

# VISTA POINT

ADVISORS

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Mergers & Acquisitions | Capital Raising | Strategic Advisory

Software Industry Update

Q4 2018

# 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

|  |  |  |  |  |  |   |
|--|--|--|--|--|--|---|
| <br>acquired by<br><br>January 2019   | <br>acquired by<br><br>December 2018     | <br>acquired by<br><br>November 2018   | <br>investment from<br><br>November 2018   | <br>acquired by<br><br>October 2018  | <br>acquired by<br><br>July 2018         | <br>investment from<br><br>July 2018  |
| <br>investment from<br><br>June 2018  | <br>investment from<br><br>May 2018      | <br>acquired by<br><br>a portfolio company of<br><br>April 2018         | <br>acquired by<br><br>March 2018  | <br>investment from<br><br>January 2018  | <br>investment from<br><br>December 2017 | <br>investment from<br><br>November 2017  |
| <br>acquired by<br><br>a portfolio company of<br><br>September 2017 | <br>acquired by<br><br>September 2017    | <br>investment from<br><br>September 2017  | <br>investment from<br><br>August 2017   | <br>investment from<br><br>August 2017   | <br>acquired by<br><br>March 2017        | <br>acquired by<br><br>a portfolio company of<br><br>February 2017 |
| <br>acquired by<br><br>a subsidiary of<br><br>January 2017   | <br>acquired by<br><br>November 2016 | <br>acquired by<br><br>a portfolio company of<br><br>October 2016 | <br>acquired by<br><br>a portfolio company of<br><br>July 2016 | <br>acquired by<br><br>a portfolio company of<br><br>May 2016 | <br>acquired by<br><br>May 2016      | <br>acquired by<br><br>May 2016   |

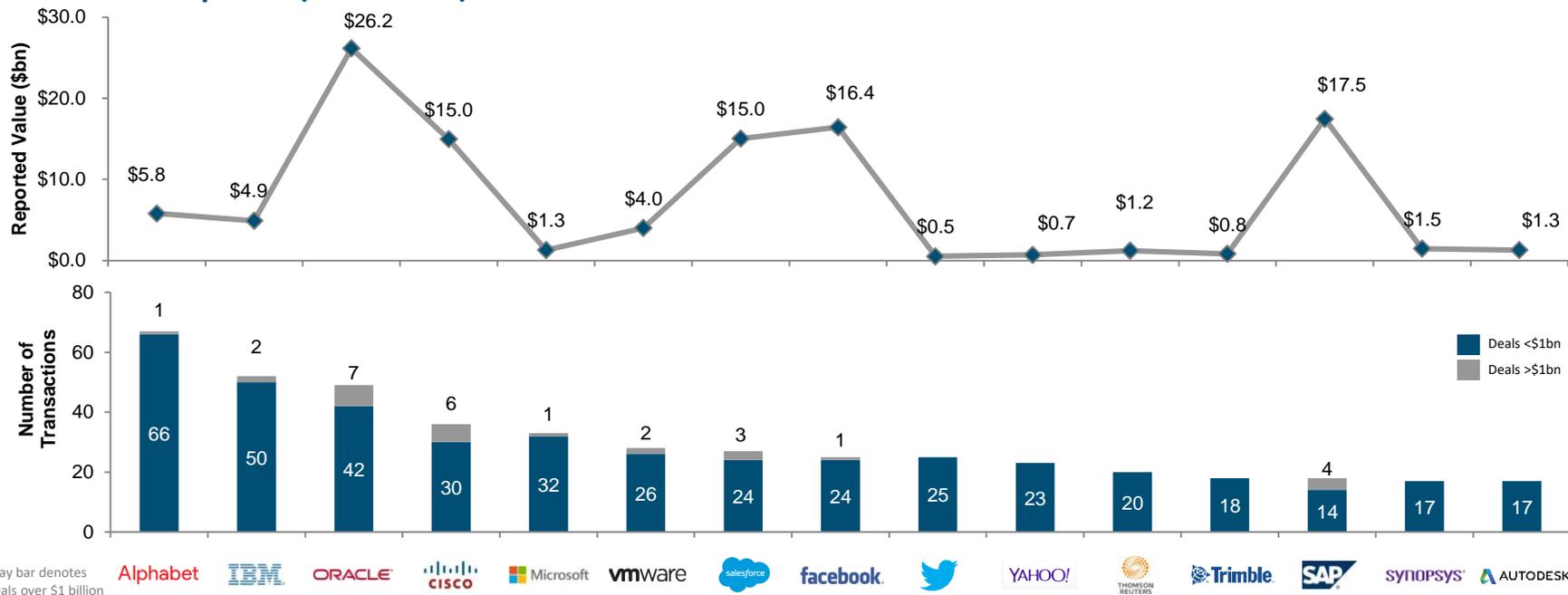
# Q4 2018 Software Industry Overview

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- There were 523 reported software M&A transactions in Q4 2018 totaling \$156.8bn in reported transaction value
  - Software M&A deal volume in Q4 2018 was up 62% relative to Q4 2017, which saw 323 transactions
  - Notable deals include:
    - IBM's \$34b acquisition of Red Hat, representing 11.4x LTM revenue
    - Blackstone, CPPIB, and GIC Privates' \$17.0b investment in Refinitiv, representing 5.8x LTM revenue
    - KKR's \$8.3b acquisition of BMC Software
    - SAP's \$8.0b acquisition of Qualtrics, representing 20.0x LTM revenue
    - Microsoft's \$7.5b acquisition of GitHub
- The Software IPO market saw five major IPO pricings in Q4 2018:
  - Elastic (NYS: ESTC), a provider of an open source search engine, raised \$252m on 10/5 and has traded up 98%
  - Anaplan (NYS: PLAN), a provider of a cloud-based modeling and planning software, raised \$263m on 10/12 and has traded up 56%
  - SolarWinds (NYS: SWI), a provider of purpose built IT management products, raised \$375m on 10/19 and has traded down 8%
  - Stone Pagamentos (NAS: STNE), a provider of a payments platform, raised \$1.2b on 10/25 and has traded down 23%
  - Tencent Music Entertainment Group (NYS: TME), a developer of a music streaming platform, raised \$1.1b on 12/12 and has traded up 2%

# Active Acquirers and Notable Transactions

## Most Active Acquirers (Since 2010)



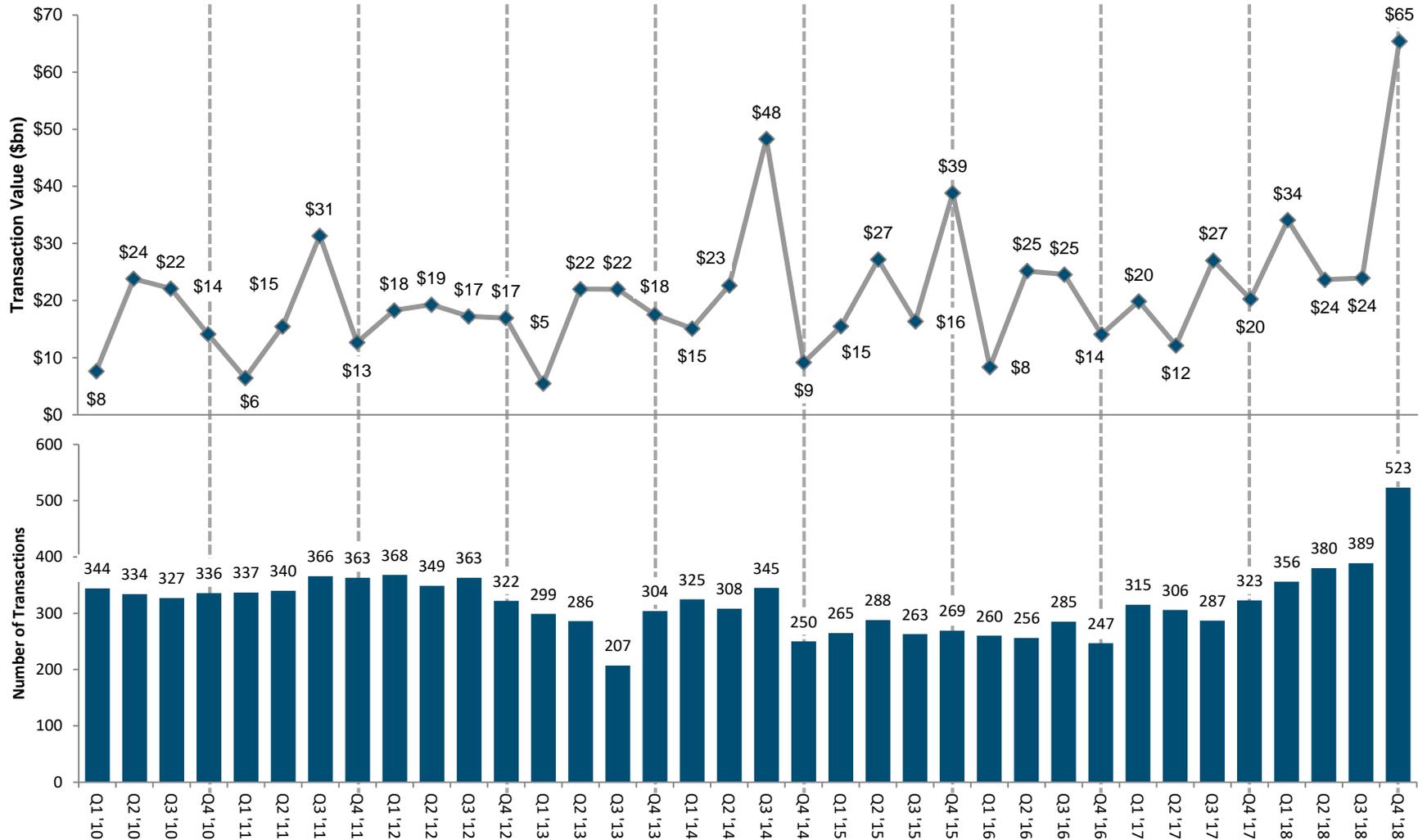
## Notable Recent Transactions

| Acquirer   | Target    | Date     | EV      | EV / LTM Rev | EV / LTM EBITDA |
|------------|-----------|----------|---------|--------------|-----------------|
| IBM        | redhat    | 10/28/18 | \$34.0b | 11.4x        | N/A             |
| Blackstone | REFINITIV | 10/01/18 | \$36.4b | 5.8x         | N/A             |
| KKR        | bmc       | 10/02/18 | \$8.3b  | N/A          | N/A             |
| SAP        | qualtrics | 11/11/18 | \$8.0b  | 20.0x        | N/A             |
| Microsoft  | GitHub    | 10/26/18 | \$7.5b  | N/A          | N/A             |

Source: Capital IQ and Pitchbook as of 12/31/18

# Software M&A Market Overview

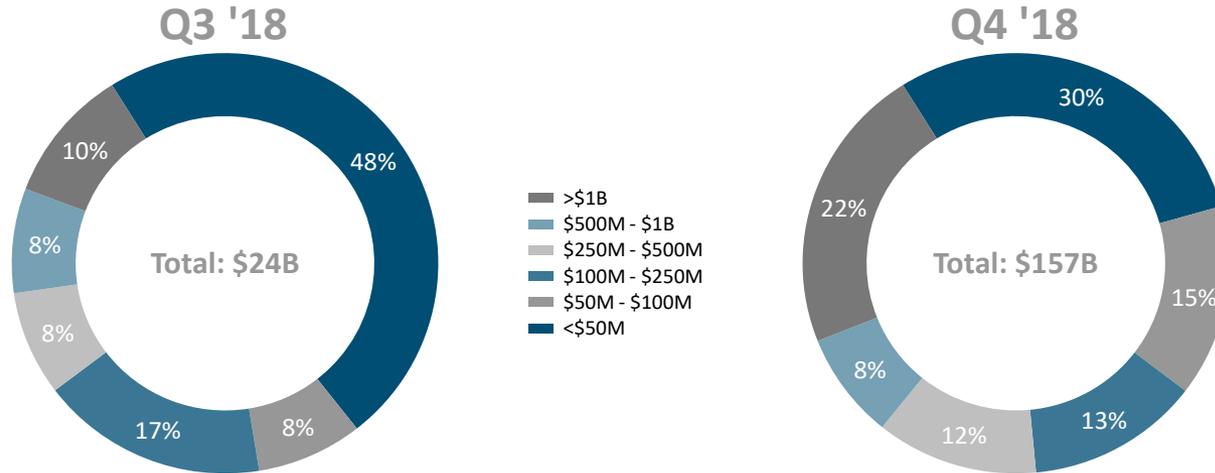
## Quarterly Software M&A Value and Deal Count (Since 2010)



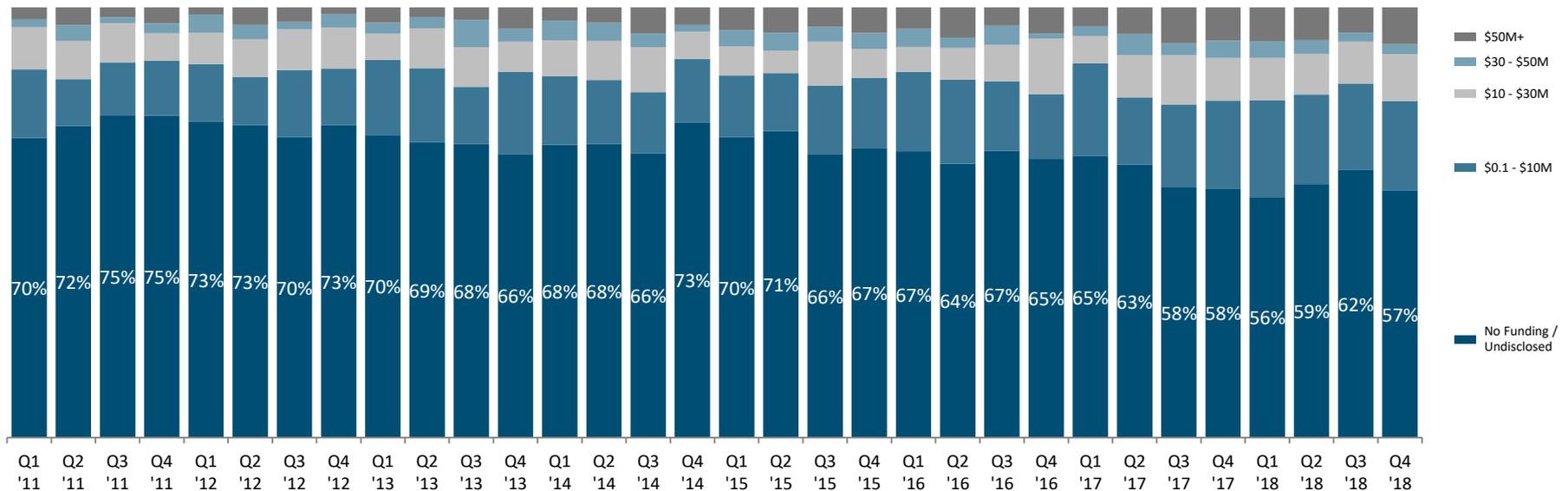
Source: Capital IQ and Pitchbook as of 12/31/18, WhatsApp/Facebook, Broadcom/Avago, EMC/Denali, CA Technologies/Broadcom, Red Hat/IBM, Refinitiv/Blackstone, and BMC/KKR deals omitted from top graph

# Software M&A Market Overview

## Transactions by Reported Value



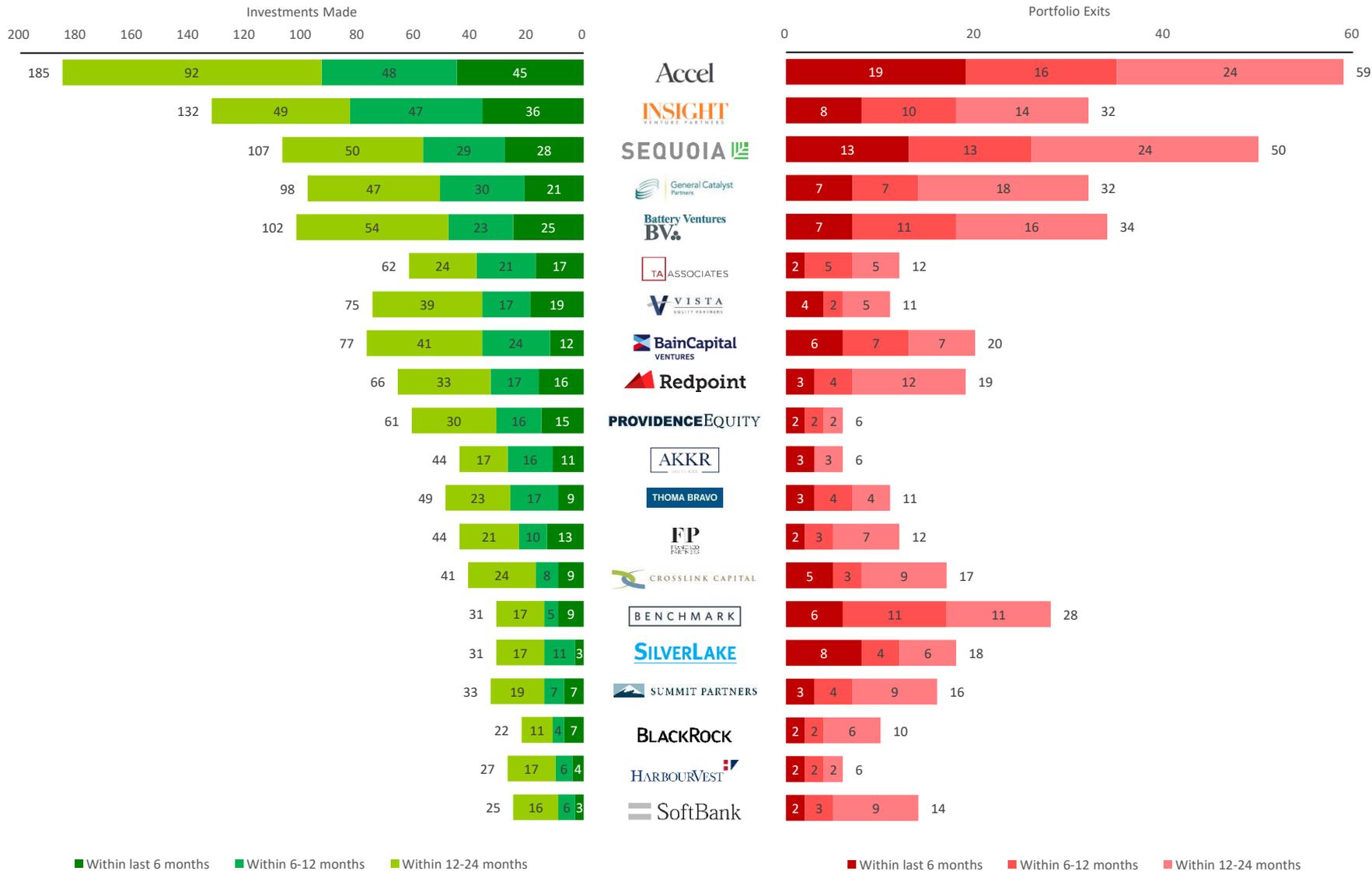
## Transactions by Target Funding



Source: Capital IQ and Pitchbook as of 12/31/18, CA Technologies/Broadcom deal omitted from top graph

# 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 12/31/18, Investors ranked by investments made in the last 12 months

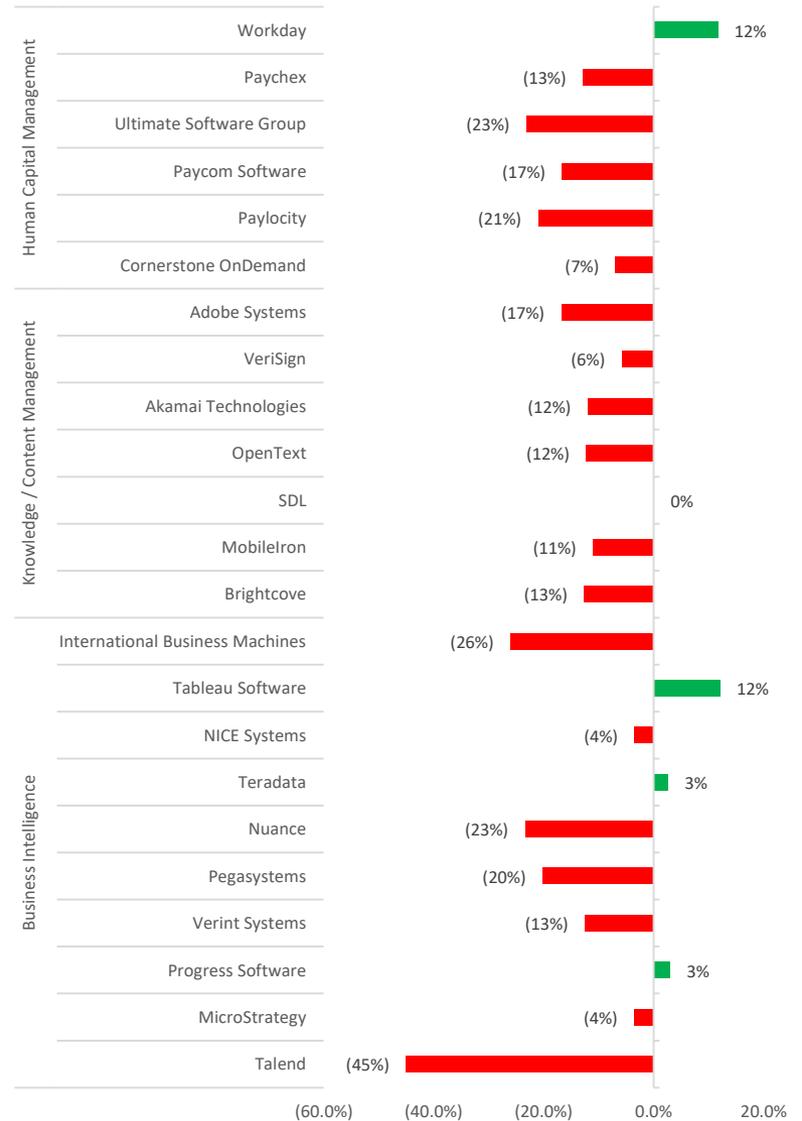
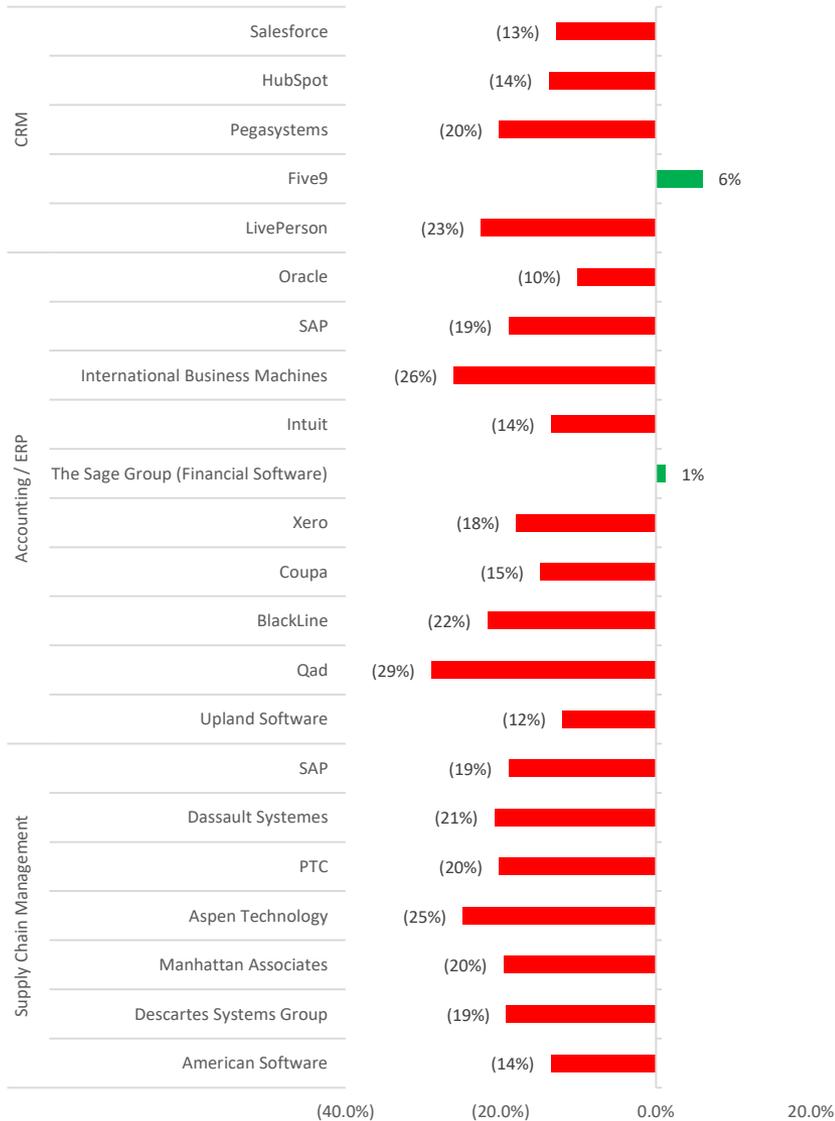
# IPO Summary

