salesforce.com, inc.	116.30	90.2%	41.0%	85,176	82,887	12,674	20.9%	22.4%	217.3%	7.9	6.5	5.5	N/A	29.1	23.5
SendGrid, Inc.	28.14	87.9%	N/A	1,202	1,043	140	25.5%	10.9%	162.2%	9.3	7.4	6.0	N/A	N/A	N/A
ServiceSource International, Inc	3.81	91.4%	(1.8%)	345	300	245	2.3%	8.4%	N/A	1.3	1.2	1.2	N/A	14.6	11.0
The Trade Desk, Inc.	49.62	73.7%	33.2%	2,086	1,957	404	31.1%	29.2%	59.0%	6.3	4.8	3.9	26.3	16.6	12.2
Veeva Systems Inc.	73.02	93.3%	42.4%	10,321	9,559	819	19.4%	32.5%	61.4%	13.9	11.7	9.9	N/A	35.9	30.2
Web.com Group, Inc.	18.10	69.7%	(6.2%)	774	1,409	762	1.7%	25.3%	28.3%	1.9	1.8	1.8	9.4	7.3	6.8
Zendesk, Inc.	47.87	95.5%	70.7%	4,949	4,702	563	30.7%	6.2%	N/A	10.9	8.4	6.5	N/A	N/A	N/A
	Mean		68.1%	\$13,656	\$13,306	\$1,742	15.5%	19.4%	122.5%	6.5 x	5.5 x	4.7 x	23.6 x	23.2 x	19.4 x
	Median		41.0%	1,787	1,957	563	14.4%	20.1%	61.4%	6.3	4.8	3.9	22.5	24.4	21.0

IM & Analytics

(\$ in millions except per share data)

	3/31/2018	% of				Revenue		EBITDA		Valuation Multiples					
	Price per	52-Week	LTM	Market	Enterprise		2018E		2018E	EV/LTM	EV/2018E	EV/2019E	EV/LTM	EV/2018E	EV/2019E
Company Name	Share	High	Change	Cap	Value	2018E	Growth	Margin	Growth	Revenue	Revenue	Revenue	EBITDA	EBITDA	EBITDA
Alleryx, Inc.	\$34.14	87.8%	118.4%	\$2,056	\$1,882	\$179	35.7%	(8.6%)	N/A	14.3 x	10.5 x	8.0 x	N/A	N/A	N/A
BlackLine, Inc.	39.21	86.8%	31.8%	2,095	1,983	223	25.9%	4.6%	N/A	11.2	8.9	7.1	N/A	N/A	N/A
Box, Inc.	20.55	83.9%	26.0%	2,826	2,704	607	19.9%	2.5%	N/A	5.3	4.5	3.7	N/A	N/A	N/A
Datawatch Corporation	8.65	68.4%	3.0%	107	77	42	12.1%	2.4%	N/A	2.0	1.8	N/A	N/A	N/A	N/A
Fair Isaac Corporation	169.37	94.3%	31.3%	5,093	5,663	1,015	7.0%	27.1%	27.5%	6.0	5.6	5.2	26.2 x	20.6 x	19.1 x
Globant S.A.	51.54	94.0%	41.6%	1,814	1,759	503	21.7%	17.0%	66.0%	4.3	3.5	2.9	34.1	20.6	17.0
Gridsum Holding Inc.	8.17	58.4%	(38.5%)	251	252	159	55.7%	13.0%	N/A	3.0	1.6	1.1	N/A	12.2	4.5
MicroStrategy Incorporated	128.99	65.7%	(31.3%)	1,477	801	506	0.4%	12.7%	(20.8%)	1.6	1.6	1.6	9.9	12.5	11.0
Open Text Corporation	34.80	86.3%	4.0%	9,250	11,543	2,851	8.3%	37.1%	44.3%	4.4	4.0	4.0	15.8	10.9	10.5
ServiceNow, Inc.	165.45	93.7%	89.2%	28,904	28,298	2,554	32.1%	25.5%	N/A	14.6	11.1	8.6	N/A	43.4	30.4
Splunk Inc.	98.39	87.3%	58.0%	13,918	12,828	1,629	28.2%	14.5%	N/A	10.1	7.9	6.3	N/A	N/A	37.7
Tableau Software, Inc.	80.82	92.3%	63.1%	6,590	5,735	966	10.1%	5.0%	N/A	6.5	5.9	5.2	N/A	N/A	N/A
Teradata Corporation	39.67	92.6%	27.5%	4,797	4,486	2,182	1.2%	17.6%	188.2%	2.1	2.1	2.0	33.7	11.7	11.2
Verint Systems Inc.	42.60	95.6%	(1.8%)	2,719	3,162	1,228	8.2%	24.3%	172.2%	2.8	2.6	2.4	28.8	10.6	9.5
Workiva Inc.	23.70	88.6%	51.4%	1,009	952	235	13.2%	(12.1%)	N/A	4.6	4.0	3.6	N/A	N/A	N/A
Yext, Inc.	12.65	83.7%	N/A	1,191	1,073	225	32.2%	(17.1%)	N/A	6.3	4.8	3.6	N/A	N/A	N/A
	Mean		31.6%	\$5,256	\$5,200	\$944	19.5%	10.3%	79.6%	6.2 x	5.0 x	4.4 x	24.8 x	17.8 x	16.8 x
	Median		31.3%	2,407	2,343	557	16.5%	12.8%	55.2%	5.0	4.3	3.7	27.5	12.4	11.2

Source: Capital IQ. Figures are as reported and have not been adjusted for any recent acquisitions or divestitures.

Appendix

PLM & Engineering

(\$ in millions except per share data)

