

# VISTA POINT

## ADVISORS

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Mergers & Acquisitions | Capital Raising | Strategic Advisory

Software Industry Update

Q1 2019

# Vista Point Advisors Overview

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Vista Point Advisors was founded on the principle that founder-led technology companies in the emerging and middle markets are unique and require specialized attention and advice when considering investment and exit opportunities. Our unique focus on sell-side processes provides our clients with unconflicted advice that assures our interests are completely aligned with the entrepreneur. VPA is focused exclusively on working with founder-owned and operated businesses to deliver the most favorable transactions at premium valuations.



## Unconflicted Advice

Vista Point exclusively provides sell-side M&A and Capital Raising advisory services to technology businesses removing the conflict of interest associated with working both sides of the table.



## Deep Technology Domain Expertise

Vista Point bankers are industry specialists that focus exclusively on core technology markets allowing us to provide relevant insights into our client's business and create the strategic framework to optimize valuation.



## Differentiated Negotiation Framework

The firm utilizes a unique negotiation framework to increase the competitiveness of the transaction process, and ultimately yield higher valuations at better terms for clients.

# Our Differentiated Model Yields Differentiated Results

 <i>acquired by</i>  January 2019	<i>Undisclosed</i> <i>investment from</i>  December 2018	ValuePenguin  <i>acquired by</i>  December 2018	 <i>acquired by</i>  November 2018	BIZ  LIBRARY <i>investment from</i> PRIMUS November 2018	 <i>acquired by</i>  October 2018	STUDYBLUE <i>acquired by</i>  July 2018
 <i>investment from</i>  July 2018	BeSmartee!  <i>investment from</i>  June 2018	 <i>investment from</i>  May 2018	 <i>acquired by</i>  a portfolio company of  April 2018	 <i>acquired by</i>  March 2018	 <i>investment from</i>  January 2018	 <i>investment from</i>  December 2017
 <i>investment from</i> FrontierCapital November 2017	 <i>acquired by</i>  a portfolio company of  September 2017	 <i>acquired by</i>  September 2017	 <i>investment from</i>  September 2017	 <i>investment from</i>  August 2017	 <i>investment from</i>  August 2017	 <i>acquired by</i>  March 2017
 <i>acquired by</i>  a portfolio company of PROVIDENCEEQUITY February 2017	NaturalPoint  <i>acquired by</i>  a subsidiary of  January 2017	 <i>acquired by</i>  November 2016	 Think Through Learning Inc. <i>acquired by</i>  a portfolio company of WELD NORTH October 2016	 <i>acquired by</i>  a portfolio company of  July 2016	 <i>acquired by</i>  a portfolio company of  May 2016	 <i>acquired by</i>  May 2016

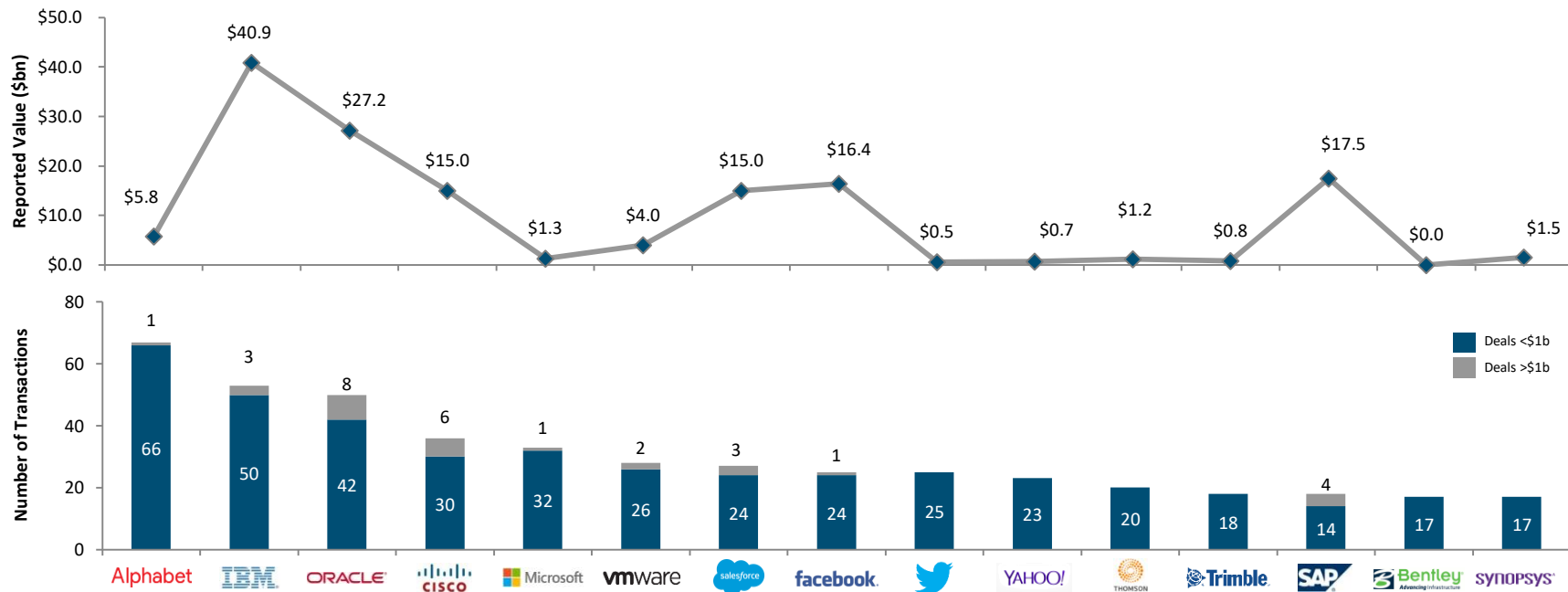
# Q1 2019 Software Industry Overview

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- There were 370 reported software M&A transactions in Q1 2019 totaling \$73.7b in reported transaction value
  - Software M&A deal volume in Q1 2019 was up 3.9% relative to Q1 2018, which saw 356 transactions
  - Notable deals include:
    - Fiserv's \$37.7b acquisition of First Data, representing 4.0x LTM Revenue
    - CCPIB, GIC Private, and Hellman & Friedman's \$10.8b acquisition of Ultimate Software Group, representing 9.5x LTM Revenue
    - Cloudera's \$5.1b acquisition of Hortonworks, representing 15.6x LTM Revenue
    - Thoma Bravo's \$3.4b acquisition of Ellie Mae, representing 7.1x LTM Revenue
    - Vista Equity Partners' \$1.7b acquisition of Apptio, representing 7.5x LTM Revenue
- The Software IPO market saw one major IPO pricing in Q1 2019
  - Lyft (NAS: LYFT), the second largest ride-sharing service provider in the U.S., raised \$2.3b on 3/29/19 and has traded up 8.7% through the end of the quarter

# Active Acquirers and Notable Transactions

## Most Active Acquirers (Since 2010)



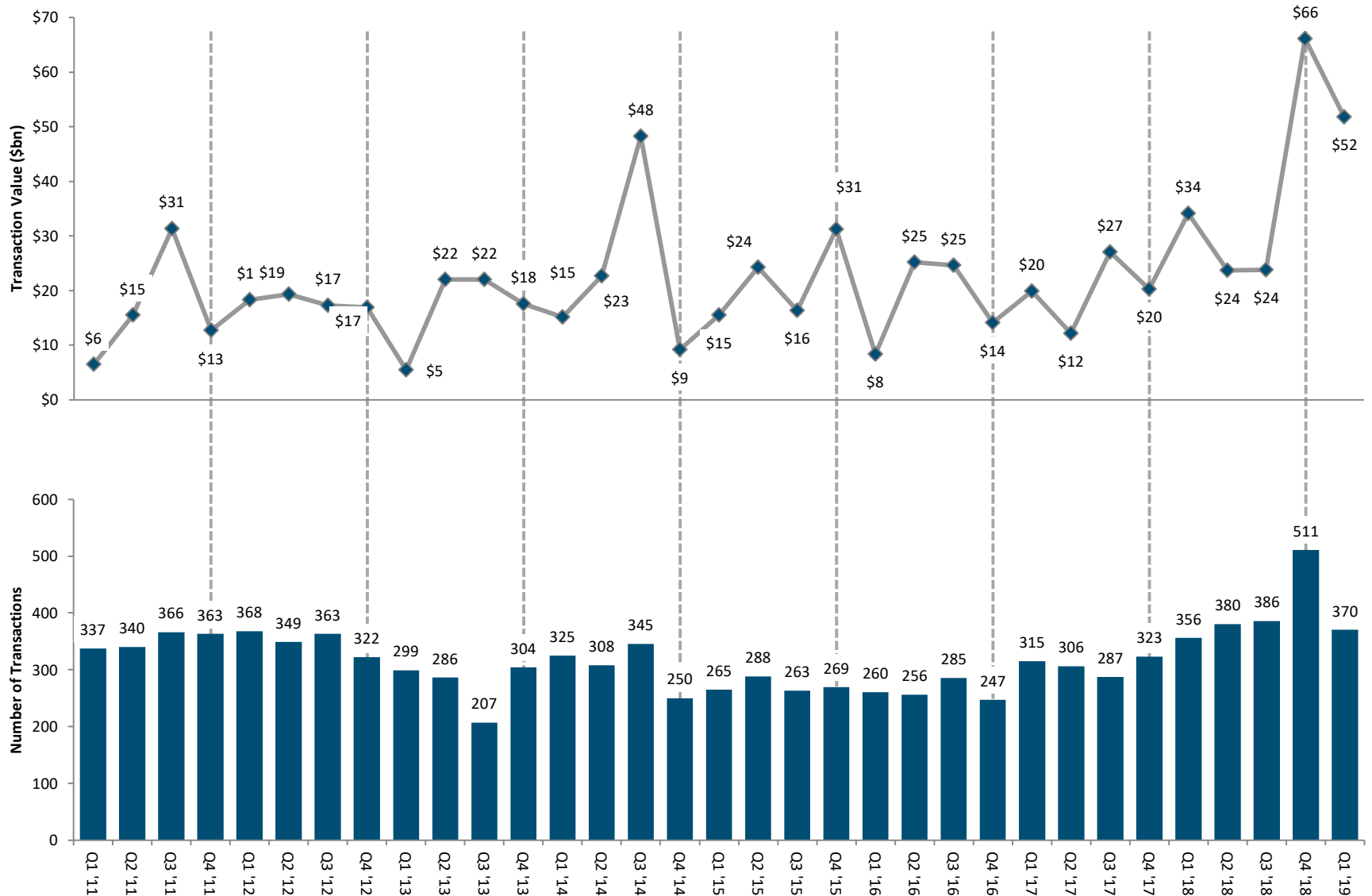
## Notable Recent Transactions

Acquirer		  			
Target					
Date	1/16/19	2/4/19	1/3/19	2/12/19	1/10/19
EV	\$37.7b	\$10.8b	\$5.1b	\$3.4b	\$1.7b
EV / LTM Rev	4.0x	9.5x	15.6x	7.1x	7.5x
EV / LTM EBITDA	12.4x	81.3x	N/A	39.3x	N/A

Source: Capital IQ and Pitchbook as of 3/31/19

# Software M&A Market Overview

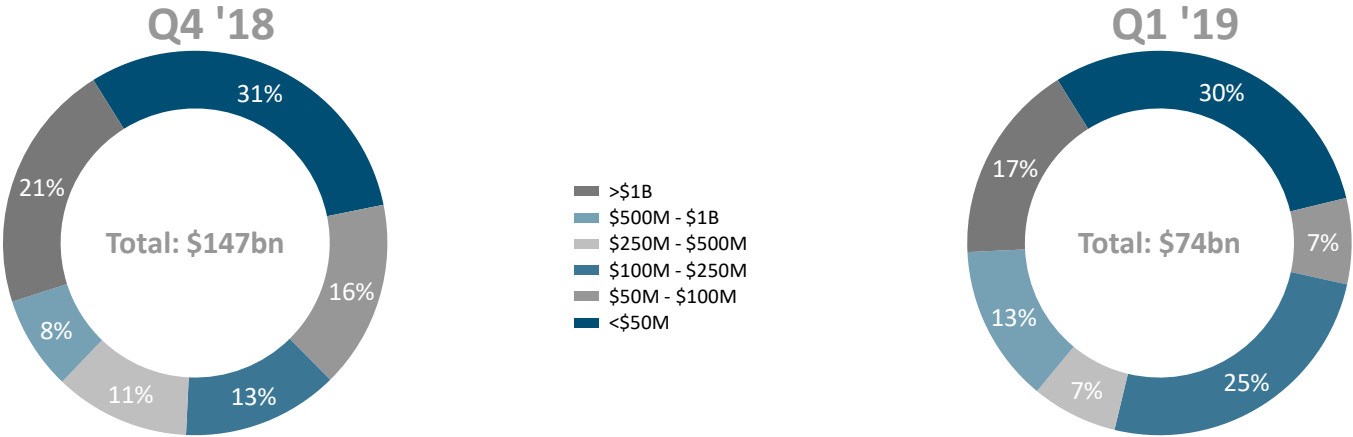
## Quarterly Software M&A Value and Deal Count (Since 2011)



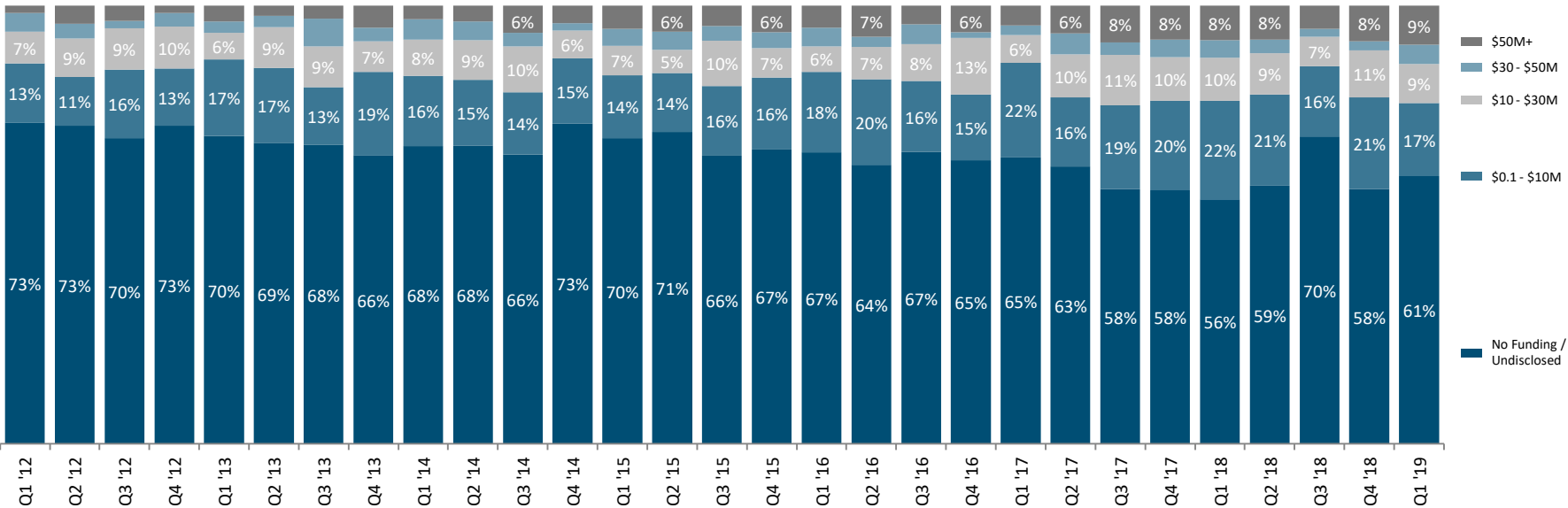
Source: Capital IQ and Pitchbook as of 3/31/19, WhatsApp/Facebook, Broadcom/Avago, EMC/Denali, CA Technologies/Broadcom, Red Hat/IBM, Refinitiv/Blackstone, BMC/KKR, and First Data / Fiserv deals omitted from top graph

# Software M&A Market Overview

## Transactions by Reported Value



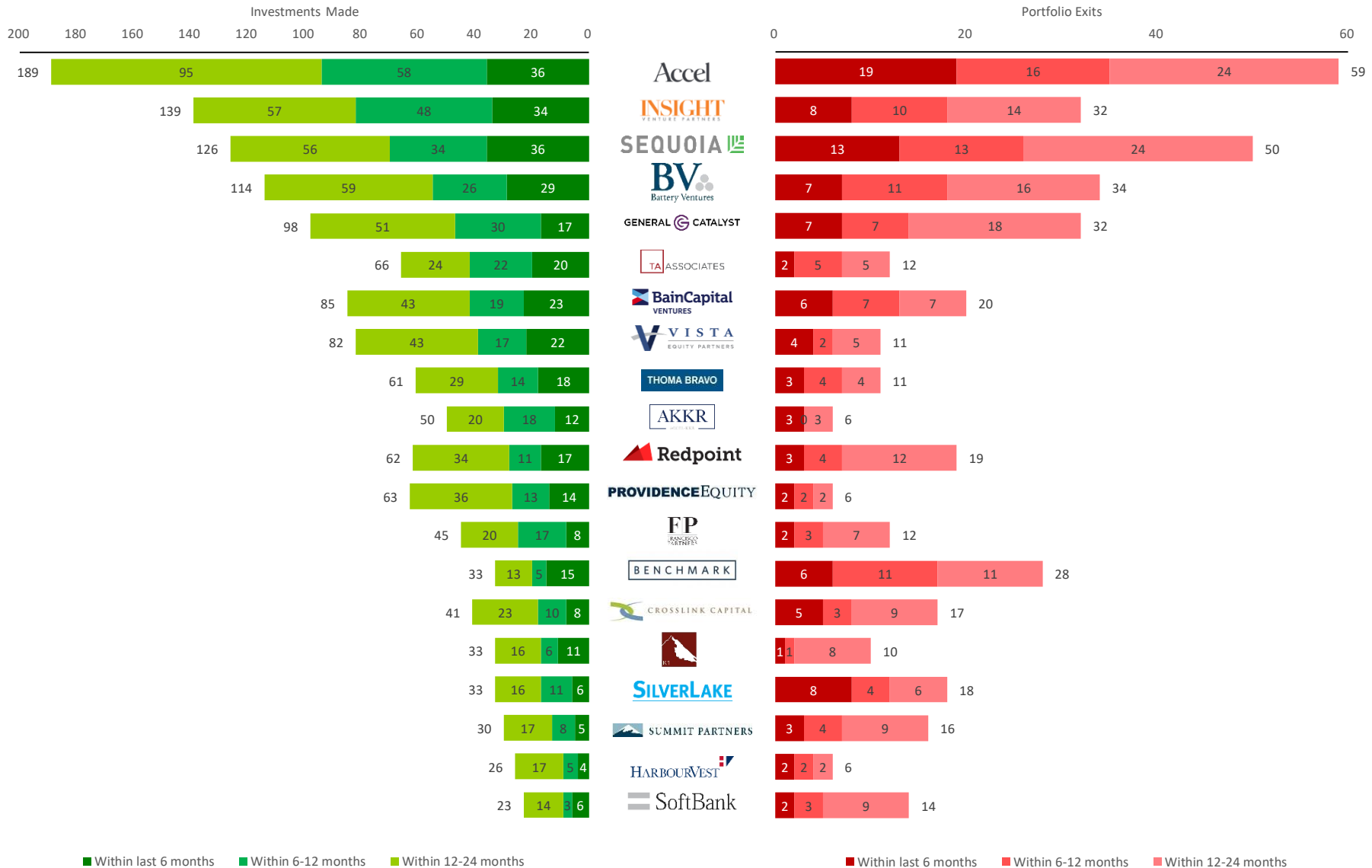
## Transactions by Target Funding



Source: Capital IQ and Pitchbook as of 3/31/19

# Despite High Valuations, Investments Lead Exits 3:1

## Top 20 Most Active Investors Across Software & Internet Over the Last 2 Years



Source: Capital IQ and Pitchbook as of 3/31/19, Investors ranked by investments made in the last 12 months