The IPO market continued to climb in Q4 2018, with 10 major technology pricings on U.S. stock exchanges

| 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 |
| 2018 | <p>Capital Raised: \$16.6, \$22.7, \$39.9</p> <p># of IPOs: 33, 15, 54</p> | <p>9%, 33%, 57%</p>  | <p>N/A</p>                      | N/A      | N/A                              | N/A                     |
| 2017 | <p>Capital Raised: \$1.9, \$3.4, \$5.6</p> <p># of IPOs: 14, 12, 17</p>    | <p>6%, 41%, 53%</p>  | <p>\$0.1, 1, 10</p>             | 6%       | -35                              | 100%                    |
| 2016 | <p>Capital Raised: \$1.0, \$7.7, \$9.1</p> <p># of IPOs: 8, 4, 4, 16</p>   | <p>25%, 31%, 44%</p> | <p>\$0.1, 1, 1, 2</p>           | 13%      | -20                              | 50% / 50%               |

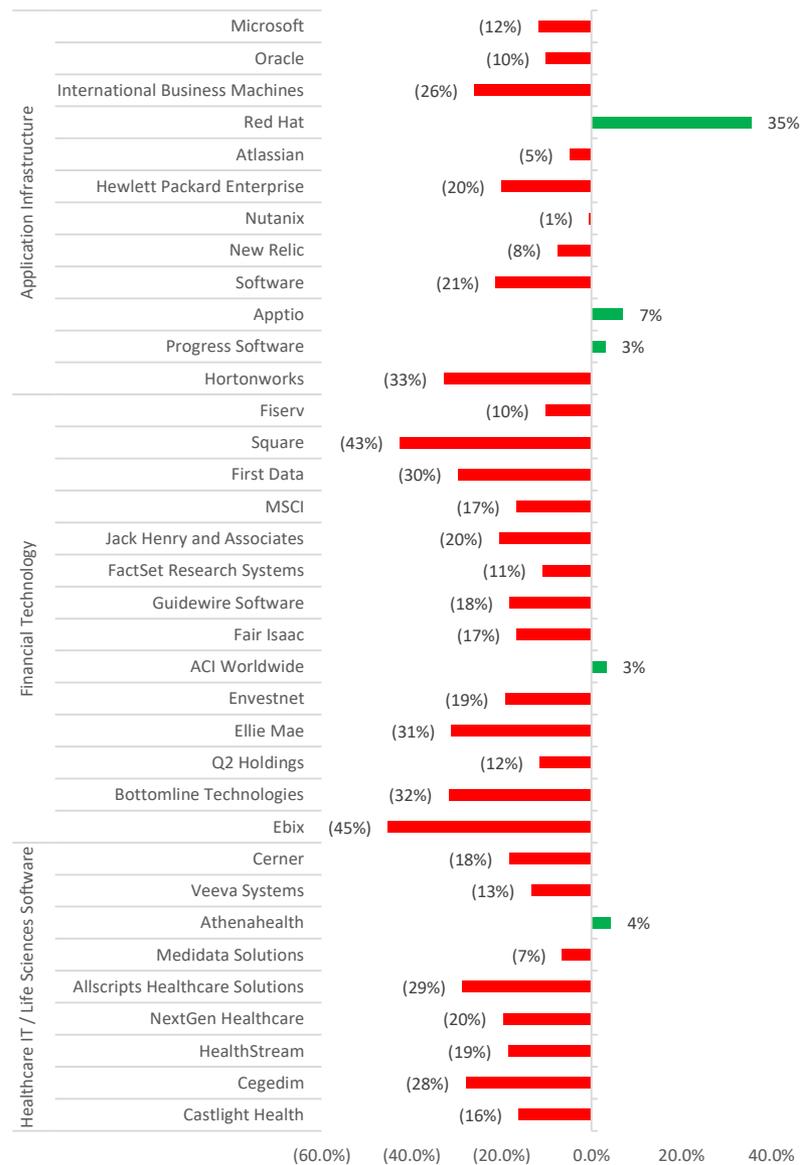
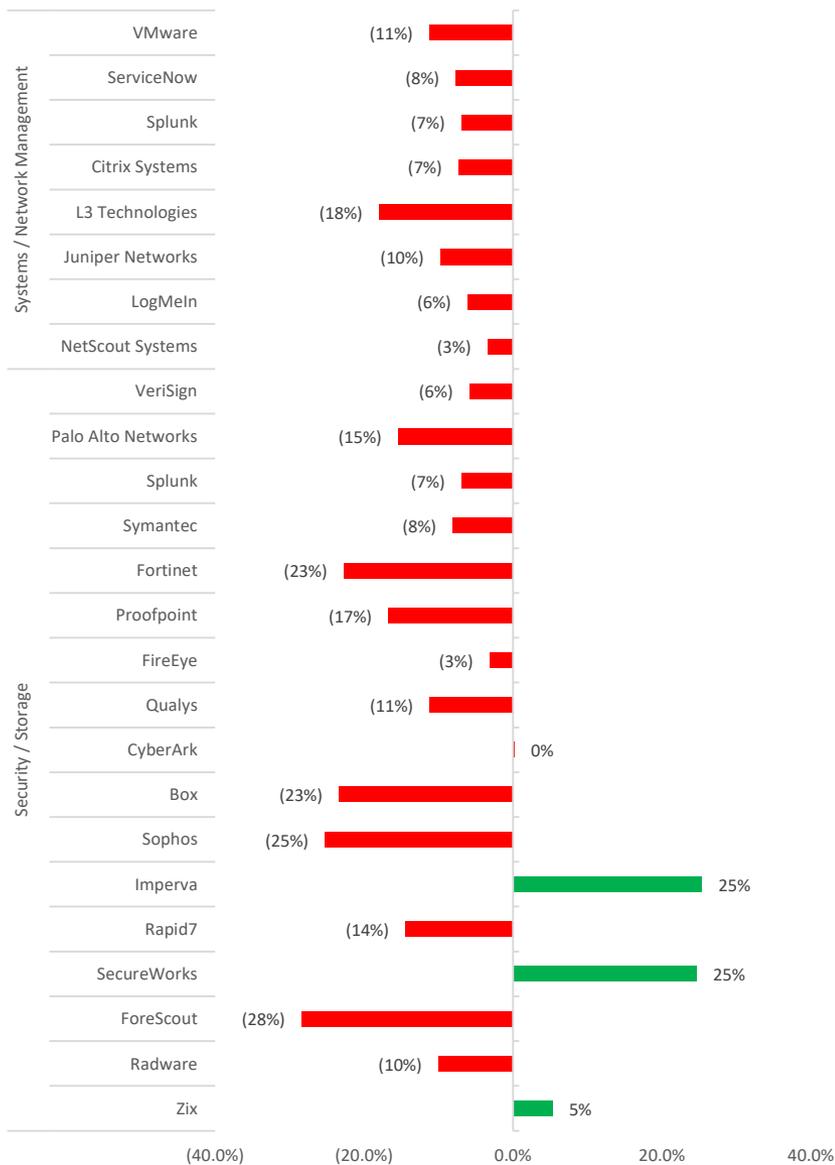
Source: Capital IQ and Pitchbook as of 12/31/18

# Software Public Market Performance Last 3 Months



Source: Capital IQ and Pitchbook as of 12/31/18

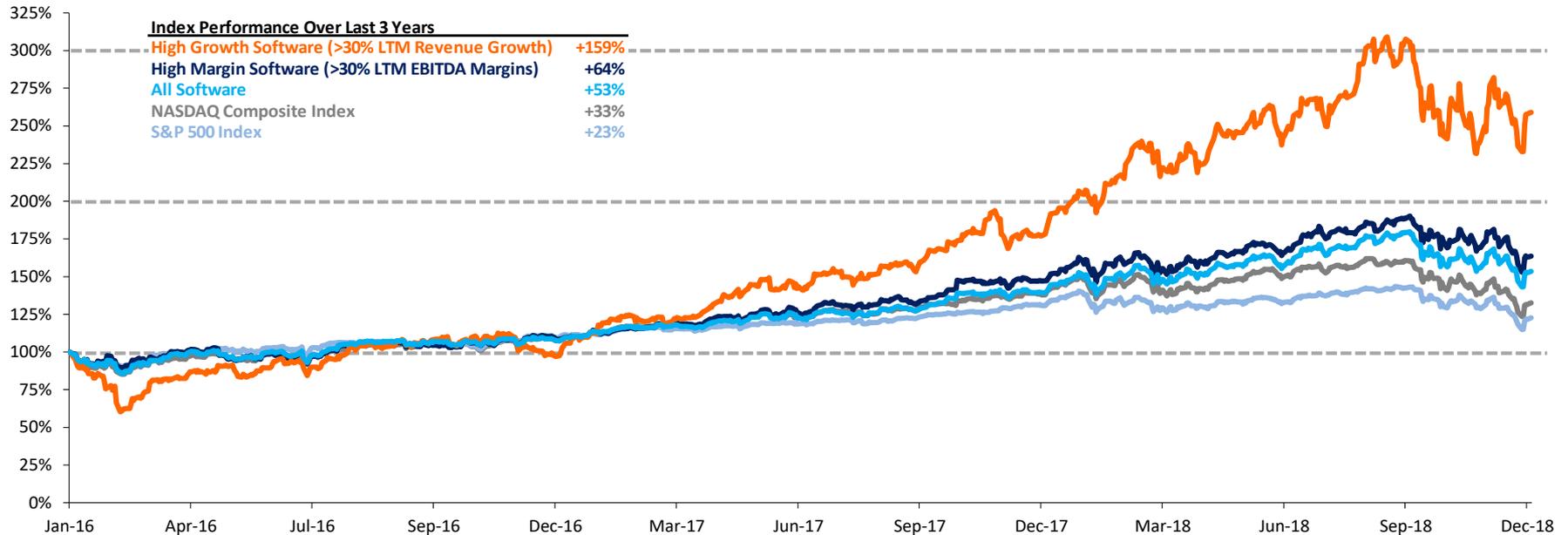
# Software Public Market Performance Last 3 Months (cont.)



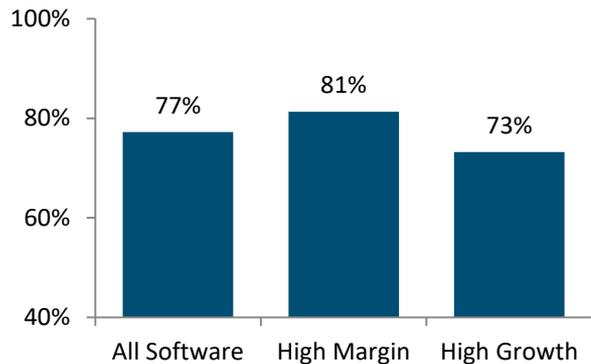
Source: Capital IQ and Pitchbook as of 12/31/18

# Software Public Market Performance

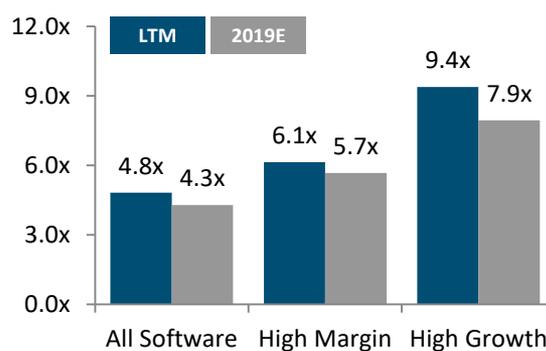
## 3 Year Public Market Performance



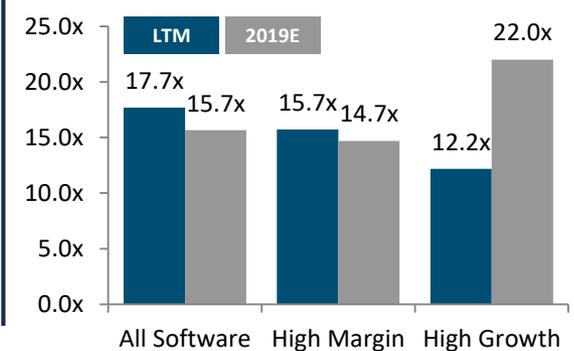
## % of 52 Week High



## EV / Revenue



## EV / EBITDA



High Growth Software: UPLD, LOGM, SQ, XRO, NOW, TEAM, COUP, GWRE, SPLK, ZEN, TLND, PFPT, HUBS, EBIX, HDP, NEWR, BL, WDAY  
 All Software: See all bucketed companies  
 High Margin Software: VRSN, MSCI, MSFT, VMW, ORCL, AZPN, PAYX, FISV, JKHY, OTEX, ADBE, PRGS, EBIX, FDS, LOGM, DSG, FDC, DSY  
 Source: Capital IQ and Pitchbook as of 12/31/18

# 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                  | 80%       | 75%              | 73%                     | 81%                      | 82%                            | 77%                   | 82%                          | 80%                | 70%                        | 76%                  | 72%                                    | 77%       | 77%       |
| Aggregate Mkt Cap (\$ in m) | \$123,493 | \$458,312        | \$173,627               | \$79,174                 | \$148,373                      | \$138,972             | \$146,403                    | \$100,709          | \$1,134,999                | \$123,911            | \$43,879                               | \$138,972 | \$242,896 |
| Aggregate EV (\$ in m)      | \$123,842 | \$493,381        | \$166,235               | \$76,546                 | \$151,292                      | \$171,415             | \$137,421                    | \$97,607           | \$1,120,510                | \$150,507            | \$44,002                               | \$150,507 | \$248,433 |
| Quarterly Mkt Cap % Change  | (13.5%)   | (19.1%)          | (20.2%)                 | (6.7%)                   | (15.3%)                        | (21.6%)               | (20.2%)                      | (13.8%)            | (12.9%)                    | (25.3%)              | (16.3%)                                | (16.3%)   | (16.8%)   |
| Quarterly EV % Change       | (13.3%)   | (17.9%)          | (24.0%)                 | (5.5%)                   | (13.1%)                        | (18.7%)               | (21.3%)                      | (14.9%)            | (12.6%)                    | (22.0%)              | (16.2%)                                | (16.2%)   | (16.3%)   |
| LTM EV / Revenue            | 9.2x      | 4.9x             | 7.2x                    | 6.7x                     | 3.6x                           | 3.3x                  | 4.2x                         | 4.7x               | 5.1x                       | 5.9x                 | 2.3x                                   | 4.9x      | 5.2x      |
| FY+1 EV / Revenue           | 7.7x      | 4.1x             | 6.6x                    | 5.8x                     | 3.3x                           | 3.2x                  | 4.0x                         | 4.2x               | 4.7x                       | 5.4x                 | 2.5x                                   | 4.2x      | 4.7x      |
| FY+2 EV / Revenue           | 6.1x      | 4.0x             | 6.1x                    | 5.0x                     | 3.1x                           | 2.9x                  | 3.8x                         | 3.9x               | 4.1x                       | 5.1x                 | 2.4x                                   | 4.0x      | 4.2x      |
| LTM EV / EBITDA             | NM        | 15.1x            | 20.8x                   | 37.1x                    | 16.9x                          | 19.6x                 | 13.1x                        | 35.9x              | 10.4x                      | 18.5x                | 14.6x                                  | 17.7x     | 20.2x     |
| FY+1 EV / EBITDA            | 40.9x     | 10.9x            | 20.9x                   | 22.3x                    | 20.3x                          | 11.1x                 | 10.9x                        | 20.8x              | 9.2x                       | 15.5x                | 12.7x                                  | 15.5x     | 17.8x     |
| FY+2 EV / EBITDA            | 41.2x     | 11.3x            | 19.2x                   | 17.2x                    | 14.9x                          | 9.9x                  | 10.8x                        | 19.0x              | 9.4x                       | 14.9x                | 11.4x                                  | 14.9x     | 16.3x     |
| LTM P / E                   | NM        | 23.2x            | 36.6x                   | 65.9x                    | 32.0x                          | 37.4x                 | 38.0x                        | 63.6x              | 24.5x                      | 29.0x                | 53.4x                                  | 37.0x     | 40.3x     |
| FY+1 P / E                  | 73.0x     | 18.1x            | 30.7x                   | 43.2x                    | 22.8x                          | 21.3x                 | 17.5x                        | 36.4x              | 14.2x                      | 27.0x                | 24.2x                                  | 24.2x     | 29.9x     |
| FY+2 P / E                  | 56.1x     | 16.1x            | 27.5x                   | 33.6x                    | 23.4x                          | 19.3x                 | 14.5x                        | 31.3x              | 17.2x                      | 23.7x                | 22.5x                                  | 23.4x     | 25.9x     |
| LTM Revenue Growth          | 26%       | 14%              | 8%                      | 23%                      | 8%                             | 4%                    | 5%                           | 21%                | 18%                        | 14%                  | 16%                                    | 14%       | 14%       |
| FY+1 Revenue Growth         | 39%       | 13%              | 12%                     | 26%                      | 16%                            | 5%                    | 12%                          | 23%                | 14%                        | 9%                   | 20%                                    | 14%       | 17%       |
| FY+2 Revenue Growth         | 19%       | 8%               | 8%                      | 20%                      | 6%                             | 5%                    | 6%                           | 18%                | 13%                        | 10%                  | 9%                                     | 9%        | 11%       |
| LTM EBITDA Margin           | (2%)      | 16%              | 27%                     | 12%                      | 26%                            | 8%                    | 15%                          | 1%                 | 15%                        | 23%                  | 17%                                    | 15%       | 14%       |
| FY+1 EBITDA Margin          | 12%       | 25%              | 34%                     | 26%                      | 38%                            | 20%                   | 25%                          | 15%                | 26%                        | 28%                  | 20%                                    | 25%       | 24%       |
| FY+2 EBITDA Margin          | 13%       | 26%              | 35%                     | 27%                      | 38%                            | 22%                   | 27%                          | 17%                | 26%                        | 29%                  | 19%                                    | 26%       | 25%       |

Source: Capital IQ and Pitchbook as of 12/31/18

# Select Q4 2018 Announced M&A Transactions

| Date     | Target                          | Acquirer  | Delivery   | Sector                         | Enterprise Value | Target LTM |        |             | Enterprise Value / |     |
|----------|---------------------------------|---|------------|--------------------------------|------------------|------------|--------|-------------|--------------------|-----|
|          |                                 |   |            |                                |                  | Revenue    | EBITDA | LTM Revenue | LTM EBITDA         |     |
| 12/31/18 | Danal                           | Boku  | SaaS       | Security / Storage             | \$68             | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/31/18 | Z Option                        | Audax Group, Magnitude Software                     | SaaS       | Integration / Middleware       | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/27/18 | Phunware                        | Stellar Acquisition Corp                            | SaaS       | Development                    | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/27/18 | eBrevia                         | Donnelley Financial Solutions                       | On Premise | Business Software              | \$20             | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/24/18 | Mindbody                        | Vista Equity Partners                               | SaaS       | Content and Services           | \$1,900          | \$229      | (\$26) | 8.3x        | N/M                |     |
| 12/22/18 | On-Net Surveillance Systems     | Battery Ventures                                    | SaaS       | Security / Storage             | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/21/18 | XO Group                        | Permira, WeddingWire                                | SaaS       | Diversified Media              | \$933            | \$165      | \$26   | 5.7x        | 35.9x              |     |
| 12/21/18 | PlanGrid                        | Autodesk  | SaaS       | CAD / CAM                      | \$875            | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/21/18 | PEC Safety                      | Thoma Bravo   | SaaS       | Human Capital                  | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/20/18 | MYOB Technology                 | Kohlberg Kravis Roberts                             | SaaS       | Accounting / ERP               | N/A              | \$332      | \$140  | N/A         | N/A                | N/A |
| 12/20/18 | Parallels                       | Corel, Vector Capital                               | SaaS       | Platform / OS                  | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/20/18 | Intelligent Mechatronic Systems | Trak Global Group                                   | SaaS       | Telecommunications             | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/20/18 | Haiku Deck                      | BookRags  | SaaS       | CAD / CAM                      | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/20/18 | BuildingConnected               | Autodesk  | SaaS       | Content / Document Management  | \$275            | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/20/18 | RegEd                           | Gryphon Investors                                   | On Premise | Governance, Risk, & Compliance | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/20/18 | Commcise                        | Euronext  | SaaS       | Fintech                        | \$45             | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/20/18 | Koru                            | Capp  | SaaS       | Human Capital                  | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/20/18 | Knovation                       | ACT   | SaaS       | Education                      | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/20/18 | eXPO                            | Apptech   | SaaS       | Development                    | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/19/18 | Symbility Solutions             | CoreLogic   | On Premise | Business Software              | N/A              | \$34       | \$3    | N/A         | N/A                | N/A |
| 12/19/18 | Interplx                        | Serko   | SaaS       | Accounting / ERP               | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/19/18 | Luxer One                       | Assa Abloy  | On Premise | Transportation / Logistics     | N/A              | \$37       | N/A    | N/A         | N/A                | N/A |
| 12/19/18 | The Games Company               | Blockchain Innovations                              | SaaS       | Gaming                         | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/19/18 | Science-Metrix                  | Elsevier  | On Premise | Content and Services           | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/19/18 | Allied Esports International    | Black Ridge Acquisition                             | SaaS       | Sports                         | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/19/18 | IMSWorX                         | REDCOM Laboratories                                 | SaaS       | Telecommunications             | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/19/18 | IT Glue                         | Insight Venture Partners, Ireland Strategic         | SaaS       | Integration / Middleware       | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/18/18 | Cambium Learning Group          | Veritas Capital                                     | SaaS       | Education                      | \$900            | \$161      | \$41   | 5.6x        | 22.2x              |     |
| 12/18/18 | Liaison                         | OpenText  | SaaS       | Integration / Middleware       | \$310            | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/18/18 | RGB Notes                       | Nimble Collective                                   | SaaS       | CAD / CAM                      | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/18/18 | NewNet                          | ESW Capital, ZephyrTel                              | SaaS       | Telecommunications             | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/18/18 | Invoice Cloud                   | General Atlantic, Summit Partners                   | SaaS       | Fintech                        | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/18/18 | Acendre                         | Strattam Capital                                    | SaaS       | Human Capital                  | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/18/18 | Black Pixel                     | Hypergiant  | SaaS       | Development                    | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/18/18 | LANSa                           | HGGC, Idera, TA Associates, Triangle Capital        | SaaS       | Development                    | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/18/18 | FreshPlanet                     | Gameloft  | SaaS       | Gaming                         | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/18/18 | PokitDok                        | Change Healthcare                                   | SaaS       | Healthcare / Biotechnology     | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/18/18 | Biz Wiz                         | Groundworks   | On Premise | Content / Document Management  | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/18/18 | Landmark Network                | Aberdeen Standard Investments, Intermediate Capital | SaaS       | Content and Services           | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/18/18 | DEGdigital                      | Dentsu Aegis Network                                | SaaS       | Advertising and Marketing      | \$150            | N/A        | N/A    | N/A         | N/A                | N/M |
| 12/18/18 | Boundless Spatial               | Planet Labs   | SaaS       | Mapping / Tracking             | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/18/18 | Xplenty                         | Xenon Ventures                                      | SaaS       | Integration / Middleware       | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/18/18 | 495 Communications              | GLN   | SaaS       | Advertising and Marketing      | \$15             | \$14       | \$2    | 1.0x        | 7.9x               |     |
| 12/18/18 | Microwize Technology            | Clearwell Group, Encoda                             | SaaS       | Healthcare / Biotechnology     | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/17/18 | CloudPractice                   | Premier Health Group                                | SaaS       | Healthcare / Biotechnology     | \$5              | 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 12/31/18