3/31/2018																
Company Name	Price per Share	52-Week High	LTM Change	Market Cap	Enterprise Value	Revenue		EBITDA		Valuation Multiples						
						2018E	2018E Growth	2018E Margin	2018E Growth	EV/LTM Revenue	EV/2018E Revenue	EV/2019E Revenue	EV/LTM EBITDA	EV/2018E EBITDA	EV/2019E EBITDA	
Altair Engineering Inc.	\$31.36	93.9%	N/A	\$1,983	\$1,944	\$365	9.6%	9.1%	N/A	5.8 x	5.3 x	4.7 x	N/A	N/A	37.4 x	
ANSYS, Inc.	156.69	91.1%	46.6%	13,142	12,260	1,204	9.9%	46.3%	21.6%	11.2	10.2	9.3	26.7 x	22.0 x	20.2	
Aspen Technology, Inc.	78.89	93.5%	33.9%	5,675	5,778	506	3.2%	48.3%	12.3%	11.8	11.4	10.8	26.6	22.6	21.8	
Autodesk, Inc.	125.58	88.9%	45.2%	27,418	27,680	2,497	21.4%	13.8%	N/A	13.5	11.1	8.7	N/A	N/A	29.5	
AVEVA Group plc	26.88	92.1%	N/A	4,333	4,303	644	92.8%	30.1%	N/A	7.5	6.7	4.2	N/A	22.2	17.2	
Cadence Design Systems, Inc.	36.77	79.9%	17.1%	10,415	10,451	2,043	5.2%	31.5%	43.5%	5.4	5.1	4.8	23.3	16.2	14.8	
Dassault Systèmes SE	135.83	97.7%	36.9%	34,670	32,875	4,181	5.6%	33.2%	27.4%	8.3	7.9	7.2	30.1	23.7	21.2	
GSE Systems, Inc.	3.25	84.4%	(4.4%)	63	44	N/A	N/A	N/A	N/A	0.6	N/A	N/A	16.9	N/A	N/A	
Nemetschek SE	111.96	97.3%	63.4%	4,310	4,284	564	15.8%	26.0%	28.7%	8.8	7.6	6.8	37.4	29.2	25.5	
PDF Solutions, Inc.	11.66	48.7%	(48.5%)	377	275	109	7.2%	21.8%	342.6%	2.7	2.5	2.1	N/A	11.6	6.6	
PTC Inc.	78.01	95.5%	48.4%	9,071	9,502	1,263	6.7%	24.5%	165.3%	8.0	7.5	6.8	N/A	30.7	23.5	
Synopsys, Inc.	83.24	87.8%	15.4%	12,380	12,350	2,938	3.4%	26.0%	51.0%	4.3	4.2	3.9	24.4	16.2	14.4	
Mean		25.4%		\$10,320	\$10,146	\$1,483	16.4%	28.2%	86.6%	7.3 x	7.2 x	6.3 x	26.5 x	21.7 x	21.1 x	
Median		35.4%		7,373	7,640	1,204	7.2%	26.0%	36.1%	7.7	7.5	6.8	26.6	22.2	21.2	

SCM & Logistics

(\$ in millions except per share data)

3/31/2018															
Company Name	Price per Share	52-Week High	LTM Change	Market Cap	Enterprise Value	Revenue		EBITDA		Valuation Multiples					
						2018E	Growth	2018E Margin	2018E Growth	EV/LTM Revenue	EV/2018E Revenue	EV/2019E Revenue	EV/LTM EBITDA	EV/2018E EBITDA	EV/2019E EBITDA
Amber Road, Inc.	\$8.90	86.5%	15.3%	\$243	\$256	\$86	8.3%	2.1%	N/A	3.2 x	3.0 x	2.7 x	N/A	N/A	N/A
American Software, Inc.	13.00	95.0%	31.6%	395	317	118	8.1%	17.4%	25.0%	2.9	2.7	2.6	19.3 x	15.4 x	13.3 x
Coupa Software Incorporated	45.62	90.0%	79.6%	2,583	2,333	230	23.0%	(1.9%)	N/A	12.5	10.2	8.2	N/A	N/A	N/A
Kinaxis Inc.	64.87	90.1%	11.7%	1,656	1,501	161	20.9%	26.0%	38.8%	11.3	9.3	7.6	49.7	35.8	26.5
Manhattan Associates, Inc.	41.88	77.3%	(19.5%)	2,847	2,721	551	(7.3%)	26.0%	(27.5%)	4.6	4.9	5.0	13.8	19.0	20.7
MIX Telematics Limited	0.61	92.1%	121.4%	343	322	147	7.5%	26.9%	33.6%	2.4	2.2	2.0	10.9	8.1	7.2
SPS Commerce, Inc.	64.07	98.1%	9.5%	1,105	942	243	10.0%	17.6%	111.6%	4.3	3.9	3.5	46.6	22.0	18.2
Telenav, Inc.	5.40	58.4%	(37.6%)	241	150	119	(21.0%)	(63.7%)	N/A	1.0	1.3	0.5	N/A	N/A	24.8
The Descartes Systems Group	28.83	92.3%	20.8%	2,214	2,215	275	15.7%	34.5%	22.5%	9.3	8.1	7.3	28.6	23.3	20.4
	Mean		25.9%	\$1,292	\$1,195	\$214	7.2%	9.4%	34.0%	5.7 x	5.1 x	4.4 x	28.1 x	20.6 x	18.7 x
	Median		15.3%	1,105	942	161	8.3%	17.6%	29.3%	4.3	3.9	3.5	23.9	20.5	20.4

Financial IT

(\$ in millions except per share data)

3/31/2018															
Company Name	Price per Share	% of		Market Cap	Enterprise Value	Revenue		EBITDA		Valuation Multiples					
		52-Week High	LTM Change			2018E	2018E Growth	2018E Margin	2018E Growth	EV/LTM Revenue	EV/2018E Revenue	EV/2019E Revenue	EV/LTM EBITDA	EV/2018E EBITDA	EV/2019E EBITDA
ACI Worldwide, Inc.	\$23.72	89.9%	10.9%	\$2,749	\$3,368	\$1,042	1.8%	25.3%	47.9%	3.3 x	3.2 x	3.1 x	18.9 x	12.8 x	11.1 x
Bottomline Technologies	38.75	96.9%	63.8%	1,576	1,652	402	9.9%	22.8%	119.3%	4.5	4.1	3.7	39.6	18.0	15.4
Cardlytics, Inc.	14.63	69.7%	N/A	293	527	159	22.1%	(7.4%)	N/A	4.0	3.3	2.2	N/A	N/A	N/A
Ebix, Inc.	74.50	85.1%	22.2%	2,346	2,708	443	21.8%	36.9%	31.8%	7.4	6.1	6.4	21.8	16.5	14.5
Ellie Mae, Inc.	91.94	80.0%	(8.3%)	3,153	2,912	498	19.5%	26.3%	85.9%	7.0	5.8	5.0	41.3	22.2	16.6
Envestnet, Inc.	57.30	95.1%	77.4%	2,563	2,743	821	20.1%	18.7%	98.2%	4.0	3.3	3.0	35.4	17.9	14.8
Fidessa group plc	51.49	93.4%	52.9%	1,984	1,852	489	(1.9%)	22.5%	18.3%	3.7	3.8	3.7	19.9	16.8	15.6
Guidewire Software, Inc.	80.83	87.2%	43.5%	6,459	5,954	692	20.0%	18.1%	219.4%	10.3	8.6	7.4	N/A	47.6	34.8
Q2 Holdings, Inc.	45.55	93.4%	30.7%	1,914	1,815	235	21.3%	8.6%	N/A	9.4	7.7	6.3	N/A	N/A	N/A
Sapiens International	8.53	59.7%	(32.6%)	424	433	282	4.8%	13.7%	221.4%	1.6	1.5	1.4	35.9	11.2	9.6
SS&C Technologies Holdings	53.64	99.4%	52.5%	11,084	13,065	1,777	6.1%	42.5%	20.2%	7.8	7.4	7.0	20.8	17.3	16.0
Yirendai Ltd.	40.23	75.2%	65.9%	2,406	2,120	1,204	36.6%	26.6%	18.5%	2.4	1.8	1.4	7.8	6.6	4.8
	Mean		34.4%	\$3,079	\$3,262	\$670	15.2%	21.2%	88.1%	5.5 x	4.7 x	4.2 x	26.8 x	18.7 x	15.3 x
	Median		43.5%	2,376	2,414	494	19.7%	22.6%	66.9%	4.3	3.9	3.7	21.8	17.1	15.1

Source: Capital IQ. Figures are as reported and have not been adjusted for any recent acquisitions or divestitures.

