



Cassel Salpeter & Co.  
INVESTMENT BANKING

Technology Investment Banking  
Q3 2017 Update

Cassel Salpeter & Co. is a boutique investment banking firm focused on providing independent and objective advice to middle market and emerging growth companies. Finding the right financial partner in the fragmented technology market requires solid industry positioning and broad industry relationships. We can help.

Our experience and services include:

### Mergers & Acquisitions

- Financial advisory
- Sales to strategic and private equity buyers
- Divestitures to strategic and private equity buyers
- Buy-side acquisition programs
- Leveraged & management buyouts
- Going private transactions

### Capital Raising

- Financial advisory
- Equity and debt private placements
- Growth capital
- PIPEs
- Recapitalizations

### Other Services

- Fairness opinions
- Solvency opinions
- Valuations
- Restructuring, refinancing, and distressed M&A transactions
  - Debtor and creditor representations
  - 363 sales & plans of reorganization



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**I** YTD Q3 NOTABLE TECHNOLOGY DEALS

II M&A TRANSACTIONS

III PUBLIC MARKETS REVIEW

# INITIAL PUBLIC OFFERINGS (IPOS)

## Selected Companies Review

(\$ in millions, except per security)

Company	Ticker	Market Statistics			Metrics			Valuation Benchmarks				
		Closing Price	% of 52-week	Enterprise	Revenue	Rev. Growth	LTM EBITDA	EV / Revenue		EV / EBITDA		
		29-Sep-17	High-Low	Value	LTM	2018 E	Margin	LTM	2017 E	LTM	2017 E	
<b>2017 IPOS</b>												
Alteryx, Inc.	AYX	\$ 20.37	84.6% - 139.4%	\$ 1,110.0	\$ 106.3	35.9%	-19.4%	10.44x	8.84x	na	na	
Appian Corporation	APPN	\$ 28.46	99.3% - 194.9%	1,714.5	146.0	16.8%	-17.5%	11.74x	10.51x	na	na	
Blue Apron Holdings, Inc.	APRN	\$ 5.45	49.5% - 109.0%	1,389.3	904.3	12.4%	-14.8%	1.54x	1.58x	na	na	
Cloudera, Inc.	CLDR	\$ 16.62	71.2% - 107.9%	2,173.1	309.5	26.3%	-116.1%	7.02x	6.06x	na	na	
MuleSoft, Inc.	MULE	\$ 20.14	69.4% - 103.8%	2,489.6	234.9	34.5%	-22.9%	10.60x	8.88x	na	na	
Okta, Inc.	OKTA	\$ 28.21	83.9% - 131.1%	2,840.7	205.1	35.3%	-45.0%	13.85x	11.60x	na	na	
Presidio, Inc.	PSDO	\$ 14.15	86.4% - 111.0%	2,289.0	2,817.6	6.4%	7.5%	0.81x	0.80x	10.9x	9.9x	
ShotSpotter, Inc.	SSTI	\$ 13.45	87.6% - 144.2%	107.2	18.9	32.2%	-1.3%	5.66x	4.82x	na	nm	
SMART Global Holdings, Inc.	SGH	\$ 26.78	98.9% - 232.9%	748.2	761.3	17.3%	11.5%	0.98x	0.93x	8.5x	7.1x	
Snap Inc.	SNAP	\$ 14.54	49.4% - 128.9%	14,828.7	625.2	84.2%	-467.1%	23.72x	16.73x	na	na	
Tintri, Inc.	TNTR	\$ 3.14	42.1% - 110.2%	86.2	139.9	17.6%	-83.7%	0.62x	0.59x	na	na	
Veritone, Inc.	VERI	\$ 45.45	60.7% - 585.7%	660.1	12.0	99.5%	-226.4%	54.92x	35.10x	na	na	
Yext, Inc.	YEXT	\$ 13.28	87.9% - 110.2%	1,213.4	145.4	32.6%	-35.8%	8.34x	7.14x	na	na	
		<i>Mean</i>	74.7% - 169.9%	\$ 2,434.6	\$ 494.3	34.7%	-79.3%	11.56x	8.74x	9.7x	8.5x	
		<i>Median</i>	83.9% - 128.9%	\$ 1,389.3	\$ 205.1	32.2%	-22.9%	8.34x	7.14x	9.7x	8.5x	

Market value equals price per share times number of diluted shares outstanding. Enterprise value equals market value plus debt, preferred stock, and non controlling interests, less cash.

Sources of information: S&P Capital IQ.

# MERGERS AND ACQUISITIONS

## Selected Transactions Review

(\$ in millions)

Date		Transaction		Enterprise	Metrics		Valuation Benchmarks				
Annnc.	Closed	Target	Acquirer	Value	Target TTM		Implied EV /		Stock Price Premiums		
					Revenue	EBITDA %	Revenue	EBITDA	1-Day	1-Month	
<b>Software</b>											
28-Sep-17	na	Exa Corporation	Dassault Systèmes SE	\$ 381.9	\$ 72.7	2.0%	5.25x	nm	43.0%	73.0%	
26-Jul-17	13-Sep-17	Guidance Software, Inc.	Open Text Corporation	245.2	108.6	-0.9%	2.26x	na	2.9%	5.5%	
25-Jul-17	3-Aug-17	Intacct Corporation	The Sage Group plc	850.0	88.0	na	9.66x	na	na	na	
5-Jun-17	26-Jul-17	Covisint Corporation	Open Text Corporation	69.2	70.2	-14.0%	0.99x	na	22.5%	28.9%	
30-May-17	31-Jul-17	Xactly Corporation	Vista Equity Partners	530.6	96.8	-12.6%	5.48x	na	16.8%	34.9%	
26-May-17	25-May-17	iSystems, LLC	Asure Software, Inc.	76.7	12.9	6.2%	5.96x	nm	na	na	
1-May-17	9-Jun-17	Jive Software, Inc.	Wave Systems Corp.	343.5	203.5	2.4%	1.69x	nm	4.0%	22.1%	
28-Apr-17	12-Sep-17	Guavus, Inc.	Thales S.A.	215.0	30.0	na	7.17x	na	na	na	
29-Mar-17	6-Apr-17	SOASTA, Inc.	Akamai Technologies, Inc.	200.0	na	na	na	na	na	na	
16-Mar-17	1-May-17	Acculynk, Inc.	First Data Corporation	85.0	na	na	na	na	na	na	
6-Mar-17	3-Apr-17	Veracode, Inc.	CA, Inc.	614.0	na	na	na	na	na	na	
27-Feb-17	na	Lease Rent Options Business	RealPage, Inc.	300.0	35.6	28.1%	8.43x	nm	na	na	
15-Feb-17	7-Apr-17	StoneRiver, Inc.	Sapiens International	102.0	80.0	na	1.28x	na	na	na	
8-Feb-17	22-Mar-17	Invincea, Inc.	Sophos Group plc	120.0	9.8	na	12.24x	na	na	na	
31-Jan-17	27-Jan-17	IDV Solutions, LLC	Everbridge, Inc.	27.3	10.2	7.4%	2.67x	nm	na	na	
31-Jan-17	31-Jan-17	Double-Take Software, Inc.	Carbonite, Inc.	67.3	84.0	16.5%	1.65x	nm	na	na	
24-Jan-17	22-Mar-17	AppDynamics LLC	Cisco Systems, Inc.	3,902.9	206.2	-51.1%	nm	na	na	na	
9-Jan-17	24-Jan-17	Trello, Inc.	Atlassian, Inc.	425.0	na	na	na	na	na	na	
6-Dec-16	19-Jan-17	IntraLinks Holdings, Inc.	Synchronoss Technologies, Inc.	831.5	290.4	6.9%	2.81x	nm	15.4%	33.5%	
14-Nov-16	30-Mar-17	Mentor Graphics Corporation	Siemens Industry, Inc.	4,389.9	1,282.5	20.7%	3.42x	16.54x	21.4%	35.4%	
12-Sep-16	16-Feb-17	Anthelio Healthcare Solutions Inc.	Atos SE	275.0	200.0	na	1.38x	na	na	na	
12-Sep-16	23-Jan-17	EMC Enterprise Content Division	Open Text Corporation	1,620.0	599.0	na	2.70x	na	na	na	
7-Sep-16	1-Sep-17	HPE, Software Business	Micro Focus International plc	9,049.3	3,172.0	20.7%	2.85x	11.40x	na	na	
				Mean	\$ 1,074.8	\$ 350.1	2.5%	4.33x	13.97x	18.0%	33.3%
				Median	\$ 300.0	\$ 88.0	6.2%	2.83x	13.97x	16.8%	33.5%

Sources of information: S&P Capital IQ.

# MERGERS AND ACQUISITIONS (CONTINUED)

Technology Investment Banking

## Selected Transactions Review

(\$ in millions)

Transaction				Metrics			Valuation Benchmarks			
Date		Target	Acquirer	Enterprise Value	Target TTM		Implied EV /		Stock Price Premiums	
Annnc.	Closed				Revenue	EBITDA %	Revenue	EBITDA	1-Day	1-Month
<b>Enterprise Systems</b>										
18-Sep-17	na	Silver Spring Networks, Inc.	Itron, Inc.	\$ 840.4	\$ 452.3	-4.4%	1.86x	na	25.0%	28.2%
7-Mar-17	13-Apr-17	Nimble Storage, Inc.	Hewlett Packard Enterprise	1,065.1	402.6	-33.3%	2.65x	na	45.3%	45.9%
17-Jan-17	28-Feb-17	SimpliVity Corporation	Hewlett Packard Enterprise	650.0	na	na	na	na	na	na
			<i>Mean</i>	\$ 851.8	\$ 427.4	-18.9%	2.25x	na	35.2%	37.0%
			<i>Median</i>	\$ 840.4	\$ 427.4	-18.9%	2.25x	na	35.2%	37.0%
<b>Services</b>										
3-Jul-17	15-Aug-17	NCI, Inc.	H.I.G. Capital	\$ 285.1	\$ 325.4	9.1%	0.88x	9.61x	-5.2%	2.6%
27-Jan-17	28-Apr-17	Harris Corp, Government IT Svcs	Veritas Capital	690.0	1,000.0	na	0.69x	na	na	na
19-Dec-16	7-Apr-17	Grid Dynamics International, Inc.	Automated Systems Holdings Limited	118.0	39.7	na	na	na	na	na
29-Nov-16	24-Jan-17	eGov Holdings, Inc.	Booz Allen Hamilton Inc.	250.0	na	na	na	na	na	na
24-May-16	31-Mar-17	HP Services	Computer Sciences Corp (nka:DXC )	6,927.0	17,787.0	13.6%	0.39x	2.86x	na	na
			<i>Mean</i>	\$ 1,654.0	\$ 4,788.0	11.4%	0.65x	6.24x	-5.2%	2.6%
			<i>Median</i>	\$ 285.1	\$ 662.7	11.4%	0.69x	6.24x	-5.2%	2.6%
<b>Distribution</b>										
29-Jun-17	31-Jul-17	POS Portal, Inc.	ScanSource, Inc.	\$ 158.1	na	na	na	na	na	na
6-Jun-17	1-Sep-17	Westcon Group, Inc.	SYNNEX Corporation	830.0	2,234.7	4.0%	0.37x	9.35x	na	na
19-Sep-16	27-Feb-17	Avnet Technology Solutions	Tech Data Corporation	2,645.0	9,652.5	na	0.27x	na	na	na
			<i>Mean</i>	\$ 1,211.0	\$ 5,943.6	4.0%	0.32x	9.35x	na	na
			<i>Median</i>	\$ 830.0	\$ 5,943.6	4.0%	0.32x	9.35x	na	na

Sources of information: S&P Capital IQ.