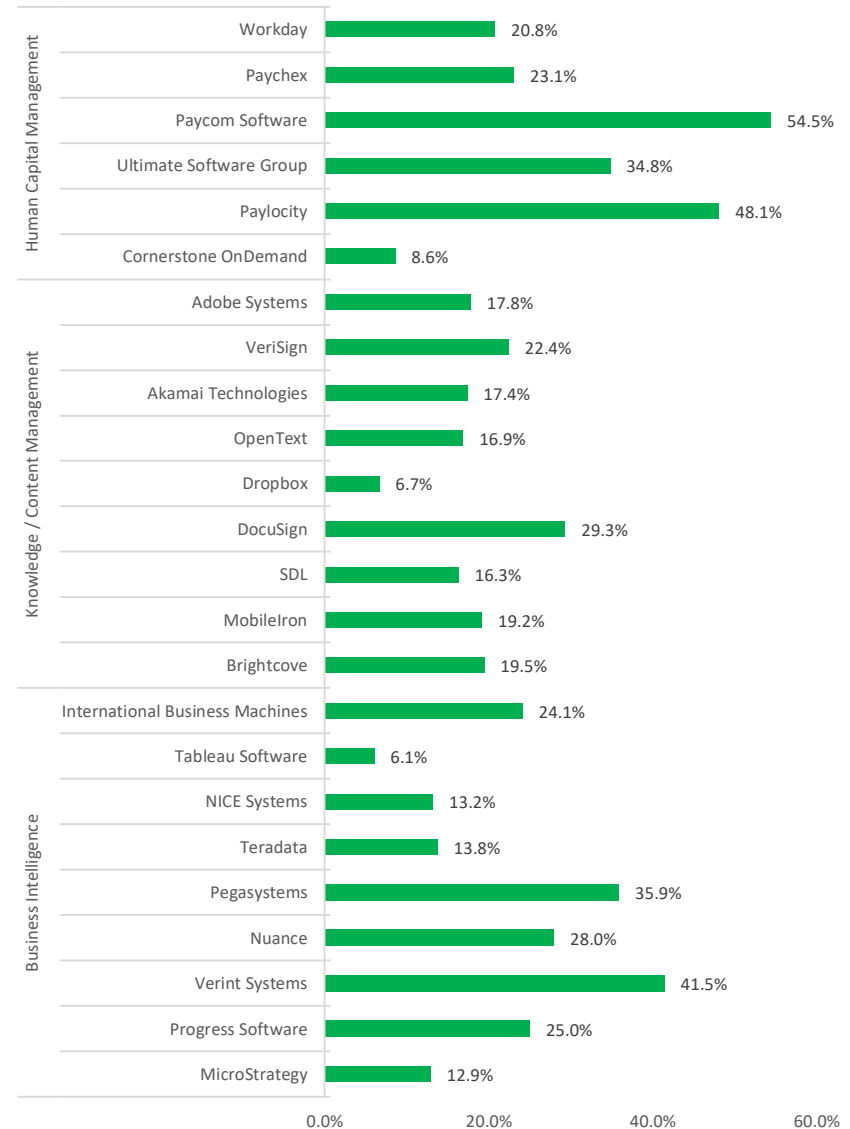
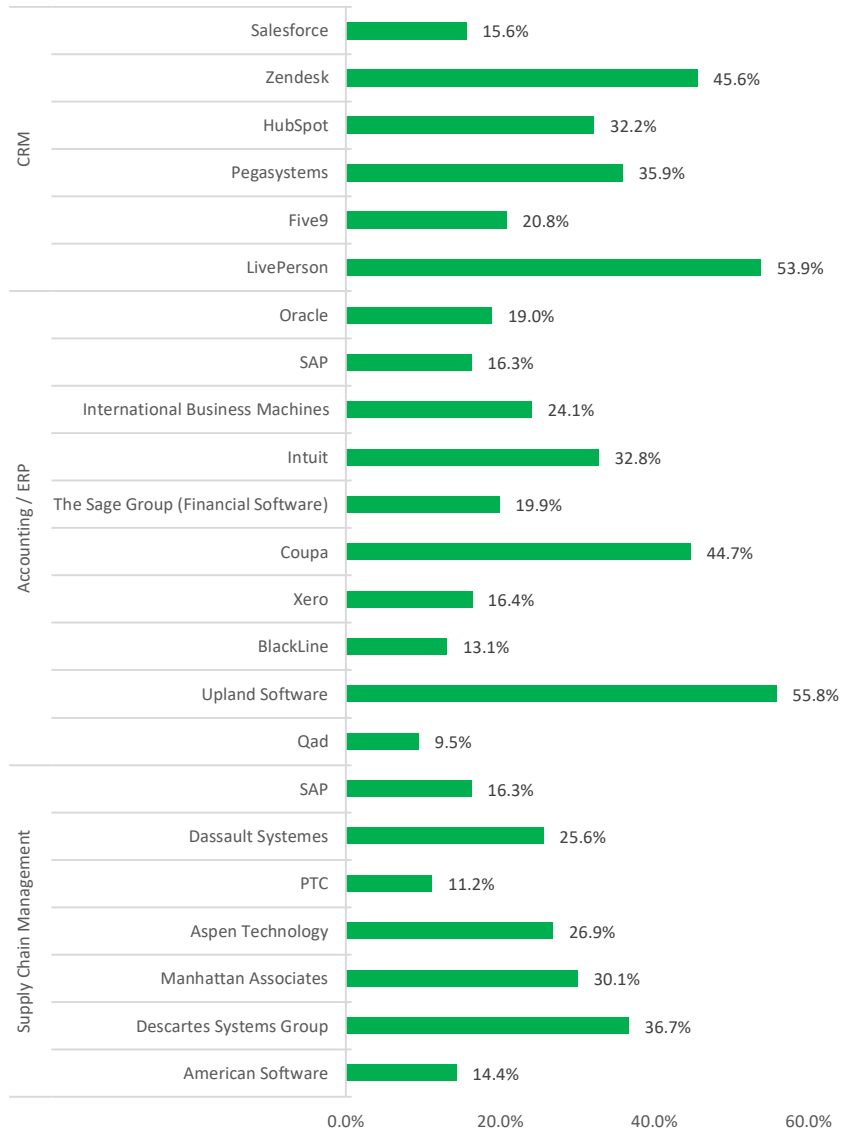
# IPO Summary

The IPO market experienced a slight downtick in Q1 2019, with only two major technology pricings on U.S. stock exchanges, although there is increasing talk of additional large IPOs this year

Year	IPOs		First Follow-On (“FO”) Offering			
	# of IPOs / Capital Raised	File to Price Change	# of FOs	% of FOs	Avg. Days Post Lockup Expiration	IPO to FOs Price Change
2019	<div><div>■ Software ■ Internet ■ Hardware</div><div>\$ in billions</div><div><div>\$- \$1 \$2 \$3</div><div><div>Capital Raised</div><div><div>\$0.1 \$2.3 \$2.4</div></div></div><div><div># of IPOs</div><div><div>1 1 2</div></div><div><div>- 1 2 3</div></div></div></div><div><div>■ Increase ■ No Change ■ Decrease</div><div><div>0%</div><div><div>50%</div><div>50%</div></div></div></div><td>N/A</td><td>N/A</td><td>N/A</td><td>N/A</td></div>	N/A	N/A	N/A	N/A	
2018	<div><div>\$- \$10 \$20 \$30 \$40 \$50</div><div><div>Capital Raised</div><div><div>\$16.6 \$22.7 \$40.0</div></div></div><div><div># of IPOs</div><div><div>32 15 6 53</div></div><div><div>- 20 40 60</div></div></div></div> <div><div><div>9%</div><div><div>34%</div><div>57%</div></div></div></div> <td>N/A</td> <td>N/A</td> <td>N/A</td> <td>N/A</td>	N/A	N/A	N/A	N/A	
2017	<div><div>\$- \$5 \$10</div><div><div>Capital Raised</div><div><div>\$1.9 \$3.4 \$5.6</div></div></div><div><div># of IPOs</div><div><div>14 1 17</div></div><div><div>- 10 20 30</div></div></div></div> <div><div><div>6%</div><div><div>41%</div><div>53%</div></div></div></div> <div><div><div>\$- \$0.5 \$1.0</div><div><div>\$0.1</div><div>1</div></div><div><div>- 5 10</div></div></div></div> <td>6%</td> <td>-35</td> <td>100%</td>	6%	-35	100%		

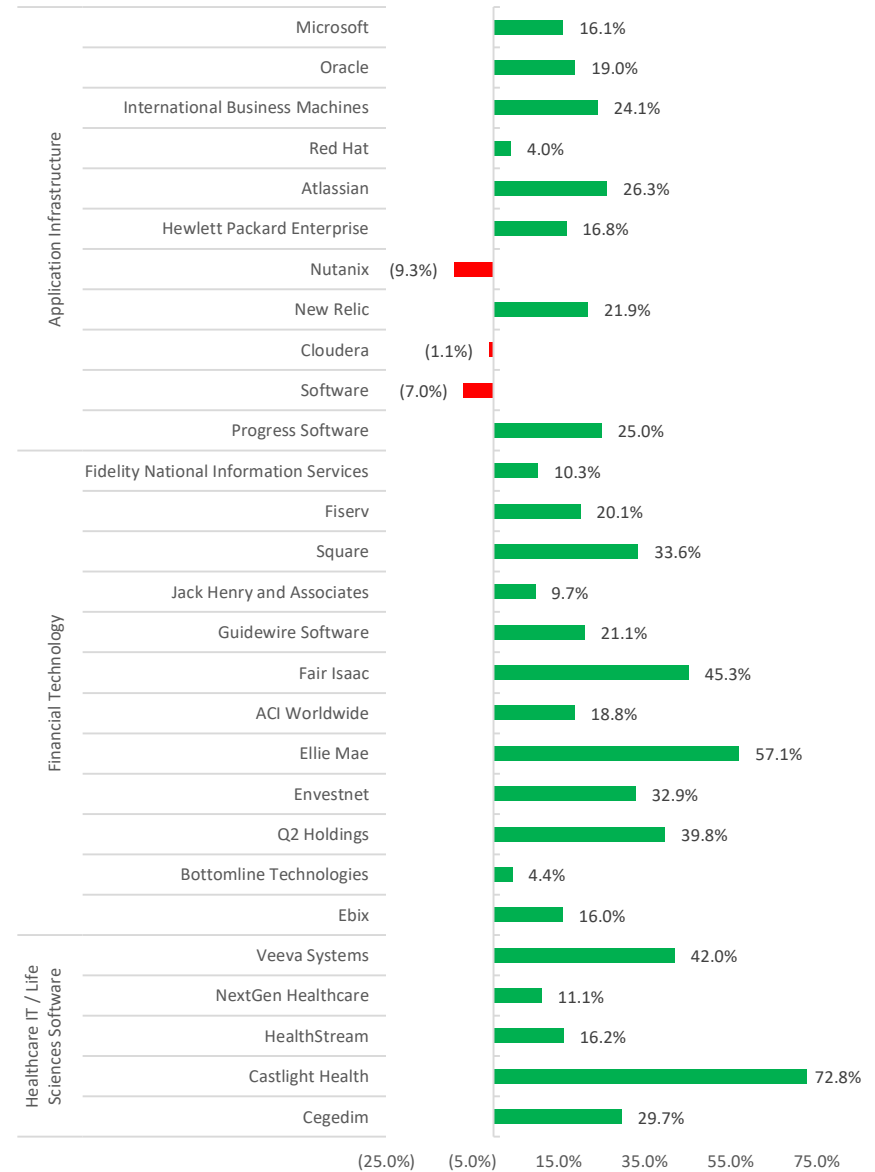
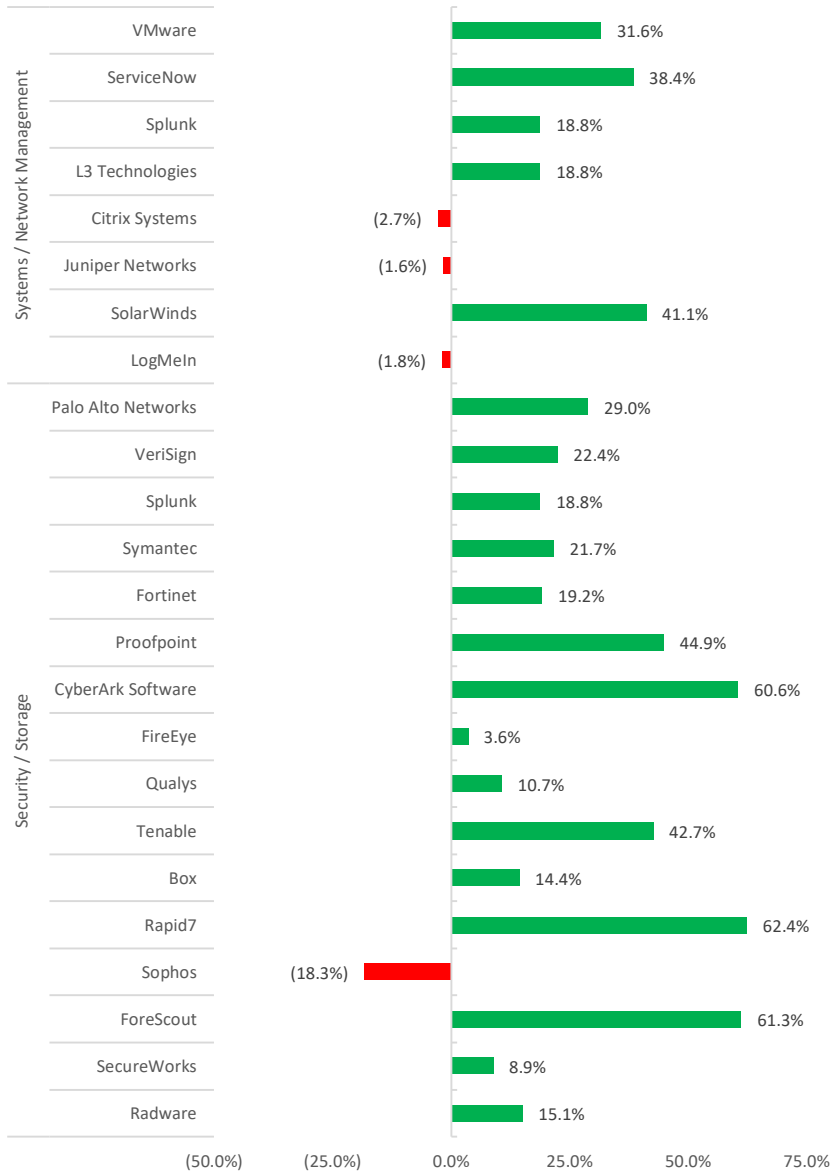
Source: Capital IQ and Pitchbook as of 3/31/19

# Software Public Market Performance Last 3 Months



Source: Capital IQ and Pitchbook as of 3/31/19

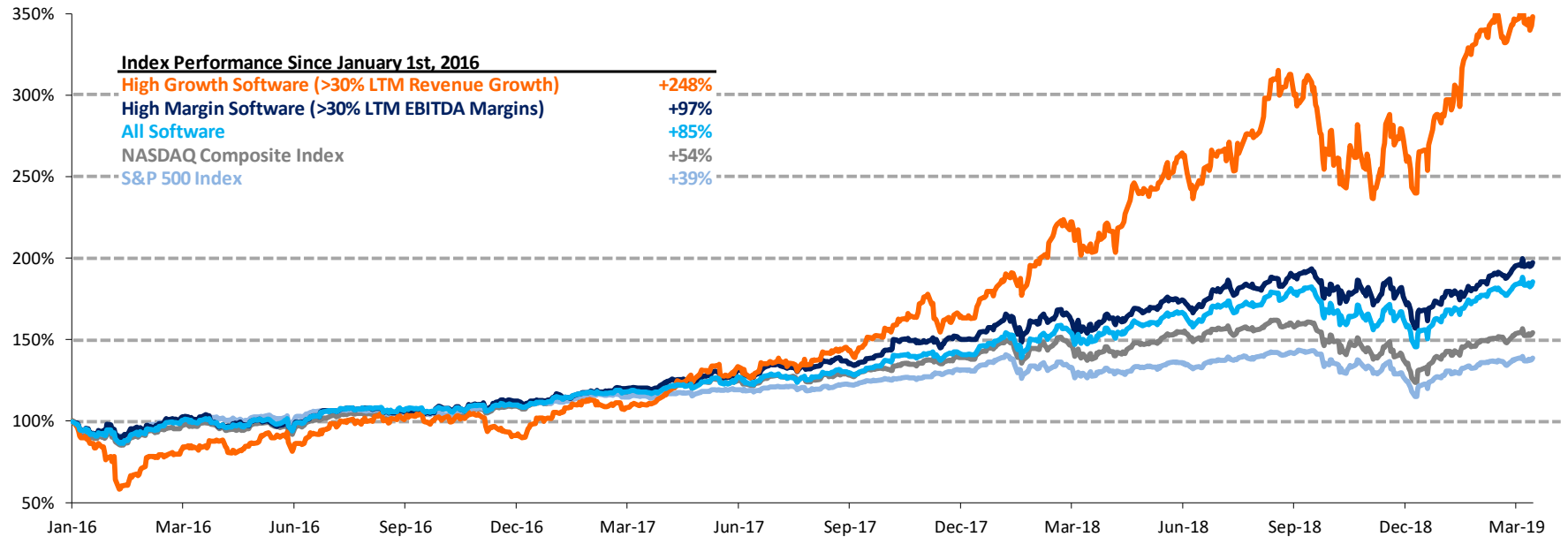
# Software Public Market Performance Last 3 Months (cont.)