Appendix

Healthcare IT

(\$ in millions except per share data)

3/31/2018															
Company Name	Price per Share	% of 52-Week High	LTM Change	Market Cap	Enterprise Value	Revenue		EBITDA		Valuation Multiples					
						2018E	2018E Growth	2018E Margin	2018E Growth	EV/LTM Revenue	EV/2018E Revenue	EV/2019E Revenue	EV/LTM EBITDA	EV/2018E EBITDA	EV/2019E EBITDA
Allscripts Healthcare Solutions, Inc.	\$12.35	76.6%	(2.6%)	\$2,234	\$4,126	\$2,195	21.5%	19.9%	189.7%	2.3 x	1.9 x	1.8 x	27.3 x	9.4 x	8.7 x
athenahealth, Inc.	143.03	90.1%	26.9%	5,735	5,843	1,350	10.6%	26.1%	113.3%	4.8	4.3	3.9	35.3	16.6	14.3
Benefitfocus, Inc.	24.40	65.8%	(12.7%)	764	824	254	(0.9%)	3.5%	N/A	3.2	3.2	2.9	N/A	N/A	39.6
Castlight Health, Inc.	3.65	76.8%	0.0%	494	406	153	16.6%	(7.0%)	N/A	3.1	2.6	2.2	N/A	N/A	N/A
Cegedim SA	46.14	84.3%	41.5%	643	935	584	4.1%	17.6%	11.3%	1.7	1.6	1.5	10.1	9.1	7.9
Cerner Corporation	58.00	78.5%	(1.4%)	19,291	19,012	5,536	9.8%	31.3%	26.9%	3.8	3.4	3.2	13.9	11.0	10.0
CompuGroup Medical Societas Europaea	53.96	74.0%	6.1%	2,683	3,099	893	21.4%	25.2%	63.9%	4.2	3.5	3.6	22.6	13.8	13.5
Computer Programs and Systems, Inc.	29.20	80.8%	6.7%	402	544	287	3.8%	16.7%	45.2%	2.0	1.9	1.8	16.5	11.3	11.4
Cotiviti Holdings, Inc.	34.44	74.9%	(17.3%)	3,183	3,787	758	11.7%	40.3%	25.5%	5.6	5.0	4.5	15.6	12.4	11.3
Evolent Health, Inc.	14.25	51.8%	(36.1%)	1,066	984	577	32.7%	3.7%	N/A	2.3	1.7	1.5	N/A	46.3	22.7
HealthEquity, Inc.	60.54	88.1%	42.6%	3,690	3,450	281	22.4%	38.8%	55.0%	N/A	12.3	10.1	49.0	31.6	25.1
HealthStream, Inc.	24.83	78.8%	6.8%	796	664	229	(7.5%)	17.2%	51.4%	2.7	2.9	2.8	25.6	16.9	15.4
HMS Holdings Corp.	16.84	80.6%	(17.2%)	1,396	1,553	565	8.4%	23.2%	34.7%	3.0	2.7	2.6	16.0	11.9	10.9
iCAD, Inc.	3.08	50.7%	(36.0%)	51	47	30	8.1%	(9.7%)	N/A	1.7	1.6	1.1	N/A	N/A	N/A
Inovalon Holdings, Inc.	10.60	59.6%	(15.9%)	1,531	1,303	577	28.4%	29.2%	121.7%	2.9	2.3	2.0	17.2	7.7	6.6
Medidata Solutions, Inc.	62.81	73.1%	8.9%	3,681	3,573	637	16.7%	25.7%	95.3%	6.5	5.6	4.8	42.6	21.8	17.6
NantHealth, Inc.	3.05	53.5%	(38.5%)	331	464	102	17.5%	(14.5%)	N/A	5.4	4.6	3.3	N/A	N/A	13.6
Omnicell, Inc.	43.40	78.3%	6.8%	1,683	1,861	790	10.4%	16.1%	167.2%	2.6	2.4	2.1	39.1	14.6	12.4
OSI Systems, Inc.	65.27	67.5%	(10.6%)	1,241	1,472	1,062	2.9%	16.1%	0.2%	1.4	1.4	1.3	8.6	8.6	7.6
Premier, Inc.	31.31	85.8%	(1.6%)	4,331	4,376	1,677	5.8%	33.2%	(13.2%)	2.8	2.6	2.4	6.8	7.9	7.4
Quality Systems, Inc.	13.65	76.9%	(10.4%)	870	885	537	1.8%	15.0%	57.8%	1.7	1.6	1.6	17.4	11.0	10.1
R1 RCM Inc.	7.14	89.4%	131.1%	746	770	869	93.3%	6.1%	N/A	1.7	0.9	0.7	N/A	14.5	5.4
Sectra AB (publ)	20.46	86.6%	7.1%	780	760	154	3.8%	23.7%	12.7%	5.1	4.9	4.6	23.4	20.7	19.4
Tabula Rasa HealthCare, Inc.	38.80	92.8%	187.8%	777	768	190	41.6%	15.9%	290.7%	5.7	4.0	3.3	N/A	25.4	19.4
Veeva Systems Inc.	73.02	93.3%	42.4%	10,321	9,559	819	19.4%	32.5%	61.4%	13.9	11.7	9.9	N/A	35.9	30.2
Mean		12.6%		\$2,749	\$2,843	\$844	16.2%	17.8%	74.2%	3.7 x	3.6 x	3.2 x	22.8 x	17.1 x	14.8 x
Median		0.0%		1,241	1,303	577	10.6%	17.6%	55.0%	2.9	2.7	2.6	17.4	13.8	12.4

Other Vertical Solutions

(\$ in millions except per share data)