# Select Q4 2018 Announced M&A Transactions (cont.)

| Date     | Target                                     | Acquirer   | Delivery   | Sector                         | Enterprise Value | Target LTM |        |             | Enterprise Value / |       |
|----------|--|--|------------|--------------------------------|------------------|------------|--------|-------------|--------------------|-------|
|          |  |  |            |                                |                  | Revenue    | EBITDA | LTM Revenue | LTM EBITDA         |       |
| 12/17/18 | DocuLynx                                   | DRS Imaging Services, The HiGro Group              | SaaS       | IT Infrastructure & Management | N/A              | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/17/18 | Playwire                                   | FreakOut   | SaaS       | Advertising and Marketing      | N/A              | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/17/18 | ForeSee Results                            | Verint Systems                                     | SaaS       | Speech Recognition             | \$65             | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/17/18 | Maverick.ai                                | OutboundWorks                                      | SaaS       | CRM                            | N/A              | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/17/18 | Apacheta                                   | Brightree  | SaaS       | Transportation / Logistics     | N/A              | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/17/18 | WhatSalon                                  | Constellation Software                             | SaaS       | Business Software              | \$17             | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/17/18 | SARS Software Products                     | Valsoft  | SaaS       | Education                      | N/A              | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/14/18 | Consolo Services                           | TPG Capital, WellSky                               | SaaS       | Healthcare / Biotechnology     | N/A              | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/14/18 | JLR  | Equifax  | SaaS       | Content and Services           | N/A              | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/13/18 | Datawatch                                  | Altair Engineering                                 | SaaS       | Business Software              | \$176            | \$42       | (\$7)  | 4.2x        | N/M                |       |
| 12/13/18 | Noke                                       | Clearlake Capital Group, Janus International Group | SaaS       | Security / Storage             | N/A              | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/13/18 | ServiceMax                                 | Silver Lake Management                             | SaaS       | Content / Document Management  | N/A              | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/13/18 | Sopris Systems                             | Sonata Software                                    | SaaS       | CRM                            | \$7              | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/13/18 | Avoka                                      | Temenos  | SaaS       | Fintech                        | \$245            | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/13/18 | TellusLabs                                 | Indigo Agriculture                                 | SaaS       | Mapping / Tracking             | N/A              | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/13/18 | Codigo                                     | Bertram Capital Management, Spectrio               | SaaS       | Advertising and Marketing      | N/A              | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/13/18 | Massey Consulting                          | Dean Dorton Allen Ford                             | On Premise | Accounting / ERP               | N/A              | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/13/18 | Adestra                                    | Upland Software                                    | SaaS       | Advertising and Marketing      | \$60             | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/13/18 | 2020 Vision Systems                        | Aliter Capital, Boston Networks                    | SaaS       | Security / Storage             | N/A              | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/13/18 | Bugcrowd                                   | ARK  | On Premise | Security / Storage             | N/A              | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/12/18 | Bite Squad                                 | Waitr  | SaaS       | Ecommerce                      | \$321            | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/12/18 | Kuvana                                     | Accel-KKR, Jump Capital, SFW Capital Partners      | SaaS       | Advertising and Marketing      | N/A              | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/12/18 | RootSecure                                 | Arctic Wolf  | SaaS       | Security / Storage             | N/A              | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/12/18 | Zafin                                      | Accenture  | SaaS       | Fintech                        | N/A              | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/12/18 | Siftery                                    | G2 Crowd   | SaaS       | Integration / Middleware       | N/A              | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/12/18 | Adaptly                                    | Accenture  | SaaS       | Advertising and Marketing      | N/A              | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/12/18 | Softweb Solutions                          | Avnet  | SaaS       | Business Software              | N/A              | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/12/18 | ReUp                                       | Lightspeed POS, Otimo Retail                       | SaaS       | CRM                            | N/A              | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/11/18 | IQMS                                       | Dassault Systemes                                  | SaaS       | Accounting / ERP               | \$425            | N/A        | \$25   | N/A         | N/A                | 17.0x |
| 12/11/18 | 7Park Data                                 | Vista Equity Partners                              | SaaS       | Business Intelligence          | N/A              | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/11/18 | Cincinnati Time System                     | Ascentis, Summit Partners                          | On Premise | Content / Document Management  | N/A              | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/11/18 | Vision Integrated Graphics                 | H.I.G. Capital                                     | SaaS       | Advertising and Marketing      | N/A              | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/11/18 | Propelware                                 | BV Investment Partners, Right Networks             | SaaS       | Integration / Middleware       | N/A              | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/11/18 | InnoStreams                                | Braidio  | SaaS       | Content / Document Management  | N/A              | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/11/18 | Ruf Strategic Solutions                    | Infutor  | SaaS       | Advertising and Marketing      | N/A              | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/11/18 | Fourandsix Technologies                    | TruePic  | SaaS       | Business Intelligence          | N/A              | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/10/18 | Travelport                                 | Evergreen Coast Capital, Siris Capital             | SaaS       | Travel / Hospitality           | \$2,273          | \$2,536    | \$468  | 0.9x        | 4.9x               |       |
| 12/10/18 | Spookfish                                  | Clearlake Capital Group, EagleView Technologies    | SaaS       | Mapping / Tracking             | \$98             | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/10/18 | Acquired.io                                | adjust   | SaaS       | Advertising and Marketing      | N/A              | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/10/18 | Butler for trello                          | Trello   | SaaS       | Business Intelligence          | N/A              | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/10/18 | Trac Systems                               | Civica-UK, Partners Group                          | SaaS       | Human Capital                  | N/A              | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/10/18 | SceneDoc                                   | Tyler Technologies                                 | SaaS       | Law Enforcement                | N/A              | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/10/18 | Simon Markets                              | Barclays, Credit Suisse, HSBC Holdings, Prudential | SaaS       | Fintech                        | N/A              | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/07/18 | International Business Machines (Select so | HCL Technologies                                   | SaaS       | Business Software              | \$1,800          | N/A        | N/A    | N/A         | N/A                | N/A   |
| 12/07/18 | Entrex Capital Market/Long Blockchain      | Long Blockchain                                    | SaaS       | Blockchain                     | N/A              | 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.

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| Date     | Target                       | Acquirer  | Delivery   | Sector                         | Enterprise Value | Target LTM |        |             | Enterprise Value / |     |
|----------|------------------------------|---|------------|--------------------------------|------------------|------------|--------|-------------|--------------------|-----|
|          |                              |   |            |                                |                  | Revenue    | EBITDA | LTM Revenue | LTM EBITDA         |     |
| 12/07/18 | DealerScience                | TrueCar   | SaaS       | Content and Services           | \$32             | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/07/18 | CloudMagic                   | Essential Products                                | SaaS       | Knowledge / Content (Social)   | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/07/18 | FoodyDirect                  | Goldbely  | SaaS       | Ecommerce                      | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/06/18 | Tenacity                     | Cogito  | On Premise | Human Capital                  | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/06/18 | SmartRG                      | Adtran  | SaaS       | Systems / Network              | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/06/18 | The Athene Group             | Berenson & Company, Insight Venture Partners      | SaaS       | Business Software              | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/06/18 | BlockEQ                      | Canaccord Genuity, Coinsquare, Cormark Securities | SaaS       | Blockchain                     | \$9              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/06/18 | Scalable Data Systems        | Sonata Software                                   | SaaS       | Accounting / ERP               | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/06/18 | Blackbird Holdings           | TILT Holdings                                     | On Premise | Retail Software                | \$50             | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/06/18 | Lasso Data Systems           | Altamir, Apax Partners, ECI Software Solutions    | SaaS       | CRM                            | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/05/18 | MOBI Wireless Management     | Marlin Equity Partners, Tangoe                    | SaaS       | Content / Document Management  | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/05/18 | Sienna Group                 | ConnectWise Automate                              | SaaS       | Security / Storage             | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/05/18 | Esquify                      | JLL Partners, Xact Data Discovery                 | On Premise | Content / Document Management  | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/05/18 | Mirador                      | Cuna Mutual Group                                 | SaaS       | Fintech                        | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/05/18 | ProRata                      | Chargify, Scaleworks                              | SaaS       | Accounting / ERP               | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/05/18 | Clock Four                   | CI Capital Partners, Hero Digital                 | SaaS       | Advertising and Marketing      | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/05/18 | Verimatrix                   | INSIDE Secure                                     | On Premise | Security / Storage             | \$158            | \$79       | \$15   | 2.0x        | 10.9x              |     |
| 12/05/18 | Lifecycle Technology         | Enstoa  | SaaS       | Systems / Network              | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/05/18 | Serraview                    | Archibus, JMI Equity                              | SaaS       | Business Intelligence          | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/04/18 | MightyHive                   | S4 Capital  | SaaS       | Advertising and Marketing      | \$150            | \$41       | \$11   | 3.7x        | 13.5x              |     |
| 12/04/18 | edCetra                      | NexTech AR Solutions                              | SaaS       | Education                      | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/04/18 | The TerrAlign Group          | MapAnything                                       | SaaS       | Mapping / Tracking             | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/04/18 | BEX                          | Northern Trust                                    | SaaS       | Fintech                        | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/04/18 | QuikOrder                    | Pizza Hut   | SaaS       | Ecommerce                      | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/04/18 | Gebbs Healthcare Solutions   | ChrysCapital                                      | On Premise | Healthcare / Biotechnology     | \$175            | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/04/18 | Codemonkey Studios           | Tal Education Group                               | SaaS       | Education                      | \$20             | N/A        | N/A    | N/A         | N/A                | N/M |
| 12/04/18 | School Loop                  | Think3  | SaaS       | Education                      | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/04/18 | Lighthouse Computer Services | Converge Technology Partners                      | SaaS       | Security / Storage             | \$23             | \$82       | \$5    | 0.3x        | 4.9x               |     |
| 12/03/18 | CaseStack                    | Hub Group   | SaaS       | Transportation / Logistics     | \$255            | \$242      | N/A    | 1.1x        | N/A                |     |
| 12/03/18 | EllisLab                     | Digital Locations                                 | SaaS       | Development                    | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/03/18 | Gro Solutions                | Q2 Holdings                                       | SaaS       | Accounting / ERP               | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/03/18 | AutoQuotes                   | Luminate Capital Partners                         | SaaS       | Fintech                        | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/03/18 | Bell and Howell              | WestView Capital Partners                         | On Premise | IT Infrastructure & Management | N/A              | \$176      | N/A    | N/A         | N/A                | N/A |
| 12/03/18 | Rulebook                     | Verisk Analytics                                  | SaaS       | Business Software              | \$87             | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/03/18 | AdvisoryWorld                | LPL Financial                                     | SaaS       | Fintech                        | \$28             | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/03/18 | G2                           | Huntington Ingalls Industries                     | On Premise | Security / Storage             | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/03/18 | Marketing G2                 | Newsycle Solutions, Verdane Capital, Vista Equity | SaaS       | Advertising and Marketing      | N/A              | N/A        | N/A    | N/A         | N/A                | N/M |
| 12/03/18 | DoseMe                       | Tabula Rasa Healthcare                            | SaaS       | Healthcare / Biotechnology     | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/03/18 | Banana & Co                  | Maple Media, Shamrock Capital Advisors            | SaaS       | Gaming                         | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/01/18 | Leidos Cyber                 | Capgemini   | On Premise | Security / Storage             | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 12/01/18 | Maximum Computer Systems     | Aktion Associates                                 | SaaS       | Accounting / ERP               | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/30/18 | Mitel Networks               | Searchlight Capital Partners                      | SaaS       | Systems / Network              | \$2,000          | \$1,304    | \$152  | 1.5x        | 13.1x              |     |
| 11/30/18 | Athenahealth                 | Evergreen Coast Capital, Veritas Capital          | SaaS       | Healthcare / Biotechnology     | \$6,257          | \$1,311    | \$309  | 4.8x        | 20.3x              |     |
| 11/30/18 | Q-Centrix                    | TPG Capital                                       | SaaS       | Healthcare / Biotechnology     | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/30/18 | EMHware                      | Escalate Capital Partners, EverCommerce           | SaaS       | Content / Document Management  | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |

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| Date     | Target                           | Acquirer  | Delivery   | Sector                         | Enterprise Value | Target LTM |        |             | Enterprise Value / |     |
|----------|----------------------------------|---|------------|--------------------------------|------------------|------------|--------|-------------|--------------------|-----|
|          |                                  |   |            |                                |                  | Revenue    | EBITDA | LTM Revenue | LTM EBITDA         |     |
| 11/30/18 | CMS Hospitality                  | Valsoft   | SaaS       | Travel / Hospitality           | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/30/18 | Thesaurus Technology             | GI Partners, MRI Software, TA Associates Management | SaaS       | Content / Document Management  | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/30/18 | Print Audit                      | Altamir, Apax Partners, ECI Software Solutions      | SaaS       | Content / Document Management  | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/30/18 | Portent.IO                       | YouGov  | On Premise | Video Management               | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/29/18 | 2g Transit Solutions             | Routematch Software                                 | SaaS       | Transportation / Logistics     | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/29/18 | HTBASE                           | Juniper Networks                                    | SaaS       | Platform / OS                  | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/29/18 | Wrike                            | Vista Equity Partners                               | SaaS       | Content / Document Management  | \$800            | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/29/18 | Rock Solid Technologies          | Strattam Capital                                    | SaaS       | Business Software              | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/29/18 | a2z                              | Personify   | SaaS       | Advertising and Marketing      | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/28/18 | Miles 33                         | Ethos Partners                                      | On Premise | Advertising and Marketing      | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/28/18 | Delmondo                         | Conviva   | On Premise | Video Management               | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/28/18 | Shift Media                      | Marlin Equity Partners                              | SaaS       | File Sharing                   | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/28/18 | Compliance Systems               | Cuna Mutual Group                                   | SaaS       | Governance, Risk, & Compliance | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/28/18 | Facilisgroup                     | Elysian Capital                                     | SaaS       | Content and Services           | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/27/18 | SendGrid                         | Twilio  | SaaS       | Integration / Middleware       | \$2,000          | \$137      | \$4    | 14.6x       | 545.0x             |     |
| 11/27/18 | Intra                            | Blazar Ventures, E2open, Elliott Management         | SaaS       | Transportation / Logistics     | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/27/18 | Palisade                         | Thompson Street Capital Partners                    | On Premise | Business Intelligence          | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/27/18 | Qualia                           | IDify   | SaaS       | Advertising and Marketing      | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/27/18 | Businessworx                     | BLOK Technologies                                   | SaaS       | CRM                            | \$1              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/27/18 | EView Technology                 | Centerbridge Partners, Clearlake Capital Group      | SaaS       | Integration / Middleware       | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/27/18 | EhEye                            | Patriot One Technologies                            | SaaS       | Video Management               | \$2              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/27/18 | SimplyWell                       | Marlin Equity Partners, Virgin Pulse                | SaaS       | Healthcare / Biotechnology     | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/27/18 | BlueData                         | Hewlett Packard Enterprise                          | SaaS       | Systems / Network              | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/27/18 | Interfolio                       | Insight Venture Partners                            | SaaS       | Education                      | \$110            | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/26/18 | Allure Global Solutions          | Creative Realities                                  | SaaS       | Diversified Media              | \$10             | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/26/18 | Vector Solutions                 | Golden Gate Capital                                 | SaaS       | Human Capital                  | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/26/18 | callcap                          | Marchex   | SaaS       | CRM                            | \$35             | \$9        | N/A    | 3.9x        | N/A                |     |
| 11/26/18 | MYCOM OSI                        | Inflexion Private Equity                            | SaaS       | Business Software              | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/25/18 | Clario                           | Intelrad Medical Systems, Novacap                   | SaaS       | Healthcare / Biotechnology     | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/25/18 | National Crime Check             | Caisse de dépôt et placement du Québec              | SaaS       | Law Enforcement                | N/A              | \$14       | N/A    | N/A         | N/A                | N/A |
| 11/22/18 | Thermeon Worldwide               | Valsoft   | SaaS       | Content and Services           | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/22/18 | Cae Technology Services          | Caerus Assets                                       | SaaS       | IT Infrastructure & Management | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/21/18 | Baker                            | TILT Holdings                                       | SaaS       | CRM                            | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/21/18 | Technology Resource Associates   | KEV Group, Serent Capital                           | SaaS       | Accounting / ERP               | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/21/18 | Neos Ventures                    | Aviva   | SaaS       | Security / Storage             | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/21/18 | Splyce                           | OverActive Media Group                              | SaaS       | Sports                         | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/20/18 | e-Courier Software               | Alpine Investors, Alpine SG                         | SaaS       | Transportation / Logistics     | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/20/18 | Advangelists                     | Mobiquity Technologies                              | SaaS       | Advertising and Marketing      | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/19/18 | Massive Interactive              | Bruin Sports Capital, Deltatre                      | SaaS       | Diversified Media              | \$127            | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/19/18 | Jelli                            | iHeartMedia   | SaaS       | Advertising and Marketing      | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/19/18 | FSLogix                          | Microsoft   | SaaS       | Integration / Middleware       | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/19/18 | Frustum                          | PTC   | SaaS       | CAD / CAM                      | \$70             | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/19/18 | RBC Investor & Treasury Services | MFEX Mutual Funds Exchange, Nordic Capital          | SaaS       | Fintech                        | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/18/18 | IntroNet                         | SAM   | SaaS       | Content / Document Management  | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 11/17/18 | Wikibuy                          | Capital One Financial                               | SaaS       | Ecommerce                      | N/A              | 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 12/31/18

# Select Q4 2018 Announced M&A Transactions (cont.)

| Date     | Target                                 | Acquirer   | Delivery   | Sector                         | Enterprise Value | Target LTM |        | Enterprise Value / |            |
|----------|--|--|------------|--------------------------------|------------------|------------|--------|--------------------|------------|
|          |  |  |            |                                |                  | Revenue    | EBITDA | LTM Revenue        | LTM EBITDA |
| 11/16/18 | IntraLinks                             | SS&C Technologies                                  | SaaS       | Content / Document Management  | \$1,500          | N/A        | \$138  | N/A                | 10.9x      |
| 11/16/18 | Vidder                                 | Verizon Communications                             | SaaS       | Security / Storage             | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/16/18 | Ludomade                               | ShareRoot  | SaaS       | Gaming                         | \$1              | \$2        | N/A    | 0.5x               | N/A        |
| 11/16/18 | LOT.TO                                 | Sportech   | SaaS       | Gaming                         | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/15/18 | General Assembly                       | Adecco Group                                       | SaaS       | Education                      | \$413            | N/A        | N/A    | N/A                | N/A        |
| 11/15/18 | Waitr                                  | Landcadia Holdings                                 | SaaS       | Ecommerce                      | \$308            | \$250      | N/A    | 1.2x               | N/A        |
| 11/15/18 | Hyperwallet Systems                    | PayPal Holdings                                    | SaaS       | Accounting / ERP               | \$400            | N/A        | N/A    | N/A                | N/A        |
| 11/15/18 | Watershed                              | Learning Technologies Group                        | On Premise | Human Capital                  | \$3              | N/A        | N/A    | N/A                | N/A        |
| 11/15/18 | Constructive Media                     | Sandbox & Co.                                      | SaaS       | Diversified Media              | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/15/18 | Telairity                              | VITEC  | On Premise | Diversified Media              | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/15/18 | Canopy Labs                            | Drop   | On Premise | CRM                            | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/15/18 | PlotWatt                               | American Efficient                                 | SaaS       | Oil & Gas                      | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/15/18 | Sapho                                  | Citrix Systems                                     | SaaS       | Systems / Network              | \$200            | N/A        | N/A    | N/A                | N/A        |
| 11/15/18 | Talari Networks                        | Oracle   | SaaS       | Systems / Network              | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/15/18 | White Company                          | Apis Capital Management                            | SaaS       | Blockchain                     | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/15/18 | Feefo                                  | Vespa Capital                                      | SaaS       | CRM                            | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/14/18 | The Roberts Group                      | Pamlico Capital                                    | On Premise | Content / Document Management  | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/14/18 | Disney (Emoji Blitz)                   | Jam City   | SaaS       | Gaming                         | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/14/18 | Xoxco                                  | Microsoft  | SaaS       | Development                    | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/14/18 | Outsite Networks                       | Genstar Capital, Professional Datasolutions        | SaaS       | Retail Software                | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/14/18 | OrderDynamics                          | Tecsys   | SaaS       | Retail Software                | \$13             | N/A        | N/A    | N/A                | N/A        |
| 11/14/18 | Belly                                  | Mobivity Holdings                                  | SaaS       | CRM                            | \$3              | N/A        | N/A    | N/A                | N/A        |
| 11/14/18 | Farelogix                              | Veritas Capital                                    | On Premise | Travel / Hospitality           | \$360            | \$40       | N/A    | 9.0x               | N/A        |
| 11/14/18 | Instafile                              | Xero   | SaaS       | Accounting / ERP               | \$7              | N/A        | N/A    | N/A                | N/A        |
| 11/14/18 | ImageQuix                              | Alpine Investors, Alpine SG                        | SaaS       | Advertising and Marketing      | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/14/18 | Voicefox                               | Showpad  | On Premise | Business Software              | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/13/18 | XS                                     | Technes  | SaaS       | Content / Document Management  | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/13/18 | Geosoft                                | Accel-KKR, Pencarrow Private Equity, Seequent      | SaaS       | Mapping / Tracking             | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/13/18 | MVP Systems Software                   | HelpSystems, HGCC, Pamplona Capital Management     | On Premise | Integration / Middleware       | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/13/18 | RepoRoute                              | Delaware Street Capital, Location Services         | SaaS       | Mapping / Tracking             | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/13/18 | MillerTech                             | Aquiline Capital Partners, ClearCourse Partnership | SaaS       | CRM                            | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/13/18 | Juice Mobile                           | Curate Mobile                                      | SaaS       | Advertising and Marketing      | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/13/18 | Tapdaq                                 | Tapjoy   | SaaS       | Business Intelligence          | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/13/18 | LocalSolo                              | Communo  | SaaS       | Ecommerce                      | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/12/18 | Global Graphics                        | Hybrid Software                                    | On Premise | CAD / CAM                      | N/A              | \$26       | \$5    | N/A                | N/A        |
| 11/12/18 | Nuance Communications (Document Imagin | Kofax, Thoma Bravo                                 | SaaS       | Content / Document Management  | \$500            | N/A        | N/A    | N/A                | N/A        |
| 11/12/18 | Qualtrics                              | SAP  | SaaS       | Business Intelligence          | \$8,000          | \$400      | N/A    | 20.0x              | N/A        |
| 11/12/18 | GlamST                                 | ULTA Beauty  | SaaS       | Retail Software                | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/12/18 | QM Scientific                          | ULTA Beauty  | SaaS       | Advertising and Marketing      | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/12/18 | Mister Kraken                          | Treez  | SaaS       | Governance, Risk, & Compliance | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/10/18 | Obsidian Entertainment                 | Microsoft  | SaaS       | Gaming                         | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/10/18 | InXile Entertainment                   | Microsoft  | SaaS       | Gaming                         | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/09/18 | Apptio                                 | Vista Equity Partners                              | SaaS       | Business Software              | \$2,228          | \$225      | (\$16) | 9.9x               | N/M        |
| 11/09/18 | Cylance                                | Blackberry   | SaaS       | Security / Storage             | \$1,500          | \$130      | N/A    | 11.5x              | N/A        |
| 11/09/18 | Growlabs                               | AdRoll   | SaaS       | Business Software              | N/A              | N/A        | N/A    | N/A                | N/A        |

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# Select Q4 2018 Announced M&A Transactions (cont.)