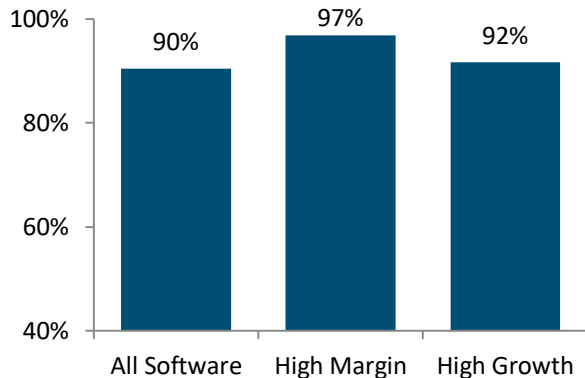
Source: Capital IQ and Pitchbook as of 3/31/19

# Software Public Market Performance

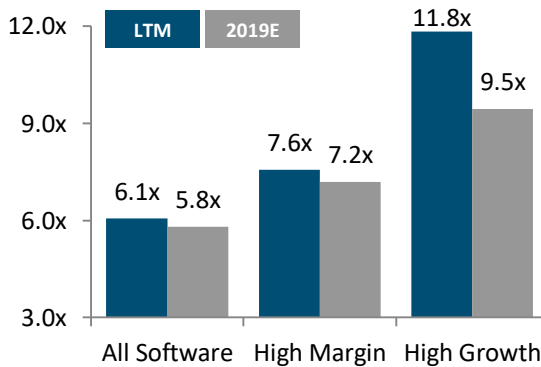
## Public Market Performance Since January 1<sup>st</sup>, 2016



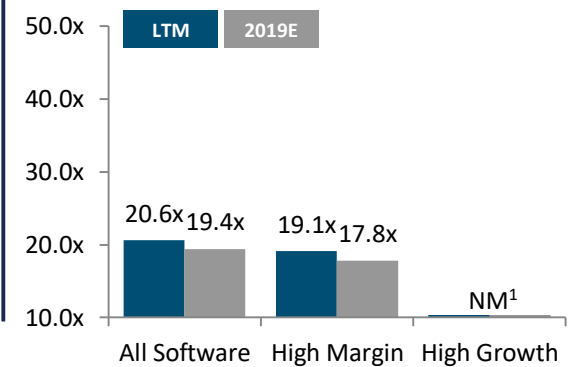
### % of 52 Week High



### EV / Revenue



### EV / EBITDA



High Growth Software: NAS:UPLD, NYSE:SQ, TENB, ASX:XRO, NAS:COUP, NYS:ZEN, NAS:TEAM, NAS:PFPT, NAS:SPLK, EBIX, NYS:HUBS, NYS:NOW, DOCU, NEWR, NAS:FSCT, NYS:DATA, NAS:WDAY, NAS:CYBR

All Software: See all bucketed companies

High Margin Software: NAS:VRSN, NAS:MSFT, NAS:PAYX, NYS:ORCL, NAS:AZPN, NYS:VMW, FISV, NYS:PAYC, TSE:OTEX, JKHY, NAS:ADBE, FIS, SWI, EBIX, NAS:LOGM, TSE:DSG, NAS:INTU, FRA:SOW

Source: Capital IQ and Pitchbook as of 3/31/19; <sup>1</sup> No companies in this group reported positive LTM EBITDA

# Public Company Summary

	Software											Median	Mean
	CRM	Accounting / ERP	Supply Chain Management	Human Capital Management	Knowledge / Content Management	Business Intelligence	Systems / Network Management	Security / Storage	Application Infrastructure	Financial Technology	Healthcare IT / Life Sciences Software		
52-Wk High	95%	91%	88%	96%	89%	95%	88%	87%	87%	93%	77%	89%	90%
Aggregate Mkt Cap (\$ in m)	\$147,982	\$539,452	\$201,492	\$101,303	\$193,043	\$166,246	\$188,231	\$125,310	\$1,314,270	\$146,194	\$46,270	\$166,246	\$288,163
Aggregate EV (\$ in m)	\$146,217	\$591,976	\$202,551	\$99,273	\$194,745	\$200,330	\$191,020	\$122,233	\$1,314,796	\$160,616	\$45,161	\$191,020	\$297,174
Quarterly Mkt Cap % Change	19.8%	17.7%	16.0%	27.9%	20.7%	20.6%	24.9%	24.3%	15.9%	20.1%	20.4%	20.4%	20.8%
Quarterly EV % Change	18.1%	17.8%	15.5%	29.7%	20.8%	17.6%	33.1%	24.4%	17.5%	8.1%	15.6%	17.8%	19.8%
LTM EV / Revenue	10.5x	6.4x	8.9x	8.6x	4.3x	3.5x	4.6x	7.0x	5.1x	6.6x	3.1x	6.4x	6.3x
FY+1 EV / Revenue	8.6x	5.5x	8.3x	7.7x	4.2x	3.5x	4.5x	6.1x	5.0x	6.3x	2.9x	5.5x	5.7x
FY+2 EV / Revenue	7.1x	5.0x	7.6x	6.7x	4.1x	3.4x	5.4x	6.2x	4.3x	5.9x	2.8x	5.4x	5.3x
LTM EV / EBITDA	NM	16.3x	27.5x	19.1x	17.5x	21.0x	15.7x	36.9x	12.1x	19.8x	15.5x	18.3x	20.1x
FY+1 EV / EBITDA	29.7x	16.3x	24.3x	26.8x	21.9x	13.1x	12.6x	24.4x	9.4x	19.5x	11.6x	19.5x	19.0x
FY+2 EV / EBITDA	35.9x	14.9x	21.8x	23.5x	19.0x	11.1x	13.6x	22.7x	9.5x	18.7x	16.6x	18.7x	18.8x
LTM P / E	NM	25.9x	49.2x	80.1x	34.8x	53.9x	20.8x	56.3x	18.3x	44.7x	71.5x	47.0x	45.6x
FY+1 P / E	109.0x	21.5x	38.2x	58.1x	26.4x	24.3x	18.1x	43.9x	17.7x	38.2x	31.5x	31.5x	38.8x
FY+2 P / E	99.2x	19.3x	34.2x	44.6x	33.2x	18.9x	18.9x	43.3x	16.6x	33.1x	34.8x	33.2x	36.0x
LTM Revenue Growth	27%	14%	7%	23%	9%	1%	14%	21%	15%	14%	14%	14%	15%
FY+1 Revenue Growth	19%	8%	7%	21%	9%	7%	5%	19%	11%	8%	6%	8%	11%
FY+2 Revenue Growth	20%	7%	8%	20%	9%	7%	7%	19%	6%	10%	7%	8%	11%
LTM EBITDA Margin	1%	16%	28%	13%	8%	8%	17%	2%	18%	20%	16%	16%	13%
FY+1 EBITDA Margin	12%	25%	34%	26%	22%	24%	27%	15%	27%	26%	17%	25%	23%
FY+2 EBITDA Margin	14%	27%	35%	27%	25%	25%	29%	17%	28%	27%	18%	27%	25%

Source: Capital IQ and Pitchbook as of 3/31/19

# Select Q1 2019 M&A Transactions

Date	Target	Acquirer	Delivery	Sector	Enterprise Value	Target LTM		Enterprise Value /	
						Revenue	EBITDA	LTM Revenue	LTM EBITDA
03/29/19	Torc Robotics	Daimler Trucks North America	On Premise	Vertical Software	N/A	N/A	N/A	N/A	N/A
03/29/19	Sparkler	The Nickelodeon Group	SaaS	Vertical Software	N/A	N/A	N/A	N/A	N/A
03/29/19	SimpleReach	Nativo	SaaS	Advertising and Marketing	N/A	N/A	N/A	N/A	N/A
03/28/19	EAMS Group	Arcadis	SaaS	Platform / OS	N/A	N/A	N/A	N/A	N/A
03/28/19	File990	GI Partners	SaaS	Content / Document Management	N/A	N/A	N/A	N/A	N/A
03/28/19	Qriously	Brandwatch	SaaS	Advertising and Marketing	N/A	N/A	N/A	N/A	N/A
03/28/19	Ipswitch	Progress Software	SaaS	File Sharing	\$225	\$75	N/A	3.0x	N/A
03/28/19	Buoy Labs	Resideo Technologies	On Premise	Mapping / Tracking	N/A	N/A	N/A	N/A	N/A
03/27/19	Monkey Group	ezCater	On Premise	Vertical Software	N/A	N/A	N/A	N/A	N/A
03/27/19	LemonStand	MailChimp	SaaS	Ecommerce	N/A	N/A	N/A	N/A	N/A
03/27/19	Circdata	Aquiline Capital Partners, ClearCourse Partnership	SaaS	Ecommerce	N/A	N/A	N/A	N/A	N/A
03/26/19	Tax Systems	Bowmark Capital	On Premise	Accounting / ERP	\$194	N/A	N/A	N/A	N/A
03/26/19	Criticall	Armira Partners, F24	On Premise	Governance, Risk, & Compliance	N/A	N/A	N/A	N/A	N/A
03/26/19	Entertainment Partners	TPG Capital	SaaS	Accounting / ERP	N/A	N/A	N/A	N/A	N/A
03/26/19	Venue Management Systems	Hospitality Management Solutions	SaaS	Vertical Software	N/A	N/A	N/A	N/A	N/A
03/26/19	Numeracy	Snowflake	On Premise	Development	N/A	N/A	N/A	N/A	N/A
03/25/19	Retail10X	Sonata Software	SaaS	Vertical Software	N/A	N/A	N/A	N/A	N/A
03/25/19	Espial	Enghouse Systems	SaaS	Video Management	\$33	\$21	(\$3)	1.6x	N/M
03/25/19	Phacil	By Light Professional IT Services	On Premise	Governance, Risk, & Compliance	N/A	\$140	N/A	N/A	N/A
03/25/19	Entic	Aquicore	SaaS	Real Estate	N/A	N/A	N/A	N/A	N/A
03/25/19	PlanSource Benefits Administration	Vista Equity Partners	SaaS	Human Capital	N/A	N/A	N/A	N/A	N/A
03/25/19	Deep Science	Defendry	On Premise	Governance, Risk, & Compliance	N/A	N/A	N/A	N/A	N/A
03/22/19	QualMetrix	Clinigence	SaaS	Vertical Software	N/A	N/A	N/A	N/A	N/A
03/22/19	Kyriba	Bridgepoint Advisers	SaaS	Fintech	\$1,200	\$110	N/A	10.9x	N/A
03/22/19	RIVS	Clovis Point Capital	SaaS	Human Capital	N/A	\$7	\$3	N/A	N/A
03/22/19	Meronimi	Proxima Group	SaaS	Supply Chain	N/A	N/A	N/A	N/A	N/A
03/21/19	Sentient Ascend	Evolv Technologies	SaaS	Testing	N/A	N/A	N/A	N/A	N/A
03/21/19	Stamplay	Apple	On Premise	Development	\$7	N/A	N/A	N/A	N/A
03/21/19	JNPSoft	TecAlliance	On Premise	Supply Chain	N/A	N/A	N/A	N/A	N/A
03/21/19	LandPro	Fort Point Capital	On Premise	Vertical Software	N/A	N/A	N/A	N/A	N/A
03/20/19	Broadscope Fund Administrators	Apex Fund Services	SaaS	Fintech	N/A	N/A	N/A	N/A	N/A
03/20/19	Spirit Data Capture	Renovotec Ltd	On Premise	Supply Chain	N/A	N/A	N/A	N/A	N/A
03/19/19	Azuqua	Okta	On Premise	Development	\$53	N/A	N/A	N/A	N/A
03/19/19	My Event Nation	SquadUP	SaaS	Vertical Software	N/A	N/A	N/A	N/A	N/A
03/19/19	The Financial Xchange	MLF Financial Group	SaaS	Fintech	N/A	N/A	N/A	N/A	N/A
03/18/19	The Foundry Visionmongers	Roper Technologies	On Premise	CAD / CAM	\$697	N/A	N/A	N/A	N/A
03/18/19	NexDefense	Dragos	SaaS	Security / Storage	N/A	N/A	N/A	N/A	N/A
03/18/19	Lighthouse Practice Management Group	Henry Schein	SaaS	Vertical Software	N/A	\$50	N/A	N/A	N/A
03/18/19	Bluesun	Internet Pipeline, Thoma Bravo	SaaS	Fintech	N/A	N/A	N/A	N/A	N/A
03/18/19	AgileCraft	Atlassian	SaaS	Development	\$166	N/A	N/A	N/A	N/M
03/18/19	Convenient Payments	The Beekman Group	SaaS	Fintech	N/A	N/A	N/A	N/A	N/A
03/18/19	Tactical Communications Group	Curtiss-Wright	SaaS	Vertical Software	\$50	\$15	N/A	3.3x	N/A
03/15/19	Pirum Systems	Bowmark Capital	SaaS	Fintech	N/A	N/A	N/A	N/A	N/A
03/15/19	Kallidus	Apse Capital	SaaS	Human Capital	N/A	N/A	N/A	N/A	N/A
03/18/19	DealerBuilt	ParkerGale Capital	SaaS	Vertical Software	N/A	N/A	N/A	N/A	N/A

Note: \$ in millions. EV/EBITDA multiples in excess of 50x or less than 0x are considered not meaningful.

Source: Capital IQ and Pitchbook as of 3/31/19

# Select Q1 2019 M&A Transactions (Cont'd)

Date	Target	Acquirer	Delivery	Sector	Enterprise Value	Target LTM		Enterprise Value /	
						Revenue	EBITDA	LTM Revenue	LTM EBITDA
03/14/19	Blue Dot Solutions	Omnitracs, Vista Equity Partners	SaaS	Vertical Software	N/A	N/A	N/A	N/A	N/A
03/14/19	Modern Robotics	Boxlight	On Premise	Vertical Software	N/A	N/A	N/A	N/A	N/A
03/14/19	Servelec Technologies	FFL Partners, Laurel Solutions	On Premise	Mapping / Tracking	N/A	N/A	N/A	N/A	N/A
03/14/19	PIETech	Envestnet	On Premise	Fintech	\$500	N/A	N/A	N/A	N/A
03/14/19	Arsenal.gg	Lightstream	On Premise	Vertical Software	N/A	N/A	N/A	N/A	N/A
03/13/19	vzaar	DaCast	SaaS	Video Management	N/A	N/A	N/A	N/A	N/A
03/13/19	Neurio	Generac Power Systems	SaaS	Vertical Software	N/A	\$17	\$3	N/A	N/A
03/13/19	ADVIZOR Solutions	Pursuant	On Premise	Fintech	N/A	N/A	N/A	N/A	N/A
03/12/19	ProviderAlly	Imagine Software, KRG Capital Partners	On Premise	Fintech	N/A	N/A	N/A	N/A	N/A
03/12/19	EvengX	SecureSky	SaaS	Security / Storage	N/A	N/A	N/A	N/A	N/A
03/11/19	The Weidt Group	Willdan Group	SaaS	Vertical Software	N/A	\$14	N/A	N/A	N/A
03/11/19	Figure Eight	Appen	On Premise	Speech Recognition	\$300	N/A	N/A	N/A	N/A
03/11/19	Avtec	Motorola Solutions	On Premise	Telecommunications	N/A	N/A	N/A	N/A	N/A
03/11/19	Nginx	F5 Networks	On Premise	Systems / Network	\$670	N/A	N/A	N/A	N/A
03/11/19	TechPilot Labs	Securly	On Premise	Vertical Software	N/A	N/A	N/A	N/A	N/A
03/11/19	Voalte	Hill-Rom Holdings	SaaS	Telecommunications	\$195	\$40	N/A	4.9x	N/A
03/11/19	Ethoca	MasterCard	SaaS	Fintech	N/A	N/A	N/A	N/A	N/A
03/11/19	Soro Software	Dauntless	SaaS	CRM	N/A	N/A	N/A	N/A	N/A
03/11/19	Digital Pharmacist	K1 Investment Management	SaaS	Telecommunications	\$125	N/A	N/A	N/A	N/A
03/08/19	Transfast	MasterCard	SaaS	Fintech	N/A	N/A	N/A	N/A	N/A
03/08/19	Octopi	Navis Holdings	SaaS	Mapping / Tracking	N/A	N/A	N/A	N/A	N/A
03/07/19	Accelerated Dynamics	Animal Dynamics	On Premise	Mapping / Tracking	N/A	N/A	N/A	N/A	N/A
03/07/19	Floating Point FX	CycloMedia Technology, ESO Capital Group	On Premise	CAD / CAM	N/A	N/A	N/A	N/A	N/A
03/07/19	NimbleDroid	HeadSpin	On Premise	Testing	N/A	N/A	N/A	N/A	N/A
03/07/19	SnappyData	TIBCO Software, Virgo Capital	On Premise	Systems / Network	N/A	N/A	N/A	N/A	N/A
03/06/19	Paysa	Ceridian HCM	SaaS	Human Capital	N/A	N/A	N/A	N/A	N/A
03/06/19	Clearview Logix	Ceridian HCM	On Premise	Vertical Software	N/A	N/A	N/A	N/A	N/A
03/06/19	daVIZta	Accel-KKR, IntegriChain	On Premise	Business Intelligence	N/A	N/A	N/A	N/A	N/A
03/06/19	ForeFlight	Boeing	On Premise	Vertical Software	N/A	N/A	N/A	N/A	N/A
03/06/19	Assessment Technology	Silver Lake Management	SaaS	Vertical Software	N/A	N/A	N/A	N/A	N/A
03/06/19	Touchtown	Atlantic Street Capital, Ocean Avenue Capital Partners	On Premise	Vertical Software	N/A	N/A	N/A	N/A	N/A
03/06/19	Videre eSports	Global Gaming Technologies	SaaS	Ecommerce	\$9	N/A	N/A	N/A	N/A
03/06/19	APTARE	ACE & Company, GIC Private	On Premise	Security / Storage	N/A	N/A	N/A	N/A	N/A
03/06/19	QuickMar	Dragoneer Investment Group	SaaS	Vertical Software	N/A	N/A	N/A	N/A	N/A
03/06/19	Protos Security	Southfield Capital	On Premise	Mapping / Tracking	N/A	N/A	N/A	N/A	N/A
03/05/19	Nvoicepay	FleetCor Technologies	SaaS	Business Software	N/A	N/A	N/A	N/A	N/A
03/05/19	Link AKC	Wagz	On Premise	Vertical Software	N/A	N/A	N/A	N/A	N/A
03/05/19	Chrome River	Certify	On Premise	Accounting / ERP	\$1,000	N/A	N/A	N/A	N/A
03/05/19	Farin Financial Risk Management	Accel-KKR	On Premise	Fintech	N/A	N/A	N/A	N/A	N/A
03/05/19	QUODD Financial Information Services	Financeware	On Premise	Fintech	N/A	N/A	N/A	N/A	N/A
03/05/19	WhiteHat Security	NTT Security	On Premise	Security / Storage	N/A	N/A	N/A	N/A	N/A
03/05/19	Lighthouse	Apple	On Premise	Content and Services	N/A	N/A	N/A	N/A	N/A
03/04/19	SeedInvest	Circle	SaaS	Content and Services	N/A	N/A	N/A	N/A	N/A
03/04/19	Geneva Health Solutions	BioTelemetry	SaaS	Vertical Software	\$65	\$6	N/A	10.8x	N/A
03/04/19	Sentral Education	Global Payments	SaaS	Vertical Software	N/A	N/A	N/A	N/A	N/A

Note: \$ in millions. EV/EBITDA multiples in excess of 50x or less than 0x are considered not meaningful.