Company Name	3/31/2018		LTM Change	Market Cap	Enterprise Value	Revenue		EBITDA		Valuation Multiples					
	Price per Share	% of 52-Week High				2018E	2018E Growth	2018E Margin	2018E Growth	EV/LTM Revenue	EV/2018E Revenue	EV/2019E Revenue	EV/LTM EBITDA	EV/2018E EBITDA	EV/2019E EBITDA
2U, Inc.	\$84.03	92.3%	111.9%	\$4,430	\$4,229	\$401	40.0%	4.1%	N/A	14.7 x	10.5 x	8.0 x	N/A	N/A	N/A
Amdocs Limited	66.72	93.0%	10.9%	9,569	8,641	4,022	3.4%	20.9%	16.1%	2.2	2.1	2.0	11.9 x	10.3 x	N/A
AppFolio, Inc.	40.85	78.2%	50.2%	1,392	1,346	181	26.1%	20.6%	186.7%	9.4	7.4	6.0	N/A	36.0	26.3 x
Constellation Software Inc.	676.89	95.4%	34.7%	14,344	14,193	3,002	21.1%	26.0%	64.5%	5.7	4.7	4.1	29.9	18.2	15.8
CSG Systems International, Inc.	45.29	92.8%	22.1%	1,514	1,585	807	2.2%	22.5%	29.3%	2.0	2.0	1.9	11.3	8.7	8.2
Evolving Systems, Inc.	4.81	82.3%	(0.7%)	60	62	N/A	N/A	N/A	N/A	2.2	N/A	N/A	9.1	N/A	N/A
Instructure, Inc.	42.15	90.6%	80.1%	1,406	1,365	208	31.0%	(11.2%)	N/A	8.6	6.6	5.2	N/A	N/A	N/A
Model N, Inc.	18.05	95.5%	72.7%	532	541	151	6.2%	3.6%	N/A	3.8	3.6	3.4	N/A	N/A	39.2
NetSol Technologies, Inc.	4.60	82.1%	(9.8%)	52	67	N/A	N/A	N/A	N/A	1.1	N/A	N/A	17.3	N/A	N/A
NIC Inc.	13.30	59.4%	(32.9%)	893	732	337	0.1%	22.8%	(8.1%)	2.2	2.2	2.3	8.8	9.5	10.2
PROS Holdings, Inc.	33.01	94.6%	36.5%	1,065	1,117	189	12.1%	(13.7%)	N/A	6.6	5.9	5.1	N/A	N/A	N/A
RealPage, Inc.	51.50	93.7%	47.6%	4,279	4,859	841	25.3%	26.1%	131.4%	7.2	5.8	5.2	N/A	22.2	18.5
Redknee Solutions Inc.	0.81	89.7%	(5.4%)	213	181	113	(16.7%)	(0.8%)	N/A	1.3	1.6	1.4	N/A	N/A	14.3
RPX Corporation	10.69	70.6%	(10.2%)	533	376	278	(15.9%)	N/A	N/A	1.1	1.4	1.4	1.9	N/A	N/A
Synchronoss Technologies, Inc.	10.55	42.3%	(56.8%)	501	625	419	(11.6%)	19.4%	(29.9%)	1.3	1.5	1.5	11.5	7.7	10.1
Mean			23.4%	\$2,719	\$2,661	\$842	9.5%	11.7%	55.7%	4.6 x	4.3 x	3.7 x	12.7 x	16.1 x	17.8 x
Median			22.1%	1,065	1,117	337	6.2%	20.0%	29.3%	2.2	3.6	3.4	11.4	10.3	15.0

Source: Capital IQ. Figures are as reported and have not been adjusted for any recent acquisitions or divestitures.

Appendix

Infrastructure Software – Operating Statistics & Valuation Multiples

Application & Data

(\$ in millions except per share data)

Company Name	3/31/2018	% of	LTM Change	Market Cap	Enterprise Value	Revenue		EBITDA		Valuation Multiples					
	Price per Share	52-Week High				2018E	2018E Growth	2018E Margin	2018E Growth	EV/LTM Revenue	EV/2018E Revenue	EV/2019E Revenue	EV/LTM EBITDA	EV/2018E EBITDA	EV/2019E EBITDA
Adobe Systems Incorporated	\$216.08	93.4%	66.0%	\$106,413	\$102,148	\$8,847	21.2%	45.5%	61.4%	13.3 x	11.5 x	9.8 x	37.5 x	25.4 x	21.1 x
Appian Corporation	25.18	58.2%	N/A	1,529	1,456	200	13.1%	(18.9%)	N/A	8.2	7.3	6.1	N/A	N/A	N/A
Applo, Inc.	28.34	91.9%	141.6%	1,208	1,059	223	18.3%	2.6%	N/A	5.6	4.7	4.0	N/A	N/A	N/A
Atlassian Corporation Plc	53.92	86.6%	80.0%	12,522	11,843	972	31.3%	28.5%	N/A	N/A	12.2	9.6	N/A	42.8	35.7
Cloudera, Inc.	21.58	92.4%	N/A	3,048	2,658	460	26.9%	(18.8%)	N/A	7.9	5.8	4.7	N/A	N/A	N/A
Dropbox, Inc.	31.25	90.9%	N/A	12,282	12,676	1,334	20.5%	21.5%	322.1%	N/A	N/A	N/A	N/A	N/A	N/A
Hortonworks, Inc.	20.37	92.6%	107.6%	1,587	1,515	328	25.2%	(18.0%)	N/A	5.8	4.6	3.7	N/A	N/A	N/A
Magic Software Enterprises Ltd.	8.50	89.5%	12.5%	378	354	285	10.6%	N/A	N/A	1.4	1.2	1.2	8.9	N/A	N/A
Micro Focus International plc	13.88	34.2%	(54.9%)	6,053	10,455	3,950	61.6%	35.0%	42.0%	5.4	2.6	2.8	14.5	7.6	6.8
MobileIron, Inc.	4.95	73.1%	13.8%	498	405	193	9.4%	(0.7%)	N/A	2.3	2.1	1.9	N/A	N/A	44.5
MongoDB, Inc.	43.40	93.8%	N/A	2,195	1,916	214	38.7%	(31.6%)	N/A	12.4	8.9	6.7	N/A	N/A	N/A
Pegasystems Inc.	60.65	93.5%	38.6%	4,737	4,513	952	13.3%	14.7%	120.2%	5.4	4.7	4.3	N/A	32.3	25.9
Progress Software Corporation	38.45	71.7%	34.3%	1,784	1,737	404	1.5%	48.7%	40.3%	4.3	4.3	4.3	12.0	8.8	9.0
Red Hat, Inc.	149.51	89.3%	72.8%	26,464	25,189	3,316	19.4%	26.9%	67.9%	8.6	7.6	6.6	44.2	28.3	23.7
SDL plc	5.77	60.8%	(28.5%)	475	443	415	3.2%	10.3%	20.1%	1.1	1.1	1.0	12.4	10.3	8.9
ServiceNow, Inc.	165.45	93.7%	89.2%	28,904	28,298	2,554	32.1%	25.5%	N/A	14.6	11.1	8.6	N/A	43.4	30.4
Software Aktiengesellschaft	52.17	85.4%	16.1%	3,859	3,790	1,106	2.5%	31.0%	7.4%	3.5	3.4	3.3	11.9	11.1	10.3
Talend S.A.	48.12	92.4%	61.6%	1,417	1,331	202	35.6%	(4.7%)	N/A	9.0	6.6	5.2	N/A	N/A	N/A
Wix.com Ltd.	79.55	90.8%	17.2%	3,730	3,498	594	39.5%	17.8%	N/A	8.2	5.9	4.7	N/A	33.0	21.0
Mean		44.5%		\$11,531	\$11,331	\$1,397	22.3%	12.0%	85.2%	6.9 x	5.9 x	4.9 x	20.2 x	24.3 x	21.6 x
Median		38.6%		3,048	2,658	460	20.5%	16.2%	51.7%	5.8	5.3	4.5	12.4	26.8	21.1