| Date     | Target                           | Acquirer  | Delivery | Sector                         | Enterprise Value | Target LTM |         |             | Enterprise Value / |       |
|----------|----------------------------------|---|----------|--------------------------------|------------------|------------|---------|-------------|--------------------|-------|
|          |                                  |   |          |                                |                  | Revenue    | EBITDA  | LTM Revenue | LTM EBITDA         |       |
| 11/09/18 | Three Sigma Software             | Bagnols Family Office Investment Partners           | SaaS     | Healthcare / Biotechnology     | N/A              | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/08/18 | Greenlight Technologies          | Leafbuyer Technologies                              | SaaS     | Ecommerce                      | N/A              | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/08/18 | N8 Identity                      | Data443 Risk Mitigation                             | SaaS     | Security / Storage             | \$3              | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/08/18 | Mphasis Stelligent               | Mphasis   | SaaS     | Supply Chain                   | \$25             | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/08/18 | CSI Enterprises                  | Edenred   | SaaS     | Accounting / ERP               | \$600            | N/A        | \$26    | N/A         | N/A                | 23.1x |
| 11/08/18 | Welcome                          | Salsify   | SaaS     | CRM                            | N/A              | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/08/18 | JaRay Software                   | ServiceTitan  | SaaS     | Accounting / ERP               | N/A              | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/08/18 | Topdown Consulting               | Archetype (Consulting)                              | SaaS     | Business Intelligence          | N/A              | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/08/18 | Cozy                             | CoStar Group  | SaaS     | Content and Services           | \$68             | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/08/18 | Chronofy                         | CMA Capital Partners, WatchBox (Watches)            | SaaS     | Retail Software                | N/A              | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/08/18 | RADAR                            | Vista Equity Partners                               | SaaS     | Governance, Risk, & Compliance | N/A              | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/08/18 | Sound Concepts                   | nFüz  | SaaS     | Business Software              | \$25             | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/08/18 | Greenlight Technologies          | Leafbuyer Technologies                              | SaaS     | Fintech                        | N/A              | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/07/18 | Graph Blockchain                 | Reg Technologies                                    | SaaS     | Blockchain                     | N/A              | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/07/18 | TalentShare                      | The Muse  | SaaS     | Human Capital                  | N/A              | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/07/18 | Stitch                           | Talend  | SaaS     | Business Intelligence          | \$60             | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/07/18 | Bidlily                          | GI Partners, Togetherwork                           | SaaS     | Business Software              | N/A              | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/07/18 | GreatRateFreight                 | RushNet   | SaaS     | Supply Chain                   | N/A              | \$60       | N/A     | N/A         | N/A                | N/A   |
| 11/07/18 | Goip Global                      | CUBEIT Holdings                                     | SaaS     | Blockchain                     | N/A              | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/07/18 | Greek Resource Services          | GI Partners, Togetherwork                           | SaaS     | Accounting / ERP               | N/A              | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/07/18 | Interactive Collegiate Solutions | Omega Financial                                     | SaaS     | File Sharing                   | N/A              | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/07/18 | DocBookMD                        | Citadel, Medici, Starwood Capital Group, Swordfish  | SaaS     | Healthcare / Biotechnology     | N/A              | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/07/18 | Berico Technologies              | Novetta Solutions, The Carlyle Group                | SaaS     | Business Intelligence          | N/A              | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/07/18 | Smart Buildings                  | ENGIE (energy services)                             | SaaS     | Transportation / Logistics     | N/A              | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/07/18 | Closing Room                     | Clearlake Capital Group, NetDocuments               | SaaS     | Content / Document Management  | N/A              | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/06/18 | Heptio                           | VMware  | SaaS     | Supply Chain                   | N/A              | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/06/18 | Greywolf Entertainment Group     | ATW Tech  | SaaS     | Gaming                         | \$3              | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/06/18 | Stanson Health                   | Premier Health Group                                | SaaS     | Healthcare / Biotechnology     | \$67             | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/06/18 | Avsnet                           | Specialist Computer Centres                         | SaaS     | Business Software              | N/A              | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/06/18 | SS8                              | HighBar Partners                                    | SaaS     | Security / Storage             | N/A              | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/06/18 | Stoplift                         | NCR   | SaaS     | Law Enforcement                | N/A              | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/06/18 | Buildpulse                       | CopperTree Analytics                                | SaaS     | Governance, Risk, & Compliance | N/A              | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/06/18 | National Environmental Trainers  | Frontenac, TPC Training                             | SaaS     | Governance, Risk, & Compliance | N/A              | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/06/18 | Aura                             | Marque Group, Pemba Capital Partners                | SaaS     | Knowledge / Content (Social)   | N/A              | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/06/18 | Blitz                            | Discord   | SaaS     | Gaming                         | N/A              | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/05/18 | CA Technologies                  | Broadcom  | SaaS     | IT Infrastructure & Management | \$19,000         | \$4,009    | \$1,194 | 4.7x        | 15.9x              |       |
| 11/05/18 | Lumesse                          | HarbourVest Partners, Saba Software, Vector Capital | SaaS     | Human Capital                  | N/A              | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/05/18 | Tesm                             | DXC Technology                                      | SaaS     | IT Infrastructure & Management | N/A              | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/05/18 | Appthority                       | Symantec  | SaaS     | Security / Storage             | N/A              | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/05/18 | Javelin                          | Symantec  | SaaS     | Security / Storage             | \$25             | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/05/18 | Reserve                          | Resy  | SaaS     | Content and Services           | N/A              | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/05/18 | Inuvo                            | ConversionPoint Technologies                        | SaaS     | Advertising and Marketing      | \$76             | \$80       | (\$1)   | 0.9x        | N/M                |       |
| 11/05/18 | NetMinder                        | Edison Partners, Parthenon Capital, Twin Bridge     | SaaS     | Content / Document Management  | N/A              | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/05/18 | Telmetrics                       | Marchex   | SaaS     | CRM                            | \$13             | N/A        | N/A     | N/A         | N/A                | N/A   |
| 11/05/18 | Wellio                           | Kraft Heinz   | SaaS     | Content and Services           | N/A              | N/A        | N/A     | N/A         | N/A                | N/A   |

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| Date     | Target                                 | Acquirer  | Delivery   | Sector                         | Enterprise Value | Target LTM |        | Enterprise Value / |            |
|----------|--|---|------------|--------------------------------|------------------|------------|--------|--------------------|------------|
|          |  |   |            |                                |                  | Revenue    | EBITDA | LTM Revenue        | LTM EBITDA |
| 11/05/18 | AccuAgency                             | Accel-KKR, Insurance Technologies Corporation   | SaaS       | Content / Document Management  | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/05/18 | ProductionWise                         | FluroSat  | SaaS       | Mapping / Tracking             | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/05/18 | MightySignal                           | Instacart                                       | SaaS       | Development                    | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/05/18 | Ernst Publishing                       | Black Knight                                    | SaaS       | Systems / Network              | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/05/18 | SharedLABS                             | Glowpoint                                       | SaaS       | IT Infrastructure & Management | N/A              | \$54       | N/A    | N/A                | N/A        |
| 11/02/18 | DataFox                                | Oracle  | SaaS       | Business Intelligence          | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/02/18 | Ultra Airport Systems                  | ADB Safegate, The Carlyle Group                 | SaaS       | IT Infrastructure & Management | \$29             | N/A        | N/A    | N/A                | N/A        |
| 11/02/18 | TouchMath                              | 747 Capital, Merion Investment Partners         | SaaS       | Education                      | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/02/18 | Wambiz                                 | Allocate Software, Hg, Vista Equity Partners    | SaaS       | Ecommerce                      | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/01/18 | OnCourse Learning                      | Bertelsmann                                     | On Premise | Human Capital                  | \$500            | N/A        | N/A    | N/A                | N/A        |
| 11/01/18 | Stewardship Technology                 | Ares Capital, GTCR, Paya                        | SaaS       | Fintech                        | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/01/18 | Ditto Labs                             | Slyce   | SaaS       | Business Intelligence          | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/01/18 | TH_NK                                  | EPAM Systems                                    | SaaS       | Business Software              | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/01/18 | Flywheel Digital                       | Ascential                                       | SaaS       | Advertising and Marketing      | \$60             | N/A        | N/A    | N/A                | N/A        |
| 11/01/18 | LupusCorner                            | Progentec Diagnostics                           | SaaS       | Healthcare / Biotechnology     | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/01/18 | Insyston                               | Rothschild & Co, White Clarke Group             | On Premise | Fintech                        | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/01/18 | DEV6                                   | Aquent  | SaaS       | Development                    | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/01/18 | Town Crier                             | Chainlink                                       | SaaS       | Blockchain                     | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/01/18 | Veriphy                                | Davies Group, HGGC                              | SaaS       | Accounting / ERP               | N/A              | \$2        | \$1    | N/A                | N/A        |
| 11/01/18 | KaleidaCare Management Solutions       | Alpine Investors, Alpine SG                     | SaaS       | Content / Document Management  | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/01/18 | The rSmart Group                       | Anglepoint Capital, TransACT                    | SaaS       | Education                      | N/A              | N/A        | N/A    | N/A                | N/A        |
| 11/01/18 | Stratagem Technologies                 | Blockchain                                      | SaaS       | Blockchain                     | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/31/18 | Marketo                                | Adobe Systems                                   | SaaS       | Advertising and Marketing      | \$4,750          | \$384      | N/A    | 12.4x              | N/A        |
| 10/31/18 | Manage.com Group                       | Criteo  | SaaS       | Advertising and Marketing      | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/31/18 | uBid.com                               | Incumaker                                       | SaaS       | Ecommerce                      | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/31/18 | Assembla                               | HGGC, Idera, TA Associates Management           | SaaS       | Diversified Media              | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/31/18 | NogginLabs                             | EY  | SaaS       | Human Capital                  | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/31/18 | Open Minds High Availability Solutions | B.I.G. Capital                                  | SaaS       | Business Software              | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/31/18 | DealerMine                             | Quorum Information Tech                         | SaaS       | CRM                            | \$11             | \$4        | N/A    | 2.5x               | N/A        |
| 10/31/18 | Barometric Holdings                    | Claritas, Indian Hill Group, The Carlyle Group  | SaaS       | Advertising and Marketing      | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/30/18 | Helix Applications                     | Belvedere Resources                             | SaaS       | Blockchain                     | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/30/18 | ABCya                                  | IXL Learning                                    | SaaS       | Education                      | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/30/18 | Aptean                                 | ESW Capital                                     | SaaS       | IT Infrastructure & Management | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/30/18 | DogBuddy                               | Rover   | SaaS       | Content and Services           | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/30/18 | Synthesio                              | Ipsos   | SaaS       | Advertising and Marketing      | \$50             | N/A        | N/A    | N/A                | N/A        |
| 10/30/18 | Birch                                  | Even Financial                                  | SaaS       | Retail Software                | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/30/18 | TrademarkVision                        | ACE & Company, Baring Private Equity, Clarivate | SaaS       | Diversified Media              | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/30/18 | Layered Insight                        | Qualys  | SaaS       | IT Infrastructure & Management | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/30/18 | Tally Payment App                      | Rooam   | SaaS       | Ecommerce                      | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/30/18 | 3Si                                    | Eudonet, Quilvest Private Equity                | SaaS       | Security / Storage             | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/29/18 | Synamedia                              | Permira   | SaaS       | Video Management               | \$1,000          | N/A        | N/A    | N/A                | N/A        |
| 10/29/18 | Bitstamp                               | NXMH  | SaaS       | Blockchain                     | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/29/18 | Evolved Intelligence                   | Audax Group, Mobileum                           | SaaS       | Security / Storage             | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/29/18 | Transportation Data Source             | Aurora Capital Group, Randall-Reilly            | SaaS       | Transportation / Logistics     | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/28/18 | Red Hat                                | International Business Machines                 | SaaS       | IT Infrastructure & Management | \$36,000         | \$3,157    | \$607  | 11.4x              | 59.3x      |

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 12/31/18

# Select Q4 2018 Announced M&A Transactions (cont.)

| Date     | Target                   | Acquirer   | Delivery   | Sector                         | Enterprise Value | Target LTM |        |             | Enterprise Value / |     |
|----------|--------------------------|--|------------|--------------------------------|------------------|------------|--------|-------------|--------------------|-----|
|          |                          |  |            |                                |                  | Revenue    | EBITDA | LTM Revenue | LTM EBITDA         |     |
| 10/27/18 | CoVi Analytics           | Charles Taylor InsureTech                            | SaaS       | Governance, Risk, & Compliance | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/26/18 | Guidebox                 | Reelgood   | SaaS       | Platform / OS                  | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/26/18 | Bean                     | BGL Group (UK), Canada Pension Plan Investment Board | SaaS       | Accounting / ERP               | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/26/18 | Aprinsic                 | Gainsight  | SaaS       | Business Intelligence          | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/25/18 | GitHub                   | Microsoft  | SaaS       | Development                    | \$7,500          | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/25/18 | LevelUp                  | GrubHub  | SaaS       | Retail Software                | \$390            | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/25/18 | Modevity                 | Data443 Risk Mitigation                              | SaaS       | Business Software              | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/25/18 | Relayr                   | The Hartford Steam Boiler and Insurance              | SaaS       | IT Infrastructure & Management | \$298            | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/25/18 | Tapingo                  | GrubHub  | SaaS       | Retail Software                | \$150            | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/25/18 | Alinean                  | Boathouse Capital, Mediafly                          | SaaS       | Advertising and Marketing      | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/25/18 | Mindflash                | Reviewsnap, Turn/River Capital                       | SaaS       | Human Capital                  | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/25/18 | Thursby Software Systems | Identiv  | SaaS       | Security / Storage             | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/25/18 | Pillow                   | Expedia Group  | SaaS       | Travel / Hospitality           | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/25/18 | LiftPoint Consulting     | Capitala Group, RFE Investment Partners              | SaaS       | Business Intelligence          | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/25/18 | Teamer                   | ICM Investment Management, Pitchero                  | SaaS       | Sports                         | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/25/18 | Apartmentlet             | Expedia Group  | SaaS       | Travel / Hospitality           | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/24/18 | Mingle Analytics         | Silvervue  | SaaS       | Healthcare / Biotechnology     | N/A              | \$14       | \$1    | N/A         | N/A                | N/A |
| 10/24/18 | Trafficware Group        | Cubic  | On Premise | Transportation / Logistics     | \$236            | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/24/18 | Meetingbird              | Front  | SaaS       | Knowledge / Content (Social)   | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/24/18 | Omnify Software          | Arena (Solutions), JMI Equity                        | SaaS       | Supply Chain                   | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/24/18 | Everbooked               | Evolve Vacation Rental Network                       | SaaS       | CRM                            | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/24/18 | Simpler                  | Teamable   | SaaS       | Content / Document Management  | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/24/18 | WiseBanyan               | Axos Bank  | SaaS       | Fintech                        | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/24/18 | DanceStudio-Pro          | GI Partners, Togetherwork                            | SaaS       | Business Software              | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/24/18 | Kindara                  | Prima-Temp   | SaaS       | Healthcare / Biotechnology     | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/24/18 | Datum                    | American Capital, Ares Capital, Infogix, Thoma Bravo | SaaS       | Business Intelligence          | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/24/18 | Licence Check            | Ebbon-Dacs   | SaaS       | Governance, Risk, & Compliance | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/23/18 | Versive                  | eSentire   | SaaS       | Security / Storage             | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/23/18 | Blue Vision Labs         | Lyft   | SaaS       | Augmented & Virtual Reality    | \$72             | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/23/18 | SigmaTEK Systems         | Battery Ventures                                     | On Premise | CAD / CAM                      | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/23/18 | TrackMaven               | Rho Ventures, Skyword                                | SaaS       | Advertising and Marketing      | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/23/18 | Sword Apak               | Sopra Banking Software                               | SaaS       | Fintech                        | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/23/18 | Integration Point        | Thomson Reuters                                      | On Premise | Supply Chain                   | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/23/18 | Stylekick                | Shopify  | SaaS       | Retail Software                | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/22/18 | TrustedHousesitters      | Rockpool Investments                                 | SaaS       | Travel / Hospitality           | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/22/18 | Pivotus Ventures         | Kony   | SaaS       | Fintech                        | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/22/18 | Aquiere                  | Coupa  | SaaS       | Retail Software                | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/22/18 | Digital Monarch Media    | Unity  | On Premise | Video Management               | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/22/18 | Noventis                 | WEX  | SaaS       | Accounting / ERP               | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/22/18 | VIX Verify               | GB Group   | SaaS       | Security / Storage             | \$38             | \$17       | N/A    | N/A         | 2.3x               | N/A |
| 10/19/18 | Kramm Court Reporting    | Leonard Green & Partners, Veritext Legal Solutions   | SaaS       | Content / Document Management  | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/18/18 | The Digital Office       | CVF Capital, General Atlantic, Meritech Capital      | SaaS       | Business Software              | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/18/18 | Upgraded                 | Ticketmaster Entertainment                           | SaaS       | Blockchain                     | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/18/18 | Copperman Consulting     | Decision   | On Premise | Fintech                        | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/17/18 | Brookcourt Solutions     | Shearwater   | SaaS       | Security / Storage             | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |

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# Select Q4 2018 Announced M&A Transactions (cont.)

| Date     | Target                         | Acquirer   | Delivery   | Sector                         | Enterprise Value | Target LTM |        |             | Enterprise Value / |     |
|----------|--------------------------------|--|------------|--------------------------------|------------------|------------|--------|-------------|--------------------|-----|
|          |                                |  |            |                                |                  | Revenue    | EBITDA | LTM Revenue | LTM EBITDA         |     |
| 10/17/18 | Ikon Science                   | Great Hill Partners                                  | On Premise | Oil & Gas                      | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/17/18 | Pinsight Media+                | InMobi   | SaaS       | Advertising and Marketing      | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/17/18 | eMerge                         | Elm Street Technology                                | SaaS       | Advertising and Marketing      | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/17/18 | Connexo                        | Great Hill Partners, Vanco Payment Solutions         | SaaS       | Education                      | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/17/18 | AFS Technologies               | STG Partners   | SaaS       | Supply Chain                   | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/17/18 | Rjt Compuquest                 | Apolis   | SaaS       | IT Infrastructure & Management | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/17/18 | Simsolid                       | Altair Engineering                                   | On Premise | CAD / CAM                      | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/17/18 | Chefs Plate                    | HelloFresh   | SaaS       | Travel / Hospitality           | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/17/18 | Viewbix                        | Algomizer  | SaaS       | Advertising and Marketing      | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/16/18 | NovoEd                         | Devonshire Investors                                 | SaaS       | Education                      | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/16/18 | ITN international              | Aventri, Cava Capital, First Analysis, HGGC          | SaaS       | IT Infrastructure & Management | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/16/18 | Dunbar Security Solutions      | ControlScan, Fidus Investment, Thompson Street       | On Premise | Security / Storage             | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/16/18 | Applied Logic                  | Censis Technologies, Saratoga Investment             | On Premise | Healthcare / Biotechnology     | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/16/18 | Social Tables                  | Cvent, Vista Equity Partners                         | SaaS       | Travel / Hospitality           | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/16/18 | ESOP Economics                 | Aquiline Capital Partners, Ascensus, Genstar Capital | SaaS       | Business Software              | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/16/18 | IMX Software                   | Infinea  | SaaS       | Fintech                        | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/16/18 | Giant Otter Technologies       | Drift  | SaaS       | Human Capital                  | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/16/18 | Smartfreight                   | WiseTech Global                                      | SaaS       | Transportation / Logistics     | \$40             | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/15/18 | iCareHealth Uk                 | Access Group, Hg, TA Associates Management           | SaaS       | Healthcare / Biotechnology     | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/15/18 | OANDA                          | CVC Capital Partners                                 | SaaS       | Fintech                        | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/15/18 | Cloud Lending Solutions        | Q2 Holdings  | SaaS       | Fintech                        | \$105            | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/15/18 | LEGION                         | Bentley Systems                                      | On Premise | Transportation / Logistics     | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/15/18 | DataWing Software              | Citra Health Solutions, Great Point Partners         | SaaS       | Healthcare / Biotechnology     | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/15/18 | Marcato                        | Patron Technology, Providence Equity Partners        | SaaS       | Travel / Hospitality           | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/15/18 | MyWebGrocer                    | Golub Capital BDC, Mi9 Retail, Otimo Retail, Respida | SaaS       | Supply Chain                   | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/15/18 | Canary Connect                 | Smartfrog  | SaaS       | Security / Storage             | \$29             | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/15/18 | Code SixFour                   | Aurora Capital Group, Hancock Capital Management     | SaaS       | Business Software              | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/15/18 | tCell                          | Rapid7   | SaaS       | Security / Storage             | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/15/18 | Talentoday                     | Medix Staffing Solutions                             | SaaS       | Human Capital                  | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/15/18 | Guardian Electrical Compliance | Premier Technical Services Group                     | On Premise | Governance, Risk, & Compliance | \$21             | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/15/18 | Asaii                          | Apple  | SaaS       | Human Capital                  | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/14/18 | Dynamis Software               | Applied Systems                                      | On Premise | Business Software              | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/12/18 | RedLock                        | Palo Alto Networks                                   | SaaS       | Security / Storage             | \$173            | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/12/18 | Rentytics                      | RealPage   | On Premise | Business Intelligence          | \$57             | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/12/18 | MJ Freeway                     | Mtech Acquisition Corp                               | SaaS       | Business Software              | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/12/18 | Altius VA                      | Constructionline, Warburg Pincus                     | SaaS       | Supply Chain                   | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/12/18 | Greycon                        | Jonas Club Software                                  | SaaS       | Supply Chain                   | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/11/18 | Web.com Group                  | Siris Capital  | SaaS       | Retail Software                | \$1,451          | \$751      | \$149  | 1.9x        | 9.7x               |     |
| 10/11/18 | OpCity                         | News Corp  | SaaS       | Knowledge / Content (Social)   | \$210            | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/11/18 | Apex Information Technologies  | GTCR, InvestMichigan! Program, RevSpring             | SaaS       | Accounting / ERP               | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/11/18 | Microdec                       | Access Group, Hg, TA Associates Management           | SaaS       | Human Capital                  | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/11/18 | AllTrails                      | Spectrum Equity                                      | SaaS       | Knowledge / Content (Social)   | \$75             | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/11/18 | PacketZoom                     | Roblox   | SaaS       | Platform / OS                  | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/11/18 | Tour de Force CRM              | Compass Sales Solutions, Eden Capital                | SaaS       | CRM                            | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |
| 10/11/18 | Cappius                        | Anbicks  | SaaS       | Business Intelligence          | N/A              | N/A        | N/A    | N/A         | N/A                | N/A |