Source: Capital IQ and Pitchbook as of 3/31/19

# Select Q1 2019 M&A Transactions (Cont'd)

Date	Target	Acquirer	Delivery	Sector	Enterprise Value	Target LTM		Enterprise Value /	
						Revenue	EBITDA	LTM Revenue	LTM EBITDA
03/04/19	BluVector	Comcast	On Premise	Security / Storage	N/A	N/A	N/A	N/A	N/A
03/04/19	EnableSoft	Macquarie Asset Management	On Premise	Business Software	N/A	N/A	N/A	N/A	N/A
03/04/19	Every	Wave	On Premise	Fintech	N/A	N/A	N/A	N/A	N/A
03/04/19	Golden Hour	ZOLL Medical	On Premise	Accounting / ERP	N/A	N/A	N/A	N/A	N/A
03/04/19	TranSend Solutions	Civica-UK	SaaS	Supply Chain	N/A	N/A	N/A	N/A	N/A
03/01/19	Cartasite	Geoforce	SaaS	Vertical Software	N/A	N/A	N/A	N/A	N/A
03/01/19	ProtectWise	Verizon Communications	SaaS	Security / Storage	N/A	N/A	N/A	N/A	N/A
02/28/19	Verimatrix	INSIDE Secure	On Premise	Security / Storage	\$158	\$79	\$15	2.0x	10.9x
02/28/19	SolaCom Technologies	Comtech Telecommunications	SaaS	Vertical Software	\$33	N/A	N/A	N/A	N/A
02/28/19	MicroPact	Tyler Technologies	SaaS	Development	\$195	\$70	N/A	2.8x	N/A
02/28/19	Speedpay	ACI Worldwide	SaaS	Fintech	\$750	\$350	N/A	2.1x	N/A
02/28/19	Audaxium	GSD Company	SaaS	Integration / Middleware	N/A	N/A	N/A	N/A	N/A
02/28/19	AllSight	AlpInvest Partners, CPPIB	SaaS	Advertising and Marketing	N/A	N/A	N/A	N/A	N/A
02/28/19	iGov Solutions	i3 Verticals	On Premise	Vertical Software	N/A	N/A	N/A	N/A	N/A
02/27/19	Aptean	TA Associates Management	On Premise	Accounting / ERP	\$1,000	N/A	N/A	N/A	N/A
02/27/19	ShiftMe	Forge	SaaS	Human Capital	N/A	N/A	N/A	N/A	N/A
02/27/19	Bedrock Data	Formstack	SaaS	Integration / Middleware	N/A	N/A	N/A	N/A	N/A
02/27/19	Limejump	Royal Dutch Shell	On Premise	Vertical Software	N/A	N/A	N/A	N/A	N/A
02/26/19	Clients First Business Solutions	Datix	On Premise	Accounting / ERP	N/A	N/A	N/A	N/A	N/A
02/26/19	Cursor	DataRobot	SaaS	Content / Document Management	N/A	N/A	N/A	N/A	N/A
02/26/19	Zinc	ServiceMax	On Premise	Telecommunications	N/A	N/A	N/A	N/A	N/A
02/25/19	Fulcrum	Hill Technical Solutions	SaaS	IT Infrastructure & Management	\$193	\$160	N/A	1.2x	N/A
02/25/19	SolidOpinion	Ideanomics	SaaS	Content and Services	N/A	N/A	N/A	N/A	N/A
02/25/19	Weeden and Co.	Piper Jaffray	On Premise	Fintech	\$42	N/A	N/A	N/A	N/A
02/25/19	Worksoft	Marlin Equity Partners	SaaS	Testing	N/A	N/A	N/A	N/A	N/A
02/25/19	Sea Pine Technologies	Zurich American Insurance Company	SaaS	Fintech	N/A	N/A	N/A	N/A	N/M
02/25/19	ConnectWise	Thoma Bravo	SaaS	Business Software	\$1,500	N/A	N/A	N/A	N/A
02/25/19	Tax Tech	Crosslink Professional Tax Solutions	On Premise	Accounting / ERP	N/A	N/A	N/A	N/A	N/A
02/25/19	STR Helper	Host Compliance	SaaS	Governance, Risk, & Compliance	N/A	N/A	N/A	N/A	N/A
02/25/19	Contactually	Compass	SaaS	CRM	N/A	N/A	N/A	N/A	N/A
02/25/19	Containerchain	WiseTech Global	SaaS	Supply Chain	\$48	\$107	N/A	0.4x	N/A
02/25/19	Preparis	Agility Recovery	SaaS	IT Infrastructure & Management	N/A	N/A	N/A	N/A	N/A
02/22/19	nCipher Security	Entrust Datacard	SaaS	Security / Storage	N/A	N/A	N/A	N/A	N/A
02/22/19	Business Equipment Consultants	NCR	On Premise	Business Software	N/A	N/A	N/A	N/A	N/A
02/22/19	LP Software	Appriss Retail	On Premise	Business Software	N/A	N/A	N/A	N/A	N/A
02/22/19	Euclid Technology	Aquiline Capital Partners	SaaS	Business Intelligence	N/A	N/A	N/A	N/A	N/A
02/21/19	Cylance	Blackberry	SaaS	Security / Storage	\$1,500	N/A	N/A	N/A	N/M
02/21/19	HomeFront Software	Hyphen Solutions	SaaS	Accounting / ERP	N/A	N/A	N/A	N/A	N/A
02/21/19	Shippable	JFrog	On Premise	Development	N/A	N/A	N/A	N/A	N/A
02/21/19	Attunity	CPPIB, QlikTech International	SaaS	Integration / Middleware	\$516	\$86	\$9.1	6.0x	56.8x
02/21/19	About.me	Broadly	On Premise	Content & Services	N/A	N/A	N/A	N/A	N/A
02/21/19	Schwab Performance Technologies	Envestnet   Tamarac	On Premise	Business Intelligence	N/A	N/A	N/A	N/A	N/A
02/21/19	PetroWEB	EnergyIQ	On Premise	Vertical Software	N/A	N/A	N/A	N/A	N/A
02/21/19	Sorenson Media	The Nielsen Company	On Premise	Video Management	\$11	N/A	N/A	N/A	N/A
02/21/19	Watermark Learning	Leeds Equity Partners	On Premise	Vertical Software	N/A	N/A	N/A	N/A	N/A

Note: \$ in millions. EV/EBITDA multiples in excess of 50x or less than 0x are considered not meaningful.  
Source: Capital IQ and Pitchbook as of 3/31/19



# Select Q1 2019 M&A Transactions (Cont'd)

Date	Target	Acquirer	Delivery	Sector	Enterprise Value	Target LTM		Enterprise Value /	
						Revenue	EBITDA	LTM Revenue	LTM EBITDA
02/21/19	TopYa!	Challenger Sports	On Premise	Vertical Software	N/A	N/A	N/A	N/A	N/A
02/20/19	AppRiver	True Wind Capital, Zix	On Premise	Security / Storage	\$275	N/A	N/A	N/A	N/A
02/19/19	CityBase	GTY Technology Holdings	SaaS	Vertical Software	\$160	N/A	N/A	N/A	N/A
02/19/19	Questica	GTY Technology Holdings	SaaS	Accounting / ERP	N/A	N/A	N/A	N/A	N/A
02/19/19	Bonfire	GTY Technology Holdings	On Premise	Business Software	\$108	N/A	N/A	N/A	N/A
02/19/19	Demisto	Palo Alto Networks	On Premise	Security / Storage	\$560	N/A	N/A	N/A	N/A
02/19/19	PanaCast	GN Store Nord	On Premise	Video Management	\$125	N/A	N/A	N/A	N/A
02/19/19	Alooma	Alphabet	On Premise	Integration / Middleware	N/A	N/A	N/A	N/A	N/A
02/19/19	PivotDesk	SquareFoot	SaaS	Ecommerce	N/A	N/A	N/A	N/A	N/A
02/19/19	Delivery BIZ Pro	GetSwift	SaaS	Business Intelligence	\$5	N/A	N/A	N/A	N/A
02/19/19	Donseed	Causeway Technologies	SaaS	Vertical Software	N/A	N/A	N/A	N/A	N/A
02/19/19	Buyatab	Stored Value Systems	SaaS	Ecommerce	N/A	N/A	N/A	N/A	N/A
02/19/19	SchoolAdmin	Quad Partners	On Premise	Vertical Software	N/A	N/A	N/A	N/A	N/A
02/19/19	NJW	Causeway Technologies	SaaS	Business Software	N/A	N/A	N/A	N/A	N/A
02/15/19	Mindbody	Vista Equity Partners	SaaS	Ecommerce	\$1,575	\$229	(\$26)	6.9x	N/M
02/15/19	Intersect	Micro Focus	On Premise	Security / Storage	N/A	N/A	N/A	N/A	N/A
02/15/19	PullString	Apple	On Premise	Development	\$30	N/A	N/A	N/A	N/A
02/15/19	IcePortal	Beijing Shiji Information Technology	SaaS	Content / Document Management	N/A	N/A	N/A	N/A	N/A
02/15/19	BitMitigate	Epik.com	SaaS	Security / Storage	N/A	N/A	N/A	N/A	N/A
02/14/19	Assima	Partner One Capital	On Premise	Business Software	\$8	N/A	N/A	N/A	N/A
02/14/19	Enterworks	STG Partners	On Premise	Business Intelligence	N/A	N/A	N/A	N/A	N/A
02/14/19	Browz	Avetta, Norwest Venture Partners	SaaS	Supply Chain	N/A	N/A	N/A	N/A	N/A
02/14/19	Steward	The Sales Developers	On Premise	Content and Services	N/A	N/A	N/A	N/A	N/A
02/13/19	ECustoms	Descartes Systems Group	SaaS	Governance, Risk, & Compliance	\$194	\$40	N/A	4.9x	N/A
02/13/19	Ooyala	Brightcove	On Premise	Diversified Media	\$15	N/A	N/A	N/A	N/A
02/13/19	Anaqua	Astorg Partners	SaaS	Content / Document Management	N/A	N/A	N/A	N/A	N/A
02/13/19	Ushr	Dynamic Map Platform	On Premise	Mapping / Tracking	\$200	N/A	N/A	N/A	N/A
02/13/19	Vocalize.ai	Sensory	On Premise	Speech Recognition	N/A	N/A	N/A	N/A	N/A
02/13/19	Proactive Technologies	Abacus Group	On Premise	IT Infrastructure & Management	N/A	N/A	N/A	N/A	N/A
02/13/19	Axis New England	Motion Industries	On Premise	IT Infrastructure & Management	N/A	N/A	N/A	N/A	N/A
02/13/19	18point2	THQ Nordic	On Premise	Diversified Media	\$3	\$18	N/A	0.2x	N/A
02/13/19	Axis New York	Motion Industries	On Premise	IT Infrastructure & Management	N/A	N/A	N/A	N/A	N/A
02/12/19	GreenShoot Labs	The Panoply Holdings	SaaS	Business Software	\$12	N/A	N/A	N/A	N/A
02/12/19	Trunk	InVision	SaaS	File Sharing	N/A	N/A	N/A	N/A	N/A
02/12/19	Ellie Mae	Thoma Bravo	SaaS	Fintech	\$3,397	\$480	\$86	7.1x	39.3x
02/12/19	Netsend	Corcentric	SaaS	Content / Document Management	N/A	N/A	N/A	N/A	N/A
02/12/19	Connotate	import.io	SaaS	Business Software	N/A	N/A	N/A	N/A	N/A
02/12/19	Agency Multiplied	Arthur J. Gallagher & Company	SaaS	Fintech	N/A	N/A	N/A	N/A	N/A
02/12/19	Fenris IV	Dark2	SaaS	Governance, Risk, & Compliance	N/A	N/A	N/A	N/A	N/A
02/12/19	Vantage Computing	Asolvi	SaaS	Business Software	N/A	N/A	N/A	N/A	N/A
02/12/19	Vandegrift Forwarding	A.P. Møller-Mærsk	SaaS	Governance, Risk, & Compliance	N/A	N/A	N/A	N/A	N/A
02/12/19	Adya	Qualys	SaaS	Governance, Risk, & Compliance	N/A	N/A	N/A	N/A	N/A
02/11/19	IDology	GB Group	SaaS	Security / Storage	N/A	N/A	\$16	N/A	N/A
02/11/19	Solium Capital	Morgan Stanley	SaaS	Fintech	\$574	\$108	\$14	5.3x	42.3x
02/11/19	HailGo	MobiTech International	SaaS	Hosting / Data Center	N/A	N/A	N/A	N/A	N/A

Note: \$ in millions. EV/EBITDA multiples in excess of 50x or less than 0x are considered not meaningful.  
Source: Capital IQ and Pitchbook as of 3/31/19

# Select Q1 2019 M&A Transactions (Cont'd)

Date	Target	Acquirer	Delivery	Sector	Enterprise Value	Target LTM		Enterprise Value /	
						Revenue	EBITDA	LTM Revenue	LTM EBITDA
02/11/19	Jobvite	K1 Investment Management	SaaS	Human Capital	\$200	N/A	N/A	N/A	N/A
02/11/19	Determine	Corcentric	SaaS	Hosting / Data Center	\$24	\$24	(\$10)	1.0x	N/M
02/11/19	Technical Response Planning	Gryphon Investors	SaaS	IT Infrastructure & Management	N/A	N/A	N/A	N/A	N/A
02/11/19	Canvas Talent	Jobvite, K1 Investment Management	SaaS	Human Capital	N/A	N/A	N/A	N/A	N/A
02/11/19	SignCAD Systems	Bentley Systems	On Premise	CAD / CAM	N/A	N/A	N/A	N/A	N/A
02/11/19	F&I Administration Solutions	StoneEagle F&I	SaaS	Fintech	N/A	N/A	N/A	N/A	N/A
02/11/19	StoneEagle	StoneEagle F&I	SaaS	Fintech	N/A	N/A	N/A	N/A	N/A
02/11/19	STR	Gregory C. Rigamer & Associates	SaaS	Business Intelligence	N/A	N/A	N/A	N/A	N/A
02/11/19	Talemetry	Jobvite	SaaS	Human Capital	N/A	N/A	N/A	N/A	N/A
02/08/19	GrokStyle	Facebook	SaaS	Ecommerce	N/A	N/A	N/A	N/A	N/A
02/08/19	Think Chromatic	Matt Emery	SaaS	Augmented & Virtual Reality	N/A	N/A	N/A	N/A	N/A
02/07/19	Covetrus	Henry Schein Animal Health	SaaS	Business Software	N/A	N/A	N/A	N/A	N/A
02/07/19	Zafin	Accenture	SaaS	Fintech	N/A	N/A	N/A	N/A	N/A
02/07/19	Py	Hired	SaaS	Human Capital	N/A	N/A	N/A	N/A	N/A
02/07/19	Onestream Software	Kohlberg Kravis Roberts	SaaS	Business Intelligence	\$1,000	N/A	N/A	N/A	N/A
02/07/19	Aucerna	Thoma Bravo	SaaS	Business Software	N/A	N/A	N/A	N/A	N/A
02/07/19	Blue Prairie Group	Bluff Point Associates	SaaS	Security / Storage	N/A	N/A	N/A	N/A	N/A
02/07/19	Euclid	The We Company	SaaS	Ecommerce	N/A	N/A	N/A	N/A	N/A
02/07/19	MyCivic	Tyler Technologies	SaaS	Governance, Risk, & Compliance	N/A	N/A	N/A	N/A	N/A
02/07/19	Organik SEO	Digitopia Agency	SaaS	Business Software	N/A	N/A	N/A	N/A	N/A
02/07/19	Webroot	Carbonite	SaaS	Governance, Risk, & Compliance	\$619	\$215	N/A	2.9x	N/A
02/07/19	AGEman Solutions	EquiSoft	SaaS	Business Software	N/A	N/A	N/A	N/A	N/A
02/07/19	Jinfont Software	Logi Analytics	SaaS	Business Intelligence	N/A	N/A	N/A	N/A	N/A
02/07/19	AetherPal	VMware	SaaS	Business Software	N/A	N/A	N/A	N/A	N/A
02/06/19	Anchor FM	Spotify	SaaS	Development	N/A	N/A	N/A	N/A	N/A
02/06/19	SignifAI	New Relic	SaaS	Business Intelligence	N/A	N/A	N/A	N/A	N/A
02/06/19	APT Solutions	Aquiline Capital Partners	SaaS	Business Intelligence	N/A	N/A	N/A	N/A	N/A
02/06/19	Qaravan	OTC Markets Group	On Premise	Business Software	N/A	N/A	N/A	N/A	N/A
02/06/19	Travel Tripper	Pegasus Solutions	SaaS	Business Software	N/A	N/A	N/A	N/A	N/A
02/06/19	CompareNetworks	Main Street Capital	SaaS	Advertising and Marketing	\$11	N/A	N/A	N/A	N/A
02/06/19	Pixelbug	Besomebody	On Premise	Augmented & Virtual Reality	N/A	N/A	N/A	N/A	N/A
02/06/19	Bloombox	Innovative Properties	On Premise	Business Software	\$2	N/A	N/A	N/A	N/A
02/06/19	Core Security	HelpSystems	On Premise	Security / Storage	N/A	N/A	N/A	N/A	N/A
02/06/19	Amercanex	Helix TCS	SaaS	Fintech	N/A	N/A	N/A	N/A	N/A
02/05/19	CareWire	K1 Investment Management, PerfectServe	SaaS	Vertical Software	N/A	N/A	N/A	N/A	N/A
02/05/19	Indix	Avalara	On Premise	Ecommerce	N/A	N/A	N/A	N/A	N/A
02/04/19	Ultra Airport Systems	ADB Safegate, The Carlyle Group	SaaS	Business Intelligence	\$37	N/A	N/A	N/A	N/A
02/04/19	ServiceMax	Silver Lake Management	SaaS	Business Software	N/A	N/A	N/A	N/A	N/A
02/04/19	Aspect Software	Vector Capital	SaaS	CRM	\$100	N/A	N/A	N/A	N/A
02/04/19	DataSense	Microsoft	SaaS	Integration / Middleware	N/A	N/A	N/A	N/A	N/A
02/04/19	Ultimate Software Group	CPPIB, GIC Private, Hellman & Friedman	On Premise	Human Capital	\$10,838	\$1,141	\$133	9.5x	81.3x
02/04/19	BrightBytes	Microsoft	SaaS	Integration / Middleware	N/A	N/A	N/A	N/A	N/A
02/04/19	Peak Medical Technologies	Cowles Company, Gestalt Diagnostics	On Premise	Vertical Software	N/A	N/A	N/A	N/A	N/A
02/04/19	GoCanvas	K1 Investment Management	On Premise	Business Software	\$100	\$20	N/A	5.0x	N/A
02/04/19	Anova Data	Ribbon Communications	On Premise	Telecommunications	\$19	N/A	N/A	N/A	N/A

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# Select Q1 2019 M&A Transactions (Cont'd)