# MERGERS AND ACQUISITIONS (CONTINUED)

## Selected Transactions Review

(\$ in millions)

Transaction				Metrics			Valuation Benchmarks			
Date		Target	Acquirer	Enterprise Value	Target TTM		Implied EV /		Stock Price Premiums	
Ann.	Closed				Revenue	EBITDA %	Revenue	EBITDA	1-Day	1-Month
<b>Internet</b>										
24-Jul-17	14-Sep-17	WebMD Health Corp.	KKR	\$ 2,641.2	\$ 709.0	26.0%	3.73x	14.31x	20.5%	12.3%
3-Jul-17	na	Bankrate, Inc.	Red Ventures	1,434.7	477.0	21.2%	3.01x	14.18x	8.9%	31.5%
1-May-17	29-Sep-17	Angie's List, Inc.	HomeAdvisor, Inc.	580.3	302.3	1.2%	1.92x	161.23x	44.6%	49.1%
10-Apr-17	22-May-17	RetailMeNot, Inc.	Harland Clarke Holdings Corp.	455.1	295.4	10.4%	1.54x	14.83x	49.7%	38.1%
7-Apr-17	5-May-17	eBags, Inc.	Samsonite LLC	105.0	158.5	na	0.66x	na	na	na
5-Jan-17	30-Dec-16	Shoebuy.com, Inc.	Jet.com, Inc.	70.0	na	na	na	na	na	na
7-Nov-16	17-Feb-17	Blue Nile, Inc.	Bain Capital; Bow Street	456.2	471.9	3.5%	0.97x	27.82x	33.9%	15.1%
<i>Mean</i>				\$ 820.3	\$ 402.3	12.5%	1.97x	46.47x	31.5%	29.2%
<i>Median</i>				\$ 456.2	\$ 387.1	10.4%	1.73x	14.83x	33.9%	31.5%

Sources of information: S&P Capital IQ.

I YTD Q3 NOTABLE TECHNOLOGY DEALS

**II M&A TRANSACTIONS**

III PUBLIC MARKETS REVIEW



### Selected Transactions Review

(\$ in millions)

Transaction				Metrics			Valuation Benchmarks			
Date		Target	Acquirer	Enterprise Value	Target TTM		Implied EV /		Stock Price Premiums	
Annuc.	Closed				Revenue	EBITDA %	Revenue	EBITDA	1-Day	1-Month
<b>Application Software</b>										
25-Jul-17	3-Aug-17	Intacct Corporation	The Sage Group plc	\$ 850.0	\$ 88.0	na	9.66x	na	na	na
30-May-17	31-Jul-17	Xactly Corporation	Vista Equity Partners	530.6	96.8	-12.6%	5.48x	na	16.8%	34.9%
26-May-17	25-May-17	iSystems, LLC	Asure Software, Inc.	76.7	12.9	6.2%	5.96x	96.61x	na	na
1-May-17	9-Jun-17	Jive Software, Inc.	Wave Systems Corp.	343.5	203.5	2.4%	1.69x	69.06x	4.0%	22.1%
28-Apr-17	12-Sep-17	Guavus, Inc.	Thales S.A.	215.0	30.0	na	7.17x	na	na	na
31-Jan-17	27-Jan-17	IDV Solutions, LLC	Everbridge, Inc.	27.3	10.2	7.4%	2.67x	36.11x	na	na
14-Nov-16	30-Mar-17	Mentor Graphics Corporation	Siemens Industry, Inc.	4,389.9	1,282.5	20.7%	3.42x	16.54x	21.4%	35.4%
9-Nov-16	19-Dec-16	TubeMogul, Inc.	Adobe Systems Incorporated	544.6	212.0	-9.8%	2.57x	na	82.1%	56.3%
31-Aug-16	1-Dec-16	Interactive Intelligence Group, Inc.	Genesys Telecommunications	1,399.0	426.2	-0.3%	3.28x	na	6.8%	17.1%
28-Jul-16	4-Nov-16	NetSuite Inc.	Oracle Corporation	8,708.6	897.5	-5.4%	9.70x	na	19.0%	57.9%
2-Jun-16	22-Aug-16	Qlik Technologies, Inc.	Thoma Bravo, LLC	2,616.8	665.3	2.0%	3.93x	196.32x	5.3%	-1.6%
1-Jun-16	8-Jul-16	Demandware, Inc.	Salesforce.com, inc.	2,837.6	254.1	-13.3%	10.38x	na	56.3%	61.6%
31-May-16	16-Aug-16	Marketo, Inc.	Vista Equity Partners	1,706.5	241.4	-21.0%	7.07x	na	9.5%	60.3%
31-May-16	28-Jul-16	SciQuest, Inc.	Accel-KKR LLC	375.6	106.3	8.9%	3.53x	39.89x	33.8%	28.4%
23-May-16	19-Aug-16	Xura, Inc. (nka:Mavenir Systems)	Siris Capital; Cohesive Capital	671.9	292.7	0.1%	2.30x	na	19.2%	14.3%
18-May-16	14-Nov-16	inContact, Inc.	NICE Systems Ltd. (nka:NICE Ltd.)	918.0	254.7	3.1%	3.60x	117.77x	60.3%	55.5%
18-Apr-16	29-Nov-16	Cvent, Inc.	Lanyon Solutions, Inc.	1,468.3	219.5	3.5%	6.69x	190.76x	69.0%	66.1%
31-Mar-16	1-Apr-16	Verian Technologies, Inc.	BasWare Oyj	36.0	10.6	na	3.41x	na	na	na
22-Mar-16	2-May-16	Serena Software, Inc.	Micro Focus International plc	540.0	162.0	49.4%	3.33x	6.75x	na	na
15-Feb-16	14-Apr-16	Diligent Corporation	Insight Venture Partners LLC	581.9	99.3	16.7%	5.86x	35.16x	30.7%	20.4%
11-Feb-16	9-Mar-16	Yodle, Inc.	Web.com Group, Inc.	417.6	172.4	-1.6%	2.01x	na	na	na
25-Jan-16	30-Apr-16	CD-adapco Group, Inc.	Siemens	970.0	200.0	na	4.85x	na	na	na
5-Nov-15	9-Dec-15	MarketShare Partners LLC	NeuStar, Inc.	450.0	51.2	na	8.79x	na	na	na
2-Nov-15	9-Feb-16	Constant Contact, Inc.	Endurance International	910.4	361.9	12.6%	2.48x	19.63x	27.6%	33.5%
15-Oct-15	18-Nov-15	Benaissance LLC	Evolution1, Inc. (nka:WEX Health, Inc.)	80.7	13.3	na	6.07x	na	na	na
3-Sep-15	22-Oct-15	Millennial Media Inc.	Oath Inc.	233.1	285.3	-14.5%	0.82x	na	37.4%	12.9%
11-Aug-15	18-Sep-15	GT Nexus, Inc.	Infor (US), Inc.	660.2	133.2	na	4.96x	na	na	na
<i>Mean</i>				\$ 1,205.9	\$ 251.2	2.7%	4.88x	74.96x	31.2%	35.9%
<i>Median</i>				\$ 581.9	\$ 200.0	2.2%	3.93x	39.89x	24.5%	34.2%

Sources of information: S&P Capital IQ.

# SOFTWARE (CONTINUED)

## Selected Transactions Review

(\$ in millions)

Transaction				Metrics			Valuation Benchmarks			
Date		Target	Acquirer	Enterprise Value	Target TTM		Implied EV /		Stock Price Premiums	
Annnc.	Closed				Revenue	EBITDA %	Revenue	EBITDA	1-Day	1-Month
<b>Vertical Software</b>										
28-Sep-17	na	Exa Corporation	Dassault Systèmes SE	\$ 381.9	\$ 72.7	2.0%	5.25x	258.19x	43.0%	73.0%
27-Feb-17	na	Lease Rent Options Business	RealPage, Inc.	300.0	35.6	28.1%	8.43x	30.00x	na	na
15-Feb-17	7-Apr-17	StoneRiver, Inc.	Sapiens International	102.0	80.0	na	1.28x	na	na	na
27-Jul-16	30-Sep-16	Epiq Systems, Inc.	DTI	1,023.2	529.8	16.5%	1.93x	11.74x	14.4%	17.3%
2-May-16	14-Jun-16	OPOWER, Inc.	Oracle Corporation	563.4	152.0	-27.6%	3.71x	na	30.4%	53.3%
28-Apr-16	9-Jun-16	Textura Corporation	Oracle Corporation	616.0	92.2	-6.9%	6.68x	na	30.7%	37.8%
22-Dec-15	26-Jan-16	ShopperTrak RCT Corporation	Tyco International plc	175.0	75.0	na	2.33x	na	na	na
1-Oct-15	16-Nov-15	New World Systems Corporation	Tyler Technologies, Inc.	651.0	121.8	24.4%	5.34x	21.88x	na	na
14-Sep-15	16-Nov-15	Primatics Financial LLC	SS&C Technologies Holdings, Inc.	122.0	51.0	23.5%	2.39x	10.17x	na	na
13-Sep-15	3-Mar-16	Solera Holdings Inc.	Vista Equity Partners	6,558.6	1,199.4	35.7%	5.47x	15.33x	12.9%	25.4%
10-Aug-15	19-Nov-15	Yodlee, Inc.	Investnet, Inc.	533.4	104.0	-4.2%	5.13x	na	39.6%	19.7%
15-Jun-15	1-Oct-15	Dealertrack Technologies, Inc.	Cox Automotive, Inc.	4,447.3	993.1	13.0%	4.48x	34.54x	58.7%	49.1%
			<i>Mean</i>	\$ 1,289.5	\$ 292.2	10.4%	4.37x	54.55x	32.8%	39.3%
			<i>Median</i>	\$ 548.4	\$ 98.1	14.7%	4.80x	21.88x	30.7%	37.8%
<b>Healthcare Software</b>										
9-Aug-16	21-Oct-16	Press Ganey Holdings, Inc.	EQT Partners AB	\$ 2,392.6	\$ 344.3	30.5%	6.95x	22.80x	0.4%	1.1%
13-Jul-16	16-Sep-16	Imprivata, Inc.	Thoma Bravo	496.9	131.1	-14.1%	3.79x	na	32.8%	37.5%
30-Jun-16	1-Jul-16	Healthiest You Corporation	Teladoc, Inc.	156.4	10.0	na	15.64x	na	na	na
22-Feb-16	4-Apr-16	Brightree LLC	Resmed Corp.	800.0	113.2	37.3%	7.07x	18.93x	na	na
18-Feb-16	7-Apr-16	Truven Holding Corp.	IBM Watson Health	3,578.6	610.7	16.7%	5.86x	34.99x	na	na
25-Nov-15	8-Jan-16	Healthland, Inc.	Computer Programs and System	260.6	113.7	na	2.29x	na	na	na
30-Oct-15	4-Jan-16	HealthFusion Holdings, Inc.	Quality Systems, Inc.	196.9	25.0	17.7%	6.02x	77.22x	na	na
1-Oct-15	1-Oct-15	20/20 Healthcare LLC	Konica Minolta Medical Imaging	75.0	61.3	na	1.22x	na	na	na
11-Aug-15	6-Aug-15	Tea Leaves Health, LLC	Everyday Health, Inc.	50.1	4.9	na	10.18x	na	na	na
6-Aug-15	13-Oct-15	Merge Healthcare Incorporated	International Business Machines	977.3	227.6	17.3%	4.29x	24.76x	31.8%	57.0%
2-Jul-15	2-Jul-15	Referral Solutions Group, LLC	Sober Media Group, LLC	54.1	12.4	na	4.37x	na	na	na
			<i>Mean</i>	\$ 821.7	\$ 150.4	17.6%	6.15x	35.74x	21.7%	31.9%
			<i>Median</i>	\$ 260.6	\$ 113.2	17.5%	5.86x	24.76x	31.8%	37.5%

Sources of information: S&P Capital IQ.