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| Date     | Target                        | Acquirer   | Delivery   | Sector                         | Enterprise Value | Target LTM |        | Enterprise Value / |            |
|----------|-------------------------------|--|------------|--------------------------------|------------------|------------|--------|--------------------|------------|
|          |                               |  |            |                                |                  | Revenue    | EBITDA | LTM Revenue        | LTM EBITDA |
| 10/11/18 | J.Lodge                       | Cognosante   | SaaS       | Business Intelligence          | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/11/18 | PayTollo                      | Automatic (Connected Car Company)                  | SaaS       | Transportation / Logistics     | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/11/18 | Prism Money                   | BillGO   | SaaS       | Accounting / ERP               | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/10/18 | STAT Search Analytics         | Moz  | SaaS       | Business Intelligence          | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/10/18 | AddisonEmerson Staffing       | cloudteam.com                                      | SaaS       | Telecommunications             | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/10/18 | Imperva                       | Thoma Bravo  | SaaS       | Security / Storage             | \$2,116          | \$352      | \$4    | 6.0x               | 529.0x     |
| 10/10/18 | Tresata                       | GCP Capital Partners                               | SaaS       | Business Intelligence          | \$1,000          | N/A        | N/A    | N/A                | N/A        |
| 10/10/18 | FriendlyData                  | ServiceNow   | SaaS       | Speech Recognition             | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/10/18 | Total Defense                 | AppRiver, Marlin Equity                            | SaaS       | Security / Storage             | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/10/18 | CryptoTrading Holdings        | UC Resources                                       | SaaS       | Blockchain                     | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/10/18 | Sunray Technology Ventures    | HotSpot International                              | SaaS       | Travel / Hospitality           | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/10/18 | TurnKey Solutions             | Cradle Technology Services                         | SaaS       | Testing                        | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/10/18 | Rubicon International         | Faria Systems                                      | SaaS       | Education                      | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/10/18 | Alert Labs                    | Watsco   | SaaS       | Security / Storage             | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/10/18 | The Firehose Project          | Trilogy Education Services                         | SaaS       | Development                    | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/10/18 | JobTrack                      | Trilogy Education Services                         | SaaS       | Human Capital                  | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/10/18 | X2 Games                      | Global Blockchain Technologies                     | SaaS       | Gaming                         | \$38             | N/A        | N/A    | N/A                | N/A        |
| 10/10/18 | ATAK Cloud                    | KYN Capital Group                                  | SaaS       | Accounting / ERP               | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/10/18 | WolfNet Technologies          | Ojo Home   | SaaS       | IT Infrastructure & Management | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/10/18 | Oxford Scientific Software    | Agilitas Private Equity, Hydro International       | On Premise | Testing                        | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/10/18 | CorreLog                      | BMC Software, Kohlberg Kravis Roberts              | SaaS       | Security / Storage             | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/10/18 | The Strategic Solution        | Grace Hill, Stone Point Capital                    | On Premise | Governance, Risk, & Compliance | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/09/18 | FNZ                           | Caisse de dépôt et placement du Québec             | On Premise | Fintech                        | \$2,151          | N/A        | N/A    | N/A                | N/A        |
| 10/09/18 | mLab                          | MongoDB  | SaaS       | Hosting / Data Center          | \$68             | N/A        | N/A    | N/A                | N/A        |
| 10/09/18 | ResponseSource                | Access Intelligence (UK)                           | SaaS       | Business Software              | \$7              | N/A        | N/A    | N/A                | N/A        |
| 10/09/18 | NuPark                        | Passport   | SaaS       | Transportation / Logistics     | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/09/18 | SpringboardAuto.com           | Oportun  | SaaS       | Retail Software                | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/09/18 | Valiance Partners             | NNIT   | SaaS       | Integration / Middleware       | \$36             | \$13       | N/A    | 2.7x               | N/A        |
| 10/09/18 | FIMAC Solutions               | BankerAdvice                                       | SaaS       | Fintech                        | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/09/18 | Egnatium                      | Anvia Holdings                                     | SaaS       | Business Software              | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/09/18 | HauteBid                      | Exeter Boston Partners                             | SaaS       | Ecommerce                      | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/09/18 | IPM Software                  | GI Partners, MRI Software, TA Associates           | SaaS       | Business Software              | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/09/18 | Lucky Eight Media             | Exeter Boston Partners                             | SaaS       | Telecommunications             | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/08/18 | Rocket Software               | Bain Capital                                       | SaaS       | IT Infrastructure & Management | \$2,000          | N/A        | N/A    | N/A                | N/A        |
| 10/08/18 | Perfecto                      | Antares Capital, Clearlake Capital Group, Perforce | SaaS       | IT Infrastructure & Management | \$200            | N/A        | N/A    | N/A                | N/A        |
| 10/08/18 | Weather Decision Technologies | DTN  | SaaS       | Mapping / Tracking             | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/08/18 | Glint                         | LinkedIn   | SaaS       | Human Capital                  | \$400            | N/A        | N/A    | N/A                | N/A        |
| 10/08/18 | CAD Technology Center         | ATG  | On Premise | Content / Document Management  | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/08/18 | First Choice Recruitment      | Mcginley Cep                                       | On Premise | Human Capital                  | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/05/18 | InfoArmor                     | Allstate   | SaaS       | Security / Storage             | \$525            | \$65       | N/A    | 8.1x               | N/A        |
| 10/05/18 | Rebel                         | Salesforce   | SaaS       | Advertising and Marketing      | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/05/18 | EmaginePOS                    | Spot On Networks                                   | SaaS       | Travel / Hospitality           | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/05/18 | Kiuwan                        | Idera  | SaaS       | Security / Storage             | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/05/18 | SeedInvest                    | Circle   | SaaS       | Fintech                        | N/A              | N/A        | N/A    | N/A                | N/A        |
| 10/05/18 | Abaxx Technologies            | Block X Capital Corp                               | SaaS       | Fintech                        | 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 12/31/18

# Select Q4 2018 Announced M&A Transactions (cont.)

| Date     | Target                          | Acquirer   | Delivery   | Sector                         | Enterprise Value | Target LTM |         | Enterprise Value / |            |
|----------|---------------------------------|--|------------|--------------------------------|------------------|------------|---------|--------------------|------------|
|          |                                 |  |            |                                |                  | Revenue    | EBITDA  | LTM Revenue        | LTM EBITDA |
| 10/05/18 | Spireon                         | Greenbriar Equity Group                                  | SaaS       | Transportation / Logistics     | N/A              | N/A        | N/A     | N/A                | N/A        |
| 10/04/18 | Smartbox                        | Tobii Dynavox Limited                                    | SaaS       | Advertising and Marketing      | \$14             | N/A        | N/A     | N/A                | N/A        |
| 10/04/18 | CloudHealth Technologies        | VMware   | SaaS       | IT Infrastructure & Management | \$530            | N/A        | N/A     | N/A                | N/A        |
| 10/04/18 | BeyondTrust Software            | Bomgar, Francisco Partners, NB Private Equity            | SaaS       | Security / Storage             | N/A              | N/A        | N/A     | N/A                | N/A        |
| 10/04/18 | Navegate Logistics              | Next Coast Ventures, Relay Investments, Saltspring       | SaaS       | Supply Chain                   | N/A              | N/A        | N/A     | N/A                | N/A        |
| 10/04/18 | Excel4apps                      | Insightssoftware, TA Associates                          | SaaS       | Business Software              | N/A              | N/A        | N/A     | N/A                | N/A        |
| 10/04/18 | Crimson Hexagon                 | Brandwatch   | SaaS       | Business Intelligence          | N/A              | N/A        | N/A     | N/A                | N/A        |
| 10/04/18 | QuoteWizard                     | LendingTree  | SaaS       | Content and Services           | \$370            | \$151      | N/A     | 2.4x               | N/A        |
| 10/04/18 | Avametric                       | American Industrial Partners, Gerber Technology          | SaaS       | Augmented & Virtual Reality    | N/A              | N/A        | N/A     | N/A                | N/A        |
| 10/04/18 | GFM Solutions Group             | CVC Capital Partners, OANDA                              | On Premise | Fintech                        | N/A              | N/A        | N/A     | N/A                | N/A        |
| 10/04/18 | Lexicata                        | Clio   | SaaS       | Content and Services           | N/A              | N/A        | N/A     | N/A                | N/A        |
| 10/04/18 | Clarivate Analytics             | CPA Global, Leonard Green & Partners                     | SaaS       | Business Software              | N/A              | N/A        | N/A     | N/A                | N/A        |
| 10/04/18 | Trenasant                       | Interos Solutions  | On Premise | Business Intelligence          | N/A              | N/A        | N/A     | N/A                | N/A        |
| 10/04/18 | RezOvation                      | Eviivo, Investcorp Technology Partners                   | SaaS       | Travel / Hospitality           | N/A              | N/A        | N/A     | N/A                | N/A        |
| 10/04/18 | TSI Auto Solutions              | NCM Associates   | SaaS       | IT Infrastructure & Management | N/A              | N/A        | N/A     | N/A                | N/A        |
| 10/03/18 | Apttus                          | Thoma Bravo  | SaaS       | Supply Chain                   | \$1,000          | N/A        | N/A     | N/A                | N/A        |
| 10/03/18 | Lua                             | Life Biosciences   | SaaS       | Healthcare / Biotechnology     | N/A              | N/A        | N/A     | N/A                | N/A        |
| 10/03/18 | Ticketer                        | Tenzing Private Equity                                   | SaaS       | Transportation / Logistics     | N/A              | N/A        | N/A     | N/A                | N/A        |
| 10/03/18 | Hortonworks                     | Cloudera   | SaaS       | Systems / Network              | \$3,120          | \$309      | (\$164) | 10.1x              | N/M        |
| 10/03/18 | Ambassador                      | Apollo Global Management, West                           | SaaS       | Advertising and Marketing      | N/A              | N/A        | N/A     | N/A                | N/A        |
| 10/03/18 | Rant & Rave                     | Upland Software  | SaaS       | CRM                            | \$59             | N/A        | N/A     | N/A                | N/A        |
| 10/03/18 | MOXXOR                          | Delaware Street Capital, Location Services               | SaaS       | Governance, Risk, & Compliance | N/A              | N/A        | N/A     | N/A                | N/A        |
| 10/03/18 | One Brand Marketing             | Valassis Communications                                  | SaaS       | Advertising and Marketing      | N/A              | N/A        | N/A     | N/A                | N/A        |
| 10/03/18 | Gradescope                      | Georgian Partners, GIC Private, GSV AcceleraTE           | SaaS       | Education                      | N/A              | N/A        | N/A     | N/A                | N/A        |
| 10/03/18 | Seeker Health                   | Eversana, JLL Partners, Water Street Healthcare Partners | SaaS       | Healthcare / Biotechnology     | N/A              | N/A        | N/A     | N/A                | N/A        |
| 10/02/18 | BMC Software                    | Kohlberg Kravis Roberts                                  | SaaS       | IT Infrastructure & Management | \$8,500          | N/A        | N/A     | N/A                | N/A        |
| 10/02/18 | CosmoLex Cloud                  | Fidus Investment, Software Technology                    | SaaS       | Business Software              | N/A              | N/A        | N/A     | N/A                | N/A        |
| 10/02/18 | Spredfast                       | Lithium Technologies, Vista Equity Partners              | SaaS       | Advertising and Marketing      | N/A              | N/A        | N/A     | N/A                | N/A        |
| 10/02/18 | Forte Payment Systems           | CSG International  | SaaS       | Fintech                        | N/A              | N/A        | N/A     | N/A                | N/A        |
| 10/02/18 | Oasis Collections               | Vacasa   | SaaS       | Travel / Hospitality           | N/A              | N/A        | N/A     | N/A                | N/A        |
| 10/02/18 | Solufy Information Technologies | Francisco Partners, Prometheus Group Enterprises         | SaaS       | Human Capital                  | N/A              | N/A        | N/A     | N/A                | N/A        |
| 10/02/18 | Actively Learn                  | Achieve3000, Insight Venture Partners                    | SaaS       | Education                      | N/A              | N/A        | N/A     | N/A                | N/A        |
| 10/02/18 | Onward                          | Alphabet   | SaaS       | Augmented & Virtual Reality    | N/A              | N/A        | N/A     | N/A                | N/A        |
| 10/02/18 | Baynet World                    | Constellation Software Real Estate Group                 | SaaS       | Business Software              | N/A              | N/A        | N/A     | N/A                | N/A        |
| 10/02/18 | DataSplice                      | Francisco Partners, Prometheus Group Enterprises         | SaaS       | Business Intelligence          | N/A              | N/A        | N/A     | N/A                | N/A        |
| 10/02/18 | LizardTech                      | Extensis   | SaaS       | Development                    | N/A              | N/A        | N/A     | N/A                | N/A        |
| 10/02/18 | QBIS Insurance Solutions        | Patra Corporation  | SaaS       | Business Software              | N/A              | N/A        | N/A     | N/A                | N/A        |
| 10/02/18 | RedQuarry                       | eVestment Alliance                                       | SaaS       | Fintech                        | N/A              | N/A        | N/A     | N/A                | N/A        |
| 10/02/18 | Recargo                         | Innogy   | On Premise | Transportation / Logistics     | N/A              | N/A        | N/A     | N/A                | N/A        |
| 10/02/18 | Everyone Counts                 | Votem  | SaaS       | Content / Document Management  | N/A              | N/A        | N/A     | N/A                | N/A        |
| 10/01/18 | Refinitiv                       | CPPIB, GIC Private, The Blackstone Group                 | SaaS       | Fintech                        | \$36,364         | \$6,320    | N/A     | 5.8x               | N/A        |
| 10/01/18 | Artidium                        | Pareteum   | SaaS       | Telecommunications             | \$140            | N/A        | N/A     | N/A                | N/A        |
| 10/01/18 | Marsh ClearSight                | Riskconnect, Thoma Bravo                                 | SaaS       | Governance, Risk, & Compliance | N/A              | N/A        | N/A     | N/A                | N/A        |
| 10/01/18 | Charles River Systems           | State Street   | SaaS       | Fintech                        | \$2,600          | N/A        | N/A     | N/A                | N/A        |
| 10/01/18 | Eze Software                    | SS&C Technologies  | SaaS       | Business Intelligence          | \$1,450          | 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 12/31/18

# Select Q4 2018 Announced M&A Transactions (cont.)

| Date                   | Target                     | Acquirer   | Delivery   | Sector                         | Enterprise Value | Target LTM   |              | Enterprise Value / |              |
|------------------------|----------------------------|--|------------|--------------------------------|------------------|--------------|--------------|--------------------|--------------|
|                        |                            |  |            |                                |                  | Revenue      | EBITDA       | LTM Revenue        | LTM EBITDA   |
| 10/01/18               | Mendix                     | Siemens  | SaaS       | Business Software              | \$730            | N/A          | N/A          | N/A                | N/A          |
| 10/01/18               | Duo Security               | Cisco Systems  | SaaS       | Security / Storage             | \$2,350          | N/A          | N/A          | N/A                | N/A          |
| 10/01/18               | Zephyr                     | Francisco Partners, SmartBear                            | SaaS       | Testing                        | N/A              | N/A          | N/A          | N/A                | N/A          |
| 10/01/18               | OpsGenie                   | Atlassian  | SaaS       | Content / Document Management  | \$295            | N/A          | N/A          | N/A                | N/A          |
| 10/01/18               | DonRiver                   | Ciena  | SaaS       | Telecommunications             | N/A              | N/A          | N/A          | N/A                | N/A          |
| 10/01/18               | Inxpo                      | Apollo Global Management, West                           | SaaS       | CRM                            | N/A              | N/A          | N/A          | N/A                | N/A          |
| 10/01/18               | NewVoiceMedia              | Vonage Holdings  | SaaS       | Telecommunications             | \$350            | N/A          | N/A          | N/A                | N/A          |
| 10/01/18               | Cloud Logistics            | E2open, Elliott Management, Insight Venture Partners     | SaaS       | Supply Chain                   | N/A              | N/A          | N/A          | N/A                | N/A          |
| 10/01/18               | MobileEyes                 | Tyler Technologies                                       | SaaS       | Governance, Risk, & Compliance | N/A              | N/A          | N/A          | N/A                | N/A          |
| 10/01/18               | Conversable                | LivePerson   | SaaS       | CRM                            | N/A              | N/A          | N/A          | N/A                | N/A          |
| 10/01/18               | Agape Red                  | OpsCompass   | On Premise | Business Software              | N/A              | N/A          | N/A          | N/A                | N/A          |
| 10/01/18               | Triblio                    | Liferay  | SaaS       | Advertising and Marketing      | N/A              | N/A          | N/A          | N/A                | N/A          |
| 10/01/18               | Ring Router                | elocal USA, LLR Partners                                 | SaaS       | Advertising and Marketing      | N/A              | N/A          | N/A          | N/A                | N/A          |
| 10/01/18               | Coreworx                   | Vela Software  | SaaS       | IT Infrastructure & Management | N/A              | N/A          | N/A          | N/A                | N/A          |
| 10/01/18               | F&I Express                | Cox Automotive   | SaaS       | Business Software              | N/A              | N/A          | N/A          | N/A                | N/A          |
| 10/01/18               | InfinityHR                 | Arcoro, Providence Equity Partners                       | SaaS       | Human Capital                  | N/A              | N/A          | N/A          | N/A                | N/A          |
| 10/01/18               | LoanLogics                 | GTCR, Optimal Blue                                       | SaaS       | Fintech                        | N/A              | N/A          | N/A          | N/A                | N/A          |
| 10/01/18               | Office Document Consulting | Apax Partners, ECI Software Solutions, The Carlyle Group | SaaS       | Content / Document Management  | N/A              | N/A          | N/A          | N/A                | N/A          |
| 10/01/18               | Defakto Group              | Advent International, Ansira Partners                    | SaaS       | CRM                            | N/A              | N/A          | N/A          | N/A                | N/A          |
| 10/01/18               | Final Phase Systems        | Inficon  | SaaS       | Business Software              | N/A              | N/A          | N/A          | N/A                | N/A          |
| 10/01/18               | Agiletics                  | Jack Henry and Associates                                | SaaS       | Fintech                        | N/A              | N/A          | N/A          | N/A                | N/A          |
| 10/01/18               | Lytmus                     | Checkr   | SaaS       | Human Capital                  | N/A              | N/A          | N/A          | N/A                | N/A          |
| 10/01/18               | Evolver                    | Akoya Capital, Hillcrest Holdings                        | SaaS       | IT Infrastructure & Management | N/A              | N/A          | N/A          | N/A                | N/A          |
| 10/01/18               | FundVotes                  | Morningstar  | SaaS       | Fintech                        | N/A              | N/A          | N/A          | N/A                | N/A          |
| 10/01/18               | TelTech Systems            | IAC  | On Premise | CRM                            | N/A              | N/A          | N/A          | N/A                | N/A          |
| 10/01/18               | CartoFront                 | JOLA Capital Advisors, Topping Capital                   | SaaS       | Mapping / Tracking             | N/A              | N/A          | N/A          | N/A                | N/A          |
| 10/01/18               | iOFFICE                    | Waud Capital Partners                                    | SaaS       | Business Software              | N/A              | N/A          | N/A          | N/A                | N/A          |
| 10/01/18               | Evigilant Security         | Converged Security Solutions                             | SaaS       | Security / Storage             | N/A              | N/A          | N/A          | N/A                | N/A          |
| <b>Software Median</b> |                            |  |            |                                | <b>\$154</b>     | <b>\$130</b> | <b>\$11</b>  | <b>4.2x</b>        | <b>15.9x</b> |
| <b>Software Mean</b>   |                            |  |            |                                | <b>\$1,463</b>   | <b>\$553</b> | <b>\$115</b> | <b>5.5x</b>        | <b>79.0x</b> |

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 12/31/18

# Software IPOs

| IPO Date        | Filing Date | Days on File | Company                      | EV             | IPO Amount Raised | Market Cap     | LTM Multiples |              | Metrics and Financings |                |                 | 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 |
| <b>Software</b> |             |              |                              |                |                   |                |               |              |                        |                |                 |                   |                   |               |               |                       |               |                       |                 |                  |                |
| 11/21/18        | 10/23/18    | 29           | TuanChe.com                  | \$3,469        | \$20              | \$3,489        | NM            | NM           | 300%                   | NM             | (\$5)           | \$8               | --                | \$7           | (13%)         | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 11/15/18        | 08/10/18    | 97           | Weidai                       | \$655          | \$45              | \$700          | 1.3x          | NM           | 109%                   | 20%            | \$276           | \$10              | --                | \$9           | (7%)          | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 10/25/18        | 10/01/18    | 24           | Stone Pagamentos             | \$6,532        | \$1,217           | \$7,749        | NM            | NM           | 293%                   | NM             | (\$443)         | \$24              | 4%                | \$18          | (23%)         | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 10/25/18        | 07/16/18    | 101          | Pinte                        | \$19,637       | \$44              | \$19,681       | NM            | NM           | 1,715%                 | NM             | (\$112)         | \$12              | --                | \$10          | (12%)         | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 10/19/18        | 09/21/18    | 28           | SolarWinds                   | \$4,317        | \$375             | \$4,692        | 5.9x          | NM           | NM                     | 23%            | (\$1,961)       | \$15              | (12%)             | \$14          | (8%)          | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 10/12/18        | 09/14/18    | 28           | Anaplan                      | \$1,974        | \$264             | \$2,237        | 9.9x          | NM           | 19%                    | 40%            | \$87            | \$17              | --                | \$27          | 56%           | 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%                | \$71          | 99%           | 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              | --                | \$8           | (31%)         | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 09/27/18        | 08/31/18    | 27           | LAIH                         | \$528          | \$72              | \$599          | 10.1x         | NM           | 2,709%                 | 194%           | \$57            | \$13              | --                | \$8           | (39%)         | 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%                | \$12          | 2%            | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 09/26/18        | 08/24/18    | 33           | Arco Platform Limited        | \$172          | \$194             | \$366          | 2.3x          | NM           | 64%                    | 39%            | \$6             | \$18              | --                | \$22          | 26%           | 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%                 | 25%            | \$101           | \$10              | --                | \$4           | (55%)         | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 07/27/18        | 06/29/18    | 28           | Endava                       | \$946          | \$127             | \$1,073        | 3.6x          | 21.6x        | NM                     | 24%            | (\$19)          | \$20              | 5%                | \$24          | 21%           | 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              | --                | \$6           | (54%)         | 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           | (17%)         | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 07/26/18        | 06/22/18    | 34           | Cango (Used Car Marketplace) | \$1,574        | \$44              | \$1,618        | NM            | NM           | (75%)                  | 1702%          | \$11            | \$11              | --                | \$8           | (28%)         | 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%               | \$22          | (4%)          | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 06/29/18        | 06/01/18    | 28           | Domo                         | \$560          | \$193             | \$753          | 4.8x          | NM           | 56%                    | 27%            | (\$24)          | \$21              | --                | \$20          | (7%)          | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 06/14/18        | 05/11/18    | 34           | Avalara                      | \$1,525        | \$180             | \$1,705        | 6.7x          | NM           | 35%                    | 25%            | (\$25)          | \$24              | 4%                | \$31          | 30%           | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 05/16/18        | 04/16/18    | 30           | Pluralsight                  | \$1,672        | \$311             | \$1,982        | 9.3x          | NM           | 36%                    | 44%            | (\$91)          | \$15              | 7%                | \$24          | 57%           | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 05/03/18        | 04/09/18    | 24           | Carbon Black                 | \$1,333        | \$152             | \$1,485        | 7.6x          | NM           | 50%                    | 22%            | \$36            | \$19              | --                | \$13          | (29%)         | 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%                | \$25          | 66%           | 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%                | \$40          | 38%           | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 04/26/18        | 01/17/18    | 99           | Ceridian HCM                 | \$2,467        | \$531             | \$2,998        | 3.3x          | 22.9x        | 7%                     | NM             | (\$1,020)       | \$22              | 5%                | \$34          | 57%           | 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              | --                | \$16          | 9%            | 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%                | \$18          | 30%           | 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%            | \$571           | \$166             | --                | \$114         | (32%)         | 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%                | \$20          | (3%)          | 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%                | \$39          | 145%          | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 02/09/18        | 01/12/18    | 28           | Cardlytics                   | \$195          | \$70              | \$266          | 1.5x          | NM           | 13%                    | 18%            | (\$27)          | \$13              | --                | \$11          | (17%)         | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 11/17/17        | 10/20/17    | 28           | SailPoint Technologies       | \$664          | \$240             | \$904          | 4.1x          | 36.4x        | 71%                    | 48%            | (\$137)         | \$12              | 9%                | \$23          | 96%           | 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%                | \$43          | 170%          | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 11/01/17        | 09/29/17    | 33           | Altair Engineering           | \$259          | \$156             | \$415          | 0.8x          | 9.0x         | 9%                     | 10%            | (\$54)          | \$13              | --                | \$28          | 112%          | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 10/27/17        | 10/02/17    | 25           | ForeScout                    | \$698          | \$116             | \$814          | 3.7x          | NM           | 51%                    | 32%            | \$46            | \$22              | --                | \$26          | 18%           | (35)                  | \$128         | 110%                  | \$29            | 10%              | 11%            |
| 10/19/17        | 09/21/17    | 28           | MongoDB                      | \$1,194        | \$192             | \$1,386        | 9.6x          | NM           | 90%                    | 54%            | \$41            | \$24              | 9%                | \$84          | 249%          | 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             |
| 06/07/17        | 03/30/17    | 69           | ShotSpotter                  | \$87           | \$31              | \$118          | 5.1x          | NM           | 44%                    | 49%            | (\$11)          | \$11              | --                | \$31          | 183%          | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 05/25/17        | 02/17/17    | 97           | Appian                       | \$680          | \$75              | \$755          | 5.0x          | NM           | 22%                    | 24%            | (\$20)          | \$12              | --                | \$27          | 123%          | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 05/12/17        | 03/15/17    | 58           | Veritone                     | \$176          | \$38              | \$213          | 19.7x         | NM           | (36%)                  | 71%            | (\$1)           | \$15              | --                | \$4           | (75%)         | 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          | (26%)         | 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%               | \$15          | 35%           | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 04/07/17        | 03/13/17    | 25           | Okta                         | \$1,546        | \$187             | \$1,733        | 9.6x          | NM           | 87%                    | 62%            | \$23            | \$17              | --                | \$64          | 275%          | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 03/24/17        | 02/24/17    | 28           | Alteryx                      | \$819          | \$126             | \$945          | 9.5x          | NM           | 59%                    | 50%            | \$31            | \$14              | --                | \$59          | 325%          | 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             |
| 10/28/16        | 09/30/16    | 28           | BlackLine                    | \$768          | \$146             | \$914          | 7.5x          | NM           | 97%                    | NM             | (\$21)          | \$17              | --                | \$41          | 141%          | 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              | --                | \$63          | 249%          | 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%               | \$42          | 160%          | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 09/22/16        | 08/26/16    | 27           | Appio                        | \$578          | \$96              | \$674          | 3.8x          | NM           | 42%                    | 5%             | \$8             | \$16              | --                | \$38          | 138%          | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 09/23/16        | 08/26/16    | 28           | Beijing Gridsum Technology   | \$317          | \$87              | \$405          | 6.9x          | NM           | 129%                   | 39%            | \$16            | \$13              | 4%                | \$2           | (83%)         | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 09/16/16        | 08/19/16    | 28           | Everbridge                   | \$224          | \$90              | \$314          | 3.3x          | NM           | 58%                    | NM             | (\$14)          | \$12              | --                | \$57          | 373%          | 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%                | \$37          | 106%          | 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%)             | \$17          | 21%           | 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%                | \$89          | 324%          | 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%)             | \$56          | 523%          | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 11/13/15        | 10/09/15    | 35           | Instructure                  | \$393          | \$70              | \$464          | 6.0x          | NM           | 150%                   | 50%            | \$32            | \$16              | --                | \$38          | 134%          | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 10/14/15        | 07/20/15    | 86           | First Data                   | \$11,673       | \$2,560           | \$14,233       | 1.0x          | 3.7x         | 2%                     | 2%             | (\$20,631)      | \$16              | (11%)             | \$17          | 6%            | NA                    | NA            | NA                    | NA              | NA               | NA             |
| <b>Median</b>   |             | <b>28</b>    |                              | <b>\$1,290</b> | <b>\$153</b>      | <b>\$1,469</b> | <b>6.3x</b>   | <b>21.6x</b> | <b>58%</b>             | <b>38%</b>     | <b>\$18</b>     | <b>\$15</b>       | <b>5%</b>         | <b>\$24</b>   | <b>28%</b>    | <b>(7)</b>            | <b>\$101</b>  | <b>96%</b>            | <b>\$24</b>     | <b>(4%)</b>      | <b>52%</b>     |
| <b>Mean</b>     |             | <b>43</b>    |                              | <b>\$2,561</b> | <b>\$409</b>      | <b>\$2,970</b> | <b>7.0x</b>   | <b>18.7x</b> | <b>186%</b>            | <b>80%</b>     | <b>(\$407)</b>  | <b>\$19</b>       | <b>4%</b>         | <b>\$29</b>   | <b>69%</b>    | <b>(7)</b>            | <b>\$101</b>  | <b>96%</b>            | <b>\$24</b>     | <b>(4%)</b>      | <b>52%</b>     |