Date	Target	Acquirer	Delivery	Sector	Enterprise Value	Target LTM		Enterprise Value /	
						Revenue	EBITDA	LTM Revenue	LTM EBITDA
02/04/19	SigmaFlow	IPKeys Technologies	On Premise	Vertical Software	N/A	N/A	N/A	N/A	N/A
02/04/19	SureWatch	SchoolMint	SaaS	Vertical Software	N/A	N/A	N/A	N/A	N/A
02/04/19	Rsam	ACL Services	On Premise	Governance, Risk, & Compliance	N/A	N/A	N/A	N/A	N/A
02/04/19	Planet Software	QSR International	SaaS	Vertical Software	N/A	N/A	N/A	N/A	N/A
02/02/19	Greenlots	Royal Dutch Shell	On Premise	Vertical Software	N/A	N/A	N/A	N/A	N/A
02/01/19	Nuance Document Imaging	Kofax	On Premise	Content / Document Management	\$500	N/A	N/A	N/A	N/A
02/01/19	LOT.TO	Sportech	SaaS	Vertical Software	N/A	N/A	N/A	N/A	N/A
02/01/19	SSI Data	The NPD Group	On Premise	Business Intelligence	N/A	N/A	N/A	N/A	N/A
02/01/19	Detrok Technology Services	Payroc	SaaS	Fintech	N/A	N/A	N/A	N/A	N/A
02/01/19	PoolCar	Smarttrak	On Premise	Vertical Software	N/A	N/A	N/A	N/A	N/A
01/31/19	Monition	Electrocomponents	SaaS	Systems / Network	N/A	N/A	N/A	N/A	N/A
01/31/19	Red Kite Games	Sumo Digital	On Premise	Vertical Software	\$3	N/A	N/A	N/A	N/A
01/30/19	RazorSync	Celero Commerce, LLR Partners	On Premise	Business Software	N/A	N/A	N/A	N/A	N/A
01/30/19	Zugata	Culture Amp	SaaS	CRM	N/A	N/A	N/A	N/A	N/A
01/30/19	Statêra Digital	Catalyte	On Premise	CRM	N/A	N/A	N/A	N/A	N/A
01/30/19	Singularity Networks	Cisco Systems	On Premise	Security / Storage	N/A	N/A	N/A	N/A	N/A
01/30/19	CarrierWeb USA	I.D. Systems	On Premise	Supply Chain	N/A	N/A	N/A	N/A	N/A
01/29/19	Waypoint Media	FanAI	SaaS	Vertical Software	N/A	N/A	N/A	N/A	N/A
01/29/19	Simply Migrate	Mimecast	On Premise	Integration / Middleware	N/A	N/A	N/A	N/A	N/A
01/29/19	Vivox	Unity	SaaS	Content and Services	N/A	N/A	N/A	N/A	N/A
01/29/19	Salient IT	NuMSP	On Premise	Hosting / Data Center	N/A	N/A	N/A	N/A	N/A
01/29/19	T-Pro Solutions	Blacksmith Applications	On Premise	Fintech	N/A	N/A	N/A	N/A	N/A
01/29/19	Retinad	LumiereVR	On Premise	Augmented & Virtual Reality	N/A	N/A	N/A	N/A	N/A
01/29/19	DarkBytes	Sophos	On Premise	Security / Storage	N/A	N/A	N/A	N/A	N/A
01/29/19	Helpful	Shopify	On Premise	Human Capital	N/A	N/A	N/A	N/A	N/A
01/28/19	Deem	Enterprise Holdings	SaaS	Content and Services	N/A	N/A	N/A	N/A	N/A
01/28/19	Emulate3D	Rockwell Automation	On Premise	CAD / CAM	N/A	N/A	N/A	N/A	N/A
01/28/19	Intellectual Technology	Arlington Capital Partners	On Premise	Vertical Software	N/A	N/A	N/A	N/A	N/A
01/28/19	MCCI	Century Park Capital Partners	On Premise	Business Software	N/A	N/A	N/A	N/A	N/A
01/28/19	Last Call Analytics	Ample Organics	On Premise	Vertical Software	N/A	N/A	N/A	N/A	N/A
01/26/19	Granta Design	Ansys	SaaS	Vertical Software	N/A	N/A	N/A	N/A	N/A
01/25/19	Clarity Software Solutions	Morgan Stanley Capital Partners	SaaS	Content / Document Management	\$75	N/A	N/A	N/A	N/A
01/24/19	EmeraldCube Solutions	Northleaf Capital Partners, Novacap	On Premise	Governance, Risk, & Compliance	N/A	N/A	N/A	N/A	N/A
01/24/19	HealthDecision	EBSCO Health	SaaS	Vertical Software	N/A	N/A	N/A	N/A	N/A
01/24/19	Mariana Systems	Black Mountain Systems	On Premise	Fintech	N/A	N/A	N/A	N/A	N/A
01/24/19	Brickwork	b8ta	SaaS	Advertising and Marketing	N/A	N/A	N/A	N/A	N/A
01/24/19	Abe AI	Envestnet Yodlee	SaaS	Fintech	N/A	N/A	N/A	N/A	N/A
01/23/19	Qualtrics	SAP	SaaS	Testing	\$8,000	\$400	N/A	20.0x	N/A
01/23/19	FiREapps	Bpifrance, Daher Capital	SaaS	Fintech	N/A	N/A	N/A	N/A	N/A
01/23/19	Blippar	Candy Ventures	SaaS	Augmented & Virtual Reality	N/A	N/A	N/A	N/A	N/A
01/23/19	SkookumScript	Epic Games	On Premise	Integration / Middleware	N/A	N/A	N/A	N/A	N/A
01/23/19	Compli	Avalara	SaaS	Vertical Software	N/A	N/A	N/A	N/A	N/A
01/23/19	TrendKite	Cision Group	SaaS	Advertising and Marketing	\$225	\$25	N/A	8.9x	N/A
01/22/19	Rogue Wave Software	Antares Capital, Clearlake Capital Group	SaaS	Security / Storage	N/A	\$150	N/A	N/A	N/A
01/22/19	TermSet	CoreView	SaaS	Security / Storage	N/A	N/A	N/A	N/A	N/A

Note: \$ in millions. EV/EBITDA multiples in excess of 50x or less than 0x are considered not meaningful.

Source: Capital IQ and Pitchbook as of 3/31/19

# Select Q1 2019 M&A Transactions (Cont'd)

Date	Target	Acquirer	Delivery	Sector	Enterprise Value	Target LTM		Enterprise Value /	
						Revenue	EBITDA	LTM Revenue	LTM EBITDA
01/22/19	CrunchBot	CPPIB, QlikTech International	SaaS	Business Intelligence	N/A	N/A	N/A	N/A	N/A
01/22/19	Napster	RealNetworks	SaaS	File Sharing	\$40	N/A	N/A	N/A	N/A
01/22/19	Business Automation Services	Edmunds & Associates	On Premise	Business Software	N/A	N/A	N/A	N/A	N/A
01/22/19	Chromotif	Nutanix	SaaS	Platform / OS	N/A	N/A	N/A	N/A	N/A
01/22/19	Precognitive	ShopRunner	SaaS	Security / Storage	N/A	N/A	N/A	N/A	N/A
01/21/19	Trace Systems	BigChange	On Premise	Vertical Software	N/A	N/A	N/A	N/A	N/A
01/21/19	AcquireWeb	Claritas	SaaS	Advertising and Marketing	N/A	N/A	N/A	N/A	N/A
01/21/19	SoAmpli	Force24	SaaS	Advertising and Marketing	N/A	N/A	N/A	N/A	N/A
01/21/19	Helic	Ansys	On Premise	IT Infrastructure & Management	N/A	N/A	N/A	N/A	N/A
01/21/19	UpLevel	The Sales Developers	SaaS	Advertising and Marketing	N/A	N/A	N/A	N/A	N/A
01/18/19	Bite Squad	Waitr	SaaS	Ecommerce	\$321	N/A	N/A	N/A	N/A
01/18/19	LexisOne	SAGlobal	SaaS	Vertical Software	N/A	N/A	N/A	N/A	N/A
01/17/19	Blockspring	Coinbase	SaaS	Advertising and Marketing	N/A	N/A	N/A	N/A	N/A
01/17/19	Libra Systems	Digital Air Strike	SaaS	Security / Storage	N/A	N/A	N/A	N/A	N/A
01/16/19	iReconcars	vAuto	SaaS	Vertical Software	N/A	N/A	N/A	N/A	N/A
01/16/19	Five Bridges Advisors	Radian	On Premise	Fintech	N/A	N/A	N/A	N/A	N/A
01/16/19	First Data	Fiserv	SaaS	Fintech	\$37,706	\$9,498	\$3,033	4.0x	12.4x
01/16/19	TelmedIQ	K1 Investment Management, PerfectServe	SaaS	Vertical Software	N/A	N/A	N/A	N/A	N/A
01/16/19	Tangible Play	Byju's	SaaS	Vertical Software	\$120	\$30	N/A	4.0x	N/A
01/16/19	Rapitow	Allied Dispatch Solutions	SaaS	Vertical Software	N/A	N/A	N/A	N/A	N/A
01/16/19	Opentree	Graitec Group	On Premise	Content / Document Management	N/A	N/A	N/A	N/A	N/A
01/16/19	ListenLoop	Integrate.com	SaaS	Advertising and Marketing	N/A	N/A	N/A	N/A	N/A
01/15/19	Voleo	Logan Resources	SaaS	Fintech	N/A	N/A	N/A	N/A	N/A
01/15/19	Centrifuge Systems	Culmen International	On Premise	Content & Services	N/A	N/A	N/A	N/A	N/A
01/15/19	Slope	Smartsheet	SaaS	Content / Document Management	N/A	N/A	N/A	N/A	N/A
01/15/19	Lanner Group	Royal HaskoningDHV	On Premise	IoT	N/A	N/A	N/A	N/A	N/A
01/15/19	MineralSoft	DrillingInfo	SaaS	Vertical Software	N/A	N/A	N/A	N/A	N/A
01/15/19	Sage Payroll Solutions	iSolved HCM, Accel-KKR	SaaS	Human Capital	\$133	\$51	N/A	2.6x	N/A
01/15/19	Compli	CIVC Partners	SaaS	Human Capital	N/A	N/A	N/A	N/A	N/A
01/15/19	Waggle	Houghton Mifflin Harcourt	On Premise	Vertical Software	N/A	N/A	N/A	N/A	N/A
01/14/19	TSO Logic	Amazon	SaaS	IT Infrastructure & Management	N/A	N/A	N/A	N/A	N/A
01/14/19	OmniVere	Conversion Venture Capital, Driven	SaaS	Governance, Risk, & Compliance	N/A	N/A	N/A	N/A	N/A
01/14/19	Connect First	RingCentral	SaaS	CRM	N/A	N/A	N/A	N/A	N/A
01/14/19	roundCorner	Salesforce.Org	SaaS	CRM	N/A	N/A	N/A	N/A	N/A
01/14/19	Gresham Technologies	Fujitsu	On Premise	Platform / OS	\$3	N/A	N/A	N/A	N/A
01/13/19	Peerio Technologies	WorkJam	SaaS	File Sharing	N/A	N/A	N/A	N/A	N/A
01/13/19	Quickbase	Vista Equity Partners	SaaS	Integration / Middleware	\$1,000	N/A	N/A	N/A	N/A
01/13/19	UniteU	Riverwood Capital	SaaS	Ecommerce	N/A	\$9	N/A	N/A	N/A
01/11/19	Lifeline Software	LAP Laser	On Premise	Vertical Software	N/A	N/A	N/A	N/A	N/A
01/10/19	Apptio	Vista Equity Partners	SaaS	IT Infrastructure & Management	\$1,685	\$225	(\$18.0)	7.5x	N/M
01/10/19	CloudEndure	Amazon	SaaS	IT Infrastructure & Management	\$250	N/A	N/A	N/A	N/A
01/10/19	LiquidFrameworks	Luminate Capital Partners	SaaS	CRM	N/A	N/A	N/A	N/A	N/A
01/10/19	Wisenet Information Systems	Adapt IT Holdings	SaaS	Business Software	\$3	N/A	N/A	N/A	N/A
01/10/19	Purpose Software	Asolvi	SaaS	Accounting / ERP	N/A	N/A	N/A	N/A	N/A
01/09/19	Tend	The Chamberlain Group	SaaS	Security / Storage	N/A	N/A	N/A	N/A	N/A

Note: \$ in millions. EV/EBITDA multiples in excess of 50x or less than 0x are considered not meaningful.

Source: Capital IQ and Pitchbook as of 3/31/19

# Select Q1 2019 M&A Transactions (Cont'd)

Date	Target	Acquirer	Delivery	Sector	Enterprise Value	Target LTM		Enterprise Value /	
						Revenue	EBITDA	LTM Revenue	LTM EBITDA
01/09/19	ClearView Continuity	Assurance Software	SaaS	Governance, Risk, & Compliance	N/A	N/A	N/A	N/A	N/A
01/09/19	veEDIS Clinical Systems	Document Storage Systems	SaaS	Vertical Software	N/A	N/A	N/A	N/A	N/A
01/09/19	AR Commerce	NexTech AR Solutions	SaaS	Augmented & Virtual Reality	N/A	\$3	\$0	N/A	N/A
01/09/19	CalmCircle	Higher Ed Growth	SaaS	Human Capital	N/A	N/A	N/A	N/A	N/A
01/09/19	Fawcett Technologies Advisors	Arbela Technologies	SaaS	CRM	N/A	N/A	N/A	N/A	N/A
01/08/19	IQMS	Dassault Systemes	SaaS	Accounting / ERP	\$425	N/A	\$25	N/A	17.0x
01/08/19	Influence Health	HarbourVest Partners, Healthegrades	SaaS	CRM	N/A	N/A	N/A	N/A	N/A
01/08/19	Audiokinetic	Sony Interactive Entertainment	On Premise	Integration / Middleware	N/A	N/A	N/A	N/A	N/A
01/08/19	Quovo	Plaid	SaaS	Fintech	\$200	N/A	N/A	N/A	N/A
01/08/19	BrightGauge Software	Continuum Managed Services	SaaS	Accounting / ERP	N/A	N/A	N/A	N/A	N/A
01/08/19	BioStore	Hg, Intermediate Capital Group	SaaS	Security / Storage	N/A	N/A	N/A	N/A	N/A
01/08/19	ISC Financial Systems	Issi Online	On Premise	Content / Document Management	N/A	N/A	N/A	N/A	N/A
01/08/19	Lucity	CentralSquare Technologies	On Premise	Vertical Software	N/A	N/A	N/A	N/A	N/A
01/08/19	Gossamer Threads	Carbon60 Networks	SaaS	Hosting / Data Center	N/A	N/A	N/A	N/A	N/A
01/08/19	CenPOS	Elavon	SaaS	Fintech	N/A	N/A	N/A	N/A	N/A
01/08/19	riskCanvas	Genpact	SaaS	Security / Storage	N/A	N/A	N/A	N/A	N/A
01/08/19	Dent Buddy	MobiTech International	On Premise	Vertical Software	N/A	N/A	N/A	N/A	N/A
01/08/19	First Billing Services	Ares Capital	SaaS	Fintech	\$58	N/A	N/A	N/A	N/A
01/07/19	APD Communications	Cinven	SaaS	Vertical Software	N/A	\$12	\$1	N/A	N/A
01/07/19	PupKeep	DaySmart Software	SaaS	Vertical Software	N/A	N/A	N/A	N/A	N/A
01/07/19	VaaS International Holdings	Motorola Solutions	SaaS	Vertical Software	\$445	N/A	N/A	N/A	N/A
01/07/19	Janrain	Akamai Technologies	SaaS	Security / Storage	N/A	N/A	N/A	N/A	N/A
01/07/19	Payroll Maxx	Asure Software	SaaS	Human Capital	N/A	N/A	N/A	N/A	N/A
01/07/19	OGSystems	Parsons	On Premise	Vertical Software	N/A	N/A	N/A	N/A	N/A
01/07/19	MTC Performance	360insights	SaaS	Advertising and Marketing	N/A	N/A	N/A	N/A	N/A
01/07/19	Explorer.ai	Standard Cognition	SaaS	Mapping / Tracking	N/A	N/A	N/A	N/A	N/A
01/07/19	Steel Mountain Systems	Avast Software	On Premise	Security / Storage	N/A	N/A	N/A	N/A	N/A
01/04/19	Payer Compass	Health Enterprise Partners	On Premise	Vertical Software	N/A	N/A	N/A	N/A	N/A
01/04/19	SensiML	QuickLogic	SaaS	IT Infrastructure & Management	N/A	N/A	N/A	N/A	N/A
01/03/19	Hortonworks	Cloudera	SaaS	IT Infrastructure & Management	\$5,099	\$328	(\$151)	15.6x	N/M
01/03/19	TRUSTID	GIC Private, Golden Gate Capital	SaaS	Security / Storage	N/A	N/A	N/A	N/A	N/A
01/03/19	Magique Galileo	Active Risk Group	SaaS	Security / Storage	N/A	\$2	N/A	N/A	N/A
01/03/19	Chiron Health	Citadel	SaaS	Video Management	N/A	N/A	N/A	N/A	N/A
01/03/19	Wiggly-Amps	The Boots Company	SaaS	Vertical Software	N/A	N/A	N/A	N/A	N/A
01/03/19	Gridsmart	Cubic	On Premise	Vertical Software	\$87	N/A	N/A	N/A	N/A
01/02/19	AgSync	Raven Industries	SaaS	Vertical Software	N/A	\$3	N/A	N/A	N/A
01/02/19	YourCause	Blackbaud	SaaS	Vertical Software	\$157	\$12	N/A	13.1x	N/A
01/02/19	Turning Technologies	Centre Lane Partners	SaaS	Accounting / ERP	N/A	N/A	N/A	N/A	N/A
01/02/19	Oasis Auto Complete Systems	Quorum Information Tech	SaaS	Vertical Software	\$1	N/A	N/A	N/A	N/A
01/02/19	Wavebid	Primus Capital Funds, Proxibid	SaaS	Vertical Software	N/A	N/A	N/A	N/A	N/A
01/01/19	Veracode	Thoma Bravo	SaaS	Security / Storage	\$950	N/A	N/A	N/A	N/A
01/01/19	CSI Enterprises	Edenred	SaaS	Fintech	\$600	N/A	\$26	N/A	23.1x
01/01/19	Silversheet	AMN Healthcare Services	SaaS	Vertical Software	N/A	N/A	N/A	N/A	N/A
01/01/19	My1HR	Independence Holding	SaaS	Human Capital	N/A	N/A	N/A	N/A	N/A

Software Median	\$193	\$51	\$6	4.9x	31.2x
Software Mean	\$1,108	\$359	\$175	5.8x	35.4x

Note: \$ in millions. EV/EBITDA multiples in excess of 50x or less than 0x are considered not meaningful.  
Source: Capital IQ and Pitchbook as of 3/31/19