# SOFTWARE (CONTINUED)

## Selected Transactions Review

(\$ in millions)

Transaction				Metrics			Valuation Benchmarks			
Date		Target	Acquirer	Enterprise Value	Target TTM		Implied EV /		Stock Price Premiums	
Annnc.	Closed				Revenue	EBITDA %	Revenue	EBITDA	1-Day	1-Month
<b>Infrastructure Software</b>										
5-Jun-17	26-Jul-17	Covisint Corporation	Open Text Corporation	\$ 69.2	\$ 70.2	-14.0%	0.99x	na	22.5%	28.9%
29-Mar-17	6-Apr-17	SOASTA, Inc.	Akamai Technologies, Inc.	200.0	na	na	na	na	na	na
31-Jan-17	31-Jan-17	Double-Take Software, Inc.	Carbonite, Inc.	67.3	84.0	16.5%	1.65x	43.39x	na	na
24-Jan-17	22-Mar-17	AppDynamics LLC	Cisco Systems, Inc.	3,902.9	206.2	-51.1%	18.93x	na	na	na
9-Jan-17	24-Jan-17	Trello, Inc.	Atlassian, Inc.	425.0	na	na	na	na	na	na
6-Dec-16	19-Jan-17	IntraLinks Holdings, Inc.	Synchronoss Technologies, Inc.	831.5	290.4	6.9%	2.81x	37.52x	15.4%	33.5%
12-Sep-16	23-Jan-17	EMC Enterprise Content Division	Open Text Corporation	1,620.0	599.0	na	na	na	na	na
8-Sep-16	10-Nov-16	Apigee Corporation	Google Inc.	561.8	92.0	-42.9%	6.10x	na	6.5%	20.3%
7-Sep-16	1-Sep-17	HPE, Software	Micro Focus International plc	9,049.3	3,172.0	20.7%	na	11.40x	na	na
26-Jul-16	31-Jan-17	Citrix GoTo Family Of Products	LogMeIn, Inc.	2,896.8	600.0	na	4.83x	na	na	na
20-Jun-16	31-Oct-16	Dell SW, Quest and SonicWALL	Francisco Partners; Elliott Mgt	2,400.0	na	na	na	na	na	na
20-Jun-16	31-Jul-16	HP Inc., Software	Open Text Corporation	315.0	na	na	na	na	na	na
15-Jun-16	24-Jun-16	Joyent, Inc.	Samsung Electronics Co., Ltd.	170.0	na	na	na	na	na	na
18-Apr-16	30-Apr-16	HP Inc., Software	Open Text Corporation	170.0	na	na	na	na	na	na
3-Feb-16	18-Mar-16	Jasper Technologies, Inc.	Cisco Systems, Inc.	1,400.0	na	na	na	na	na	na
15-Jan-16	5-Jan-16	Jungle Disk, LLC	Porthcawl Holdings, LLC	27.0	12.0	na	2.25x	na	na	na
21-Oct-15	5-Feb-16	SolarWinds, Inc.	Silver Lake; Thoma Bravo, LLC	4,446.3	485.9	30.9%	9.15x	29.64x	19.7%	44.1%
9-Oct-15	15-Oct-15	Marvasol, Inc.	LogMeIn, Inc.	115.7	11.2	-23.7%	10.30x	na	na	na
5-Oct-15	6-Nov-15	Cleversafe, Inc.	International Business Machines	1,309.0	na	na	na	na	na	na
10-Sep-15	8-Dec-15	Premiere Global Services, Inc.	Siris Capital Group	975.7	566.8	13.0%	1.72x	13.23x	25.9%	27.5%
11-Aug-15	29-Jan-16	Veritas Technologies LLC	The Carlyle Group; GIC Pte. Ltd.	7,000.0	2,600.0	na	2.69x	na	na	na
27-May-15	8-Jul-15	Rally Software Development Corp.	CA, Inc.	471.2	92.5	-30.6%	5.09x	na	42.9%	27.5%
26-May-15	9-Jul-15	Virtustream Inc.	EMC Corporation (nka:Dell EMC)	1,219.0	na	na	na	na	na	na
4-May-15	3-Aug-15	Cyan, Inc.	Ciena Corporation	521.5	117.5	-35.8%	4.44x	na	44.4%	24.0%
7-Apr-15	6-Aug-15	Informatica Corporation	Microsoft, Permira, and others	5,290.9	1,066.5	18.2%	4.96x	27.31x	6.4%	14.0%
<i>Mean</i>				\$ 1,818.2	\$ 629.1	-7.7%	5.42x	27.08x	22.9%	27.5%
<i>Median</i>				\$ 831.5	\$ 248.3	-3.5%	4.63x	28.48x	21.1%	27.5%

Sources of information: S&P Capital IQ.

### Selected Transactions Review

(\$ in millions)

Transaction				Enterprise Value	Metrics		Valuation Benchmarks			
Date		Target	Acquirer		Target TTM		Implied EV /		Stock Price Premiums	
Annnc.	Closed				Revenue	EBITDA %	Revenue	EBITDA	1-Day	1-Month
<b>Security</b>										
26-Jul-17	13-Sep-17	Guidance Software, Inc.	Open Text Corporation	\$ 245.2	\$ 108.6	-0.9%	2.26x	na	2.9%	5.5%
6-Mar-17	3-Apr-17	Veracode, Inc.	CA, Inc.	614.0	na	na	na	na	na	na
8-Feb-17	22-Mar-17	Invincea, Inc.	Sophos Group plc	120.0	9.8	na	12.24x	na	na	na
20-Nov-16	9-Feb-17	LifeLock, Inc.	Symantec Corporation	2,362.1	650.2	7.3%	3.63x	nm	15.7%	38.7%
19-Sep-16	4-Nov-16	Infoblox Inc.	Vista Equity Partners	1,250.0	358.3	0.5%	3.49x	na	16.1%	31.6%
13-Jul-16	16-Sep-16	Imprivata, Inc.	Thoma Bravo, LLC	496.9	131.1	-14.1%	3.79x	na	32.8%	37.5%
12-Jun-16	1-Aug-16	Blue Coat, Inc.	Symantec Corporation	4,726.7	598.3	1.5%	7.24x	nm	na	na
1-Jun-16	30-Jun-16	Ping Identity Corporation	Vista Equity Partners	600.0	na	na	na	na	na	na
18-Apr-16	15-Aug-16	CSIdentity Corporation	Experian Information Solutions, Inc.	360.0	103.0	20.4%	3.50x	17.14x	na	na
20-Jan-16	14-Jan-16	iSight Security, Inc.	FireEye, Inc.	271.1	40.0	na	6.78x	na	na	na
11-Dec-15	11-Dec-15	Cyveillance, Inc.	LookingGlass Cyber Solutions Inc.	35.0	18.0	na	1.94x	na	na	na
9-Nov-15	closed	Elastica, Inc.	Blue Coat Systems Inc.	280.0	na	na	na	na	na	na
27-Oct-15	21-Dec-15	Lancope, Inc.	Cisco Systems, Inc.	452.5	na	na	na	na	na	na
21-Oct-15	9-Mar-16	TippingPoint Technologies, Inc.	Trend Micro Incorporated	300.0	169.0	na	1.78x	na	na	na
19-Oct-15	17-Mar-16	Vormetric, Inc.	Thales e-Security, Inc.	421.0	53.5	na	7.87x	na	na	na
8-Sep-15	8-Sep-15	Adallom, Inc.	Microsoft Corporation	320.0	na	na	na	na	na	na
7-Apr-15	1-Sep-15	TrustWave Holdings, Inc.	Singapore Telecommunications	785.7	216.0	na	3.64x	na	na	na
10-Mar-15	26-May-15	Blue Coat Systems Inc.	Bain Capital Private Equity, LP	2,400.0	na	na	na	na	na	na
9-Jul-15	9-Jul-15	Caspida, Inc.	Splunk Inc.	190.0	na	na	na	na	na	na
2-Mar-15	6-Mar-15	Emerging Threats Pro, Inc.	Proofpoint, Inc.	32.3	na	na	na	na	na	na
9-Dec-14	2-Jan-15	Tripwire, Inc.	Belden Inc.	710.0	118.5	na	5.99x	na	na	na
8-Aug-14	7-Jan-15	SafeNet, Inc.	Gemalto N.V.	957.0	na	na	na	na	na	na
2-Jan-14	30-Dec-13	Mandiant Corporation	FireEye, Inc.	1,016.8	102.0	-5.1%	9.97x	na	na	na
2-Dec-13	18-Feb-14	Prolexic Technologies, Inc.	Akamai Technologies, Inc.	402.6	na	na	na	na	na	na
28-Oct-13	10-Jan-14	Virtela Technology Services	NTT Communications Corporation	525.0	na	na	na	na	na	na
<i>Mean</i>				\$ 795.0	\$ 191.2	1.4%	5.29x	17.14x	16.8%	28.3%
<i>Median</i>				\$ 452.5	\$ 113.5	0.5%	3.71x	17.14x	15.9%	34.6%

Sources of information: S&P Capital IQ.