Network & Systems

(\$ in millions except per share data)

	3/31/2018	% of				Revenue		EBITDA		Valuation Multiples					
	Price per	52-Week	LTM	Market	Enterprise	2018E	2018E	2018E	2018E	EV/LTM	EV/2018E	EV/2019E	EV/LTM	EV/2018E	EV/2019E
Company Name	Share	High	Change	Cap	Value	2018E	Growth	Margin	Growth	Revenue	Revenue	Revenue	EBITDA	EBITDA	EBITDA
A10 Networks, Inc.	\$5.82	59.7%	(36.4%)	\$412	\$288	\$241	3.0%	5.2%	13.1%	1.2 x	1.2 x	1.1 x	N/A	22.8 x	14.5 x
Aerohive Networks, Inc.	4.04	62.2%	(4.0%)	219	154	159	4.2%	1.9%	N/A	1.0	1.0	0.9	N/A	N/A	13.6
Akamai Technologies, Inc.	70.98	90.7%	18.9%	12,069	12,020	2,701	7.9%	37.0%	54.8%	4.8	4.4	4.1	18.6 x	12.0	10.6
Arista Networks, Inc.	255.30	81.9%	93.0%	18,860	17,363	2,089	26.9%	34.7%	47.7%	10.5	8.3	6.8	35.4	23.9	19.5
Atunity Ltd.	7.50	91.0%	(5.3%)	155	126	74	19.0%	7.1%	N/A	2.0	1.7	1.4	N/A	24.0	N/A
CA, Inc.	33.90	91.0%	10.2%	14,134	14,089	4,287	3.0%	38.4%	35.1%	3.4	3.3	3.2	11.5	8.5	8.3
Citrix Systems, Inc.	92.80	95.7%	11.3%	12,635	13,015	2,877	1.9%	32.9%	16.5%	4.6	4.5	4.4	16.0	13.7	13.3
F5 Networks, Inc.	144.61	94.0%	1.4%	8,943	7,939	2,168	3.4%	38.5%	31.8%	3.8	3.7	3.6	12.5	9.5	N/A
j2 Global, Inc.	78.92	86.3%	(4.0%)	3,874	4,525	1,222	9.3%	40.3%	20.1%	4.0	3.7	3.4	11.0	9.2	8.2
NetScout Systems, Inc.	26.35	68.5%	(30.6%)	2,299	2,220	1,006	(6.1%)	20.1%	0.7%	2.1	2.2	2.2	11.0	11.0	10.0
New Relic, Inc.	74.12	93.7%	99.9%	4,109	3,876	424	28.5%	8.6%	N/A	11.7	9.1	7.3	N/A	N/A	N/A
Nutanix, Inc.	49.11	88.9%	161.6%	8,069	7,567	1,184	25.7%	(4.6%)	N/A	8.0	6.4	5.1	N/A	N/A	N/A
Splunk Inc.	98.39	87.3%	58.0%	13,918	12,828	1,629	28.2%	14.5%	N/A	10.1	7.9	6.3	N/A	N/A	37.7
Varonis Systems, Inc.	60.50	95.3%	90.3%	1,711	1,574	263	20.9%	2.8%	N/A	7.2	6.0	5.1	N/A	N/A	N/A
VMware, Inc.	121.27	73.5%	31.6%	49,150	41,731	8,728	10.2%	35.8%	47.6%	5.3	4.8	4.4	19.7	13.4	12.2
Mean			33.1%	\$10,037	\$9,288	\$1,937	12.4%	20.9%	29.7%	5.3 x	4.5 x	4.0 x	17.0 x	14.8 x	14.8 x
Median			11.3%	8,069	7,567	1,222	9.3%	20.1%	31.8%	4.6	4.4	4.1	14.3	12.7	12.7

Source: Capital IQ. Figures are as reported and have not been adjusted for any recent acquisitions or divestitures.

Appendix

Storage

(\$ in millions except per share data)

Company Name	3/31/2018	% of	LTM Change	Market Cap	Enterprise Value	Revenue		EBITDA		Valuation Multiples					
	Price per Share	52-Week High				2018E	Growth	2018E Margin	2018E Growth	EV/LTM Revenue	EV/2018E Revenue	EV/2019E Revenue	EV/LTM EBITDA	EV/2018E EBITDA	EV/2019E EBITDA
Carbonite, Inc.	\$28.80	85.8%	41.9%	\$821	\$805	\$305	27.5%	25.5%	484.8%	3.4 x	2.6 x	2.3 x	N/A	10.3 x	9.0 x
Commvault Systems, Inc.	57.20	88.5%	12.6%	2,571	2,125	756	10.1%	14.1%	N/A	3.1	2.8	2.5	N/A	19.9	15.2
NetApp, Inc.	61.69	94.1%	50.0%	16,528	13,074	6,060	5.4%	22.9%	34.3%	2.3	2.2	2.1	12.6 x	9.4	8.5
Pure Storage, Inc.	19.95	88.3%	103.0%	4,573	3,976	1,344	31.4%	8.0%	N/A	3.9	3.0	2.3	N/A	37.0	20.7
Tintri, Inc.	1.71	23.0%	N/A	54	90	102	(19.2%)	(35.9%)	N/A	0.7	0.9	0.8	N/A	N/A	N/A
	Mean		51.9%	\$4,909	\$4,014	\$1,713	11.0%	6.9%	259.6%	2.7 x	2.3 x	2.0 x	12.6 x	19.2 x	13.3 x
	Median		46.0%	2,571	2,125	756	10.1%	14.1%	259.6%	3.1	2.6	2.3	12.6	15.1	12.1

Cloud Communications

(\$ in millions except per share data)