# Software IPOs

IPO Date	Filing Date	Days on File	Company	EV	IPO Amount Raised	Market Cap	LTM Multiples		Metrics and Financials			Share Information				Follow On Information						
							EV / Rev	EV / EBITDA	Rev Grwth at IPO	NTM Rev Growth	Net Cash at IPO	IPO Offer Price	File to Price Chg	Current Price	Chg Since IPO	Days Post Lock-Up	Amount Raised	Relative to IPO Raise	Follow On Price	IPO to Price Chg	Primary Shares	
Software																						
03/20/19	02/22/19	26	UP Fintech Holding		\$951	\$104	\$1,055	NM	NM	NM	NM	\$32	\$8	14%	\$13	62%	NA	NA	NA	NA	NA	NA
11/21/18	10/23/18	29	TuanChe.com	\$3,469	\$20	\$3,489	NM	NM	300%	114%	(\$5)	\$8	--	\$7	(14%)	NA	NA	NA	NA	NA	NA	NA
11/15/18	08/10/18	97	Weidai	\$655	\$45	\$700	1.3x	6.2x	109%	23%	\$276	\$10	--	\$12	16%	NA	NA	NA	NA	NA	NA	NA
10/25/18	10/01/18	24	Stone Pagamentos	\$6,532	\$1,217	\$7,749	NM	28.6x	293%	NM	(\$443)	\$24	4%	\$41	71%	NA	NA	NA	NA	NA	NA	NA
10/25/18	07/16/18	101	Pintec	\$19,637	\$44	\$19,681	NM	NM	1,715%	NM	(\$112)	\$12	--	\$13	8%	NA	NA	NA	NA	NA	NA	NA
10/19/18	09/21/18	28	SolarWinds	\$4,317	\$375	\$4,692	5.9x	15.5x	NM	23%	(\$1,961)	\$15	(12%)	\$20	30%	NA	NA	NA	NA	NA	NA	NA
10/12/18	09/14/18	28	Anaplan	\$1,974	\$264	\$2,237	9.9x	NM	19%	41%	\$87	\$17	--	\$39	132%	NA	NA	NA	NA	NA	NA	NA
10/05/18	09/05/18	30	Elastic	\$2,906	\$252	\$3,158	15.7x	NM	110%	62%	\$51	\$36	3%	\$80	122%	NA	NA	NA	NA	NA	NA	NA
09/28/18	08/16/18	43	CooTek (Cayman)	\$715	\$52	\$767	9.1x	NM	612%	231%	\$26	\$12	--	\$11	(9%)	NA	NA	NA	NA	NA	NA	NA
09/27/18	08/31/18	27	LAIX	\$528	\$72	\$599	21.5x	NM	1,223%	535%	\$57	\$13	--	\$9	(24%)	NA	NA	NA	NA	NA	NA	NA
09/26/18	08/29/18	28	SurveyMonkey	\$1,247	\$207	\$1,454	5.3x	NM	13%	19%	(\$274)	\$12	9%	\$18	52%	NA	NA	NA	NA	NA	NA	NA
09/26/18	08/24/18	33	Arco Platform Limited	\$172	\$194	\$366	2.2x	7.8x	67%	27%	\$6	\$18	--	\$32	85%	NA	NA	NA	NA	NA	NA	NA
09/19/18	08/28/18	22	X Financial	\$2,822	\$105	\$2,927	6.3x	NM	1,259%	26%	\$101	\$10	--	\$6	(41%)	NA	NA	NA	NA	NA	NA	NA
07/27/18	06/29/18	28	Endava	\$946	\$127	\$1,073	3.6x	14.6x	31%	27%	(\$19)	\$20	5%	\$28	38%	NA	NA	NA	NA	NA	NA	NA
07/27/18	06/29/18	28	Opera Software	\$4,800	\$115	\$4,915	NM	NM	32%	38%	\$36	\$12	--	\$7	(45%)	NA	NA	NA	NA	NA	NA	NA
07/26/18	06/29/18	27	Jiguang	\$626	\$77	\$703	10.9x	NM	442%	174%	\$5	\$9	--	\$7	(22%)	NA	NA	NA	NA	NA	NA	NA
07/26/18	06/22/18	34	Cango (Used Car Marketplace)	\$1,574	\$44	\$1,618	NM	29.5x	(75%)	1721%	\$11	\$11	--	\$7	(38%)	NA	NA	NA	NA	NA	NA	NA
07/26/18	06/29/18	27	Tenable	\$2,176	\$288	\$2,464	10.5x	NM	66%	43%	\$26	\$23	21%	\$32	38%	NA	NA	NA	NA	NA	NA	NA
06/29/18	06/01/18	28	Domo	\$560	\$193	\$753	4.8x	NM	56%	27%	(\$24)	\$21	--	\$40	92%	NA	NA	NA	NA	NA	NA	NA
06/14/18	05/11/18	34	Avalara	\$1,525	\$180	\$1,705	7.2x	NM	27%	33%	(\$25)	\$24	4%	\$56	132%	NA	NA	NA	NA	NA	NA	NA
05/16/18	04/16/18	30	Pluralsight	\$1,672	\$311	\$1,982	10.0x	NM	27%	55%	(\$91)	\$15	7%	\$32	112%	NA	NA	NA	NA	NA	NA	NA
05/03/18	04/09/18	24	Carbon Black	\$1,333	\$152	\$1,485	7.6x	NM	55%	22%	\$36	\$19	--	\$14	(27%)	NA	NA	NA	NA	NA	NA	NA
04/27/18	03/26/18	32	SmartSheet	\$1,466	\$175	\$1,640	13.2x	NM	66%	55%	\$52	\$15	7%	\$41	172%	NA	NA	NA	NA	NA	NA	NA
04/27/18	03/28/18	30	DocuSign	\$3,968	\$629	\$4,597	7.7x	NM	36%	32%	\$257	\$29	4%	\$52	79%	NA	NA	NA	NA	NA	NA	NA
04/26/18	01/17/18	99	Ceridian HCM	\$2,467	\$531	\$2,998	3.7x	22.6x	8%	11%	(\$1,026)	\$22	5%	\$51	133%	NA	NA	NA	NA	NA	NA	NA
04/20/18	03/23/18	28	Pivotal Software	\$2,946	\$555	\$3,501	5.8x	NM	22%	33%	\$53	\$15	--	\$21	39%	NA	NA	NA	NA	NA	NA	NA
04/12/18	03/16/18	27	Zuora	\$1,477	\$154	\$1,631	8.8x	NM	49%	40%	\$32	\$14	8%	\$20	43%	NA	NA	NA	NA	NA	NA	NA
04/03/18	02/28/18	34	Spotify	\$20,303	\$9,246	\$29,549	4.4x	NM	41%	40%	(\$560)	\$166	--	\$139	(16%)	NA	NA	NA	NA	NA	NA	NA
03/23/18	02/23/18	28	Dropbox	\$10,293	\$756	\$11,049	9.3x	NM	31%	27%	\$256	\$21	5%	\$22	4%	NA	NA	NA	NA	NA	NA	NA
03/16/18	02/16/18	28	Zscaler	\$2,067	\$192	\$2,259	13.4x	NM	92%	48%	\$72	\$16	7%	\$71	343%	NA	NA	NA	NA	NA	NA	NA
02/09/18	01/12/18	28	Cardlytics	\$195	\$70	\$266	1.5x	NM	13%	18%	(\$27)	\$13	--	\$17	27%	NA	NA	NA	NA	NA	NA	NA
11/17/17	10/20/17	28	SailPoint Technologies	\$664	\$240	\$904	4.1x	32.9x	71%	48%	(\$137)	\$12	9%	\$29	139%	NA	NA	NA	NA	NA	NA	NA
11/14/17	10/18/17	27	SendGrid	\$654	\$131	\$785	6.3x	NM	77%	28%	\$175	\$16	3%	\$54	238%	NA	NA	NA	NA	NA	NA	NA
11/01/17	09/29/17	33	Altair Engineering	\$259	\$156	\$415	0.8x	6.2x	9%	10%	(\$54)	\$13	--	\$37	183%	NA	NA	NA	NA	NA	NA	NA
10/27/17	10/02/17	25	ForeScout	\$698	\$116	\$814	3.7x	NM	52%	32%	\$46	\$22	--	\$42	91%	(35)	\$128	110%	\$29	10%	11%	
10/19/17	09/21/17	28	MongoDB	\$1,194	\$192	\$1,386	8.7x	NM	111%	39%	\$41	\$24	9%	\$147	513%	NA	NA	NA	NA	NA	NA	NA
06/30/17	06/01/17	29	Tintri	\$96	\$60	\$156	1.0x	NM	13%	24%	(\$20)	\$7	--	\$0	(100%)	NA	NA	NA	NA	NA	NA	NA
06/07/17	03/30/17	69	ShotSpotter	\$87	\$31	\$118	5.1x	NM	44%	49%	(\$11)	\$11	--	\$39	251%	NA	NA	NA	NA	NA	NA	NA
05/25/17	02/17/17	97	Applan	\$680	\$75	\$755	5.0x	NM	22%	24%	(\$20)	\$12	--	\$34	187%	NA	NA	NA	NA	NA	NA	NA
05/12/17	03/15/17	58	Veritone	\$176	\$38	\$213	19.7x	NM	(36%)	71%	(\$1)	\$15	--	\$5	(65%)	NA	NA	NA	NA	NA	NA	NA
04/28/17	03/31/17	28	Cloudera	\$1,936	\$225	\$2,161	7.4x	NM	57%	41%	(\$836)	\$15	7%	\$11	(27%)	NA	NA	NA	NA	NA	NA	NA
04/13/17	03/13/17	31	Yext	\$1,014	\$116	\$1,129	8.2x	NM	38%	37%	\$19	\$11	10%	\$22	99%	NA	NA	NA	NA	NA	NA	NA
04/07/17	03/13/17	25	Okta	\$1,546	\$187	\$1,733	9.6x	NM	87%	61%	\$23	\$17	--	\$83	387%	NA	NA	NA	NA	NA	NA	NA
03/24/17	02/24/17	28	Alteryx	\$819	\$126	\$945	9.5x	22.3x	59%	50%	\$31	\$14	--	\$84	499%	NA	NA	NA	NA	NA	NA	NA
03/17/17	02/17/17	28	MuleSoft	\$2,553	\$221	\$2,774	13.6x	NM	70%	55%	\$35	\$17	6%	\$44	157%	NA	NA	NA	NA	NA	NA	NA
10/28/16	09/30/16	28	BlackLine	\$768	\$146	\$914	7.5x	NM	97%	NM	(\$21)	\$17	--	\$46	172%	NA	NA	NA	NA	NA	NA	NA
10/06/16	09/08/16	28	Coupa	\$917	\$133	\$1,051	8.4x	NM	115%	34%	\$80	\$18	--	\$91	405%	NA	NA	NA	NA	NA	NA	NA
09/30/16	12/22/15	283	Nutanix	\$2,279	\$238	\$2,517	4.5x	NM	NM	NM	\$26	\$16	23%	\$38	136%	NA	NA	NA	NA	NA	NA	NA
09/22/16	08/26/16	27	Apptio	\$578	\$96	\$674	3.8x	NM	42%	5%	\$8	\$16	--	\$38	138%	NA	NA	NA	NA	NA	NA	NA
09/23/16	08/26/16	28	Beijing Gridsum Technology	\$317	\$87	\$405	6.9x	NM	127%	43%	\$16	\$13	4%	\$3	(77%)	NA	NA	NA	NA	NA	NA	NA
09/16/16	08/19/16	28	Everbridge	\$224	\$90	\$314	3.3x	NM	58%	NM	(\$14)	\$12	--	\$75	525%	21	\$74	82%	\$20	(18%)	92%	
07/29/16	06/28/16	31	Talend	\$409	\$95	\$503	5.0x	NM	31%	38%	(\$2)	\$18	6%	\$51	181%	NA	NA	NA	NA	NA	NA	NA
04/22/16	12/17/15	127	SecureWorks	\$1,017	\$112	\$1,129	3.0x	NM	NM	26%	\$5	\$14	(10%)	\$18	31%	NA	NA	NA	NA	NA	NA	NA
12/10/15	09/25/15	76	Atlassian	\$4,239	\$462	\$4,701	12.0x	NM	64%	34%	\$208	\$21	5%	\$112	435%	NA	NA	NA	NA	NA	NA	NA
11/19/15	10/14/15	36	Square	\$2,869	\$243	\$3,112	2.5x	NM	107%	NM	\$174	\$9	(18%)	\$75	732%	NA	NA	NA	NA	NA	NA	NA
11/13/15	10/09/15	35	Instructure	\$393	\$70	\$464	6.0x	NM	150%	50%	\$32	\$16	--	\$47	195%	NA	NA	NA	NA	NA	NA	NA
10/14/15	07/20/15	86	First Data	\$11,673	\$2,560	\$14,233	1.0x	3.8x	2%	NM	(\$20,631)	\$16	(11%)	\$26	64%	NA	NA	NA	NA	NA	NA	NA
Median	28			\$1,290	\$153	\$1,469	6.3x	15.5x	57%	38%	\$13	\$15	5%	\$33	88%	(7)	\$101	96%	\$24	(4%)	52%	
Mean	43			\$2,561	\$409	\$2,970	7.2x	17.3x	155%	89%	(\$428)	\$19	4%	\$39	125%	(7)	\$101	96%	\$24	(4%)	52%	

Source: Capital IQ and Pitchbook as of 3/31/19

# Internet and Digital Media IPOs

IPO Date	Filing Date	Days on File	Company	EV	IPO Amount Raised	Market Cap	LTM Multiples		Metrics and Financials			Share Information				Follow On Information					
							EV / Rev	EV / EBITDA	Rev Grwth at IPO	NTM Rev Growth	Net Cash at IPO	IPO Offer Price	File to Price Chg	Current Price	Chg Since IPO	Days Post Lock-Up	Amount Raised	Relative to IPO Raise	Follow On Price	IPO to Price Chg	Primary Shares
Internet and Digital Media																					
03/29/19	03/01/19	28	Lyft		\$18,716	\$2,340	\$21,056	8.7x	NM	103%	56%	\$518	\$72	--	\$78	9%	NA	NA	NA	NA	NA
12/12/18	10/02/18	71	Tencent Music Entertainment Group		\$20,163	\$1,066	\$21,229	7.7x	NM	301%	49%	\$759	\$13	--	\$18	39%	NA	NA	NA	NA	NA
12/06/18	11/09/18	27	Mogujie.com		\$1,430	\$67	\$1,497	9.5x	NM	(9%)	39%	\$49	\$14	--	\$13	(4%)	NA	NA	NA	NA	NA
10/03/18	09/06/18	27	Upwork		\$1,674	\$187	\$1,861	7.3x	NM	39%	25%	(\$3)	\$15	7%	\$19	28%	NA	NA	NA	NA	NA
09/21/18	08/20/18	32	Farfetch		\$5,408	\$885	\$6,293	11.2x	NM	(3%)	46%	\$340	\$20	5%	\$27	35%	NA	NA	NA	NA	NA
09/20/18	08/23/18	28	Eventbrite		\$1,876	\$230	\$2,106	7.3x	NM	91%	36%	\$192	\$23	10%	\$19	(17%)	NA	NA	NA	NA	NA
09/14/18	08/17/18	28	Qutoutiao		\$1,633	\$84	\$1,717	9.4x	NM	1,892%	502%	\$267	\$7	--	\$12	65%	NA	NA	NA	NA	NA
09/12/18	08/15/18	28	111 Group		\$4,119	\$100	\$4,220	21.3x	NM	47%	169%	\$74	\$14	--	\$6	(54%)	NA	NA	NA	NA	NA
07/26/18	06/29/18	27	Pinduoduo		\$19,422	\$1,626	\$21,048	NM	NM	516%	460%	\$106	\$19	--	\$25	31%	NA	NA	NA	NA	NA
06/27/18	06/01/18	26	EverQuote		\$411	\$84	\$496	3.3x	NM	3%	40%	(\$3)	\$18	6%	\$7	(59%)	NA	NA	NA	NA	NA
06/27/18	05/29/18	29	Youxinpai (Beijing) Information Technology Co.		\$2,332	\$225	\$2,557	18.3x	NM	3%	394%	(\$527)	\$9	(14%)	\$4	(58%)	NA	NA	NA	NA	NA
06/27/18	05/23/18	35	HyreCar		(\$4)	\$13	\$8	0.0x	NM	24,780%	NM	\$7	\$5	--	\$5	1%	NA	NA	NA	NA	NA
05/23/18	04/27/18	26	GreenSky		\$0	\$874	\$874	0.0x	0.0x	24%	57%	(\$528)	\$23	--	\$13	(44%)	NA	NA	NA	NA	NA
03/28/18	03/02/18	26	Bilibili		\$2,814	\$483	\$3,297	7.7x	NM	365%	82%	\$117	\$12	--	\$19	65%	NA	NA	NA	NA	NA
03/02/17	02/02/17	28	Snap		\$15,653	\$3,400	\$19,053	NM	NM	590%	181%	\$987	\$17	6%	\$11	(35%)	NA	NA	NA	NA	NA
03/29/18	02/27/18	30	iQIYI.com		\$73,286	\$16,758	\$90,044	NM	NM	52%	68%	\$21	\$18	--	\$24	33%	NA	NA	NA	NA	NA
12/16/16	11/14/16	32	Trivago		\$3,442	\$287	\$3,729	4.5x	NM	85%	69%	\$5	\$11	(15%)	\$4	(61%)	NA	NA	NA	NA	NA
09/21/16	08/22/16	30	The Trade Desk		\$604	\$84	\$688	4.1x	5.2x	234%	48%	(\$18)	\$18	--	\$198	1,000%	NA	NA	NA	NA	NA
07/14/16	06/10/16	34	LINE		\$6,896	\$7,225	\$14,121	6.6x	NM	29%	37%	(\$66)	\$33	1%	\$35	7%	NA	NA	NA	NA	NA
06/23/16	05/26/16	28	Twilio		\$1,245	\$150	\$1,395	6.5x	NM	117%	63%	\$103	\$15	7%	\$129	761%	NA	NA	NA	NA	NA
12/18/15	11/16/15	32	Yirendai		\$1,020	\$75	\$1,095	6.5x	NM	4,927%	182%	\$20	\$10	--	\$14	36%	NA	NA	NA	NA	NA
11/19/15	10/16/15	34	Match Group		\$23	\$400	\$423	0.0x	0.0x	18%	29%	(\$49)	\$12	--	\$57	372%	NA	NA	NA	NA	NA
05/20/15	04/17/15	33	Baozun Commerce		\$1,348	\$110	\$1,458	5.2x	26.2x	4%	NM	\$28	\$10	(17%)	\$42	315%	386	\$81	74%	\$12	(26%)
04/08/15	01/09/15	89	Beijing Wo Wo Group Information Technology Company		\$2,999	\$40	\$3,039	NM	NM	NM	NM	\$1	\$10	--	\$2	(83%)	NA	NA	NA	NA	NA
04/01/15	06/09/14	296	GoDaddy		\$1,662	\$460	\$2,122	1.2x	4.1x	17%	19%	(\$1,282)	\$20	5%	\$75	276%	585	\$928	202%	\$39	102%
Median				30	\$1,775	\$228	\$2,114	6.5x	4.1x	52%	57%	\$21	\$15	5%	29%	486	\$505	138%	\$25	38%	2%
Mean				45	\$7,061	\$1,455	\$8,515	6.9x	7.1x	1484%	124%	\$25	\$15	0%	110%	486	\$505	138%	\$25	38%	2%