### Selected Transactions Review

(\$ in millions)

Transaction				Metrics			Valuation Benchmarks			
Date		Target	Acquirer	Enterprise Value	Target TTM		Implied EV /		Stock Price Premiums	
Annnc.	Closed				Revenue	EBITDA %	Revenue	EBITDA	1-Day	1-Month
<b>Enterprise Systems</b>										
18-Sep-17	na	Silver Spring Networks, Inc.	Itron, Inc.	\$ 840.4	\$ 452.3	-4.4%	1.86x	na	25.0%	28.2%
7-Mar-17	13-Apr-17	Nimble Storage, Inc.	Hewlett Packard Enterprise Company	1,065.1	402.6	-33.3%	2.65x	na	45.3%	45.9%
17-Jan-17	28-Feb-17	SimpliVity Corporation	Hewlett Packard Enterprise Company	650.0	na	na	na	na	na	na
13-Oct-16	13-Oct-16	VXi Corporation	GN Netcom A/S	35.0	32.0	12.5%	1.09x	8.75x	na	na
19-Sep-16	4-Nov-16	Infoblox Inc.	Vista Equity Partners	1,250.0	358.3	0.5%	3.49x	na	16.1%	31.6%
11-Aug-16	1-Nov-16	Silicon Graphics International Corp.	Hewlett Packard Enterprise Company	268.4	532.9	1.0%	0.50x	48.58x	40.9%	47.3%
13-May-16	27-Sep-16	Polycom, Inc.	Siris Capital Group, LLC	1,231.7	1,197.8	11.2%	1.03x	9.19x	11.0%	5.8%
19-Apr-16	29-Nov-16	Lexmark International, Inc.	Legend Capital; PAG Asia; Apex Tech.	3,645.2	3,481.5	9.1%	1.05x	11.46x	18.0%	29.6%
7-Apr-16	3-Jun-16	Alliance Fiber Optic Products Inc.	Corning Incorporated	265.9	72.0	22.3%	3.69x	16.58x	24.0%	45.1%
4-Apr-16	27-May-16	Ruckus Wireless, Inc.	Brocade Communications	1,114.4	391.9	4.5%	2.84x	63.51x	44.3%	47.4%
4-Feb-16	29-Jan-16	Pakedge Device & Software, Inc.	Control4 Corporation	31.8	18.6	3.9%	1.71x	43.95x	na	na
21-Dec-15	2-Feb-16	SolidFire	NetApp, Inc.	870.0	na	na	na	na	na	na
2-Nov-15	5-Oct-16	Hutchinson Technology Inc.	Headway Technologies, Inc.	233.4	234.6	8.1%	0.99x	12.28x	128.6%	135.3%
21-Oct-15	12-May-16	SanDisk LLC	Western Digital Technologies, Inc.	14,126.0	5,598.4	24.4%	2.52x	10.35x	13.5%	61.4%
12-Oct-15	7-Sep-16	EMC Corporation (nka:Dell EMC)	Dell, Inc.	63,296.5	24,586.0	20.4%	2.57x	12.61x	19.0%	34.8%
2-Sep-15	1-Oct-15	iBiquity Digital Corporation	DTS, Inc.	612.4	48.3	17.3%	12.68x	73.08x	na	na
18-Aug-15	6-Oct-15	Dot Hill Systems Corp.	Seagate Technology plc	645.4	243.9	7.7%	2.65x	34.31x	79.2%	51.9%
27-May-15	7-Jul-15	Meru Networks, Inc.	Fortinet, Inc.	34.6	87.7	-16.9%	0.39x	na	18.1%	31.5%
22-Apr-15	4-Jun-15	Procera Networks, Inc.	Francisco Partners Management LLC	133.2	81.4	-6.4%	1.64x	na	21.7%	19.1%
16-Apr-15	17-Apr-15	Motion Computing, Inc.	Xplore Technologies	130.1	78.8	-5.7%	1.65x	na	na	na
24-Mar-15	18-Nov-15	PSI Systems, Inc.	Stamps.com Inc.	215.0	58.5	na	3.67x	na	na	na
2-Mar-15	18-May-15	HPE Aruba	Hewlett-Packard	2,689.8	812.4	9.9%	3.31x	33.29x	-0.6%	48.8%
25-Feb-15	5-May-15	Emulex Corporation	Avago Technologies	553.5	411.0	8.1%	1.35x	16.56x	26.4%	16.1%
13-Feb-15	23-Mar-15	Drew Technologies, Inc.	Opus Inspection, Inc.	34.0	13.0	41.5%	2.62x	6.30x	na	na
27-Jan-15	28-Aug-15	TE Connectivity, Broadband Bus.	CommScope Holding Company, Inc.	3,059.0	1,938.7	15.4%	1.58x	10.23x	na	na
<i>Mean</i>				\$ 3,881.2	\$ 1,788.4	6.9%	2.50x	25.69x	33.2%	42.5%
<i>Median</i>				\$ 645.4	\$ 358.3	8.1%	1.86x	14.58x	22.8%	39.9%

Sources of information: S&P Capital IQ.

### Selected Transactions Review

(\$ in millions)

Date		Transaction		Enterprise Value	Metrics		Valuation Benchmarks			
Ann.	Closed	Target	Acquirer		Target TTM		Implied EV /		Stock Price Premiums	
					Revenue	EBITDA %	Revenue	EBITDA	1-Day	1-Month
<b>Internet Content and Search</b>										
24-Jul-17	14-Sep-17	WebMD Health Corp.	KKR	\$ 2,641.2	\$ 709.0	26.0%	3.73x	14.31x	20.5%	12.3%
3-Jul-17	na	Bankrate, Inc.	Red Ventures Holdco, LP	1,434.7	477.0	21.2%	3.01x	14.18x	8.9%	31.5%
1-May-17	29-Sep-17	Angie's List, Inc.	HomeAdvisor, Inc.	580.3	302.3	1.2%	1.92x	161.23x	44.6%	49.1%
10-Apr-17	22-May-17	RetailMeNot, Inc.	Harland Clarke Holdings Corp.	455.1	295.4	10.4%	1.54x	14.83x	49.7%	38.1%
21-Oct-16	2-Dec-16	Everyday Health, Inc.	Ziff Davis, LLC	467.3	253.9	12.2%	1.84x	15.09x	11.7%	30.9%
9-Aug-16	28-Oct-16	Monster Worldwide, Inc.	Randstad North America, LP	371.1	635.0	11.9%	0.61x	6.80x	22.7%	30.3%
27-Jun-16	8-Aug-16	ReachLocal, Inc.	Gannett Co., Inc.	155.6	361.7	-2.5%	0.45x	na	187.5%	184.0%
13-Jun-16	8-Dec-16	LinkedIn Corporation	Microsoft Corporation	25,984.4	3,615.0	13.2%	7.19x	54.43x	49.5%	54.3%
5-May-16	17-Jun-16	NextAdvisor, Inc.	Bankrate, Inc.	106.7	70.3	na	1.52x	7.25x	na	na
12-Apr-16	12-Apr-16	Cracked Entertainment, Inc.	Scripps Media, Inc.	39.0	10.9	na	3.58x	na	na	na
2-Nov-15	31-Dec-15	Vetstreet Inc.	Butler Schein Animal Health	48.0	43.0	na	1.12x	na	na	na
28-Oct-15	29-Jan-16	The Weather Company	International Business Machines	2,284.0	na	na	na	na	na	na
			<i>Mean</i>	\$ 2,880.6	\$ 615.8	11.7%	2.41x	36.02x	49.4%	53.8%
			<i>Median</i>	\$ 461.2	\$ 302.3	12.1%	1.84x	14.57x	33.7%	34.8%
<b>Internet Retail</b>										
7-Apr-17	5-May-17	eBags, Inc.	Samsonite LLC	\$ 105.0	\$ 158.5	na	0.66x	na	na	na
5-Jan-17	30-Dec-16	Shoebuy.com, Inc.	Jet.com, Inc.	70.0	na	na	na	na	na	na
7-Nov-16	17-Feb-17	Blue Nile, Inc.	Bain Capital Private Equity	456.2	471.9	3.5%	0.97x	27.82x	33.9%	15.1%
8-Aug-16	19-Sep-16	Jet.com, Inc.	Wal-Mart Stores, Inc.	3,300.0	na	na	na	na	na	na
17-Feb-16	4-Mar-16	Ebuys, Inc.	DSW Shoe Warehouse, Inc.	117.5	na	na	na	na	na	na
7-Jan-16	1-Feb-16	Gilt Groupe, Inc.	Hudson's Bay Company	250.0	na	na	na	na	na	na
4-Nov-15	14-Dec-15	HomeAway, Inc.	Expedia, Inc.	3,057.6	485.3	12.6%	6.30x	49.81x	24.3%	41.8%
7-Oct-15	31-Oct-15	Ticketfly, Inc.	Pandora Media, Inc.	321.9	65.9	-17.0%	4.88x	na	na	na
17-Aug-15	30-Sep-15	zulily, Inc.	QVC, Inc.	2,180.0	1,281.4	2.2%	1.70x	77.32x	49.2%	34.6%
29-May-15	17-Jul-15	Geeknet, Inc.	GameStop Corp.	102.7	137.1	-6.0%	0.75x	na	5.5%	125.5%
27-May-15	13-Jul-15	Orchard Brands Corporation	Bluestem Brands, Inc.	410.0	1,020.0	6.9%	0.40x	5.80x	na	na
12-Feb-15	17-Sep-15	Orbitz Worldwide, Inc.	Expedia, Inc.	1,595.1	933.5	11.5%	1.71x	14.81x	24.7%	30.7%
			<i>Mean</i>	\$ 997.2	\$ 569.2	2.0%	2.17x	35.11x	27.5%	49.5%
			<i>Median</i>	\$ 366.0	\$ 478.6	3.5%	1.33x	27.82x	24.7%	34.6%

Sources of information: S&P Capital IQ.

# PROFESSIONAL SERVICES AND DISTRIBUTION

Technology Investment Banking

## Selected Transactions Review

(\$ in millions)

Transaction				Metrics			Valuation Benchmarks			
Date		Target	Acquirer	Enterprise Value	Target TTM		Implied EV /		Stock Price Premiums	
Annnc.	Closed				Revenue	EBITDA %	Revenue	EBITDA	1-Day	1-Month
<b>Consulting</b>										
3-Jul-17	15-Aug-17	NCI, Inc.	H.I.G. Capital	\$ 285.1	\$ 325.4	9.1%	0.88x	9.61x	-5.2%	2.6%
27-Jan-17	28-Apr-17	Harris Corpo, Gov (nka:Peraton)	Veritas Capital	690.0	1,000.0	na	0.69x	na	na	na
19-Dec-16	7-Apr-17	Grid Dynamics International, Inc.	Automated Systems Holdings Limited	118.0	39.7	na	na	na	na	na
29-Nov-16	24-Jan-17	eGov Holdings, Inc.	Booz Allen Hamilton Inc.	250.0	na	na	na	na	na	na
20-Oct-16	23-Nov-16	Appirio Inc.	Wipro Limited	500.0	196.0	na	2.55x	na	na	na
24-May-16	31-Mar-17	Everett Spinco, Inc.	Computer Sciences Corp (nka:DXC)	6,927.0	17,787.0	13.6%	0.39x	2.86x	na	na
28-Mar-16	2-Nov-16	Dell Services	NTT DATA Italia S.p.A.	3,055.0	2,826.0	na	1.08x	na	na	na
18-Jan-16	25-Feb-16	Magnet 360, LLC	Mindtree Limited	50.0	25.0	na	2.00x	na	na	na
27-Apr-15	1-Jul-15	iGATE Corporation	Capgemini North America, Inc.	4,453.6	1,288.1	19.3%	3.46x	17.90x	4.7%	13.5%
9-Mar-15	1-Apr-15	Acentia, LLC	MAXIMUS Federal Services, Inc.	300.7	193.2	11.4%	1.56x	13.67x	na	na
			<i>Mean</i>	\$ 1,662.9	\$ 2,631.2	13.4%	1.58x	11.01x	-0.3%	8.0%
			<i>Median</i>	\$ 400.4	\$ 325.4	12.5%	1.32x	11.64x	-0.3%	8.0%
<b>Infrastructure Outsourcing</b>										
7-Nov-16	27-Feb-17	EarthLink Holdings Corp.	Windstream Holdings, Inc.	\$ 1,070.3	\$ 959.9	20.6%	1.12x	5.40x	-4.8%	-5.7%
7-Nov-16	6-Jan-17	Datalink Corporation	Insight Enterprises, Inc.	223.1	756.5	2.5%	0.29x	11.72x	19.3%	5.9%
26-Aug-16	3-Nov-16	Rackspace Hosting, Inc.	Inception Parent, Inc.	4,314.1	2,073.4	28.4%	2.07x	7.25x	6.0%	37.8%
4-May-16	1-Jul-16	United Online, Inc.	B. Riley Financial, Inc.	43.8	145.3	10.4%	0.31x	3.71x	1.9%	-2.7%
19-Feb-15	1-Apr-15	MegaPath Managed Services	Global Telecom & Tech Americas	152.4	124.0	16.1%	1.23x	7.62x	na	na
			<i>Mean</i>	\$ 1,160.7	\$ 811.8	15.6%	1.00x	7.14x	5.6%	8.8%
			<i>Median</i>	\$ 223.1	\$ 756.5	16.1%	1.12x	7.25x	3.9%	1.6%
<b>Distribution</b>										
6-Jun-17	1-Sep-17	Westcon Group, Inc.	SYNNEX Corporation	\$ 830.0	\$ 2,234.7	4.0%	0.37x	9.35x	na	na
19-Sep-16	27-Feb-17	Avnet Technology Solutions	Tech Data Corporation	2,645.0	9,652.5	na	0.27x	na	na	na
17-Feb-16	5-Dec-16	Ingram Micro Inc.	Tianjin Tianhai Investment Co., Ltd.	6,597.2	40,998.3	1.9%	0.16x	8.49x	32.2%	43.3%
18-Aug-15	4-Sep-15	KBZ Communications, Inc.	ScanSource, Inc.	61.5	225.0	na	0.27x	na	na	na
			<i>Mean</i>	\$ 2,533.4	\$ 13,277.6	2.9%	0.27x	8.92x	32.2%	43.3%
			<i>Median</i>	\$ 1,737.5	\$ 5,943.6	2.9%	0.27x	8.92x	32.2%	43.3%

Sources of information: S&P Capital IQ.