Source: Capital IQ and Pitchbook as of 12/31/18

# Internet and Digital Media IPOs

| IPO Date                          | Filing Date | Days on File | Company                              | EV             | IPO Amount Raised | Market Cap     | LTM Multiples |             | Metrics and Financings |                |                 | 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 |
| <b>Internet and Digital Media</b> |             |              |                                      |                |                   |                |               |             |                        |                |                 |                   |                   |               |               |                       |               |                       |                 |                  |                |
| 12/12/18                          | 10/02/18    | 71           | Tencent Music Entertainment Group    | \$20,163       | \$1,066           | \$21,229       | 7.7x          | NM          | 301%                   | 48%            | \$759           | \$13              | --                | \$13          | 2%            | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 12/06/18                          | 11/09/18    | 27           | Mogujie.com                          | \$1,430        | \$67              | \$1,497        | 9.5x          | NM          | (9%)                   | 54%            | \$49            | \$14              | --                | \$20          | 46%           | NA                    | 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%                | \$18          | 21%           | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 09/21/18                          | 08/20/18    | 32           | Farfetch                             | \$5,408        | \$885             | \$6,293        | 11.2x         | NM          | (3%)                   | 45%            | \$340           | \$20              | 5%                | \$18          | (11%)         | NA                    | 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%               | \$28          | 21%           | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 09/14/18                          | 08/17/18    | 28           | Qutoutiao                            | \$1,633        | \$84              | \$1,717        | 9.4x          | NM          | 1,892%                 | 456%           | \$267           | \$7               | --                | \$6           | (9%)          | NA                    | 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           | (56%)         | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 07/26/18                          | 06/29/18    | 27           | Pinduoduo                            | \$19,422       | \$1,626           | \$21,048       | NM            | NM          | 516%                   | 502%           | \$106           | \$19              | --                | \$22          | 18%           | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 06/27/18                          | 06/01/18    | 26           | EverQuote                            | \$411          | \$84              | \$496          | 3.3x          | NM          | 3%                     | 40%            | (\$3)           | \$18              | 6%                | \$4           | (77%)         | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 06/27/18                          | 05/29/18    | 29           | Youxinpai (Beijing) Information Tech | \$2,332        | \$225             | \$2,557        | 18.3x         | NM          | 3%                     | 394%           | (\$527)         | \$9               | (14%)             | \$5           | (46%)         | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 06/27/18                          | 05/23/18    | 35           | HyreCar                              | (\$4)          | \$13              | \$8            | 0.0x          | NM          | 24,780%                | NM             | \$7             | \$5               | --                | \$2           | (52%)         | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 05/23/18                          | 04/27/18    | 26           | GreenSky                             | \$0            | \$874             | \$874          | 0.0x          | 0.0x        | 24%                    | 57%            | (\$528)         | \$23              | --                | \$10          | (58%)         | NA                    | 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              | --                | \$15          | 27%           | NA                    | 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%                | \$6           | (68%)         | NA                    | 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              | --                | \$15          | (17%)         | NA                    | 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%)             | \$6           | (49%)         | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 09/21/16                          | 08/22/16    | 30           | The Trade Desk                       | \$604          | \$84              | \$688          | 4.1x          | 6.4x        | 234%                   | 48%            | (\$18)          | \$18              | --                | \$116         | 545%          | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 07/14/16                          | 06/10/16    | 34           | LINE                                 | \$6,896        | \$7,225           | \$14,121       | 6.6x          | NM          | 29%                    | 34%            | (\$66)          | \$33              | 1%                | \$34          | 4%            | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 06/23/16                          | 05/26/16    | 28           | Twilio                               | \$1,245        | \$150             | \$1,395        | 6.5x          | NM          | 117%                   | 49%            | \$103           | \$15              | 7%                | \$89          | 495%          | NA                    | 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              | --                | \$11          | 8%            | NA                    | 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              | --                | \$43          | 256%          | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 05/20/15                          | 04/17/15    | 33           | Baozun Commerce                      | \$1,348        | \$110             | \$1,458        | NM            | 30.2x       | NM                     | NM             | \$28            | \$10              | (17%)             | \$29          | 192%          | 386                   | \$81          | 74%                   | \$12            | (26%)            | NA             |
| 04/08/15                          | 01/09/15    | 89           | Beijing Wo Wo Group Information Tr   | \$2,999        | \$40              | \$3,039        | NM            | NM          | NM                     | NM             | \$1             | \$10              | --                | \$1           | (93%)         | NA                    | NA            | NA                    | NA              | NA               | NA             |
| 04/01/15                          | 06/09/14    | 296          | GoDaddy                              | \$1,662        | \$460             | \$2,122        | 1.2x          | 3.7x        | 23%                    | 19%            | (\$1,282)       | \$20              | 5%                | \$66          | 228%          | 585                   | \$928         | 202%                  | \$39            | 102%             | 2%             |
| <b>Median</b>                     | <b>30</b>   |              |                                      | <b>\$1,775</b> | <b>\$228</b>      | <b>\$2,114</b> | <b>6.6x</b>   | <b>3.7x</b> | <b>69%</b>             | <b>54%</b>     | <b>\$21</b>     | <b>\$15</b>       | <b>5%</b>         |               | <b>3%</b>     | <b>486</b>            | <b>\$505</b>  | <b>138%</b>           | <b>\$25</b>     | <b>38%</b>       | <b>2%</b>      |
| <b>Mean</b>                       | <b>45</b>   |              |                                      | <b>\$7,061</b> | <b>\$1,455</b>    | <b>\$8,515</b> | <b>7.0x</b>   | <b>8.0x</b> | <b>1551%</b>           | <b>123%</b>    | <b>\$25</b>     | <b>\$15</b>       | <b>0%</b>         |               | <b>55%</b>    | <b>486</b>            | <b>\$505</b>  | <b>138%</b>           | <b>\$25</b>     | <b>38%</b>       | <b>2%</b>      |

Source: Capital IQ and Pitchbook as of 12/31/18

# Hardware & Tech-Enabled Services IPOs

| IPO Date                                  | Filing Date | Days on File | Company                    | EV             | IPO Amount Raised | Market Cap     | LTM Multiples |              | Metrics and Financings |                |                 | 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 |
| <b>Hardware and Tech-Enabled Services</b> |             |              |                            |                |                   |                |               |              |                        |                |                 |                   |                   |               |               |                       |               |                       |                 |                  |                |
| 08/03/18                                  | 07/06/18    | 28           | Arlo Technologies          | \$1,000        | \$163             | \$1,163        | 2.4x          | NM           | 122%                   | 26%            | \$70            | \$16              | (11%)             | \$10          | (38%)         | 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          | (35%)         | NA                    | NA            | NA                    | NA              | NA               |                |
| 04/25/18                                  | 03/30/18    | 26           | nLIGHT                     | \$9,946        | \$96              | \$10,042       | NM            | NM           | NM                     | NM             | \$19            | \$16              | 7%                | \$18          | 11%           | NA                    | NA            | NA                    | NA              | NA               |                |
| 02/09/18                                  | 01/12/18    | 28           | Huami                      | \$8,060        | \$55              | \$8,115        | NM            | NM           | 20%                    | 44%            | \$68            | \$11              | --                | \$10          | (11%)         | 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           | (61%)         | 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              | --                | \$31          | 119%          | NA                    | NA            | NA                    | NA              | NA               |                |
| 05/25/17                                  | 04/28/17    | 27           | Smart Modular Technologies | \$181          | \$58              | \$239          | 0.3x          | 0.8x         | (3%)                   | 53%            | (\$192)         | \$11              | (15%)             | \$30          | 170%          | NA                    | NA            | NA                    | NA              | NA               |                |
| 11/01/16                                  | 10/04/16    | 28           | GDS Services               | \$7,333        | \$193             | \$7,526        | NM            | NM           | 109%                   | NM             | (\$512)         | \$10              | (17%)             | \$23          | 131%          | NA                    | NA            | NA                    | NA              | NA               |                |
| 10/28/16                                  | 09/29/16    | 29           | Quantenna Communications   | \$500          | \$107             | \$607          | 4.3x          | NM           | 75%                    | 40%            | \$11            | \$16              | --                | \$14          | (10%)         | NA                    | NA            | NA                    | NA              | NA               |                |
| 08/12/16                                  | 07/15/16    | 28           | Airgain                    | \$50           | \$12              | \$62           | 1.6x          | NM           | 20%                    | 41%            | \$0             | \$8               | (11%)             | \$10          | 24%           | (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               |                |
| 11/18/15                                  | 10/16/15    | 33           | Mimecast                   | \$503          | \$78              | \$581          | 4.1x          | 33.8x        | 39%                    | NM             | \$25            | \$10              | --                | \$34          | 236%          | 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               |                |
| 10/09/15                                  | 08/07/15    | 63           | CPI Card Group             | \$420          | \$150             | \$570          | 1.2x          | NM           | 72%                    | 5%             | (\$154)         | \$10              | (17%)             | \$2           | (77%)         | 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              | --                | \$16          | (5%)          | NA                    | NA            | NA                    | NA              | NA               |                |
| 06/26/15                                  | 05/22/15    | 35           | Alarm.com                  | \$571          | \$98              | \$669          | 3.2x          | 14.2x        | 36%                    | 11%            | \$32            | \$14              | --                | \$52          | 271%          | 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%                | \$5           | (75%)         | (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              | --                | \$45          | 84%           | NA                    | NA            | NA                    | NA              | NA               |                |
| 03/26/15                                  | 02/18/15    | 36           | Solareedge Technologies    | \$651          | \$126             | \$777          | 3.0x          | 3.9x         | 173%                   | NM             | \$19            | \$18              | --                | \$35          | 95%           | NA                    | NA            | NA                    | NA              | NA               |                |
| <b>Median</b>                             | <b>33</b>   |              |                            | <b>\$651</b>   | <b>\$107</b>      | <b>\$777</b>   | <b>3.0x</b>   | <b>3.9x</b>  | <b>58%</b>             | <b>40%</b>     | <b>\$19</b>     |                   | <b>(14%)</b>      |               | <b>11%</b>    | <b>(47)</b>           | <b>\$266</b>  | <b>200%</b>           | <b>\$24</b>     | <b>100%</b>      | <b>57%</b>     |
| <b>Mean</b>                               | <b>52</b>   |              |                            | <b>\$2,174</b> | <b>\$169</b>      | <b>\$2,343</b> | <b>4.5x</b>   | <b>11.0x</b> | <b>104%</b>            | <b>38%</b>     | <b>(\$124)</b>  |                   | <b>(13%)</b>      |               | <b>61%</b>    | <b>(47)</b>           | <b>\$266</b>  | <b>200%</b>           | <b>\$24</b>     | <b>100%</b>      | <b>57%</b>     |

Source: Capital IQ and Pitchbook as of 12/31/18

# Public Company Valuation

| Company                             | Price<br>12/31/18 | 52-Wk<br>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         |
| <b>CRM</b>                          |                   |               |                 |                 |              |             |             |              |              |              |              |              |              |
| Salesforce                          | \$136.97          | 85%           | \$104,782       | \$105,723       | 8.5x         | 8.0x        | 6.6x        | NM           | 33.0x        | 26.7x        | NM           | 52.5x        | 49.6x        |
| Zendesk                             | 58.37             | 81%           | 6,248           | 6,249           | 11.4         | 8.0         | 6.2         | NM           | NM           | NM           | NM           | NM           | 74.8         |
| HubSpot                             | 125.73            | 78%           | 4,933           | 4,685           | 9.9          | 7.4         | 6.0         | NM           | NM           | 46.4         | NM           | 113.8        | 76.7         |
| Pegasystems                         | 47.83             | 72%           | 3,764           | 3,558           | 4.2          | 3.8         | 3.3         | NM           | NM           | NM           | NM           | 71.9         | 42.0         |
| Five9                               | 43.72             | 90%           | 2,570           | 2,497           | 10.4         | 8.4         | 7.1         | NM           | 48.7         | 36.8         | NM           | 74.1         | 56.1         |
| LivePerson                          | 18.86             | 69%           | 1,196           | 1,130           | 4.7          | 4.0         | 3.5         | NM           | NM           | 45.5         | NM           | NM           | NM           |
| <b>Median</b>                       |                   | <b>80%</b>    | <b>\$4,348</b>  | <b>\$4,122</b>  | <b>9.2x</b>  | <b>7.7x</b> | <b>6.1x</b> | <b>NM</b>    | <b>40.9x</b> | <b>41.2x</b> | <b>NM</b>    | <b>73.0x</b> | <b>56.1x</b> |
| <b>Mean</b>                         |                   | <b>79%</b>    | <b>\$20,582</b> | <b>\$20,640</b> | <b>8.2x</b>  | <b>6.6x</b> | <b>5.5x</b> | <b>NM</b>    | <b>40.9x</b> | <b>38.9x</b> | <b>NM</b>    | <b>78.1x</b> | <b>59.8x</b> |
| <b>Accounting / ERP</b>             |                   |               |                 |                 |              |             |             |              |              |              |              |              |              |
| Oracle                              | \$45.15           | 85%           | \$162,040       | \$171,170       | 4.3x         | 4.3x        | 4.2x        | 10.4x        | 9.2x         | 8.8x         | 40.4x        | 13.3x        | 12.3x        |
| SAP                                 | 99.44             | 78%           | 122,161         | 116,412         | 4.1          | 3.8         | 3.5         | 15.1         | 10.9         | 9.7          | 23.2         | 18.1         | 16.1         |
| International Business Machines     | 113.67            | 67%           | 103,303         | 135,863         | 1.7          | 1.7         | 1.7         | 8.3          | 7.1          | 6.8          | 18.5         | 8.2          | 8.0          |
| Intuit                              | 196.85            | 85%           | 51,090          | 49,745          | 8.2          | 7.5         | 6.8         | 27.8         | 20.5         | 18.4         | 38.1         | 30.4         | 26.8         |
| The Sage Group (Financial Software) | 7.63              | 66%           | 8,285           | 9,155           | 3.7          | 3.6         | 3.4         | 13.8         | 14.0         | 12.9         | 19.3         | 19.4         | 17.7         |
| Xero                                | 29.60             | 77%           | 4,134           | 4,078           | 12.1         | 10.6        | 8.3         | NM           | NM           | 40.9         | NM           | NM           | NM           |
| Coupa                               | 62.86             | 78%           | 3,737           | 3,502           | 14.6         | 13.8        | 11.2        | NM           | NM           | NM           | NM           | NM           | NM           |
| BlackLine                           | 40.95             | 72%           | 2,238           | 2,113           | 9.7          | 7.6         | 6.2         | NM           | NM           | NM           | NM           | NM           | NM           |
| Qad                                 | 39.33             | 64%           | 740             | 615             | 1.9          | 1.9         | 1.7         | 48.8         | 26.0         | 24.0         | NM           | 52.4         | 51.8         |
| Upland Software                     | 27.18             | 72%           | 587             | 729             | 5.5          | 3.8         | 3.8         | 49.3         | 10.6         | 9.7          | NM           | 13.4         | 13.8         |
| <b>Median</b>                       |                   | <b>75%</b>    | <b>\$6,209</b>  | <b>\$6,617</b>  | <b>4.9x</b>  | <b>4.1x</b> | <b>4.0x</b> | <b>15.1x</b> | <b>10.9x</b> | <b>11.3x</b> | <b>23.2x</b> | <b>18.1x</b> | <b>16.1x</b> |
| <b>Mean</b>                         |                   | <b>74%</b>    | <b>\$45,831</b> | <b>\$49,338</b> | <b>6.6x</b>  | <b>5.9x</b> | <b>5.1x</b> | <b>24.8x</b> | <b>14.0x</b> | <b>16.4x</b> | <b>27.9x</b> | <b>22.2x</b> | <b>20.9x</b> |
| <b>Supply Chain Management</b>      |                   |               |                 |                 |              |             |             |              |              |              |              |              |              |
| SAP                                 | \$99.44           | 78%           | \$122,161       | \$116,412       | 4.1x         | 3.8x        | 3.5x        | 15.1x        | 10.9x        | 9.7x         | 23.2x        | 18.1x        | 16.1x        |
| Dassault Systemes                   | 118.62            | 73%           | 30,685          | 28,723          | 7.2          | 6.6         | 6.1         | 24.1         | 19.4         | 17.5         | 43.5         | 30.8         | 27.5         |
| PTC                                 | 82.90             | 78%           | 9,838           | 10,196          | 8.2          | 7.7         | 6.7         | NM           | 26.0         | 20.8         | NM           | 48.5         | 32.0         |
| Aspen Technology                    | 82.18             | 69%           | 5,816           | 5,934           | 12.1         | 10.7        | 10.0        | 29.7         | 21.4         | 20.0         | 38.6         | 24.7         | 23.3         |
| Manhattan Associates                | 42.37             | 70%           | 2,770           | 2,676           | 4.8          | 4.7         | 4.7         | 17.4         | 20.9         | 20.7         | 27.7         | 30.7         | 29.6         |
| Descartes Systems Group             | 26.45             | 75%           | 2,033           | 2,051           | 7.7          | 7.4         | 6.7         | 24.6         | 21.9         | 19.2         | 62.3         | 22.0         | 19.5         |
| American Software                   | 10.45             | 55%           | 323             | 243             | 2.1          | 2.1         | 2.0         | 15.7         | 15.7         | 12.1         | 34.6         | 34.8         | 29.0         |
| <b>Median</b>                       |                   | <b>73%</b>    | <b>\$5,816</b>  | <b>\$5,934</b>  | <b>7.2x</b>  | <b>6.6x</b> | <b>6.1x</b> | <b>20.8x</b> | <b>20.9x</b> | <b>19.2x</b> | <b>36.6x</b> | <b>30.7x</b> | <b>27.5x</b> |
| <b>Mean</b>                         |                   | <b>71%</b>    | <b>\$24,804</b> | <b>\$23,748</b> | <b>6.6x</b>  | <b>6.1x</b> | <b>5.7x</b> | <b>21.1x</b> | <b>19.4x</b> | <b>17.1x</b> | <b>38.3x</b> | <b>30.0x</b> | <b>25.3x</b> |