	3/31/2018					Revenue		EBITDA		Valuation Multiples					
	Price per Share	% of 52-Week High	LTM Change	Market Cap	Enterprise Value	2018E	2018E Growth	2018E Margin	2018E Growth	EV/LTM Revenue	EV/2018E Revenue	EV/2019E Revenue	EV/LTM EBITDA	EV/2018E EBITDA	EV/2019E EBITDA
Company Name						2018E	Growth	Margin	Growth	Revenue	Revenue	Revenue	EBITDA	EBITDA	EBITDA
8x8, Inc.	\$18.65	92.1%	22.3%	\$1,719	\$1,558	\$331	16.8%	6.3%	N/A	5.5 x	4.7 x	3.9 x	N/A	N/A	40.7 x
Bandwidth Inc.	32.66	98.3%	N/A	576	539	189	16.0%	2.4%	(74.8%)	3.3	2.8	2.5	29.5 x	N/A	N/A
Casa Systems, Inc.	29.34	85.8%	N/A	2,394	2,430	391	11.3%	38.2%	3.7%	6.9	6.2	5.2	16.9	16.3 x	13.5
Everbridge, Inc.	36.60	93.6%	78.3%	1,041	985	137	30.8%	(2.5%)	N/A	9.4	7.2	5.7	N/A	N/A	N/A
LINE Corporation	39.68	77.2%	(1.5%)	9,433	8,402	1,874	19.4%	14.1%	30.5%	5.4	4.5	3.9	41.4	31.8	19.5
LogMeIn, Inc.	115.55	85.7%	19.6%	6,058	5,806	1,153	16.5%	39.0%	70.9%	5.9	5.0	4.7	22.1	12.9	11.7
Nuance Communications, Inc.	15.75	79.0%	(9.0%)	4,626	6,415	2,096	7.3%	29.6%	87.8%	3.3	3.1	2.9	19.4	10.3	9.6
RingCentral, Inc.	63.50	91.2%	124.4%	4,996	4,814	634	26.3%	11.4%	N/A	9.6	7.6	6.2	N/A	N/A	N/A
Twilio Inc.	38.18	89.8%	32.2%	3,598	3,307	512	28.3%	1.9%	N/A	8.3	6.5	5.2	N/A	N/A	N/A
Vonage Holdings Corp.	10.65	91.4%	68.5%	2,462	2,664	1,037	3.5%	18.8%	42.8%	2.7	2.6	2.4	19.5	13.6	12.8
	Mean		41.8%	\$3,690	\$3,692	\$835	17.6%	15.9%	26.8%	6.0 x	5.0 x	4.3 x	24.8 x	17.0 x	18.0 x
	Median		27.3%	3,030	2,986	573	16.7%	12.8%	36.6%	5.7	4.9	4.3	20.8	13.6	13.1

Source: Capital IQ. Figures are as reported and have not been adjusted for any recent acquisitions or divestitures.

Appendix

Security Software – Operating Statistics & Valuation Multiples

Content Providers

(\$ in millions except per share data)

	3/31/2018					Revenue		EBITDA		Valuation Multiples					
	Price per	% of	LTM	Market	Enterprise	2018E		2018E	2018E	EV/LTM	EV/2018E	EV/2019E	EV/LTM	EV/2018E	EV/2019E
Company Name	Share	High	Change	Cap	Value	2018E	Growth	Margin	Growth	Revenue	Revenue	Revenue	EBITDA	EBITDA	EBITDA
AhnLab, Inc.	\$80.88	57.7%	(41.1%)	\$701	\$585	N/A	N/A	N/A	N/A	4.1 x	N/A	N/A	25.2 x	N/A	N/A
CyberArk Software Ltd.	51.02	91.7%	0.3%	1,815	1,512	\$315	20.2%	20.5%	123.1%	5.8	4.8 x	4.1 x	N/A	23.5 x	18.8 x
F-Secure Oyj	4.50	75.5%	12.4%	706	595	225	7.9%	10.4%	34.0%	2.9	2.6	2.4	34.2	25.5	18.3
Proofpoint, Inc.	113.65	91.8%	52.8%	5,745	5,611	694	34.7%	12.0%	N/A	10.9	8.1	6.3	N/A	N/A	43.2
Symantec Corporation	25.85	75.6%	(14.9%)	16,067	19,122	4,866	2.7%	47.2%	167.2%	4.0	3.9	3.7	22.3	8.3	7.2
Trend Micro Incorporated	59.85	94.6%	31.3%	8,238	6,801	1,546	10.6%	32.4%	5.8%	4.9	4.4	4.1	14.4	13.6	12.7
Zix Corporation	4.27	64.0%	(11.2%)	233	200	68	3.7%	29.8%	51.2%	3.0	2.9	2.7	14.9	9.8	8.8
	Mean		4.2%	\$4,786	\$4,918	\$1,286	13.3%	25.4%	76.3%	5.1 x	4.5 x	3.9 x	22.2 x	16.2 x	18.2 x
	Median		0.3%	1,815	1,512	504	9.3%	25.1%	51.2%	4.1	4.2	3.9	22.3	13.6	15.5

Network Security & IAM

(\$ in millions except per share data)

	3/31/2018					Revenue		EBITDA		Valuation Multiples					
	Price per Share	% of 52-Week High	LTM Change	Market Cap	Enterprise Value	2018E	2018E Growth	2018E Margin	2018E Growth	EV/LTM Revenue	EV/2018E Revenue	EV/2019E Revenue	EV/LTM EBITDA	EV/2018E EBITDA	EV/2019E EBITDA
Company Name						2018E									
Absolute Software Corporation	\$5.28	75.3%	(8.3%)	\$212	\$179	\$97	4.7%	10.1%	(26.8%)	1.9 x	1.8 x	1.7 x	13.3 x	18.2 x	12.1 x
Check Point Software	99.34	83.3%	(3.2%)	16,236	14,826	1,948	5.0%	53.7%	11.5%	8.0	7.6	7.2	15.8	14.2	13.3
FireEye, Inc.	16.93	89.9%	34.3%	3,243	3,126	819	9.0%	12.8%	N/A	4.2	3.8	3.5	N/A	29.9	23.9
ForeScout Technologies, Inc.	32.44	85.8%	N/A	1,271	1,108	268	21.2%	(12.3%)	N/A	5.0	4.1	3.4	N/A	N/A	N/A
Fortinet, Inc.	53.58	96.8%	39.7%	9,003	7,751	1,707	14.2%	22.8%	132.1%	5.2	4.5	4.0	46.3	19.9	16.2
Imperva, Inc.	43.30	82.6%	5.5%	1,507	1,148	371	15.2%	18.8%	N/A	3.6	3.1	2.7	N/A	16.5	13.5
Mimecast Limited	35.43	90.1%	58.2%	2,048	1,960	304	26.1%	10.5%	187.6%	8.1	6.5	5.4	N/A	N/A	44.0
Link Motion Inc.	1.66	35.5%	(60.2%)	179	236	N/A	N/A	N/A	N/A	4.1	N/A	N/A	N/A	N/A	N/A
Okta, Inc.	39.85	92.9%	N/A	4,171	3,941	347	33.5%	(17.1%)	N/A	N/A	11.4	8.6	N/A	N/A	N/A
Palo Alto Networks, Inc.	181.52	94.8%	61.1%	16,672	15,574	2,423	21.8%	26.0%	N/A	7.8	6.4	5.4	N/A	24.7	19.9
Qualys, Inc.	72.75	91.6%	92.0%	2,810	2,522	277	20.0%	35.3%	68.8%	10.9	9.1	7.8	43.6	25.8	21.8
Rapid7, Inc.	25.57	90.7%	70.7%	1,164	1,074	233	16.0%	(7.2%)	N/A	5.3	4.6	3.8	N/A	N/A	N/A
SailPoint Technologies Holdings, Inc.	20.69	86.5%	N/A	1,804	1,757	222	19.5%	7.9%	(13.3%)	9.4	7.9	6.4	N/A	N/A	N/A
SecureWorks Corp.	8.08	62.2%	(14.9%)	661	559	514	9.9%	(1.2%)	N/A	1.2	1.1	1.0	N/A	N/A	39.3
VASCO Data Security International, Inc.	12.95	86.3%	(4.1%)	516	357	203	5.2%	10.7%	75.8%	1.8	1.8	1.6	29.0	16.5	11.6
VeriSign, Inc.	118.56	93.2%	36.1%	11,515	11,510	1,208	3.7%	71.0%	13.2%	9.9	9.5	9.2	15.2	13.4	12.8
Zscaler, Inc.	28.07	80.6%	N/A	3,293	3,428	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mean		23.6%		\$4,489	\$4,180	\$729	15.0%	16.1%	56.1%	5.8 x	5.6 x	4.8 x	27.2 x	19.9 x	20.8 x
Median		34.3%		2,048	1,960	347	15.2%	10.7%	41.0%	5.2	4.6	4.0	22.4	18.2	16.2

Source: Capital IQ. Figures are as reported and have not been adjusted for any recent acquisitions or divestitures.