I YTD Q3 NOTABLE TECHNOLOGY DEALS

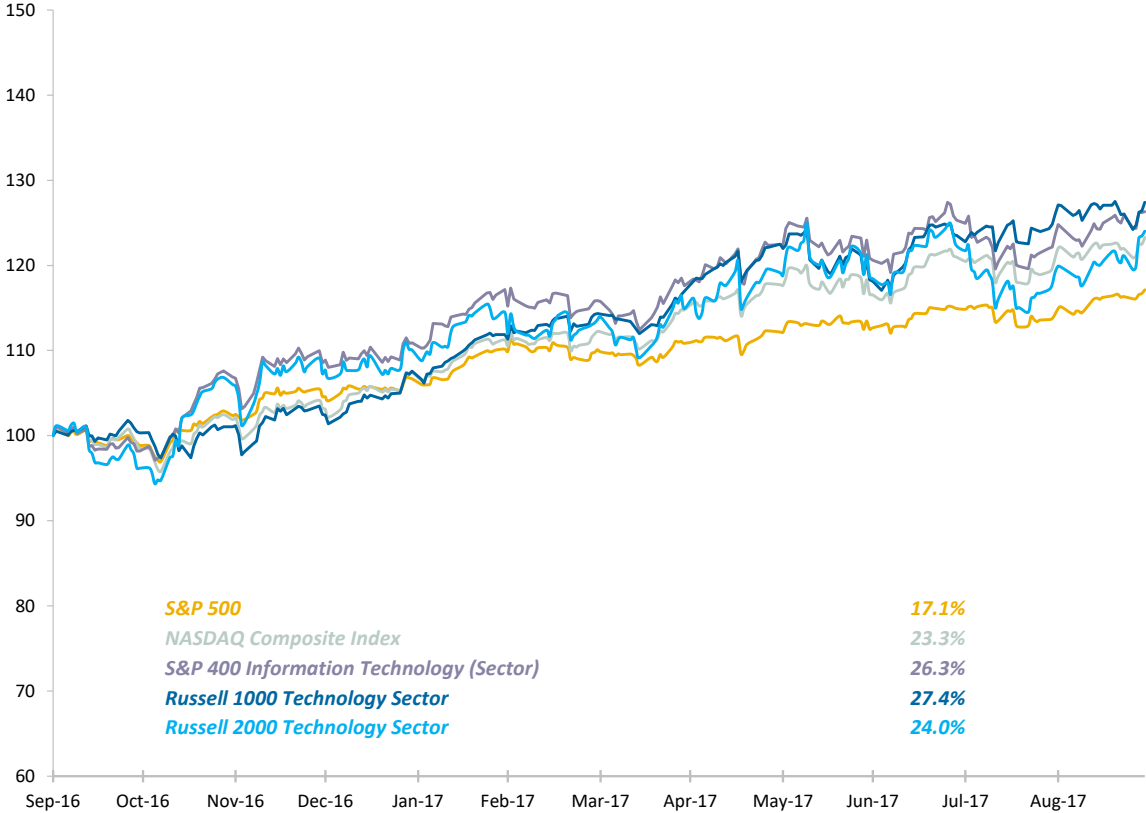
II M&A TRANSACTIONS

III **PUBLIC MARKETS REVIEW**



September 30, 2016 to September 29, 2017

Relative Performance



Sources of information: S&P Capital IQ.

### Selected Companies Review

(\$ in millions, except per security)

Company	Ticker	Market Statistics			Metrics			Valuation Benchmarks			
		Closing Price	% of 52-week	Enterprise	Revenue	Rev. Growth	LTM EBITDA	EV / Revenue		EV / EBITDA	
		29-Sep-17	High-Low	Value	LTM	2018 E	Margin	LTM	2017 E	LTM	2017 E
<b>Large Diversified</b>											
Adobe Systems Incorporated	ADBE	\$ 149.18	94.5% - 152.2%	\$ 70,058.0	\$ 6,903.3	19.7%	33.6%	10.15x	9.67x	30.2x	23.0x
Hewlett Packard Enterprise Company	HPE	\$ 14.71	59.1% - 113.4%	32,780.8	48,287.0	-11.2%	14.3%	0.68x	0.99x	4.7x	5.6x
International Business Machines Corporation	IBM	\$ 145.08	79.4% - 104.3%	168,709.9	78,439.0	-0.1%	21.9%	2.15x	2.17x	9.8x	9.2x
Oracle Corporation	ORCL	\$ 48.35	91.0% - 128.5%	193,189.6	38,320.0	3.8%	38.9%	5.04x	4.96x	13.0x	10.8x
		<i>Mean</i>	<i>81.0% - 124.6%</i>	<i>\$ 116,184.6</i>	<i>\$ 42,987.3</i>	<i>3.0%</i>	<i>27.2%</i>	<i>4.50x</i>	<i>4.45x</i>	<i>14.4x</i>	<i>12.2x</i>
		<i>Median</i>	<i>85.2% - 121.0%</i>	<i>\$ 119,383.9</i>	<i>\$ 43,303.5</i>	<i>1.8%</i>	<i>27.7%</i>	<i>3.60x</i>	<i>3.56x</i>	<i>11.4x</i>	<i>10.0x</i>
<b>Application Software</b>											
Intuit Inc.	INTU	\$ 142.14	96.9% - 137.7%	\$ 36,152.8	\$ 5,177.0	10.1%	31.4%	6.98x	6.74x	22.2x	18.1x
Manhattan Associates, Inc.	MANH	\$ 41.57	69.7% - 101.8%	2,778.7	597.4	5.2%	33.8%	4.65x	4.67x	13.7x	13.1x
SPS Commerce, Inc.	SPSC	\$ 56.71	76.0% - 117.9%	827.1	206.6	14.5%	11.1%	4.00x	3.74x	36.1x	25.8x
Upland Software, Inc.	UPLD	\$ 21.16	82.8% - 282.9%	462.4	82.6	11.5%	11.2%	5.59x	4.86x	nm	15.7x
Workiva Inc.	WK	\$ 20.85	99.0% - 171.6%	864.3	192.4	14.4%	-16.8%	4.49x	4.21x	na	na
		<i>Mean</i>	<i>84.9% - 162.4%</i>	<i>\$ 8,217.1</i>	<i>\$ 1,251.2</i>	<i>11.1%</i>	<i>14.1%</i>	<i>5.15x</i>	<i>4.85x</i>	<i>24.0x</i>	<i>18.2x</i>
		<i>Median</i>	<i>82.8% - 137.7%</i>	<i>\$ 864.3</i>	<i>\$ 206.6</i>	<i>11.5%</i>	<i>11.2%</i>	<i>4.65x</i>	<i>4.67x</i>	<i>22.2x</i>	<i>16.9x</i>
<b>Human Capital Management</b>											
Benefitfocus, Inc.	BNFT	\$ 33.65	79.2% - 137.1%	\$ 1,120.4	\$ 248.2	14.3%	-2.6%	4.51x	4.37x	na	nm
Cornerstone OnDemand, Inc.	CSOD	\$ 40.61	87.0% - 134.0%	2,321.5	445.0	15.6%	-10.2%	5.22x	4.82x	na	36.1x
Paycom Software, Inc.	PAYC	\$ 74.96	97.7% - 191.5%	4,432.3	382.9	24.9%	19.3%	11.58x	10.27x	nm	35.7x
Paylocity Holding Corporation	PCTY	\$ 48.82	98.3% - 164.4%	2,516.4	300.0	22.3%	6.3%	8.39x	7.58x	nm	39.1x
The Ultimate Software Group, Inc.	ULTI	\$ 189.60	81.2% - 105.2%	5,584.0	860.7	20.0%	7.2%	6.49x	5.97x	nm	26.4x
Workday, Inc.	WDAY	\$ 105.39	94.6% - 160.2%	21,128.9	1,853.3	25.6%	-12.4%	11.40x	10.05x	na	nm
		<i>Mean</i>	<i>89.7% - 148.7%</i>	<i>\$ 6,183.9</i>	<i>\$ 681.7</i>	<i>20.5%</i>	<i>1.3%</i>	<i>7.93x</i>	<i>7.18x</i>	<i>na</i>	<i>34.3x</i>
		<i>Median</i>	<i>90.8% - 148.6%</i>	<i>\$ 3,474.4</i>	<i>\$ 413.9</i>	<i>21.2%</i>	<i>1.9%</i>	<i>7.44x</i>	<i>6.77x</i>	<i>na</i>	<i>35.9x</i>

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Sources of information: S&P Capital IQ.