Source: Capital IQ and Pitchbook as of 3/31/19

# Hardware & Tech-Enabled Services IPOs

IPO Date	Filing Date	Days on File	Company	EV	IPO Amount Raised	Market Cap	LTM Multiples		Metrics and Financialings			Share Information				Follow On Information						
							EV / Rev	EV / EBITDA	Rev Grwth at IPO	NTM Rev Growth	Net Cash at IPO	IPO Offer Price	File to Price Chg	Current Price	Chg Since IPO	Days Post Lock-Up	Amount Raised	Relative to IPO Raise	Follow On Price	IPO to Price Chg	Primary Shares	
Hardware and Tech-Enabled Services																						
08/03/18	07/06/18	28	Arlo Technologies		\$1,000	\$188	\$1,188	2.7x	NM	101%	40%	\$70	\$16	(11%)	\$4	(74%)	NA	NA	NA	NA	NA	NA
08/02/18	07/06/18	27	Sonos		\$1,509	\$208	\$1,717	1.4x	NM	21%	10%	\$78	\$15	(12%)	\$10	(31%)	NA	NA	NA	NA	NA	NA
04/25/18	03/30/18	26	nLIGHT		\$9,946	\$96	\$10,042	NM	NM	37%	41%	\$19	\$16	7%	\$22	39%	NA	NA	NA	NA	NA	NA
02/09/18	01/12/18	28	Huami		\$8,060	\$55	\$8,115	NM	NM	20%	44%	\$68	\$11	--	\$13	19%	NA	NA	NA	NA	NA	NA
02/01/18	12/18/17	45	One Stop Systems		\$617	\$19	\$636	22.9x	NM	43%	NM	(\$3)	\$5	(17%)	\$2	(59%)	NA	NA	NA	NA	NA	NA
09/28/17	09/01/17	27	Roku		\$1,303	\$219	\$1,523	3.0x	NM	36%	41%	\$47	\$14	--	\$65	361%	NA	NA	NA	NA	NA	NA
05/25/17	04/28/17	27	Smart Modular Technologies		\$181	\$58	\$239	0.3x	1.0x	(3%)	53%	(\$192)	\$11	(15%)	\$19	75%	NA	NA	NA	NA	NA	NA
11/01/16	10/04/16	28	GDS Services		\$7,333	\$193	\$7,526	NM	NM	109%	38%	(\$512)	\$10	(17%)	\$36	257%	NA	NA	NA	NA	NA	NA
10/28/16	09/29/16	29	Quantenna Communications		\$500	\$107	\$607	4.3x	NM	75%	40%	\$11	\$16	--	\$24	52%	NA	NA	NA	NA	NA	NA
08/12/16	07/15/16	28	Airgain		\$50	\$12	\$62	1.6x	NM	20%	41%	\$0	\$8	(11%)	\$13	60%	(61)	\$40	333%	\$18	233%	57%
07/11/16	11/10/15	244	Monster Digital		\$24	\$9	\$33	NM	NM	NM	NM	\$1	\$5	--	\$24	427%	NA	NA	NA	NA	NA	NA
11/18/15	10/16/15	33	Mimecast		\$503	\$78	\$581	4.1x	22.7x	39%	NM	\$25	\$10	--	\$47	374%	NA	NA	NA	NA	NA	NA
11/13/15	10/05/15	39	Xtera Communications		\$63	\$25	\$88	1.3x	NM	101%	NM	(\$5)	\$5	(44%)	\$0	(100%)	NA	NA	NA	NA	NA	NA
10/09/15	08/07/15	63	CPI Card Group		\$420	\$150	\$570	1.2x	18.5x	72%	5%	(\$154)	\$10	(17%)	\$3	(66%)	NA	NA	NA	NA	NA	NA
10/07/15	08/12/15	56	Pure Storage		\$3,468	\$425	\$3,893	12.7x	NM	541%	98%	\$128	\$17	--	\$22	28%	NA	NA	NA	NA	NA	NA
06/26/15	05/22/15	35	Alarm.com		\$571	\$98	\$669	3.2x	15.3x	36%	11%	\$32	\$14	--	\$65	364%	NA	NA	NA	NA	NA	NA
06/18/15	05/07/15	42	Fitbit		\$3,981	\$732	\$4,713	4.1x	NM	259%	82%	\$78	\$20	5%	\$6	(70%)	(33)	\$493	67%	\$29	(33%)	NA
05/19/15	12/23/14	147	Black Knight		\$1,130	\$441	\$1,571	1.3x	2.4x	NM	11%	(\$2,073)	\$25	--	\$55	122%	NA	NA	NA	NA	NA	NA
03/26/15	02/18/15	36	Solaredge Technologies		\$651	\$126	\$777	3.0x	4.4x	173%	NM	\$19	\$18	--	\$38	109%	NA	NA	NA	NA	NA	NA
Median		33			\$651	\$107	\$777	3.0x	9.9x	43%	40%	\$19		(14%)		52%	(47)	\$266	200%	\$24	100%	57%
Mean		52			\$2,174	\$170	\$2,345	4.5x	10.7x	99%	39%	(\$124)		(13%)		99%	(47)	\$266	200%	\$24	100%	57%

Source: Capital IQ and Pitchbook as of 3/31/19



# Public Company Valuation

Company	Price	52-Wk	Mkt Cap	EV	EV / Revenue			EV / EBITDA			P / E		
	03/31/19	High			LTM	FY+1	FY+2	LTM	FY+1	FY+2	LTM	FY+1	FY+2
CRM													
Salesforce	\$158.37	95%	\$122,103	\$120,937	9.1x	7.5x	6.3x	NM	29.7x	24.2x	NM	57.4x	46.0x
Zendesk	85.00	99%	9,211	9,242	15.4	11.5	8.9	NM	NM	NM	NM	NM	131.8
HubSpot	166.21	92%	6,584	6,311	12.3	9.7	7.8	NM	NM	NM	NM	145.3	99.5
Pegasystems	65.00	96%	5,099	4,891	5.5	5.1	4.5	NM	NM	NM	NM	131.3	99.2
Five9	52.83	91%	3,130	3,046	11.8	10.1	8.6	NM	NM	47.6	NM	86.6	67.3
LivePerson	29.02	96%	1,855	1,789	7.2	6.2	5.2	NM	NM	NM	NM	NM	NM
Median		95%	\$5,841	\$5,601	10.5x	8.6x	7.1x	NM	29.7x	35.9x	NM	109.0x	99.2x
Mean		95%	\$24,664	\$24,369	10.2x	8.4x	6.9x	NM	29.7x	35.9x	NM	105.2x	88.8x
Accounting / ERP													
Oracle	\$53.71	99%	\$183,562	\$200,215	5.0x	5.1x	5.0x	12.1x	10.9x	10.5x	18.3x	15.6x	14.3x
SAP	115.64	91%	138,031	140,631	4.8	4.6	4.3	17.0	13.2	12.0	28.4	21.5	19.3
International Business Machines	141.10	87%	125,560	159,509	2.0	2.0	2.0	9.8	8.6	8.3	14.7	10.1	10.0
Intuit	261.41	100%	67,724	66,370	10.3	10.0	9.0	33.3	27.2	24.3	43.7	40.1	35.5
The Sage Group (Financial Software)	9.15	96%	9,943	10,813	4.4	4.2	4.0	16.3	16.3	14.9	23.3	22.7	20.9
Coupa	90.98	91%	5,554	5,407	20.8	16.6	13.4	NM	NM	NM	NM	NM	NM
Xero	34.44	90%	4,810	4,754	14.1	9.6	NM	NM	47.3	NM	NM	NM	NM
BlackLine	46.32	80%	2,549	2,421	10.6	8.7	7.1	NM	NM	NM	NM	NM	NM
Upland Software	42.36	97%	911	1,174	7.8	6.0	5.7	NM	16.3	15.1	NM	20.0	18.8
Qad	43.07	70%	808	681	2.0	2.1	1.9	NM	44.5	24.9	80.2	116.4	54.5
Median		91%	\$7,748	\$8,110	6.4x	5.5x	5.0x	16.3x	16.3x	14.9x	25.9x	21.5x	19.3x
Mean		90%	\$53,945	\$59,198	8.2x	6.9x	5.8x	17.7x	23.0x	15.7x	34.8x	35.2x	24.8x
Supply Chain Management													
SAP	\$115.64	91%	\$138,031	\$140,631	4.8x	4.6x	4.3x	17.0x	13.2x	12.0x	28.4x	21.5x	19.3x
Dassault Systemes	149.04	91%	38,543	36,545	8.9	8.3	7.6	31.0	24.3	21.8	54.4	38.2	34.2
PTC	92.18	86%	10,935	11,411	9.0	8.6	7.6	NM	28.5	23.9	140.0	51.2	35.9
Aspen Technology	104.26	88%	7,261	7,427	14.7	13.3	13.3	35.5	26.2	26.6	42.7	29.6	31.1
Manhattan Associates	55.11	88%	3,560	3,459	6.2	6.1	5.9	24.1	26.7	25.7	34.8	39.4	38.1
Descartes Systems Group	36.16	100%	2,790	2,788	10.1	8.5	7.7	32.3	23.6	20.9	80.5	23.8	21.1
American Software	11.95	63%	372	289	2.6	2.6	2.5	23.0	19.5	17.2	49.2	38.5	38.5
Median		88%	\$7,261	\$7,427	8.9x	8.3x	7.6x	27.5x	24.3x	21.8x	49.2x	38.2x	34.2x
Mean		87%	\$28,785	\$28,936	8.0x	7.4x	7.0x	27.1x	23.1x	21.1x	61.4x	34.6x	31.2x

Source: Capital IQ and Pitchbook as of 3/31/19

# Public Company Valuation (cont.)

Company	Price 03/31/19	52-Wk High	Mkt Cap	EV	EV / Revenue			EV / EBITDA			P / E			
					LTM	FY+1	FY+2	LTM	FY+1	FY+2	LTM	FY+1	FY+2	
Human Capital Management														
Workday	\$192.85	96%	\$42,813	\$42,239	15.0x	11.9x	9.7x	NM	NM	46.6x	NM	116.9x	87.7x	
Paychex	80.20	99%	28,823	28,945	7.9	7.7	6.9	19.1	18.7	17.0	29.9	28.1	25.9	
Paycom Software	189.13	99%	11,059	11,048	19.5	15.5	12.7	NM	38.2	30.3	80.1	59.1	46.6	
Ultimate Software Group	330.13	90%	10,650	10,500	9.2	7.7	6.4	NM	32.7	26.3	NM	53.9	42.6	
Paylocity	89.19	96%	4,720	3,357	8.0	7.3	6.0	NM	25.9	20.7	88.6	70.8	55.4	
Cornerstone OnDemand	54.78	91%	3,238	3,184	5.9	5.7	5.0	NM	26.8	20.3	NM	57.1	38.4	
Median		96%	\$10,855	\$10,774	8.6x	7.7x	6.7x	19.1x	26.8x	23.5x	80.1x	58.1x	44.6x	
Mean		95%	\$16,884	\$16,546	10.9x	9.3x	7.8x	19.1x	28.5x	26.9x	66.2x	64.3x	49.4x	
Knowledge / Content Management														
Adobe Systems	\$266.49	96%	\$130,034	\$130,937	13.7x	11.7x	10.0x	40.5x	26.2x	21.5x	50.0x	34.2x	27.6x	
VeriSign	181.56	98%	21,735	22,251	18.3	18.1	17.4	25.7	24.9	23.9	37.9	35.1	33.2	
Akamai Technologies	71.71	86%	11,704	11,372	4.2	4.0	3.7	14.3	9.7	8.8	34.8	17.6	15.5	
OpenText	38.19	96%	10,264	12,288	4.3	4.2	4.1	12.3	11.2	10.5	34.5	13.9	12.8	
Dropbox	21.80	50%	8,966	8,040	5.8	4.9	4.3	NM	21.9	17.3	NM	55.1	39.6	
DocuSign	51.84	76%	8,808	8,478	12.1	9.3	7.5	NM	NM	NM	NM	NM	148.1	
SDL	7.05	89%	639	621	1.4	1.3	1.2	17.5	12.0	10.6	21.9	18.6	16.4	
MobileIron	5.47	96%	584	479	2.5	2.3	2.1	NM	NM	24.4	NM	NM	84.2	
Brightcove	8.41	78%	308	279	1.7	1.6	1.5	NM	49.0	20.7	NM	NM	41.0	
Median		89%	\$8,966	\$8,478	4.3x	4.2x	4.1x	17.5x	21.9x	19.0x	34.8x	26.4x	33.2x	
Mean		85%	\$21,449	\$21,638	7.1x	6.4x	5.7x	22.1x	22.2x	17.2x	35.8x	29.1x	46.5x	
Business Intelligence														
International Business Machines	\$141.10	87%	\$125,560	\$159,509	2.0x	2.0x	2.0x	9.8x	8.6x	8.3x	14.7x	10.1x	10.0x	
Tableau Software	127.28	93%	10,957	9,935	8.6	7.3	6.1	NM	46.2	34.0	NM	73.8	57.4	
NICE Systems	122.51	99%	7,298	7,268	5.0	4.6	4.3	20.5	15.3	14.1	47.1	24.3	NM	
Teradata	43.65	88%	5,132	4,961	2.3	2.4	2.4	30.1	13.1	10.9	NM	29.1	21.3	
Pegasystems	65.00	96%	5,099	4,891	5.5	5.1	4.5	NM	NM	NM	NM	131.3	99.2	
Nuance	16.93	95%	4,832	6,599	3.2	3.5	3.4	42.3	11.9	10.7	107.0	14.9	14.0	
Verint Systems	59.86	97%	3,911	4,305	3.5	3.1	2.9	21.6	13.1	11.3	60.8	16.6	14.8	
Progress Software	44.37	93%	1,974	1,955	5.0	4.6	4.5	17.5	9.4	8.5	33.1	17.7	16.6	
MicroStrategy	144.25	95%	1,482	906	1.8	1.7	1.6	NM	34.7	16.0	72.9	121.3	71.6	
Median		95%	\$5,099	\$4,961	3.5x	3.5x	3.4x	21.0x	13.1x	11.1x	53.9x	24.3x	18.9x	
Mean		94%	\$18,472	\$22,259	4.1x	3.8x	3.5x	23.6x	19.0x	14.2x	55.9x	48.8x	38.1x	

Source: Capital IQ and Pitchbook as of 3/31/19

# Public Company Valuation (cont.)

Company	Price 03/31/19	52-Wk High	Mkt Cap	EV	EV / Revenue			EV / EBITDA			P / E			
					LTM	FY+1	FY+2	LTM	FY+1	FY+2	LTM	FY+1	FY+2	
Systems / Network Management														
VMware	\$180.51	96%	\$74,089	\$75,482	8.4x	7.5x	6.9x	20.7x	19.3x	18.0x	41.7x	27.8x	24.7x	
ServiceNow	246.49	98%	44,491	43,655	16.7	12.7	10.0	NM	47.0	35.2	NM	79.0	58.4	
Splunk	124.60	87%	18,699	17,576	9.7	7.9	6.5	NM	47.6	34.9	NM	74.3	57.2	
L3 Technologies	206.37	92%	16,307	18,670	1.8	1.7	1.6	14.5	12.0	11.2	19.0	18.1	16.0	
Citrix Systems	99.66	85%	13,128	13,823	4.6	4.5	4.3	17.0	12.6	12.1	22.7	16.6	15.1	
Juniper Networks	26.47	86%	9,210	7,789	1.7	1.7	1.7	10.1	8.1	7.4	16.2	14.7	12.9	
SolarWinds	19.52	92%	6,050	7,591	9.1	8.2	7.4	27.2	16.8	15.0	6.2	24.6	21.2	
LogMeIn	80.10	65%	4,072	4,124	3.4	3.3	3.1	10.7	10.1	10.6	100.7	16.2	16.7	
NetScout Systems	28.07	88%	2,185	2,310	2.5	2.5	NM	NM	9.5	NM	NM	18.0	NM	
Median		88%	\$13,128	\$13,823	4.6x	4.5x	5.4x	15.7x	12.6x	13.6x	20.8x	18.1x	18.9x	
Mean		88%	\$20,915	\$21,224	6.5x	5.6x	5.2x	16.7x	20.3x	18.0x	34.4x	32.1x	27.8x	
Security / Storage														
Palo Alto Networks	\$242.88	93%	\$23,053	\$21,779	8.4x	7.6x	6.4x	NM	27.4x	22.7x	NM	44.4x	38.0x	
VeriSign	181.56	98%	21,735	22,251	18.3	18.1	17.4	25.7	24.9	23.9	37.9	35.1	33.2	
Splunk	124.60	87%	18,699	17,576	9.7	7.9	6.5	NM	47.6	34.9	NM	74.3	57.2	
Symantec	22.99	79%	14,696	17,162	3.6	3.4	NM	22.0	7.8	NM	70.6	12.9	NM	
Fortinet	83.97	89%	14,328	12,679	7.0	6.1	5.4	45.3	23.4	20.1	42.8	40.4	35.6	
Proofpoint	121.43	93%	6,721	6,489	9.1	7.4	6.2	NM	48.5	37.7	NM	73.6	54.0	
CyberArk Software	119.05	100%	4,428	4,002	11.7	9.7	8.1	NM	37.9	30.3	91.6	60.1	48.7	
FireEye	16.79	81%	3,410	3,256	3.9	3.7	3.4	NM	26.2	21.7	NM	88.4	54.2	
Qualys	82.74	84%	3,230	2,942	10.6	9.1	7.8	37.5	23.9	19.8	56.3	44.2	37.6	
Tenable	31.66	80%	3,006	2,723	10.2	8.0	6.4	NM	NM	NM	NM	NM	NM	
Box	19.31	65%	2,787	2,682	4.4	3.8	3.3	NM	NM	31.6	NM	NM	96.6	
Rapid7	50.61	96%	2,429	2,345	9.6	7.6	6.3	NM	NM	NM	NM	NM	140.6	
Sophos	3.93	47%	1,889	2,021	2.9	2.6	NM	36.9	17.3	NM	NM	22.5	NM	
ForeScout	41.91	90%	1,866	1,767	5.9	4.8	4.0	NM	NM	NM	NM	NM	NM	
SecureWorks	18.40	74%	1,495	1,366	2.6	2.4	2.2	NM	NM	NM	NM	NM	NM	
Radware	26.13	92%	1,164	848	3.6	3.3	3.0	49.0	23.9	18.2	100.5	43.6	31.1	
Zix	6.88	76%	372	345	4.9	2.1	1.7	23.9	10.3	7.1	24.6	21.5	15.0	
Median		87%	\$3,230	\$2,942	7.0x	6.1x	6.2x	36.9x	24.4x	22.7x	56.3x	43.9x	43.3x	
Mean		84%	\$7,371	\$7,190	7.4x	6.3x	5.9x	34.3x	26.6x	24.4x	60.6x	46.7x	53.5x	