Appendix

SaaS – Operating Statistics & Valuation Multiples

(\$ in millions except per share data)

	3/31/2018					Revenue		EBITDA		Valuation Multiples					
	Price per	% of	LTM	Market	Enterprise	2018E	2018E	2018E	2018E	EV/LTM	EV/2018E	EV/2019E	EV/LTM	EV/2018E	EV/2019E
Company Name	Share	High	Change	Cap	Value	2018E	Growth	Margin	Growth	Revenue	Revenue	Revenue	EBITDA	EBITDA	EBITDA
2U, Inc.	\$84.03	92.3%	111.9%	\$4,430	\$4,229	\$401	40.0%	4.1%	N/A	14.7 x	10.5 x	8.0 x	N/A	N/A	N/A
Alteryx, Inc.	34.14	87.8%	118.4%	2,056	1,882	179	35.7%	(8.6%)	N/A	14.3	10.5	8.0	N/A	N/A	N/A
Amber Road, Inc.	8.90	86.5%	15.3%	243	256	86	8.3%	2.1%	N/A	3.2	3.0	2.7	N/A	N/A	N/A
AppFolio, Inc.	40.85	78.2%	50.2%	1,392	1,346	181	26.1%	20.6%	186.7%	9.4	7.4	6.0	N/A	36.0 x	26.3 x
Appian Corporation	25.18	58.2%	N/A	1,529	1,456	200	13.1%	(18.9%)	N/A	8.2	7.3	6.1	N/A	N/A	N/A
Applo, Inc.	28.34	91.9%	141.6%	1,208	1,059	223	18.3%	2.6%	N/A	5.6	4.7	4.0	N/A	N/A	N/A
athenahealth, Inc.	143.03	90.1%	26.9%	5,735	5,843	1,350	10.6%	26.1%	113.3%	4.8	4.3	3.9	35.3 x	16.6	14.3
Atlassian Corporation Plc	53.92	86.6%	80.0%	12,522	11,843	972	31.3%	28.5%	N/A	N/A	12.2	9.6	N/A	42.8	35.7
Bandwidth Inc.	32.66	98.3%	N/A	576	539	189	16.0%	2.4%	(74.8%)	3.3	2.8	2.5	29.5	N/A	N/A
Benefitfocus, Inc.	24.40	65.8%	(12.7%)	764	824	254	(0.9%)	3.5%	N/A	3.2	3.2	2.9	N/A	N/A	39.6
BlackLine, Inc.	39.21	86.8%	31.8%	2,095	1,983	223	25.9%	4.6%	N/A	11.2	8.9	7.1	N/A	N/A	N/A
Box, Inc.	20.55	83.9%	26.0%	2,826	2,704	607	19.9%	2.5%	N/A	5.3	4.5	3.7	N/A	N/A	N/A
Carbonite, Inc.	28.80	85.8%	41.9%	821	805	305	27.5%	25.5%	484.8%	3.4	2.6	2.3	N/A	10.3	9.0
Castlight Health, Inc.	3.65	76.8%	0.0%	494	406	153	16.6%	(7.0%)	N/A	3.1	2.6	2.2	N/A	N/A	N/A
ChannelAdvisor Corporation	9.10	71.9%	(18.4%)	246	194	129	5.1%	5.0%	N/A	1.6	1.5	1.4	N/A	30.1	21.0
Cloudera, Inc.	21.58	92.4%	N/A	3,048	2,658	460	26.9%	(18.8%)	N/A	7.2	5.8	4.7	N/A	N/A	N/A
Cornerstone OnDemand, Inc.	39.11	84.7%	0.6%	2,242	2,212	504	4.6%	17.8%	N/A	4.6	4.4	4.0	N/A	24.6	17.3
Coupa Software Incorporated	45.62	90.0%	79.6%	2,583	2,333	230	23.0%	(1.9%)	N/A	12.5	10.2	8.2	N/A	N/A	N/A
Dropbox, Inc.	31.25	90.9%	N/A	12,282	12,676	1,334	20.5%	21.5%	322.1%	11.5	9.5	8.2	N/A	44.1	36.3
Ebix, Inc.	74.50	85.1%	22.2%	2,346	2,708	443	21.8%	36.9%	31.8%	7.4	6.1	6.4	21.8	16.5	14.5
Ellie Mae, Inc.	91.94	80.0%	(8.3%)	3,153	2,912	498	19.5%	26.3%	85.9%	7.0	5.8	5.0	41.3	22.2	16.6
Everbridge, Inc.	36.60	93.6%	78.3%	1,041	985	137	30.8%	(2.5%)	N/A	9.4	7.2	5.7	N/A	N/A	N/A
FireEye, Inc.	16.93	89.9%	34.3%	3,243	3,126	819	9.0%	12.8%	N/A	4.2	3.8	3.5	N/A	29.9	23.9
Five9, Inc.	29.79	91.7%	81.0%	1,690	1,668	233	16.3%	11.4%	500.8%	8.3	7.2	6.1	N/A	N/A	44.1
Hortonworks, Inc.	20.37	92.6%	107.6%	1,587	1,515	328	25.2%	(18.0%)	N/A	5.8	4.6	3.7	N/A	N/A	N/A
HubSpot, Inc.	108.30	87.0%	78.9%	4,100	3,894	484	28.8%	8.7%	N/A	10.4	8.0	6.5	N/A	N/A	N/A
Inovalon Holdings, Inc.	10.60	59.6%	(15.9%)	1,531	1,303	577	28.4%	29.2%	121.7%	2.9	2.3	2.0	17.2	7.7	6.6
Instructure, Inc.	42.15	90.6%	80.1%	1,406	1,365	208	31.0%	(11.2%)	N/A	8.6	6.6	5.2	N/A	N/A	N/A
j2 Global, Inc.	78.92	86.3%	(4.0%)	3,874	4,525	1,222	9.3%	40.3%	20.1%	4.0	3.7	3.4	11.0	9.2	8.2
Kinaxis Inc.	64.87	90.1%	11.7%	1,656	1,501	161	20.9%	26.0%	38.8%	11.3	9.3	7.6	49.7	35.8	26.5
LogMeIn, Inc.	115.55	85.7%	19.6%	6,058	5,806	1,153	16.5%	39.0%	70.9%	5.9	5.0	4.7	22.1	12.9	11.7
Medidata Solutions, Inc.	62.81	73.1%	8.9%	3,681	3,573	637	16.7%	25.7%	95.3%	6.5	5.6	4.8	42.6	21.8	17.6
MINDBODY, Inc.	38.90	89.5%	41.7%	1,834	1,617	234	27.9%	9.3%	N/A	8.9	6.9	5.6	N/A	N/A	43.7