### Selected Companies Review

(\$ in millions, except per security)

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		Closing Price	% of 52-week	Enterprise	Revenue	Rev. Growth	LTM EBITDA	EV / Revenue		EV / EBITDA		
		29-Sep-17	High-Low	Value	LTM	2018 E	Margin	LTM	2017 E	LTM	2017 E	
<b>Sales, Marketing, and Customer Service</b>												
Bazaarvoice, Inc.	BV	\$ 4.95	80.7% - 130.3%	\$ 361.1	\$ 203.3	4.9%	-1.5%	1.78x	1.76x	na	18.0x	
Callidus Software Inc.	CALD	\$ 24.65	90.1% - 162.7%	1,501.2	228.0	19.1%	-3.4%	6.58x	6.08x	na	48.2x	
HubSpot, Inc.	HUBS	\$ 84.05	99.9% - 187.2%	3,064.2	318.4	25.9%	-10.9%	9.62x	8.34x	na	nm	
LivePerson, Inc.	LPSN	\$ 13.55	96.4% - 249.8%	759.9	215.6	7.3%	3.8%	3.52x	3.53x	nm	37.4x	
Salesforce.com, inc.	CRM	\$ 93.42	95.1% - 140.6%	66,594.9	9,387.9	19.8%	4.9%	7.09x	6.41x	nm	29.6x	
Shopify Inc.	SHOP	\$ 116.49	94.0% - 308.7%	11,107.2	509.0	43.4%	-6.8%	nm	17.08x	na	nm	
ServiceSource International, Inc.	SREV	\$ 3.46	55.4% - 122.7%	268.8	246.1	6.5%	-2.7%	1.09x	1.12x	na	16.6x	
Yext, Inc.	YEXT	\$ 13.28	87.9% - 110.2%	1,213.4	145.4	32.6%	-35.8%	8.34x	7.14x	na	na	
Zendesk, Inc.	ZEN	\$ 29.11	92.8% - 147.2%	2,750.5	363.6	29.5%	-23.8%	7.56x	6.50x	na	nm	
		<i>Mean</i>	<i>88.0% - 173.3%</i>	<i>\$ 9,735.7</i>	<i>\$ 1,290.8</i>	<i>21.0%</i>	<i>-8.5%</i>	<i>5.70x</i>	<i>6.44x</i>	<i>na</i>	<i>30.0x</i>	
		<i>Median</i>	<i>92.8% - 147.2%</i>	<i>\$ 1,501.2</i>	<i>\$ 246.1</i>	<i>19.8%</i>	<i>-3.4%</i>	<i>6.84x</i>	<i>6.41x</i>	<i>na</i>	<i>29.6x</i>	
<b>Business Analytics</b>												
Alteryx, Inc.	AYX	\$ 20.37	84.6% - 139.4%	\$ 1,110.0	\$ 106.3	35.9%	-19.4%	10.44x	8.84x	na	na	
Cloudera, Inc.	CLDR	\$ 16.62	71.2% - 107.9%	2,093.2	309.5	26.3%	-116.1%	6.76x	5.84x	na	na	
MicroStrategy Incorporated	MSTR	\$ 127.71	61.6% - 103.9%	829.5	511.2	2.0%	21.4%	1.62x	1.65x	7.6x	9.6x	
Tableau Software, Inc.	DATA	\$ 74.89	98.2% - 180.9%	5,153.6	869.5	9.1%	-10.8%	5.93x	5.84x	na	nm	
Teradata Corporation	TDC	\$ 33.79	99.7% - 128.6%	3,890.7	2,182.0	-0.6%	11.5%	1.78x	1.85x	15.6x	10.8x	
		<i>Mean</i>	<i>83.1% - 132.1%</i>	<i>\$ 2,615.4</i>	<i>\$ 795.7</i>	<i>14.5%</i>	<i>-22.7%</i>	<i>5.31x</i>	<i>4.80x</i>	<i>11.6x</i>	<i>10.2x</i>	
		<i>Median</i>	<i>84.6% - 128.6%</i>	<i>\$ 2,093.2</i>	<i>\$ 511.2</i>	<i>9.1%</i>	<i>-10.8%</i>	<i>5.93x</i>	<i>5.84x</i>	<i>11.6x</i>	<i>10.2x</i>	
<b>Design and Engineering</b>												
Autodesk, Inc.	ADSK	\$ 112.26	93.8% - 167.2%	\$ 24,527.6	\$ 1,955.9	24.7%	-17.5%	12.54x	11.98x	na	na	
Ansys, Inc.	ANSS	\$ 122.73	92.5% - 149.2%	9,735.1	1,033.8	7.0%	44.6%	9.42x	9.12x	21.1x	18.0x	
Cadence Design Systems, Inc.	CDNS	\$ 39.47	99.9% - 163.4%	11,183.9	1,871.1	5.6%	22.5%	5.98x	5.78x	26.6x	18.0x	
PTC Inc.	PTC	\$ 56.28	93.5% - 130.9%	6,938.6	1,145.9	6.8%	8.0%	6.06x	5.90x	nm	26.9x	
Synopsys, Inc.	SNPS	\$ 80.53	98.7% - 143.7%	11,384.0	2,662.0	5.7%	20.1%	4.28x	4.22x	21.3x	16.6x	
		<i>Mean</i>	<i>95.7% - 150.9%</i>	<i>\$ 12,753.9</i>	<i>\$ 1,733.7</i>	<i>9.9%</i>	<i>15.6%</i>	<i>7.65x</i>	<i>7.40x</i>	<i>23.0x</i>	<i>19.9x</i>	
		<i>Median</i>	<i>93.8% - 149.2%</i>	<i>\$ 11,183.9</i>	<i>\$ 1,871.1</i>	<i>6.8%</i>	<i>20.1%</i>	<i>6.06x</i>	<i>5.90x</i>	<i>21.3x</i>	<i>18.0x</i>	

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		Closing Price	% of 52-week	Enterprise	Revenue	Rev. Growth	LTM EBITDA	EV / Revenue		EV / EBITDA		
		29-Sep-17	High-Low	Value	LTM	2018 E	Margin	LTM	2017 E	LTM	2017 E	
<b>Infrastructure</b>												
Appian Corporation	APPN	\$ 28.46	99.3% - 194.9%	\$ 1,714.5	\$ 146.0	16.8%	-17.5%	11.74x	10.51x	na	na	
CA, Inc.	CA	\$ 33.38	91.4% - 111.2%	14,031.4	4,062.0	2.5%	30.7%	3.45x	3.38x	11.3x	9.2x	
Carbonite, Inc.	CARB	\$ 22.00	89.4% - 156.0%	603.5	221.6	10.0%	3.1%	2.72x	2.48x	nm	12.7x	
Citrix Systems, Inc.	CTXS	\$ 76.82	80.1% - 109.4%	11,773.7	3,441.4	3.9%	28.7%	3.42x	4.17x	11.9x	12.5x	
Commvault Systems, Inc.	CVLT	\$ 60.80	94.1% - 127.7%	2,359.6	664.7	9.9%	1.4%	3.55x	3.41x	nm	25.0x	
MuleSoft, Inc.	MULE	\$ 20.14	69.4% - 103.8%	2,489.6	234.9	34.5%	-22.9%	10.60x	8.88x	na	na	
Progress Software Corporation	PRGS	\$ 38.17	99.1% - 145.5%	1,780.7	399.2	1.1%	33.4%	4.46x	4.49x	13.3x	10.6x	
Red Hat, Inc.	RHT	\$ 110.86	97.5% - 161.7%	18,780.0	2,644.3	15.7%	18.5%	7.10x	6.80x	38.5x	25.1x	
Splunk Inc.	SPLK	\$ 66.43	95.4% - 131.2%	8,386.5	1,073.7	25.5%	-26.5%	7.81x	6.90x	na	nm	
VMware, Inc.	VMW	\$ 109.19	97.5% - 151.5%	37,295.3	7,093.0	7.1%	26.1%	5.26x	4.76x	20.2x	12.5x	
Twilio Inc.	TWLO	\$ 29.85	42.9% - 130.9%	2,583.2	336.7	24.8%	-10.3%	7.67x	6.90x	na	na	
Varonis Systems, Inc.	VRNS	\$ 41.90	97.3% - 171.4%	1,076.4	185.9	16.9%	-7.1%	5.79x	5.22x	na	nm	
		<i>Mean</i>	<i>87.8% - 141.3%</i>	<i>\$ 8,572.9</i>	<i>\$ 1,708.6</i>	<i>14.1%</i>	<i>4.8%</i>	<i>6.13x</i>	<i>5.66x</i>	<i>19.0x</i>	<i>15.4x</i>	
		<i>Median</i>	<i>94.8% - 138.4%</i>	<i>\$ 2,536.4</i>	<i>\$ 532.0</i>	<i>12.9%</i>	<i>2.2%</i>	<i>5.52x</i>	<i>4.99x</i>	<i>13.3x</i>	<i>12.5x</i>	
<b>Collaboration</b>												
Box, Inc.	BOX	\$ 19.32	92.4% - 142.5%	\$ 2,623.5	\$ 452.9	23.3%	-26.0%	5.79x	5.19x	na	na	
LogMeIn, Inc.	LOGM	\$ 110.05	88.8% - 127.6%	5,528.9	617.6	15.2%	20.7%	8.95x	5.47x	43.3x	15.4x	
RingCentral, Inc.	RNG	\$ 41.75	97.0% - 215.8%	3,032.4	432.6	22.2%	-3.0%	7.01x	6.16x	na	nm	
Workiva Inc.	WK	\$ 20.85	99.0% - 171.6%	864.3	192.4	14.4%	-16.8%	4.49x	4.21x	na	na	
		<i>Mean</i>	<i>94.3% - 164.4%</i>	<i>\$ 3,012.3</i>	<i>\$ 423.8</i>	<i>18.8%</i>	<i>-6.3%</i>	<i>6.56x</i>	<i>5.25x</i>	<i>43.3x</i>	<i>15.4x</i>	
		<i>Median</i>	<i>94.7% - 157.0%</i>	<i>\$ 2,828.0</i>	<i>\$ 442.7</i>	<i>18.7%</i>	<i>-9.9%</i>	<i>6.40x</i>	<i>5.33x</i>	<i>43.3x</i>	<i>15.4x</i>	

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		Closing Price	% of 52-week	Enterprise	Revenue	Rev. Growth	LTM EBITDA	EV / Revenue		EV / EBITDA	
		29-Sep-17	High-Low	Value	LTM	2018 E	Margin	LTM	2017 E	LTM	2017 E
<b>Healthcare</b>											
athenahealth, Inc.	ATHN	\$ 124.36	78.4% - 138.0%	\$ 5,174.5	\$ 1,151.4	13.6%	11.1%	4.49x	4.22x	40.5x	19.4x
Cerner Corporation	CERN	\$ 71.32	98.7% - 151.7%	24,075.3	4,898.4	8.3%	28.0%	4.91x	4.62x	17.6x	14.1x
Computer Programs and Systems, Inc.	CPSI	\$ 29.55	81.7% - 161.9%	548.1	261.0	4.6%	10.9%	2.10x	2.04x	19.2x	11.4x
HealthStream, Inc.	HSTM	\$ 23.37	74.1% - 113.4%	637.4	238.5	9.4%	9.9%	2.67x	2.58x	27.0x	17.5x
Inovalon Holdings, Inc.	INOV	\$ 17.05	95.8% - 198.3%	2,216.0	420.0	9.0%	16.0%	5.28x	4.91x	32.9x	20.2x
Medidata Solutions, Inc.	MDSO	\$ 78.06	90.9% - 169.3%	4,547.6	508.8	18.1%	15.1%	8.94x	8.21x	nm	33.4x
NantHealth, Inc.	NH	\$ 4.12	29.7% - 158.5%	541.1	98.2	37.7%	-118.3%	5.51x	5.01x	na	1.5x
Quality Systems, Inc.	QSII	\$ 15.73	88.7% - 148.3%	1,018.4	518.3	2.5%	11.8%	1.96x	1.95x	16.6x	12.9x
Veeva Systems Inc.	VEEV	\$ 56.41	82.9% - 154.3%	7,496.9	617.4	19.5%	25.0%	12.14x	11.13x	48.5x	34.2x
	<i>Mean</i>		80.1% - 154.9%	\$ 5,139.5	\$ 968.0	13.6%	1.1%	5.34x	4.96x	28.9x	18.3x
	<i>Median</i>		82.9% - 154.3%	\$ 2,216.0	\$ 508.8	9.4%	11.8%	4.91x	4.62x	27.0x	17.5x
<b>Other Vertical</b>											
AppFolio, Inc.	APPF	\$ 47.95	99.1% - 262.5%	\$ 1,617.7	\$ 124.2	26.4%	3.7%	13.03x	11.60x	nm	nm
Blackbaud, Inc.	BLKB	\$ 87.80	93.6% - 157.1%	4,523.3	757.2	8.9%	17.4%	5.97x	5.75x	34.3x	23.6x
CDK Global, Inc.	CDK	\$ 63.09	93.5% - 118.0%	10,325.2	2,220.2	4.4%	26.2%	4.65x	4.56x	17.7x	13.6x
Ebix, Inc.	EBIX	\$ 65.25	99.8% - 124.5%	2,339.7	321.1	13.5%	35.6%	7.29x	6.71x	20.5x	19.4x
Guidewire Software, Inc.	GWRE	\$ 77.86	95.6% - 158.3%	5,319.3	514.3	20.4%	9.2%	10.34x	9.70x	nm	48.8x
Instructure, Inc.	INST	\$ 33.15	95.1% - 185.7%	995.2	133.7	30.1%	-35.4%	7.44x	6.47x	na	na
Q2 Holdings, Inc.	QTTWO	\$ 41.65	99.6% - 165.1%	1,716.5	172.6	25.7%	-10.0%	9.94x	8.81x	na	nm
SS&C Technologies Holdings, Inc.	SSNC	\$ 40.15	99.1% - 141.2%	10,752.4	1,602.9	5.4%	36.2%	6.71x	6.39x	18.5x	15.7x
Square, Inc.	SQ	\$ 28.81	99.3% - 264.8%	11,600.3	1,904.0	29.0%	-2.2%	6.09x	12.31x	na	nm
Tyler Technologies, Inc.	TYL	\$ 174.32	95.5% - 124.9%	6,691.6	796.4	10.8%	22.0%	8.40x	7.91x	38.1x	26.7x
	<i>Mean</i>		97.0% - 170.2%	\$ 5,588.1	\$ 854.7	17.5%	10.3%	7.99x	8.02x	25.8x	24.6x
	<i>Median</i>		97.3% - 157.7%	\$ 4,921.3	\$ 635.7	17.0%	13.3%	7.36x	7.31x	20.5x	21.5x