Source: Capital IQ and Pitchbook as of 12/31/18

# Public Company Valuation (cont.)

| Company                               | Price<br>12/31/18 | 52-Wk<br>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         |
| <b>Human Capital Management</b>       |                   |               |                 |                 |              |             |             |              |              |              |              |              |              |
| Workday                               | \$159.68          | 95%           | \$34,810        | \$34,419        | 13.2x        | 12.2x       | 9.8x        | NM           | NM           | NM           | NM           | 126.7x       | 101.4x       |
| Paychex                               | 65.15             | 87%           | 23,395          | 22,693          | 6.6          | 6.0         | 5.4         | 16.4         | 14.9         | 13.7         | 24.1         | 22.8         | 21.2         |
| Ultimate Software Group               | 244.87            | 74%           | 7,657           | 7,528           | 6.9          | 5.5         | 4.6         | NM           | 23.3         | 19.5         | NM           | 40.1         | 33.0         |
| Paycom Software                       | 122.45            | 75%           | 7,177           | 7,127           | 13.4         | 10.3        | 8.5         | 49.9         | 24.9         | 20.4         | 72.4         | 37.9         | 31.7         |
| Paylocity                             | 60.21             | 71%           | 3,179           | 1,926           | 4.9          | 4.2         | 3.5         | 37.1         | 15.0         | 11.9         | 65.9         | 47.4         | 37.4         |
| Cornerstone OnDemand                  | 50.43             | 87%           | 2,956           | 2,853           | 5.4          | 5.0         | 4.4         | NM           | 22.3         | 17.2         | NM           | 46.3         | 34.3         |
| <b>Median</b>                         |                   | <b>81%</b>    | <b>\$7,417</b>  | <b>\$7,328</b>  | <b>6.7x</b>  | <b>5.8x</b> | <b>5.0x</b> | <b>37.1x</b> | <b>22.3x</b> | <b>17.2x</b> | <b>65.9x</b> | <b>43.2x</b> | <b>33.6x</b> |
| <b>Mean</b>                           |                   | <b>81%</b>    | <b>\$13,196</b> | <b>\$12,758</b> | <b>8.4x</b>  | <b>7.2x</b> | <b>6.0x</b> | <b>34.5x</b> | <b>20.1x</b> | <b>16.5x</b> | <b>54.1x</b> | <b>53.5x</b> | <b>43.2x</b> |
| <b>Knowledge / Content Management</b> |                   |               |                 |                 |              |             |             |              |              |              |              |              |              |
| Adobe Systems                         | \$226.24          | 82%           | \$110,435       | \$111,331       | 12.3x        | 10.0x       | 8.5x        | 35.8x        | 22.5x        | 18.4x        | 42.8x        | 29.2x        | 23.4x        |
| VeriSign                              | 148.29            | 90%           | 17,927          | 18,532          | 15.4         | 14.5        | 13.8        | 23.4         | 20.3         | 19.0         | 31.5         | 28.7         | 26.3         |
| Akamai Technologies                   | 61.08             | 74%           | 9,948           | 9,691           | 3.6          | 3.3         | 3.1         | 14.0         | 8.1          | 7.3          | 32.0         | 15.3         | 13.2         |
| OpenText                              | 32.67             | 82%           | 8,773           | 10,605          | 3.7          | 3.7         | 3.6         | 10.7         | 9.9          | 9.4          | 32.2         | 12.3         | 11.2         |
| SDL                                   | 6.06              | 90%           | 549             | 520             | 1.3          | 1.1         | 1.0         | 16.9         | 10.4         | 9.2          | 16.5         | 16.8         | 14.6         |
| MobileIron                            | 4.59              | 81%           | 484             | 382             | 2.1          | 1.8         | 1.7         | NM           | 28.9         | 19.5         | NM           | NM           | 65.6         |
| Brightcove                            | 7.04              | 67%           | 257             | 230             | 1.4          | 1.3         | 1.2         | NM           | 32.9         | 14.9         | NM           | 82.8         | 25.1         |
| <b>Median</b>                         |                   | <b>82%</b>    | <b>\$8,773</b>  | <b>\$9,691</b>  | <b>3.6x</b>  | <b>3.3x</b> | <b>3.1x</b> | <b>16.9x</b> | <b>20.3x</b> | <b>14.9x</b> | <b>32.0x</b> | <b>22.8x</b> | <b>23.4x</b> |
| <b>Mean</b>                           |                   | <b>81%</b>    | <b>\$21,196</b> | <b>\$21,613</b> | <b>5.7x</b>  | <b>5.1x</b> | <b>4.7x</b> | <b>20.1x</b> | <b>19.0x</b> | <b>14.0x</b> | <b>31.0x</b> | <b>30.9x</b> | <b>25.6x</b> |
| <b>Business Intelligence</b>          |                   |               |                 |                 |              |             |             |              |              |              |              |              |              |
| International Business Machines       | \$113.67          | 67%           | \$103,303       | \$135,863       | 1.7x         | 1.7x        | 1.7x        | 8.3x         | 7.1x         | 6.8x         | 18.5x        | 8.2x         | 8.0x         |
| Tableau Software                      | 120.00            | 92%           | 10,028          | 9,071           | 8.5          | 6.6         | 5.5         | NM           | 42.7         | 30.7         | NM           | 75.1         | 57.8         |
| NICE Systems                          | 108.21            | 92%           | 6,605           | 6,609           | 4.6          | 4.2         | 3.8         | 19.6         | 14.2         | 12.8         | 37.4         | 21.3         | 19.3         |
| Teradata                              | 38.36             | 87%           | 4,534           | 4,263           | 1.9          | 2.0         | 1.9         | 20.1         | 11.3         | 9.9          | NM           | 24.2         | 19.5         |
| Nuance                                | 13.23             | 71%           | 3,803           | 5,537           | 2.7          | 2.7         | 2.6         | 45.6         | 9.1          | 7.9          | 50.1         | 10.7         | 10.3         |
| Pegasystems                           | 47.83             | 72%           | 3,764           | 3,558           | 4.2          | 3.8         | 3.3         | NM           | NM           | NM           | NM           | 71.9         | 42.0         |
| Verint Systems                        | 42.31             | 82%           | 2,762           | 3,148           | 2.6          | 2.5         | 2.4         | 15.7         | 10.9         | 9.7          | 50.4         | 13.4         | 12.1         |
| Progress Software                     | 35.49             | 68%           | 1,594           | 1,573           | 3.9          | 4.1         | 4.1         | 11.7         | 10.4         | 10.0         | 24.5         | 15.0         | 14.0         |
| MicroStrategy                         | 127.75            | 85%           | 1,465           | 766             | 1.5          | 1.5         | 1.5         | 24.3         | 24.5         | NM           | NM           | 37.0         | 60.1         |
| Talend                                | 37.08             | 51%           | 1,115           | 1,026           | 5.4          | 4.1         | 3.4         | NM           | NM           | NM           | NM           | NM           | NM           |
| <b>Median</b>                         |                   | <b>77%</b>    | <b>\$3,783</b>  | <b>\$3,911</b>  | <b>3.3x</b>  | <b>3.2x</b> | <b>2.9x</b> | <b>19.6x</b> | <b>11.1x</b> | <b>9.9x</b>  | <b>37.4x</b> | <b>21.3x</b> | <b>19.3x</b> |
| <b>Mean</b>                           |                   | <b>77%</b>    | <b>\$13,897</b> | <b>\$17,141</b> | <b>3.7x</b>  | <b>3.3x</b> | <b>3.0x</b> | <b>20.8x</b> | <b>16.3x</b> | <b>12.5x</b> | <b>36.2x</b> | <b>30.8x</b> | <b>27.0x</b> |

Source: Capital IQ and Pitchbook as of 12/31/18

# Public Company Valuation (cont.)

| Company                             | Price<br>12/31/18 | 52-Wk<br>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         |
| <b>Systems / Network Management</b> |                   |               |                 |                 |              |             |             |              |              |              |              |              |              |
| VMware                              | \$137.13          | 82%           | \$56,208        | \$46,921        | 5.4x         | 5.3x        | 4.7x        | 12.9x        | 12.9x        | 12.2x        | 65.8x        | 22.0x        | 20.7x        |
| ServiceNow                          | 178.05            | 87%           | 31,924          | 31,113          | 12.7         | 9.2         | 7.3         | NM           | 33.9         | 25.1         | NM           | 57.3         | 42.6         |
| Splunk                              | 104.85            | 82%           | 15,495          | 14,438          | 9.0          | 8.3         | 6.7         | NM           | NM           | 39.9         | NM           | 90.0         | 65.7         |
| Citrix Systems                      | 102.46            | 90%           | 13,808          | 14,131          | 4.8          | 4.6         | 4.4         | 16.7         | 12.8         | 11.8         | 66.4         | 16.9         | 15.2         |
| L3 Technologies                     | 173.66            | 79%           | 13,667          | 16,587          | 1.7          | 1.5         | 1.5         | 13.3         | 10.9         | 9.9          | 18.7         | 15.0         | 13.3         |
| Juniper Networks                    | 26.91             | 88%           | 9,288           | 8,037           | 1.7          | 1.7         | 1.6         | 10.1         | 7.4          | 7.1          | 35.4         | 13.4         | 12.2         |
| LogMeIn                             | 81.57             | 61%           | 4,176           | 4,209           | 3.6          | 3.4         | 3.2         | 11.5         | 8.9          | 8.3          | 35.7         | 14.0         | 13.0         |
| NetScout Systems                    | 23.63             | 75%           | 1,836           | 1,984           | 2.1          | 2.1         | 2.1         | 24.4         | 9.7          | 8.1          | 40.3         | 18.0         | 13.7         |
| <b>Median</b>                       |                   | <b>82%</b>    | <b>\$13,737</b> | <b>\$14,285</b> | <b>4.2x</b>  | <b>4.0x</b> | <b>3.8x</b> | <b>13.1x</b> | <b>10.9x</b> | <b>10.8x</b> | <b>38.0x</b> | <b>17.5x</b> | <b>14.5x</b> |
| <b>Mean</b>                         |                   | <b>80%</b>    | <b>\$18,300</b> | <b>\$17,178</b> | <b>5.1x</b>  | <b>4.5x</b> | <b>3.9x</b> | <b>14.8x</b> | <b>13.8x</b> | <b>15.3x</b> | <b>43.7x</b> | <b>30.8x</b> | <b>24.6x</b> |
| <b>Security / Storage</b>           |                   |               |                 |                 |              |             |             |              |              |              |              |              |              |
| VeriSign                            | \$148.29          | 90%           | \$17,927        | \$18,532        | 15.4x        | 14.5x       | 13.8x       | 23.4x        | 20.3x        | 19.0x        | 31.5x        | 28.7x        | 26.3x        |
| Palo Alto Networks                  | 188.35            | 80%           | 17,871          | 16,298          | 6.7          | 5.8         | 4.9         | NM           | 21.3         | 17.5         | NM           | 36.4         | 30.2         |
| Splunk                              | 104.85            | 82%           | 15,495          | 14,438          | 9.0          | 8.3         | 6.7         | NM           | NM           | 39.9         | NM           | 90.0         | 65.7         |
| Symantec                            | 18.90             | 64%           | 12,072          | 14,675          | 3.1          | 3.1         | 3.0         | 10.5         | 7.2          | 7.2          | 11.2         | 12.3         | 10.8         |
| Fortinet                            | 70.43             | 76%           | 11,999          | 10,365          | 6.1          | 5.0         | 4.5         | 43.6         | 19.6         | 16.7         | 96.5         | 35.0         | 30.3         |
| Proofpoint                          | 83.81             | 65%           | 4,580           | 4,390           | 6.6          | 5.0         | 4.2         | NM           | 33.4         | 24.7         | NM           | 51.4         | 37.2         |
| FireEye                             | 16.21             | 80%           | 3,194           | 3,056           | 3.9          | 3.4         | 3.2         | NM           | 26.2         | 21.4         | NM           | 90.1         | 49.9         |
| Qualys                              | 74.74             | 77%           | 2,943           | 2,617           | 9.8          | 7.9         | 6.6         | 35.9         | 20.3         | 16.6         | 63.6         | 40.3         | 33.5         |
| CyberArk                            | 74.14             | 93%           | 2,638           | 2,251           | 7.2          | 5.7         | 4.7         | NM           | 23.0         | 18.8         | 100.6        | 38.4         | 32.2         |
| Box                                 | 16.88             | 58%           | 2,421           | 2,319           | 4.0          | 3.8         | 3.2         | NM           | NM           | 44.9         | NM           | NM           | NM           |
| Sophos                              | 4.80              | 51%           | 2,306           | 2,438           | 3.5          | 3.4         | 3.1         | 44.5         | 22.9         | 18.9         | NM           | 32.3         | 28.4         |
| Imperva                             | 55.69             | 98%           | 1,973           | 1,669           | 4.7          | 4.2         | 3.9         | NM           | 33.0         | 24.8         | NM           | 58.9         | 57.4         |
| Rapid7                              | 31.16             | 80%           | 1,475           | 1,375           | 5.9          | 4.7         | 3.9         | NM           | NM           | 49.3         | NM           | NM           | 93.0         |
| SecureWorks                         | 16.89             | 92%           | 1,380           | 1,264           | 2.5          | 2.4         | 2.2         | NM           | NM           | NM           | NM           | NM           | NM           |
| ForeScout                           | 25.99             | 64%           | 1,114           | 921             | 3.4          | 2.6         | 2.2         | NM           | NM           | 46.8         | NM           | NM           | NM           |
| Radware                             | 22.71             | 81%           | 1,012           | 712             | 3.1          | 2.8         | 2.5         | 39.0         | 19.0         | 13.3         | NM           | 36.4         | 27.0         |
| Zix                                 | 5.73              | 84%           | 310             | 287             | 4.2          | 3.8         | 1.4         | 20.3         | 11.5         | 5.5          | NM           | 15.7         | 11.2         |
| <b>Median</b>                       |                   | <b>80%</b>    | <b>\$2,638</b>  | <b>\$2,438</b>  | <b>4.7x</b>  | <b>4.2x</b> | <b>3.9x</b> | <b>35.9x</b> | <b>20.8x</b> | <b>19.0x</b> | <b>63.6x</b> | <b>36.4x</b> | <b>31.3x</b> |
| <b>Mean</b>                         |                   | <b>77%</b>    | <b>\$5,924</b>  | <b>\$5,742</b>  | <b>5.8x</b>  | <b>5.1x</b> | <b>4.4x</b> | <b>31.0x</b> | <b>21.5x</b> | <b>24.1x</b> | <b>60.7x</b> | <b>43.5x</b> | <b>38.1x</b> |

Source: Capital IQ and Pitchbook as of 12/31/18

# Public Company Valuation (cont.)

| Company                                       | Price<br>12/31/18 | 52-Wk<br>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         |
| <b>Application Infrastructure</b>             |                   |               |                 |                 |              |             |             |              |              |              |              |              |              |
| Microsoft                                     | \$101.57          | 88%           | \$779,674       | \$720,024       | 6.3x         | 5.8x        | 5.2x        | 13.8x        | 13.6x        | 11.9x        | 45.1x        | 22.9x        | 20.3x        |
| Oracle  | 45.15             | 85%           | 162,040         | 171,170         | 4.3          | 4.3         | 4.2         | 10.4         | 9.2          | 8.8          | 40.4         | 13.3         | 12.3         |
| International Business Machines               | 113.67            | 67%           | 103,303         | 135,863         | 1.7          | 1.7         | 1.7         | 8.3          | 7.1          | 6.8          | 18.5         | 8.2          | 8.0          |
| Red Hat                                       | 175.64            | 98%           | 31,050          | 29,798          | 9.4          | 8.8         | 7.7         | 49.2         | 32.7         | 28.2         | 109.1        | 49.6         | 44.1         |
| Atlassian                                     | 88.98             | 93%           | 21,190          | 20,223          | 21.3         | 16.9        | 13.2        | NM           | NM           | 47.6         | NM           | 108.5        | 87.7         |
| Hewlett Packard Enterprise                    | 13.21             | 68%           | 18,477          | 25,773          | 0.8          | 0.8         | 0.8         | 8.3          | 4.9          | 4.8          | 7.4          | 8.4          | 7.7          |
| Nutanix                                       | 41.59             | 65%           | 7,450           | 6,922           | 5.8          | 5.0         | 3.8         | NM           | NM           | NM           | NM           | NM           | NM           |
| New Relic                                     | 80.97             | 71%           | 4,612           | 4,280           | 10.4         | 9.1         | 7.2         | NM           | NM           | NM           | NM           | NM           | 103.1        |
| Software                                      | 36.03             | 60%           | 2,666           | 2,187           | 2.1          | 2.1         | 2.0         | 7.1          | 6.9          | 6.6          | 14.3         | 12.1         | 11.5         |
| Apptio  | 37.96             | 92%           | 1,730           | 1,584           | 7.1          | 5.8         | 4.9         | NM           | NM           | NM           | NM           | NM           | 104.1        |
| Progress Software                             | 35.49             | 68%           | 1,594           | 1,573           | 3.9          | 4.1         | 4.1         | 11.7         | 10.4         | 10.0         | 24.5         | 15.0         | 14.0         |
| Hortonworks                                   | 14.42             | 57%           | 1,215           | 1,113           | 3.4          | 2.6         | 2.1         | NM           | NM           | NM           | NM           | NM           | NM           |
| <b>Median</b>                                 |                   | <b>70%</b>    | <b>\$12,963</b> | <b>\$13,573</b> | <b>5.1x</b>  | <b>4.7x</b> | <b>4.1x</b> | <b>10.4x</b> | <b>9.2x</b>  | <b>9.4x</b>  | <b>24.5x</b> | <b>14.2x</b> | <b>17.2x</b> |
| <b>Mean</b>                                   |                   | <b>76%</b>    | <b>\$94,583</b> | <b>\$93,376</b> | <b>6.4x</b>  | <b>5.6x</b> | <b>4.7x</b> | <b>15.6x</b> | <b>12.1x</b> | <b>15.6x</b> | <b>37.1x</b> | <b>29.8x</b> | <b>41.3x</b> |
| <b>Financial Technology</b>                   |                   |               |                 |                 |              |             |             |              |              |              |              |              |              |
| Fiserv  | \$73.49           | 89%           | \$29,284        | \$33,886        | 5.9x         | 5.5x        | 5.2x        | 15.0x        | 14.5x        | 13.4x        | 24.5x        | 21.1x        | 18.8x        |
| Square  | 56.09             | 57%           | 23,193          | 22,777          | 7.6          | 10.1        | 7.6         | NM           | NM           | 34.5         | NM           | 79.0         | 50.8         |
| First Data                                    | 16.91             | 64%           | 15,836          | 35,876          | 3.5          | 4.0         | 3.8         | 11.3         | 10.6         | 9.7          | 9.2          | 10.7         | 9.3          |
| MSCI  | 147.43            | 81%           | 12,979          | 14,155          | 10.1         | 9.3         | 8.4         | 18.5         | 16.9         | 15.1         | 32.1         | 25.0         | 21.4         |
| Jack Henry and Associates                     | 126.52            | 78%           | 9,780           | 9,665           | 6.2          | 6.2         | 5.7         | 17.3         | 18.3         | 16.5         | 24.6         | 34.5         | 31.0         |
| FactSet Research Systems                      | 200.13            | 85%           | 7,612           | 7,949           | 6.1          | 5.5         | 5.2         | 19.5         | 16.0         | 14.8         | 29.0         | 21.0         | 19.0         |
| Guidewire Software                            | 80.23             | 75%           | 6,501           | 5,725           | 7.8          | 7.9         | 6.9         | NM           | 37.3         | 29.9         | NM           | 62.2         | 52.4         |
| Fair Isaac                                    | 187.00            | 78%           | 5,415           | 6,089           | 5.9          | 5.4         | 5.0         | 24.4         | 24.0         | 21.2         | 39.3         | 27.0         | 23.7         |
| ACI Worldwide                                 | 27.67             | 92%           | 3,209           | 3,808           | 3.7          | 3.5         | 3.4         | 17.9         | 12.5         | 11.6         | NM           | 29.4         | 23.8         |
| Envestnet                                     | 49.19             | 77%           | 2,365           | 2,668           | 3.4          | 3.0         | 2.7         | 35.3         | 15.0         | 12.9         | 93.1         | 23.8         | 19.9         |
| Ellie Mae                                     | 62.83             | 54%           | 2,189           | 1,917           | 4.0          | 3.7         | 3.4         | 21.5         | 13.3         | 11.8         | 66.8         | 31.6         | 26.9         |
| Q2 Holdings                                   | 49.55             | 75%           | 2,149           | 2,031           | 9.0          | 6.6         | 5.4         | NM           | NM           | 42.4         | NM           | NM           | 85.4         |
| Bottomline Technologies                       | 48.00             | 66%           | 2,068           | 2,089           | 5.2          | 4.9         | 4.5         | 39.3         | 20.5         | 17.7         | NM           | 33.2         | 28.3         |
| Ebix  | 42.56             | 49%           | 1,331           | 1,873           | 4.0          | 3.1         | 2.2         | 12.2         | 9.4          | 7.6          | 11.8         | 9.0          | 7.6          |
| <b>Median</b>                                 |                   | <b>76%</b>    | <b>\$5,958</b>  | <b>\$5,907</b>  | <b>5.9x</b>  | <b>5.4x</b> | <b>5.1x</b> | <b>18.5x</b> | <b>15.5x</b> | <b>14.9x</b> | <b>29.0x</b> | <b>27.0x</b> | <b>23.7x</b> |
| <b>Mean</b>                                   |                   | <b>73%</b>    | <b>\$8,851</b>  | <b>\$10,750</b> | <b>5.9x</b>  | <b>5.6x</b> | <b>5.0x</b> | <b>21.1x</b> | <b>17.4x</b> | <b>18.5x</b> | <b>36.7x</b> | <b>31.4x</b> | <b>29.9x</b> |
| <b>Healthcare IT / Life Sciences Software</b> |                   |               |                 |                 |              |             |             |              |              |              |              |              |              |
| Cerner  | \$52.44           | 72%           | \$17,278        | \$16,906        | 3.2x         | 2.9x        | 2.6x        | 11.5x        | 9.9x         | 9.0x         | 20.8x        | 19.5x        | 17.4x        |
| Veeva Systems                                 | 89.32             | 82%           | 12,978          | 11,926          | 14.7         | 13.9        | 11.8        | NM           | 38.1         | 32.7         | 67.3         | 56.5         | 50.2         |
| Athenahealth                                  | 131.93            | 82%           | 5,433           | 5,387           | 4.1          | 3.7         | 3.4         | 17.4         | 12.7         | 11.4         | 42.4         | 27.5         | 22.5         |
| Medidata Solutions                            | 67.42             | 76%           | 4,125           | 4,016           | 6.6          | 5.4         | 4.6         | 41.6         | 21.7         | 17.6         | 73.7         | 36.9         | 29.8         |
| Allscripts Healthcare Solutions               | 9.64              | 60%           | 1,684           | 3,430           | 1.6          | 1.6         | 1.6         | 10.0         | 7.7          | 8.7          | NM           | 11.9         | 10.7         |
| NextGen Healthcare                            | 15.15             | 66%           | 980             | 991             | 1.9          | 1.9         | 1.8         | 21.4         | 12.1         | 10.9         | 102.8        | 21.0         | 18.9         |
| HealthStream                                  | 24.15             | 76%           | 781             | 606             | 2.3          | 2.5         | 2.4         | 14.6         | 14.3         | 15.1         | 53.4         | 63.6         | 83.3         |
| Cegedim                                       | 22.59             | 43%           | 316             | 501             | 0.9          | 0.9         | 0.9         | 5.3          | 5.3          | 4.9          | 10.5         | 11.9         | 7.1          |
| Castlight Health                              | 2.17              | 39%           | 303             | 239             | 1.6          | 1.5         | 1.3         | NM           | 31.2         | 13.9         | NM           | NM           | 36.2         |
| <b>Median</b>                                 |                   | <b>72%</b>    | <b>\$1,684</b>  | <b>\$3,430</b>  | <b>2.3x</b>  | <b>2.5x</b> | <b>2.4x</b> | <b>14.6x</b> | <b>12.7x</b> | <b>11.4x</b> | <b>53.4x</b> | <b>24.2x</b> | <b>22.5x</b> |
| <b>Mean</b>                                   |                   | <b>66%</b>    | <b>\$4,875</b>  | <b>\$4,889</b>  | <b>4.1x</b>  | <b>3.8x</b> | <b>3.4x</b> | <b>17.4x</b> | <b>17.0x</b> | <b>13.8x</b> | <b>53.0x</b> | <b>31.1x</b> | <b>30.7x</b> |