Mix Telematics Limited	0.61	92.1%	121.4%	343	322	147	7.5%	26.9%	33.6%	2.4	2.2	2.0	10.9	8.1	7.2
Model N, Inc.	18.05	95.5%	72.7%	532	541	151	6.2%	3.6%	N/A	3.8	3.6	3.4	N/A	N/A	39.2
MongoDB, Inc.	43.40	93.8%	N/A	2,195	1,916	214	38.7%	(31.6%)	N/A	12.4	8.9	6.7	N/A	N/A	N/A
New Relic, Inc.	74.12	93.7%	99.9%	4,109	3,876	424	28.5%	8.6%	N/A	11.7	9.1	7.3	N/A	N/A	N/A
NantHealth, Inc.	3.05	53.5%	(38.5%)	331	464	102	17.5%	(14.5%)	N/A	5.4	4.6	3.3	N/A	N/A	13.6
Okta, Inc.	39.85	92.9%	N/A	4,171	3,941	347	33.5%	(17.1%)	N/A	N/A	11.4	8.6	N/A	N/A	N/A
Paycom Software, Inc.	107.39	93.0%	86.7%	6,343	6,333	544	25.6%	40.1%	139.9%	14.6	11.6	9.4	N/A	29.0	23.7
Paylocity Holding Corporation	51.23	89.6%	32.6%	2,695	2,584	407	21.8%	20.9%	241.0%	7.7	6.4	5.2	N/A	30.4	23.4
Proofpoint, Inc.	113.65	91.8%	52.8%	5,745	5,611	694	34.7%	12.0%	N/A	10.9	8.1	6.3	N/A	N/A	43.2
Q2 Holdings, Inc.	45.55	93.4%	30.7%	1,914	1,815	235	21.3%	8.6%	N/A	9.4	7.7	6.3	N/A	N/A	N/A
Qualys, Inc.	72.75	91.6%	92.0%	2,810	2,522	277	20.0%	35.3%	68.8%	10.9	9.1	7.8	43.6	25.8	21.8
RealPage, Inc.	51.50	93.7%	47.6%	4,279	4,859	841	25.3%	26.1%	131.4%	7.2	5.8	5.2	N/A	22.2	18.5
Red Hat, Inc.	149.51	89.3%	72.8%	26,464	25,189	3,316	19.4%	26.9%	67.9%	8.6	7.6	6.6	44.2	28.3	23.7
RingCentral, Inc.	63.50	91.2%	124.4%	4,996	4,814	634	26.3%	11.4%	N/A	9.6	7.6	6.2	N/A	N/A	N/A
SailPoint Technologies Holdings, Inc.	20.69	86.5%	N/A	1,804	1,757	222	19.5%	7.9%	(13.3%)	9.4	7.9	6.4	N/A	N/A	N/A
salesforce.com, inc.	116.30	90.2%	41.0%	85,176	82,887	12,674	20.9%	22.4%	217.3%	7.9	6.5	5.5	N/A	29.1	23.5
SendGrid, Inc.	28.14	87.9%	N/A	1,202	1,043	140	25.5%	10.9%	162.2%	9.3	7.4	6.0	N/A	N/A	N/A
ServiceNow, Inc.	165.45	93.7%	89.2%	28,904	28,298	2,554	32.1%	25.5%	N/A	14.6	11.1	8.6	N/A	43.4	30.4
Shopify Inc.	124.59	80.5%	83.0%	13,126	12,182	998	48.2%	3.5%	N/A	N/A	12.2	8.9	N/A	N/A	N/A
ServiceSource International, Inc.	3.81	91.4%	(1.8%)	345	300	245	2.3%	8.4%	N/A	1.3	1.2	1.2	N/A	14.6	11.0
SPS Commerce, Inc.	64.07	98.1%	9.5%	1,105	942	243	10.0%	17.6%	111.6%	4.3	3.9	3.5	46.6	22.0	18.2
Synchronoss Technologies, Inc.	10.55	42.3%	(56.8%)	501	625	419	(11.6%)	19.4%	(29.9%)	1.3	1.5	1.5	11.5	7.7	10.1
The Ultimate Software Group, Inc.	243.70	94.5%	24.8%	7,451	7,296	1,114	18.4%	24.9%	274.2%	7.8	6.6	5.6	N/A	26.3	21.7
Twilio Inc.	38.18	89.8%	32.2%	3,598	3,307	512	28.3%	1.9%	N/A	8.3	6.5	5.2	N/A	N/A	N/A
Upland Software, Inc.	28.79	90.8%	81.2%	598	688	133	36.0%	35.7%	199.7%	7.0	5.2	4.9	43.4	14.5	13.3
Veeva Systems Inc.	73.02	93.3%	42.4%	10,321	9,559	819	19.4%	32.5%	61.4%	13.9	11.7	9.9	N/A	35.9	30.2
Workday, Inc.	127.11	90.8%	52.6%	26,947	25,171	2,688	25.4%	18.6%	N/A	11.7	9.4	7.6	N/A	N/A	37.3
Workiva Inc.	23.70	88.6%	51.4%	1,009	952	235	13.2%	(12.1%)	N/A	4.6	4.0	3.6	N/A	N/A	N/A
Xero Limited	25.70	92.9%	84.8%	3,529	3,472	373	34.3%	12.0%	407.6%	13.8	9.3	7.3	N/A	N/A	39.4
Yext, Inc.	12.65	83.7%	N/A	1,191	1,073	225	32.2%	(17.1%)	N/A	6.3	4.8	3.6	N/A	N/A	N/A
Zendesk, Inc.	47.87	95.5%	70.7%	4,949	4,702	563	30.7%	6.2%	N/A	10.9	8.4	6.5	N/A	N/A	N/A
Zix Corporation	4.27	64.0%	(11.2%)	233	200	68	3.7%	29.8%	51.2%	3.0	2.9	2.7	14.9	9.8	8.8
Zscaler, Inc.	28.07	80.6%	N/A	3,293	3,428	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mean			46.7%	\$5,402	\$5,218	\$733	21.3%	11.6%	142.1%	7.7 x	6.5 x	5.4 x	30.3 x	23.6 x	22.9 x
Median			42.1%	2,294	2,272	347	21.3%	11.4%	111.6%	7.7	6.5	5.5	32.4	23.4	21.7

Source: Capital IQ. Figures are as reported and have not been adjusted for any recent acquisitions or divestitures.

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