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		29-Sep-17	High-Low	Value	LTM	2018 E	Margin	LTM	2017 E	LTM	2017 E	
<b>Security</b>												
Check Point Software Technologies Ltd.	CHKP	\$ 114.02	97.8% - 153.4%	\$ 17,430.6	\$ 1,808.3	7.0%	49.4%	9.64x	9.31x	19.5x	16.7x	
Barracuda Networks, Inc.	CUDA	\$ 24.23	90.8% - 127.1%	1,094.7	360.2	7.7%	10.2%	3.04x	2.95x	29.7x	16.4x	
FireEye, Inc.	FEYE	\$ 16.77	95.8% - 162.0%	2,972.2	730.3	8.3%	-22.1%	4.07x	4.01x	na	37.3x	
Fortinet, Inc.	FTNT	\$ 35.84	86.2% - 125.7%	5,134.5	1,383.5	14.6%	10.3%	3.71x	3.44x	36.1x	17.0x	
Imperva, Inc.	IMPV	\$ 43.40	75.8% - 126.2%	1,151.3	293.6	18.2%	-6.4%	3.92x	3.58x	na	28.2x	
MobileIron, Inc.	MOBL	\$ 3.70	54.6% - 142.2%	259.1	172.0	11.1%	-29.2%	1.51x	1.44x	na	na	
Okta, Inc.	OKTA	\$ 28.21	83.9% - 131.1%	2,840.7	205.1	35.3%	-45.0%	13.85x	11.60x	na	na	
Palo Alto Networks, Inc.	PANW	\$ 144.10	87.0% - 134.3%	12,593.8	1,761.6	20.7%	-5.6%	7.15x	6.46x	na	27.1x	
Proofpoint, Inc.	PFPT	\$ 87.22	89.9% - 128.2%	4,015.8	442.2	28.6%	-7.5%	9.08x	7.96x	na	nm	
Qualys, Inc.	QLYS	\$ 51.80	96.7% - 169.3%	1,780.5	211.6	16.0%	24.8%	8.41x	7.82x	34.0x	23.6x	
Rapid7, Inc.	RPD	\$ 17.60	91.2% - 165.6%	711.0	178.1	20.6%	-20.7%	3.99x	3.61x	na	na	
SecureWorks Corp.	SCWX	\$ 12.35	95.1% - 149.7%	903.5	455.8	9.9%	-5.5%	1.98x	1.94x	na	na	
Symantec Corporation	SYMC	\$ 32.81	95.9% - 144.2%	25,288.7	4,310.0	7.9%	16.6%	5.87x	5.05x	35.4x	11.3x	
VASCO Data Security International, Inc.	VDSI	\$ 12.05	65.0% - 109.0%	324.4	178.9	9.1%	4.1%	1.81x	1.73x	44.2x	22.5x	
		<i>Mean</i>	<i>86.1% - 140.6%</i>	<i>\$ 5,464.3</i>	<i>\$ 892.2</i>	<i>15.4%</i>	<i>-1.9%</i>	<i>5.57x</i>	<i>5.06x</i>	<i>33.1x</i>	<i>22.2x</i>	
		<i>Median</i>	<i>90.4% - 138.3%</i>	<i>\$ 2,310.6</i>	<i>\$ 401.2</i>	<i>12.8%</i>	<i>-5.6%</i>	<i>4.03x</i>	<i>3.81x</i>	<i>34.7x</i>	<i>22.5x</i>	

Market value equals price per share times number of diluted shares outstanding. Enterprise value equals market value plus debt, preferred stock, and non controlling interests, less cash.

Sources of information: S&P Capital IQ.

### Selected Companies Review

(\$ in millions, except per security)

Company	Ticker	Market Statistics			Metrics			Valuation Benchmarks			
		Closing Price	% of 52-week	Enterprise	Revenue	Rev. Growth	LTM EBITDA	EV / Revenue		EV / EBITDA	
		29-Sep-17	High-Low	Value	LTM	2018 E	Margin	LTM	2017 E	LTM	2017 E
<b>Large Diversified</b>											
Apple Inc.	AAPL	\$ 154.12	93.4% - 148.1%	\$ 827,655.9	\$ 223,507.0	12.3%	31.4%	3.70x	3.51x	11.8x	11.2x
Hewlett Packard Enterprise Company	HPE	\$ 14.71	59.1% - 113.4%	32,780.8	48,287.0	-11.2%	14.3%	0.68x	0.99x	4.7x	5.6x
HP Inc.	HPQ	\$ 19.96	99.2% - 145.0%	33,276.1	50,641.0	-0.4%	8.3%	0.66x	0.64x	7.9x	7.7x
International Business Machines Corporation	IBM	\$ 145.08	79.4% - 104.3%	168,709.9	78,439.0	-0.1%	21.9%	2.15x	2.17x	9.8x	9.2x
Oracle Corporation	ORCL	\$ 48.35	91.0% - 128.5%	193,189.6	38,320.0	3.8%	38.9%	5.04x	4.96x	13.0x	10.8x
		<i>Mean</i>	<i>84.4% - 127.8%</i>	<i>\$ 251,122.5</i>	<i>\$ 87,838.8</i>	<i>0.9%</i>	<i>23.0%</i>	<i>2.45x</i>	<i>2.45x</i>	<i>9.4x</i>	<i>8.9x</i>
		<i>Median</i>	<i>91.0% - 128.5%</i>	<i>\$ 168,709.9</i>	<i>\$ 50,641.0</i>	<i>-0.1%</i>	<i>21.9%</i>	<i>2.15x</i>	<i>2.17x</i>	<i>9.8x</i>	<i>9.2x</i>
<b>Networking</b>											
A10 Networks, Inc.	ATEN	\$ 7.56	69.6% - 125.6%	\$ 416.2	\$ 233.0	7.9%	-3.4%	1.79x	1.76x	na	nm
Arista Networks, Inc.	ANET	\$ 189.61	98.1% - 240.6%	13,189.0	1,358.9	24.7%	25.8%	9.71x	8.23x	37.6x	24.2x
Brocade Communications Systems, Inc.	BRCD	\$ 11.95	93.9% - 138.3%	5,327.7	2,340.8	9.5%	15.1%	2.28x	2.27x	15.0x	9.8x
Cisco Systems, Inc.	CSCO	\$ 33.63	97.2% - 115.5%	129,759.3	48,005.0	1.4%	30.7%	2.70x	2.71x	8.8x	7.5x
Extreme Networks, Inc.	EXTR	\$ 11.89	98.0% - 295.8%	1,323.9	598.1	22.4%	7.4%	2.21x	1.75x	29.9x	15.2x
F5 Networks, Inc.	FFIV	\$ 120.56	80.6% - 105.3%	6,647.9	2,077.4	4.9%	30.2%	3.20x	3.16x	10.6x	8.0x
Gigamon Inc.	GIMO	\$ 42.15	68.8% - 147.9%	1,340.3	307.2	18.6%	3.4%	4.36x	4.17x	nm	23.0x
Juniper Networks, Inc.	JNPR	\$ 27.83	89.9% - 124.2%	9,573.8	5,200.8	3.3%	23.2%	1.84x	1.83x	7.9x	6.5x
NETGEAR, Inc.	NTGR	\$ 47.60	78.4% - 114.7%	1,222.2	1,360.8	5.8%	9.8%	0.90x	0.88x	9.1x	8.3x
NetScout Systems, Inc.	NTCT	\$ 32.35	84.1% - 123.2%	2,796.1	1,118.9	8.3%	18.0%	2.50x	2.44x	13.9x	10.2x
		<i>Mean</i>	<i>85.9% - 153.1%</i>	<i>\$ 17,159.6</i>	<i>\$ 6,260.1</i>	<i>10.7%</i>	<i>16.0%</i>	<i>3.15x</i>	<i>2.92x</i>	<i>16.6x</i>	<i>12.5x</i>
		<i>Median</i>	<i>87.0% - 124.9%</i>	<i>\$ 4,061.9</i>	<i>\$ 1,359.8</i>	<i>8.1%</i>	<i>16.5%</i>	<i>2.39x</i>	<i>2.36x</i>	<i>12.2x</i>	<i>9.8x</i>
<b>Storage</b>											
NetApp, Inc.	NTAP	\$ 43.76	96.7% - 144.1%	\$ 9,003.7	\$ 5,550.0	2.0%	17.1%	1.62x	1.60x	9.5x	7.2x
Pure Storage, Inc.	PSTG	\$ 15.99	97.8% - 175.3%	3,215.6	831.9	30.6%	-19.5%	3.87x	3.19x	na	nm
Tintri, Inc.	TNTR	\$ 3.14	42.1% - 110.2%	86.2	139.9	17.6%	-83.7%	0.62x	0.59x	na	na
Quantum Corporation	QTM	\$ 6.12	66.5% - 125.9%	325.5	505.9	4.7%	3.8%	0.64x	0.65x	16.7x	na
		<i>Mean</i>	<i>75.8% - 138.9%</i>	<i>\$ 3,157.7</i>	<i>\$ 1,756.9</i>	<i>13.7%</i>	<i>-20.6%</i>	<i>1.69x</i>	<i>1.51x</i>	<i>13.1x</i>	<i>7.2x</i>
		<i>Median</i>	<i>81.6% - 135.0%</i>	<i>\$ 1,770.5</i>	<i>\$ 668.9</i>	<i>11.2%</i>	<i>-7.8%</i>	<i>1.13x</i>	<i>1.12x</i>	<i>13.1x</i>	<i>7.2x</i>

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### Selected Companies Review

(\$ in millions, except per security)