Source: Capital IQ and Pitchbook as of 12/31/18

# Public Company Operating Metrics

| Company                             | Price<br>12/31/18 | 52-Wk<br>High | Mkt Cap         | EV              | Revenue Growth |            |            | EBITDA Margin |            |            |
|-------------------------------------|-------------------|---------------|-----------------|-----------------|----------------|------------|------------|---------------|------------|------------|
|                                     |                   |               |                 |                 | LTM            | FY+1       | FY+2       | LTM           | FY+1       | FY+2       |
| <b>CRM</b>                          |                   |               |                 |                 |                |            |            |               |            |            |
| Salesforce                          | \$136.97          | 85%           | \$104,782       | \$105,723       | 25%            | 26%        | 21%        | 14%           | 24%        | 25%        |
| Zendesk                             | 58.37             | 81%           | 6,248           | 6,249           | 38%            | 81%        | 30%        | (18%)         | 8%         | 11%        |
| HubSpot                             | 125.73            | 78%           | 4,933           | 4,685           | 38%            | 69%        | 22%        | (6%)          | 12%        | 13%        |
| Pegasystems                         | 47.83             | 72%           | 3,764           | 3,558           | 1%             | 12%        | 14%        | (2%)          | 4%         | 5%         |
| Five9                               | 43.72             | 90%           | 2,570           | 2,497           | 27%            | 48%        | 18%        | 4%            | 17%        | 19%        |
| LivePerson                          | 18.86             | 69%           | 1,196           | 1,130           | 11%            | 30%        | 14%        | (3%)          | 6%         | 8%         |
| <b>Median</b>                       |                   | <b>80%</b>    | <b>\$4,348</b>  | <b>\$4,122</b>  | <b>26%</b>     | <b>39%</b> | <b>19%</b> | <b>(2%)</b>   | <b>12%</b> | <b>13%</b> |
| <b>Mean</b>                         |                   | <b>79%</b>    | <b>\$20,582</b> | <b>\$20,640</b> | <b>23%</b>     | <b>44%</b> | <b>20%</b> | <b>(2%)</b>   | <b>13%</b> | <b>15%</b> |
| <b>Accounting / ERP</b>             |                   |               |                 |                 |                |            |            |               |            |            |
| Oracle                              | \$45.15           | 85%           | \$162,040       | \$171,170       | 3%             | (1%)       | 3%         | 41%           | 47%        | 48%        |
| SAP                                 | 99.44             | 78%           | 122,161         | 116,412         | 11%            | 15%        | 9%         | 27%           | 35%        | 36%        |
| International Business Machines     | 113.67            | 67%           | 103,303         | 135,863         | 3%             | (0%)       | 1%         | 20%           | 24%        | 25%        |
| Intuit                              | 196.85            | 85%           | 51,090          | 49,745          | 15%            | 11%        | 10%        | 29%           | 37%        | 37%        |
| The Sage Group (Financial Software) | 7.63              | 66%           | 8,285           | 9,155           | 14%            | 2%         | 7%         | 27%           | 26%        | 26%        |
| Xero                                | 29.60             | 77%           | 4,134           | 4,078           | 42%            | 30%        | 28%        | 11%           | 14%        | 20%        |
| Coupa                               | 62.86             | 78%           | 3,737           | 3,502           | 40%            | 36%        | 23%        | (13%)         | 8%         | 7%         |
| BlackLine                           | 40.95             | 72%           | 2,238           | 2,113           | 35%            | 58%        | 22%        | (4%)          | 6%         | 8%         |
| Qad                                 | 39.33             | 64%           | 740             | 615             | 11%            | 9%         | 6%         | 4%            | 7%         | 7%         |
| Upland Software                     | 27.18             | 72%           | 587             | 729             | 48%            | 94%        | 2%         | 11%           | 36%        | 39%        |
| <b>Median</b>                       |                   | <b>75%</b>    | <b>\$6,209</b>  | <b>\$6,617</b>  | <b>14%</b>     | <b>13%</b> | <b>8%</b>  | <b>16%</b>    | <b>25%</b> | <b>26%</b> |
| <b>Mean</b>                         |                   | <b>74%</b>    | <b>\$45,831</b> | <b>\$49,338</b> | <b>22%</b>     | <b>25%</b> | <b>11%</b> | <b>15%</b>    | <b>24%</b> | <b>25%</b> |
| <b>Supply Chain Management</b>      |                   |               |                 |                 |                |            |            |               |            |            |
| SAP                                 | \$99.44           | 78%           | \$122,161       | \$116,412       | 11%            | 15%        | 9%         | 27%           | 35%        | 36%        |
| Dassault Systemes                   | 118.62            | 73%           | 30,685          | 28,723          | 13%            | 20%        | 8%         | 30%           | 34%        | 35%        |
| PTC                                 | 82.90             | 78%           | 9,838           | 10,196          | 7%             | 7%         | 14%        | 12%           | 29%        | 32%        |
| Aspen Technology                    | 82.18             | 69%           | 5,816           | 5,934           | 0%             | 12%        | 6%         | 41%           | 50%        | 50%        |
| Manhattan Associates                | 42.37             | 70%           | 2,770           | 2,676           | (7%)           | (5%)       | 1%         | 27%           | 23%        | 23%        |
| Descartes Systems Group             | 26.45             | 75%           | 2,033           | 2,051           | 18%            | 16%        | 11%        | 31%           | 34%        | 35%        |
| American Software                   | 10.45             | 55%           | 323             | 243             | 8%             | 2%         | 8%         | 13%           | 13%        | 16%        |
| <b>Median</b>                       |                   | <b>73%</b>    | <b>\$5,816</b>  | <b>\$5,934</b>  | <b>8%</b>      | <b>12%</b> | <b>8%</b>  | <b>27%</b>    | <b>34%</b> | <b>35%</b> |
| <b>Mean</b>                         |                   | <b>71%</b>    | <b>\$24,804</b> | <b>\$23,748</b> | <b>7%</b>      | <b>9%</b>  | <b>8%</b>  | <b>26%</b>    | <b>31%</b> | <b>32%</b> |

Source: Capital IQ and Pitchbook as of 12/31/18

# Public Company Operating Metrics (cont.)

| Company                               | Price<br>12/31/18 | 52-Wk<br>High | Mkt Cap         | EV              | Revenue Growth |            |            | EBITDA Margin |            |            |
|---------------------------------------|-------------------|---------------|-----------------|-----------------|----------------|------------|------------|---------------|------------|------------|
|                                       |                   |               |                 |                 | LTM            | FY+1       | FY+2       | LTM           | FY+1       | FY+2       |
| <b>Human Capital Management</b>       |                   |               |                 |                 |                |            |            |               |            |            |
| Workday                               | \$159.68          | 95%           | \$34,810        | \$34,419        | 31%            | 31%        | 25%        | (8%)          | 17%        | 19%        |
| Paychex                               | 65.15             | 87%           | 23,395          | 22,693          | 8%             | 12%        | 11%        | 40%           | 40%        | 39%        |
| Ultimate Software Group               | 244.87            | 74%           | 7,657           | 7,528           | 21%            | 45%        | 20%        | 11%           | 24%        | 24%        |
| Paycom Software                       | 122.45            | 75%           | 7,177           | 7,127           | 30%            | 60%        | 21%        | 27%           | 41%        | 42%        |
| Paylocity                             | 60.21             | 71%           | 3,179           | 1,926           | 25%            | 20%        | 21%        | 13%           | 28%        | 29%        |
| Cornerstone OnDemand                  | 50.43             | 87%           | 2,956           | 2,853           | 16%            | 18%        | 15%        | 3%            | 22%        | 25%        |
| <b>Median</b>                         |                   | <b>81%</b>    | <b>\$7,417</b>  | <b>\$7,328</b>  | <b>23%</b>     | <b>26%</b> | <b>20%</b> | <b>12%</b>    | <b>26%</b> | <b>27%</b> |
| <b>Mean</b>                           |                   | <b>81%</b>    | <b>\$13,196</b> | <b>\$12,758</b> | <b>22%</b>     | <b>31%</b> | <b>19%</b> | <b>14%</b>    | <b>29%</b> | <b>30%</b> |
| <b>Knowledge / Content Management</b> |                   |               |                 |                 |                |            |            |               |            |            |
| Adobe Systems                         | \$226.24          | 82%           | \$110,435       | \$111,331       | 24%            | 23%        | 18%        | 34%           | 44%        | 46%        |
| VeriSign                              | 148.29            | 90%           | 17,927          | 18,532          | 4%             | 9%         | 5%         | 66%           | 72%        | 73%        |
| Akamai Technologies                   | 61.08             | 74%           | 9,948           | 9,691           | 9%             | 16%        | 8%         | 26%           | 41%        | 42%        |
| OpenText                              | 32.67             | 82%           | 8,773           | 10,605          | 16%            | 1%         | 4%         | 35%           | 38%        | 38%        |
| SDL                                   | 6.06              | 90%           | 549             | 520             | 8%             | 29%        | 6%         | 8%            | 11%        | 11%        |
| MobileIron                            | 4.59              | 81%           | 484             | 382             | 5%             | 21%        | 3%         | (22%)         | 6%         | 9%         |
| Brightcove                            | 7.04              | 67%           | 257             | 230             | 6%             | 12%        | 9%         | (3%)          | 4%         | 8%         |
| <b>Median</b>                         |                   | <b>82%</b>    | <b>\$8,773</b>  | <b>\$9,691</b>  | <b>8%</b>      | <b>16%</b> | <b>6%</b>  | <b>26%</b>    | <b>38%</b> | <b>38%</b> |
| <b>Mean</b>                           |                   | <b>81%</b>    | <b>\$21,196</b> | <b>\$21,613</b> | <b>10%</b>     | <b>16%</b> | <b>7%</b>  | <b>20%</b>    | <b>31%</b> | <b>33%</b> |
| <b>Business Intelligence</b>          |                   |               |                 |                 |                |            |            |               |            |            |
| International Business Machines       | \$113.67          | 67%           | \$103,303       | \$135,863       | 3%             | (0%)       | 1%         | 20%           | 24%        | 25%        |
| Tableau Software                      | 120.00            | 92%           | 10,028          | 9,071           | 22%            | 56%        | 21%        | (7%)          | 16%        | 18%        |
| NICE Systems                          | 108.21            | 92%           | 6,605           | 6,609           | 13%            | 19%        | 10%        | 24%           | 29%        | 30%        |
| Teradata                              | 38.36             | 87%           | 4,534           | 4,263           | 2%             | 1%         | 1%         | 10%           | 17%        | 20%        |
| Nuance                                | 13.23             | 71%           | 3,803           | 5,537           | 6%             | 1%         | 3%         | 6%            | 29%        | 32%        |
| Pegasystems                           | 47.83             | 72%           | 3,764           | 3,558           | 1%             | 12%        | 14%        | (2%)          | 4%         | 5%         |
| Verint Systems                        | 42.31             | 82%           | 2,762           | 3,148           | 10%            | 9%         | 7%         | 16%           | 23%        | 24%        |
| Progress Software                     | 35.49             | 68%           | 1,594           | 1,573           | 1%             | (4%)       | 1%         | 33%           | 40%        | 41%        |
| MicroStrategy                         | 127.75            | 85%           | 1,465           | 766             | (1%)           | 1%         | (1%)       | 6%            | 6%         | 0%         |
| Talend                                | 37.08             | 51%           | 1,115           | 1,026           | 38%            | 69%        | 22%        | (20%)         | (3%)       | (1%)       |
| <b>Median</b>                         |                   | <b>77%</b>    | <b>\$3,783</b>  | <b>\$3,911</b>  | <b>4%</b>      | <b>5%</b>  | <b>5%</b>  | <b>8%</b>     | <b>20%</b> | <b>22%</b> |
| <b>Mean</b>                           |                   | <b>77%</b>    | <b>\$13,897</b> | <b>\$17,141</b> | <b>9%</b>      | <b>16%</b> | <b>8%</b>  | <b>9%</b>     | <b>19%</b> | <b>19%</b> |

Source: Capital IQ and Pitchbook as of 12/31/18

# Public Company Operating Metrics (cont.)

| Company                             | Price<br>12/31/18 | 52-Wk<br>High | Mkt Cap         | EV              | Revenue Growth |            |            | EBITDA Margin |            |            |
|-------------------------------------|-------------------|---------------|-----------------|-----------------|----------------|------------|------------|---------------|------------|------------|
|                                     |                   |               |                 |                 | LTM            | FY+1       | FY+2       | LTM           | FY+1       | FY+2       |
| <b>Systems / Network Management</b> |                   |               |                 |                 |                |            |            |               |            |            |
| VMware                              | \$137.13          | 82%           | \$56,208        | \$46,921        | (2%)           | 12%        | 12%        | 42%           | 41%        | 39%        |
| ServiceNow                          | 178.05            | 87%           | 31,924          | 31,113          | 40%            | 74%        | 27%        | 3%            | 27%        | 29%        |
| Splunk                              | 104.85            | 82%           | 15,495          | 14,438          | 39%            | 37%        | 24%        | (16%)         | 15%        | 17%        |
| Citrix Systems                      | 102.46            | 90%           | 13,808          | 14,131          | 6%             | 9%         | 5%         | 29%           | 36%        | 37%        |
| L3 Technologies                     | 173.66            | 79%           | 13,667          | 16,587          | 4%             | 12%        | 6%         | 13%           | 14%        | 15%        |
| Juniper Networks                    | 26.91             | 88%           | 9,288           | 8,037           | (9%)           | (5%)       | 3%         | 17%           | 23%        | 23%        |
| LogMeIn                             | 81.57             | 61%           | 4,176           | 4,209           | 46%            | 27%        | 6%         | 31%           | 37%        | 38%        |
| NetScout Systems                    | 23.63             | 75%           | 1,836           | 1,984           | (15%)          | (5%)       | 3%         | 9%            | 22%        | 25%        |
| <b>Median</b>                       |                   | <b>82%</b>    | <b>\$13,737</b> | <b>\$14,285</b> | <b>5%</b>      | <b>12%</b> | <b>6%</b>  | <b>15%</b>    | <b>25%</b> | <b>27%</b> |
| <b>Mean</b>                         |                   | <b>80%</b>    | <b>\$18,300</b> | <b>\$17,178</b> | <b>13%</b>     | <b>20%</b> | <b>11%</b> | <b>16%</b>    | <b>27%</b> | <b>28%</b> |
| <b>Security / Storage</b>           |                   |               |                 |                 |                |            |            |               |            |            |
| VeriSign                            | \$148.29          | 90%           | \$17,927        | \$18,532        | 4%             | 9%         | 5%         | 66%           | 72%        | 73%        |
| Palo Alto Networks                  | 188.35            | 80%           | 17,871          | 16,298          | 30%            | 24%        | 18%        | (0%)          | 27%        | 28%        |
| Splunk                              | 104.85            | 82%           | 15,495          | 14,438          | 39%            | 37%        | 24%        | (16%)         | 15%        | 17%        |
| Symantec                            | 18.90             | 64%           | 12,072          | 14,675          | 4%             | (2%)       | 5%         | 30%           | 43%        | 41%        |
| Fortinet                            | 70.43             | 76%           | 11,999          | 10,365          | 19%            | 37%        | 13%        | 14%           | 26%        | 27%        |
| Proofpoint                          | 83.81             | 65%           | 4,580           | 4,390           | 38%            | 69%        | 20%        | (6%)          | 15%        | 17%        |
| FireEye                             | 16.21             | 80%           | 3,194           | 3,056           | 4%             | 19%        | 7%         | (19%)         | 13%        | 15%        |
| Qualys                              | 74.74             | 77%           | 2,943           | 2,617           | 22%            | 43%        | 20%        | 27%           | 39%        | 40%        |
| CyberArk                            | 74.14             | 93%           | 2,638           | 2,251           | 28%            | 50%        | 21%        | 13%           | 25%        | 25%        |
| Box                                 | 16.88             | 58%           | 2,421           | 2,319           | 21%            | 20%        | 21%        | (17%)         | 4%         | 7%         |
| Sophos                              | 4.80              | 51%           | 2,306           | 2,438           | 22%            | 12%        | 10%        | 8%            | 15%        | 16%        |
| Imperva                             | 55.69             | 98%           | 1,973           | 1,669           | 14%            | 23%        | 7%         | 1%            | 13%        | 16%        |
| Rapid7                              | 31.16             | 80%           | 1,475           | 1,375           | 24%            | 45%        | 20%        | (20%)         | 3%         | 8%         |
| SecureWorks                         | 16.89             | 92%           | 1,380           | 1,264           | 9%             | 11%        | 9%         | (6%)          | 2%         | 3%         |
| ForeScout                           | 25.99             | 64%           | 1,114           | 921             | 29%            | 58%        | 21%        | (34%)         | (2%)       | 5%         |
| Radware                             | 22.71             | 81%           | 1,012           | 712             | 12%            | 22%        | 10%        | 8%            | 15%        | 19%        |
| Zix                                 | 5.73              | 84%           | 310             | 287             | 7%             | 14%        | 181%       | 21%           | 33%        | 25%        |
| <b>Median</b>                       |                   | <b>80%</b>    | <b>\$2,638</b>  | <b>\$2,438</b>  | <b>21%</b>     | <b>23%</b> | <b>18%</b> | <b>1%</b>     | <b>15%</b> | <b>17%</b> |
| <b>Mean</b>                         |                   | <b>77%</b>    | <b>\$5,924</b>  | <b>\$5,742</b>  | <b>19%</b>     | <b>29%</b> | <b>24%</b> | <b>4%</b>     | <b>21%</b> | <b>22%</b> |

Source: Capital IQ and Pitchbook as of 12/31/18

# Public Company Operating Metrics (cont.)

| Company                                       | Price<br>12/31/18 | 52-Wk<br>High | Mkt Cap         | EV              | Revenue Growth |            |            | EBITDA Margin |            |            |
|---|-------------------|---------------|-----------------|-----------------|----------------|------------|------------|---------------|------------|------------|
|   |                   |               |                 |                 | LTM            | FY+1       | FY+2       | LTM           | FY+1       | FY+2       |
| <b>Application Infrastructure</b>             |                   |               |                 |                 |                |            |            |               |            |            |
| Microsoft                                     | \$101.57          | 88%           | \$779,674       | \$720,024       | 16%            | 13%        | 10%        | 45%           | 42%        | 44%        |
| Oracle  | 45.15             | 85%           | 162,040         | 171,170         | 3%             | (1%)       | 3%         | 41%           | 47%        | 48%        |
| International Business Machines               | 113.67            | 67%           | 103,303         | 135,863         | 3%             | (0%)       | 1%         | 20%           | 24%        | 25%        |
| Red Hat                                       | 175.64            | 98%           | 31,050          | 29,798          | 19%            | 15%        | 15%        | 19%           | 27%        | 27%        |
| Atlassian                                     | 88.98             | 93%           | 21,190          | 20,223          | 40%            | 37%        | 28%        | (22%)         | 27%        | 28%        |
| Hewlett Packard Enterprise                    | 13.21             | 68%           | 18,477          | 25,773          | 7%             | 0%         | 1%         | 10%           | 17%        | 17%        |
| Nutanix                                       | 41.59             | 65%           | 7,450           | 6,922           | 28%            | 20%        | 33%        | (23%)         | (6%)       | 3%         |
| New Relic                                     | 80.97             | 71%           | 4,612           | 4,280           | 35%            | 32%        | 26%        | 3%            | 14%        | 14%        |
| Software                                      | 36.03             | 60%           | 2,666           | 2,187           | 7%             | 4%         | 4%         | 30%           | 31%        | 31%        |
| Apptio  | 37.96             | 92%           | 1,730           | 1,584           | 25%            | 45%        | 19%        | (7%)          | 7%         | 5%         |
| Progress Software                             | 35.49             | 68%           | 1,594           | 1,573           | 1%             | (4%)       | 1%         | 33%           | 40%        | 41%        |
| Hortonworks                                   | 14.42             | 57%           | 1,215           | 1,113           | 37%            | 61%        | 25%        | (46%)         | (7%)       | (1%)       |
| <b>Median</b>                                 |                   | <b>70%</b>    | <b>\$12,963</b> | <b>\$13,573</b> | <b>18%</b>     | <b>14%</b> | <b>13%</b> | <b>15%</b>    | <b>26%</b> | <b>26%</b> |
| <b>Mean</b>                                   |                   | <b>76%</b>    | <b>\$94,583</b> | <b>\$93,376</b> | <b>18%</b>     | <b>19%</b> | <b>14%</b> | <b>9%</b>     | <b>22%</b> | <b>24%</b> |
| <b>Financial Technology</b>                   |                   |               |                 |                 |                |            |            |               |            |            |
| Fiserv  | \$73.49           | 89%           | \$29,284        | \$33,886        | 3%             | 9%         | 5%         | 39%           | 38%        | 39%        |
| Square  | 56.09             | 57%           | 23,193          | 22,777          | 45%            | 1%         | 34%        | 1%            | 19%        | 22%        |
| First Data                                    | 16.91             | 64%           | 15,836          | 35,876          | (13%)          | (26%)      | 5%         | 31%           | 38%        | 39%        |
| MSCI  | 147.43            | 81%           | 12,979          | 14,155          | 14%            | 20%        | 10%        | 54%           | 55%        | 56%        |
| Jack Henry and Associates                     | 126.52            | 78%           | 9,780           | 9,665           | 8%             | 2%         | 7%         | 36%           | 34%        | 35%        |
| FactSet Research Systems                      | 200.13            | 85%           | 7,612           | 7,949           | 11%            | 6%         | 6%         | 31%           | 35%        | 35%        |
| Guidewire Software                            | 80.23             | 75%           | 6,501           | 5,725           | 39%            | 10%        | 14%        | 9%            | 21%        | 23%        |
| Fair Isaac                                    | 187.00            | 78%           | 5,415           | 6,089           | 11%            | 9%         | 8%         | 24%           | 23%        | 24%        |
| ACI Worldwide                                 | 27.67             | 92%           | 3,209           | 3,808           | (2%)           | 7%         | 3%         | 21%           | 28%        | 29%        |
| Envestnet                                     | 49.19             | 77%           | 2,365           | 2,668           | 20%            | 29%        | 14%        | 10%           | 20%        | 21%        |
| Ellie Mae                                     | 62.83             | 54%           | 2,189           | 1,917           | 19%            | 23%        | 10%        | 19%           | 28%        | 29%        |
| Q2 Holdings                                   | 49.55             | 75%           | 2,149           | 2,031           | 22%            | 58%        | 23%        | (4%)          | 7%         | 13%        |
| Bottomline Technologies                       | 48.00             | 66%           | 2,068           | 2,089           | 13%            | 8%         | 10%        | 13%           | 24%        | 25%        |
| Ebix  | 42.56             | 49%           | 1,331           | 1,873           | 37%            | 65%        | 42%        | 33%           | 33%        | 29%        |
| <b>Median</b>                                 |                   | <b>76%</b>    | <b>\$5,958</b>  | <b>\$5,907</b>  | <b>14%</b>     | <b>9%</b>  | <b>10%</b> | <b>23%</b>    | <b>28%</b> | <b>29%</b> |
| <b>Mean</b>                                   |                   | <b>73%</b>    | <b>\$8,851</b>  | <b>\$10,750</b> | <b>16%</b>     | <b>16%</b> | <b>14%</b> | <b>23%</b>    | <b>29%</b> | <b>30%</b> |
| <b>Healthcare IT / Life Sciences Software</b> |                   |               |                 |                 |                |            |            |               |            |            |
| Cerner  | \$52.44           | 72%           | \$17,278        | \$16,906        | 4%             | 13%        | 11%        | 28%           | 30%        | 29%        |
| Veeva Systems                                 | 89.32             | 82%           | 12,978          | 11,926          | 24%            | 25%        | 18%        | 26%           | 37%        | 36%        |
| Athenahealth                                  | 131.93            | 82%           | 5,433           | 5,387           | 11%            | 20%        | 9%         | 24%           | 29%        | 29%        |
| Medidata Solutions                            | 67.42             | 76%           | 4,125           | 4,016           | 16%            | 37%        | 16%        | 16%           | 25%        | 26%        |
| Allscripts Healthcare Solutions               | 9.64              | 60%           | 1,684           | 3,430           | 21%            | 22%        | (4%)       | 17%           | 20%        | 19%        |
| NextGen Healthcare                            | 15.15             | 66%           | 980             | 991             | 1%             | (0%)       | 5%         | 9%            | 15%        | 16%        |
| HealthStream                                  | 24.15             | 76%           | 781             | 606             | 19%            | (3%)       | 3%         | 16%           | 18%        | 16%        |
| Cegedim                                       | 22.59             | 43%           | 316             | 501             | 11%            | 7%         | 4%         | 17%           | 17%        | 18%        |
| Castlight Health                              | 2.17              | 39%           | 303             | 239             | 21%            | 21%        | 18%        | (26%)         | 5%         | 9%         |
| <b>Median</b>                                 |                   | <b>72%</b>    | <b>\$1,684</b>  | <b>\$3,430</b>  | <b>16%</b>     | <b>20%</b> | <b>9%</b>  | <b>17%</b>    | <b>20%</b> | <b>19%</b> |
| <b>Mean</b>                                   |                   | <b>66%</b>    | <b>\$4,875</b>  | <b>\$4,889</b>  | <b>14%</b>     | <b>16%</b> | <b>9%</b>  | <b>14%</b>    | <b>22%</b> | <b>22%</b> |

Source: Capital IQ and Pitchbook as of 12/31/18

# 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

- Software-as-a-Service
- On-premise
- Application Software
- Healthcare IT
- Financial Tech

## Internet

- Advertising and Marketing
- Digital Media
- Gaming
- Content
- Platforms

## Mobile

- Consumer Applications
- Enterprise Applications
- Gaming
- Payments
- Infrastructure

## Hardware

- Communications
- Entertainment
- Industrial
- Systems
- Consumer

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