Source: Capital IQ and Pitchbook as of 3/31/19

# Public Company Valuation (cont.)

Company	Price 03/31/19	52-Wk High	Mkt Cap	EV	EV / Revenue			EV / EBITDA			P / E		
					LTM	FY+1	FY+2	LTM	FY+1	FY+2	LTM	FY+1	FY+2
Application Infrastructure													
Microsoft	\$117.94	98%	\$904,861	\$850,368	7.2x	6.8x	6.2x	15.8x	16.2x	14.3x	28.1x	26.7x	23.6x
Oracle	53.71	99%	183,562	200,215	5.0	5.1	5.0	12.1	10.9	10.5	18.3	15.6	14.3
International Business Machines	141.10	87%	125,560	159,509	2.0	2.0	2.0	9.8	8.6	8.3	14.7	10.1	10.0
Red Hat	182.70	100%	32,294	30,419	9.0	7.8	6.9	49.3	28.7	24.6	74.3	46.4	39.4
Atlassian	112.39	97%	26,918	26,110	25.3	21.8	17.1	NM	NM	NM	NM	137.1	110.2
Hewlett Packard Enterprise	15.43	86%	21,145	29,759	1.0	1.0	1.0	6.7	5.7	5.8	16.5	9.4	8.9
Nutanix	37.74	58%	6,872	6,351	5.1	5.0	4.0	NM	NM	NM	NM	NM	NM
New Relic	98.70	86%	5,661	5,342	12.0	8.9	NM	NM	NM	NM	NM	116.1	NM
Cloudera	10.94	49%	2,942	2,462	5.1	2.9	2.4	NM	NM	19.4	NM	NM	54.7
Software	33.52	63%	2,480	2,306	2.3	2.3	2.2	7.7	7.8	7.5	12.7	12.0	12.0
Progress Software	44.37	93%	1,974	1,955	5.0	4.6	4.5	17.5	9.4	8.5	33.1	17.7	16.6
Median		87%	\$21,145	\$26,110	5.1x	5.0x	4.3x	12.1x	9.4x	9.5x	18.3x	17.7x	16.6x
Mean		83%	\$119,479	\$119,527	7.2x	6.2x	5.1x	17.0x	12.5x	12.4x	28.3x	43.4x	32.2x
Financial Technology													
Fidelity National Information Services	\$113.10	100%	\$36,546	\$44,835	5.3x	5.3x	5.1x	15.9x	13.7x	12.8x	38.5x	15.2x	13.9x
Fiserv	88.28	100%	34,599	40,143	6.9	6.5	6.2	17.4	16.9	16.0	34.8	25.6	22.8
Square	74.92	74%	31,444	31,034	9.4	13.8	10.3	NM	NM	47.9	NM	99.9	67.2
Jack Henry and Associates	138.74	85%	10,707	10,681	6.8	6.9	6.4	19.3	20.6	18.7	34.5	38.9	34.9
Guidewire Software	97.16	90%	7,910	7,155	9.7	9.8	8.5	NM	43.8	34.8	NM	70.1	62.3
Fair Isaac	271.63	100%	7,897	8,649	8.2	7.7	7.1	33.8	33.5	29.6	51.0	39.3	33.7
ACI Worldwide	32.87	96%	3,818	4,341	4.3	3.9	3.8	19.8	13.7	12.9	55.7	35.0	29.3
Ellie Mae	98.69	84%	3,435	3,132	6.5	6.1	5.6	36.2	21.8	19.2	149.5	51.1	45.3
Envestnet	65.39	97%	3,148	3,318	4.1	3.7	3.2	43.2	18.3	14.9	NM	30.5	25.3
Q2 Holdings	69.26	96%	3,018	3,024	12.5	9.8	8.0	NM	NM	NM	NM	NM	138.5
Bottomline Technologies	50.09	68%	2,164	2,172	5.2	5.2	4.7	39.9	21.9	18.9	136.2	38.2	32.4
Ebix	49.37	55%	1,508	2,131	4.3	3.5	2.9	12.9	10.5	8.9	16.5	11.0	8.9
Median		93%	\$5,857	\$5,748	6.6x	6.3x	5.9x	19.8x	19.5x	18.7x	44.7x	38.2x	33.1x
Mean		87%	\$12,183	\$13,385	6.9x	6.9x	6.0x	26.5x	21.5x	21.3x	64.6x	41.3x	42.9x
Healthcare IT / Life Sciences Software													
Veeva Systems	\$126.86	98%	\$18,576	\$17,485	20.3x	17.0x	14.4x	NM	45.6x	37.7x	79.8x	66.1x	56.8x
Cerner	57.21	85%	18,557	18,225	3.4	3.2	3.0	12.9	10.8	10.0	30.0	21.8	20.0
Medidata Solutions	73.24	82%	4,561	4,409	6.9	6.0	5.2	47.1	24.6	20.3	81.4	41.1	34.8
Allscripts Healthcare Solutions	9.54	64%	1,635	2,159	1.2	1.2	1.1	8.4	6.9	6.5	NM	14.2	12.7
NextGen Healthcare	16.83	71%	1,089	1,087	2.1	2.0	NM	22.3	11.6	NM	83.9	20.5	NM
HealthStream	28.06	88%	907	738	3.2	2.9	2.8	18.1	19.3	16.6	63.2	92.0	72.9
Castlight Health	3.75	63%	538	464	3.0	3.0	2.6	NM	NM	27.1	NM	125.0	57.7
Cegedim	29.30	61%	408	593	1.1	1.1	1.1	6.3	6.6	6.1	13.6	18.1	15.4
Median		77%	\$1,362	\$1,623	3.1x	2.9x	2.8x	15.5x	11.6x	16.6x	71.5x	31.5x	34.8x
Mean		77%	\$5,784	\$5,645	5.1x	4.5x	4.3x	19.2x	17.9x	17.8x	58.6x	49.9x	38.6x

Source: Capital IQ and Pitchbook as of 3/31/19

# Public Company Operating Metrics

Company	Price 03/31/19	52-Wk High	Mkt Cap	EV	Revenue Growth			EBITDA Margin		
					LTM	FY+1	FY+2	LTM	FY+1	FY+2
CRM										
Salesforce	\$158.37	95%	\$122,103	\$120,937	26%	21%	20%	15%	25%	26%
Zendesk	85.00	99%	9,211	9,242	39%	34%	30%	(17%)	7%	9%
HubSpot	166.21	92%	6,584	6,311	37%	27%	24%	(5%)	12%	14%
Pegasystems	65.00	96%	5,099	4,891	0%	8%	12%	1%	6%	6%
Five9	52.83	91%	3,130	3,046	29%	17%	17%	7%	17%	18%
LivePerson	29.02	96%	1,855	1,789	14%	15%	19%	(3%)	4%	9%
Median		95%	\$5,841	\$5,601	27%	19%	20%	1%	12%	14%
Mean		95%	\$24,664	\$24,369	24%	20%	20%	0%	13%	15%
Accounting / ERP										
Oracle	\$53.71	99%	\$183,562	\$200,215	1%	(1%)	2%	41%	47%	47%
SAP	115.64	91%	138,031	140,631	10%	5%	8%	28%	35%	36%
International Business Machines	141.10	87%	125,560	159,509	1%	(2%)	0%	20%	24%	24%
Intuit	261.41	100%	67,724	66,370	14%	12%	10%	31%	37%	37%
The Sage Group (Financial Software)	9.15	96%	9,943	10,813	14%	3%	6%	27%	26%	27%
Coupa	90.98	91%	5,554	5,407	39%	25%	24%	(14%)	5%	11%
Xero	34.44	90%	4,810	4,754	42%	67%	NA	11%	20%	NA
BlackLine	46.32	80%	2,549	2,421	30%	22%	22%	(3%)	7%	9%
Upland Software	42.36	97%	911	1,174	53%	32%	5%	9%	37%	38%
Qad	43.07	70%	808	681	9%	(1%)	7%	3%	5%	8%
Median		91%	\$7,748	\$8,110	14%	8%	7%	16%	25%	27%
Mean		90%	\$53,945	\$59,198	21%	16%	9%	15%	24%	26%
Supply Chain Management										
SAP	\$115.64	91%	\$138,031	\$140,631	10%	5%	8%	28%	35%	36%
Dassault Systemes	149.04	91%	38,543	36,545	13%	8%	9%	29%	34%	35%
PTC	92.18	86%	10,935	11,411	7%	7%	13%	13%	30%	32%
Aspen Technology	104.26	88%	7,261	7,427	7%	12%	(0%)	41%	51%	50%
Manhattan Associates	55.11	88%	3,560	3,459	(6%)	2%	3%	26%	23%	23%
Descartes Systems Group	36.16	100%	2,790	2,788	16%	20%	10%	31%	36%	37%
American Software	11.95	63%	372	289	2%	(2%)	5%	11%	13%	14%
Median		88%	\$7,261	\$7,427	7%	7%	8%	28%	34%	35%
Mean		87%	\$28,785	\$28,936	7%	7%	7%	26%	32%	32%

Source: Capital IQ and Pitchbook as of 3/31/19

# Public Company Operating Metrics (cont.)

Company	Price 03/31/19	52-Wk High	Mkt Cap	EV	Revenue Growth			EBITDA Margin		
					LTM	FY+1	FY+2	LTM	FY+1	FY+2
Human Capital Management										
Workday	\$192.85	96%	\$42,813	\$42,239	32%	26%	23%	(7%)	19%	21%
Paychex	80.20	99%	28,823	28,945	9%	12%	11%	42%	41%	41%
Paycom Software	189.13	99%	11,059	11,048	31%	26%	22%	36%	41%	42%
Ultimate Software Group	330.13	90%	10,650	10,500	21%	20%	20%	12%	24%	24%
Paylocity	89.19	96%	4,720	3,357	25%	22%	21%	15%	28%	29%
Cornerstone OnDemand	54.78	91%	3,238	3,184	12%	5%	14%	5%	21%	24%
Median		96%	\$10,855	\$10,774	23%	21%	20%	13%	26%	27%
Mean		95%	\$16,884	\$16,546	22%	18%	19%	17%	29%	30%
Knowledge / Content Management										
Adobe Systems	\$266.49	96%	\$130,034	\$130,937	24%	24%	18%	34%	45%	46%
VeriSign	181.56	98%	21,735	22,251	4%	1%	4%	71%	73%	73%
Akamai Technologies	71.71	86%	11,704	11,372	9%	5%	7%	29%	41%	42%
OpenText	38.19	96%	10,264	12,288	8%	3%	4%	35%	38%	39%
Dropbox	21.80	50%	8,966	8,040	26%	18%	15%	(23%)	22%	25%
DocuSign	51.84	76%	8,808	8,478	35%	30%	24%	(54%)	8%	11%
SDL	7.05	89%	639	621	17%	13%	6%	8%	11%	11%
MobileIron	5.47	96%	584	479	7%	9%	9%	(20%)	2%	9%
Brightcove	8.41	78%	308	279	6%	3%	9%	(4%)	3%	7%
Median		89%	\$8,966	\$8,478	9%	9%	9%	8%	22%	25%
Mean		85%	\$21,449	\$21,638	15%	12%	11%	9%	27%	29%
Business Intelligence										
International Business Machines	\$141.10	87%	\$125,560	\$159,509	1%	(2%)	0%	20%	24%	24%
Tableau Software	127.28	93%	10,957	9,935	32%	18%	19%	(3%)	16%	18%
NICE Systems	122.51	99%	7,298	7,268	8%	9%	8%	25%	30%	30%
Teradata	43.65	88%	5,132	4,961	0%	(6%)	3%	8%	19%	22%
Pegasystems	65.00	96%	5,099	4,891	0%	8%	12%	1%	6%	6%
Nuance	16.93	95%	4,832	6,599	8%	(9%)	4%	8%	30%	32%
Verint Systems	59.86	97%	3,911	4,305	8%	11%	9%	16%	24%	26%
Progress Software	44.37	93%	1,974	1,955	(2%)	7%	2%	28%	49%	53%
MicroStrategy	144.25	95%	1,482	906	(1%)	4%	7%	2%	5%	NM
Median		95%	\$5,099	\$4,961	1%	7%	7%	8%	24%	25%
Mean		94%	\$18,472	\$22,259	6%	5%	7%	12%	22%	26%

Source: Capital IQ and Pitchbook as of 3/31/19

# Public Company Operating Metrics (cont.)

Company	Price 03/31/19	52-Wk High	Mkt Cap	EV	Revenue Growth			EBITDA Margin		
					LTM	FY+1	FY+2	LTM	FY+1	FY+2
Systems / Network Management										
VMware	\$180.51	96%	\$74,089	\$75,482	14%	12%	10%	41%	39%	38%
ServiceNow	246.49	98%	44,491	43,655	36%	31%	28%	5%	27%	28%
Splunk	124.60	87%	18,699	17,576	38%	23%	22%	(11%)	17%	19%
L3 Technologies	206.37	92%	16,307	18,670	7%	5%	5%	13%	14%	15%
Citrix Systems	99.66	85%	13,128	13,823	5%	4%	4%	27%	36%	35%
Juniper Networks	26.47	86%	9,210	7,789	(8%)	(3%)	3%	17%	21%	23%
SolarWinds	19.52	92%	6,050	7,591	14%	11%	11%	33%	49%	49%
LogMeIn	80.10	65%	4,072	4,124	22%	4%	5%	32%	33%	30%
NetScout Systems	28.07	88%	2,185	2,310	(15%)	(5%)	NA	4%	26%	NA
Median		88%	\$13,128	\$13,823	14%	5%	7%	17%	27%	29%
Mean		88%	\$20,915	\$21,224	13%	9%	11%	18%	29%	30%
Security / Storage										
Palo Alto Networks	\$242.88	93%	\$23,053	\$21,779	30%	26%	19%	2%	28%	28%
VeriSign	181.56	98%	21,735	22,251	4%	1%	4%	71%	73%	73%
Splunk	124.60	87%	18,699	17,576	38%	23%	22%	(11%)	17%	19%
Symantec	22.99	79%	14,696	17,162	0%	3%	NM	16%	44%	NM
Fortinet	83.97	89%	14,328	12,679	20%	16%	13%	16%	26%	27%
Proofpoint	121.43	93%	6,721	6,489	38%	22%	21%	(4%)	15%	16%
CyberArk Software	119.05	100%	4,428	4,002	31%	21%	19%	16%	26%	27%
FireEye	16.79	81%	3,410	3,256	7%	7%	7%	(13%)	14%	16%
Qualys	82.74	84%	3,230	2,942	21%	15%	17%	28%	38%	40%
Tenable	31.66	80%	3,006	2,723	42%	28%	25%	(24%)	(14%)	(9%)
Box	19.31	65%	2,787	2,682	20%	15%	15%	(14%)	7%	11%
Rapid7	50.61	96%	2,429	2,345	21%	26%	22%	(17%)	3%	8%
Sophos	3.93	47%	1,889	2,021	22%	19%	NM	8%	15%	NM
ForeScout	41.91	90%	1,866	1,767	33%	24%	21%	(21%)	(2%)	5%
SecureWorks	18.40	74%	1,495	1,366	11%	10%	9%	(1%)	1%	2%
Radware	26.13	92%	1,164	848	11%	9%	10%	7%	14%	17%
Zix	6.88	76%	372	345	7%	135%	24%	20%	20%	24%
Median		87%	\$3,230	\$2,942	21%	19%	19%	2%	15%	17%
Mean		84%	\$7,371	\$7,190	21%	23%	16%	5%	19%	20%

Source: Capital IQ and Pitchbook as of 3/31/19

# Public Company Operating Metrics (cont.)

Company	Price 03/31/19	52-Wk High	Mkt Cap	EV	Revenue Growth			EBITDA Margin		
					LTM	FY+1	FY+2	LTM	FY+1	FY+2
Application Infrastructure										
Microsoft	\$117.94	98%	\$904,861	\$850,368	16%	13%	10%	45%	42%	43%
Oracle	53.71	99%	183,562	200,215	1%	(1%)	2%	41%	47%	47%
International Business Machines	141.10	87%	125,560	159,509	1%	(2%)	0%	20%	24%	24%
Red Hat	182.70	100%	32,294	30,419	15%	15%	14%	18%	27%	28%
Atlassian	112.39	97%	26,918	26,110	39%	37%	28%	(16%)	27%	28%
Hewlett Packard Enterprise	15.43	86%	21,145	29,759	4%	(0%)	1%	15%	17%	16%
Nutanix	37.74	58%	6,872	6,351	22%	11%	23%	(26%)	(15%)	(12%)
New Relic	98.70	86%	5,661	5,342	35%	69%	NA	4%	16%	NA
Cloudera	10.94	49%	2,942	2,462	31%	76%	21%	7%	(7%)	12%
Software	33.52	63%	2,480	2,306	3%	0%	2%	29%	29%	29%
Progress Software	44.37	93%	1,974	1,955	(2%)	7%	2%	28%	49%	53%
Median		87%	\$21,145	\$26,110	15%	11%	6%	18%	27%	28%
Mean		83%	\$119,479	\$119,527	15%	20%	10%	15%	23%	27%
Financial Technology										
Fidelity National Information Services	\$113.10	100%	\$36,546	\$44,835	(3%)	(0%)	4%	33%	39%	40%
Fiserv	88.28	100%	34,599	40,143	2%	6%	5%	40%	38%	39%
Square	74.92	74%	31,444	31,034	49%	(32%)	34%	2%	18%	21%
Jack Henry and Associates	138.74	85%	10,707	10,681	9%	1%	7%	35%	33%	34%
Guidewire Software	97.16	90%	7,910	7,155	28%	10%	16%	8%	22%	24%
Fair Isaac	271.63	100%	7,897	8,649	12%	9%	8%	24%	23%	24%
ACI Worldwide	32.87	96%	3,818	4,341	(1%)	9%	3%	22%	29%	30%
Ellie Mae	98.69	84%	3,435	3,132	15%	7%	10%	18%	28%	29%
Envestnet	65.39	97%	3,148	3,318	19%	10%	17%	9%	20%	21%
Q2 Holdings	69.26	96%	3,018	3,024	24%	28%	23%	(6%)	7%	11%
Bottomline Technologies	50.09	68%	2,164	2,172	13%	7%	10%	13%	24%	25%
Ebix	49.37	55%	1,508	2,131	37%	21%	22%	33%	34%	33%
Median		93%	\$5,857	\$5,748	14%	8%	10%	20%	26%	27%
Mean		87%	\$12,183	\$13,385	17%	6%	13%	19%	26%	28%
Healthcare IT / Life Sciences Software										
Veeva Systems	126.86	98%	18,576	17,485	25%	19%	18%	28%	37%	38%
Cerner	57.21	85%	18,557	18,225	4%	7%	7%	26%	29%	30%
Medidata Solutions	73.24	82%	4,561	4,409	17%	16%	15%	15%	24%	25%
Allscripts Healthcare Solutions	9.54	64%	1,635	2,159	17%	3%	4%	15%	17%	18%
NextGen Healthcare	16.83	71%	1,089	1,087	0%	4%	NA	9%	17%	NA
HealthStream	28.06	88%	907	738	8%	10%	3%	18%	15%	17%
Castlight Health	3.75	63%	538	464	18%	(1%)	14%	(21%)	5%	10%
Cegedim	29.30	61%	408	593	11%	5%	3%	17%	17%	17%
Median		77%	\$1,362	\$1,623	14%	6%	7%	16%	17%	18%
Mean		77%	\$5,784	\$5,645	13%	8%	9%	13%	20%	22%

Source: Capital IQ and Pitchbook as of 3/31/19



# Vista Point Advisors Overview

Vista Point Advisors is a boutique investment bank focused on capital raises and M&A advisory for growing technology companies

Software	Internet	Mobile	Hardware
<ul style="list-style-type: none"><li>• Software-as-a-Service</li><li>• On-premise</li><li>• Application Software</li><li>• Healthcare IT</li><li>• Financial Tech</li></ul>	<ul style="list-style-type: none"><li>• Advertising and Marketing</li><li>• Digital Media</li><li>• Gaming</li><li>• Content</li><li>• Platforms</li></ul>	<ul style="list-style-type: none"><li>• Consumer Applications</li><li>• Enterprise Applications</li><li>• Gaming</li><li>• Payments</li><li>• Infrastructure</li></ul>	<ul style="list-style-type: none"><li>• Communications</li><li>• Entertainment</li><li>• Industrial</li><li>• Systems</li><li>• Consumer</li></ul>
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