Company	Ticker	Market Statistics			Metrics			Valuation Benchmarks			
		Closing Price	% of 52-week	Enterprise	Revenue	Rev. Growth	LTM EBITDA	EV / Revenue		EV / EBITDA	
		29-Sep-17	High-Low	Value	LTM	2018 E	Margin	LTM	2017 E	LTM	2017 E
<b>Internet Retail</b>											
Amazon.com, Inc.	AMZN	\$ 961.35	88.7% - 135.4%	\$ 463,980.8	\$ 150,124.0	27.6%	8.2%	3.09x	2.66x	37.7x	25.4x
Blue Apron Holdings, Inc.	APRN	\$ 5.45	49.5% - 109.0%	1,389.3	904.3	12.4%	-14.8%	1.54x	1.58x	na	na
eBay Inc.	EBAY	\$ 38.46	98.9% - 141.0%	43,671.6	9,157.0	6.4%	31.5%	4.77x	4.60x	15.1x	12.9x
Etsy, Inc.	ETSY	\$ 16.88	94.3% - 179.4%	1,777.2	396.4	18.3%	6.2%	4.48x	4.08x	nm	24.0x
Expedia, Inc.	EXPE	\$ 143.94	89.4% - 128.7%	23,356.7	9,448.5	13.8%	12.6%	2.47x	2.30x	19.5x	12.8x
Groupon, Inc.	GRPN	\$ 5.20	96.5% - 179.3%	2,511.4	3,057.4	2.3%	2.0%	0.82x	0.88x	40.9x	11.3x
GrubHub Inc.	GRUB	\$ 52.66	91.4% - 162.4%	4,220.2	575.8	24.3%	21.7%	7.33x	6.43x	33.7x	24.0x
Match Group, Inc.	MTCH	\$ 23.19	95.0% - 153.8%	7,093.8	1,295.2	14.5%	28.6%	5.48x	5.55x	19.2x	15.6x
Netflix, Inc.	NFLX	\$ 181.35	94.7% - 187.4%	83,813.4	10,189.8	22.3%	6.9%	8.23x	7.28x	nm	nm
Overstock.com, Inc.	OSTK	\$ 29.70	92.1% - 227.6%	694.6	1,832.2	4.0%	-0.1%	0.38x	0.37x	na	36.2x
Shutterstock, Inc.	SFLY	\$ 48.48	89.8% - 115.7%	1,844.1	1,149.6	6.0%	12.1%	1.60x	1.59x	13.2x	8.3x
The Priceline Group Inc.	PCLN	\$ 1,830.82	88.5% - 128.7%	92,000.2	11,482.9	15.4%	37.8%	8.01x	7.35x	21.2x	19.3x
TripAdvisor, Inc.	TRIP	\$ 40.53	61.3% - 114.7%	4,986.6	1,533.0	10.1%	13.0%	3.25x	3.14x	24.9x	15.3x
Wayfair Inc.	W	\$ 67.40	80.1% - 244.2%	5,712.4	3,929.8	28.2%	-3.8%	1.45x	1.24x	na	na
		<i>Mean</i>	<i>86.5% - 157.7%</i>	<i>\$ 52,646.6</i>	<i>\$ 14,648.3</i>	<i>14.7%</i>	<i>11.6%</i>	<i>3.78x</i>	<i>3.50x</i>	<i>25.1x</i>	<i>18.6x</i>
		<i>Median</i>	<i>90.6% - 147.4%</i>	<i>\$ 5,349.5</i>	<i>\$ 2,444.8</i>	<i>14.2%</i>	<i>10.2%</i>	<i>3.17x</i>	<i>2.90x</i>	<i>21.2x</i>	<i>15.6x</i>

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### Selected Companies Review

(\$ in millions, except per security)

Company	Ticker	Market Statistics			Metrics			Valuation Benchmarks			
		Closing Price	% of 52-week	Enterprise	Revenue	Rev. Growth	LTM EBITDA	EV / Revenue		EV / EBITDA	
		29-Sep-17	High-Low	Value	LTM	2018 E	Margin	LTM	2017 E	LTM	2017 E
<b>Internet Content and Search</b>											
Alphabet Inc.	GOOGL	\$ 973.72	96.5% - 130.9%	\$ 578,832.2	\$ 99,275.0	17.6%	32.5%	5.83x	5.33x	17.9x	13.3x
Autobytel Inc.	ABTL	\$ 6.89	37.6% - 103.9%	62.0	156.2	4.8%	9.6%	0.40x	0.43x	4.1x	6.8x
Care.com, Inc.	CRCM	\$ 15.89	96.3% - 211.6%	461.3	169.6	9.4%	5.0%	2.72x	2.66x	nm	22.5x
CoStar Group, Inc.	CSGP	\$ 268.25	93.2% - 149.7%	8,591.8	894.7	14.8%	24.6%	9.60x	8.94x	39.0x	31.9x
Facebook, Inc.	FB	\$ 170.87	97.4% - 150.5%	461,237.5	33,173.0	30.0%	54.5%	13.90x	11.77x	25.5x	18.6x
TripAdvisor, Inc.	TRIP	\$ 40.53	61.3% - 114.7%	4,986.6	1,533.0	10.1%	13.0%	3.25x	3.14x	24.9x	15.3x
Snap Inc.	SNAP	\$ 14.54	49.4% - 128.9%	14,828.7	625.2	84.2%	-467.1%	nm	16.73x	na	na
TechTarget, Inc.	TTGT	\$ 11.94	97.6% - 152.1%	332.5	102.7	12.9%	8.9%	3.24x	2.99x	36.4x	14.8x
Twitter, Inc.	TWTR	\$ 16.87	66.8% - 119.5%	10,089.5	2,455.2	6.1%	5.8%	4.11x	4.20x	nm	14.6x
Yelp Inc.	YELP	\$ 43.30	97.9% - 160.8%	3,174.7	787.2	17.9%	5.5%	4.03x	3.69x	nm	21.2x
Yext, Inc.	YEXT	\$ 13.28	87.9% - 110.2%	1,213.4	145.4	32.6%	-35.8%	8.34x	7.14x	na	na
Zillow Group, Inc.	ZG	\$ 40.15	78.9% - 128.8%	7,400.2	964.8	20.2%	3.6%	7.67x	6.95x	nm	32.3x
		<i>Mean</i>	<i>80.1% - 138.5%</i>	<i>\$ 90,934.2</i>	<i>\$ 11,690.2</i>	<i>21.7%</i>	<i>-28.3%</i>	<i>5.74x</i>	<i>6.16x</i>	<i>24.6x</i>	<i>19.1x</i>
		<i>Median</i>	<i>90.5% - 129.9%</i>	<i>\$ 6,193.4</i>	<i>\$ 841.0</i>	<i>16.2%</i>	<i>7.4%</i>	<i>4.11x</i>	<i>4.77x</i>	<i>25.2x</i>	<i>16.9x</i>

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Sources of information: S&P Capital IQ.

# PROFESSIONAL SERVICES AND DISTRIBUTION

Technology Investment Banking

## Selected Companies Review

(\$ in millions, except per security)

Company	Ticker	Market Statistics			Metrics			Valuation Benchmarks			
		Closing Price	% of 52-week	Enterprise	Revenue	Rev. Growth	LTM EBITDA	EV / Revenue		EV / EBITDA	
		29-Sep-17	High-Low	Value	LTM	2018 E	Margin	LTM	2017 E	LTM	2017 E
<b>Large Diversified</b>											
International Business Machines Corporation	IBM	\$ 145.08	79.4% - 104.3%	\$ 168,709.9	\$ 78,439.0	-0.1%	21.9%	2.15x	2.17x	9.8x	9.2x
Hewlett Packard Enterprise Company	HPE	\$ 14.71	59.1% - 113.4%	32,780.8	48,287.0	-11.2%	14.3%	0.68x	0.99x	4.7x	5.6x
		<i>Mean</i>	69.2% - 108.8%	\$ 100,745.4	\$ 63,363.0	-5.7%	18.1%	1.41x	1.58x	7.3x	7.4x
		<i>Median</i>	69.2% - 108.8%	\$ 100,745.4	\$ 63,363.0	-5.7%	18.1%	1.41x	1.58x	7.3x	7.4x
<b>Consulting</b>											
CACI International Inc	CACI	\$ 139.35	97.5% - 145.1%	\$ 4,578.0	\$ 4,354.6	2.8%	8.4%	1.05x	1.04x	12.5x	12.3x
Cognizant Technology Solutions Corporation	CTSH	\$ 72.54	99.4% - 159.6%	39,579.1	14,131.0	9.3%	19.6%	2.80x	2.67x	14.3x	13.4x
DXC Technology Company	DXC	\$ 85.88	99.5% - 126.7%	29,725.1	11,590.0	20.8%	10.5%	2.56x	1.49x	24.4x	8.5x
EPAM Systems, Inc.	EPAM	\$ 87.93	99.7% - 161.3%	4,400.1	1,285.4	20.4%	14.3%	3.42x	3.08x	24.0x	17.2x
ManTech International Corporation	MANT	\$ 44.15	97.0% - 131.8%	1,618.9	1,641.6	4.5%	7.7%	0.99x	0.96x	12.8x	12.7x
Perficient, Inc.	PRFT	\$ 19.67	97.2% - 139.1%	753.1	452.1	7.1%	10.5%	1.67x	1.52x	15.9x	10.6x
Presidio, Inc.	PSDO	\$ 14.15	86.4% - 111.0%	2,289.0	2,817.6	6.4%	7.5%	0.81x	0.80x	10.9x	9.9x
Science Applications International Corporation	SAIC	\$ 66.85	74.4% - 111.0%	3,850.4	4,321.0	2.8%	7.0%	0.89x	0.88x	12.7x	12.7x
Unisys Corporation	UIS	\$ 8.50	50.9% - 123.2%	489.5	2,735.7	1.2%	4.8%	0.18x	0.18x	3.8x	1.4x
Virtusa Corporation	VRTU	\$ 37.78	98.6% - 209.5%	1,204.3	880.6	7.9%	6.0%	1.37x	1.29x	22.6x	18.9x
		<i>Mean</i>	90.1% - 141.8%	\$ 8,848.8	\$ 4,421.0	8.3%	9.6%	1.57x	1.39x	15.4x	11.8x
		<i>Median</i>	97.4% - 135.4%	\$ 3,069.7	\$ 2,776.7	6.8%	8.0%	1.21x	1.17x	13.5x	12.5x
<b>Infrastructure Outsourcing</b>											
Akamai Technologies, Inc.	AKAM	\$ 48.72	68.0% - 109.1%	\$ 8,330.9	\$ 2,418.3	8.4%	28.3%	3.44x	3.37x	12.2x	9.2x
Limelight Networks, Inc.	LLNW	\$ 3.97	93.5% - 233.5%	384.2	173.4	6.5%	4.0%	2.22x	2.12x	nm	14.5x
		<i>Mean</i>	80.8% - 171.3%	\$ 4,357.6	\$ 1,295.8	7.4%	16.2%	2.83x	2.75x	12.2x	11.8x
		<i>Median</i>	80.8% - 171.3%	\$ 4,357.6	\$ 1,295.8	7.4%	16.2%	2.83x	2.75x	12.2x	11.8x

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Sources of information: S&P Capital IQ.

# PROFESSIONAL SERVICES AND DISTRIBUTION (CONTINUED) Technology Investment Banking

## Selected Companies Review

(\$ in millions, except per security)

Company	Ticker	Market Statistics			Metrics			Valuation Benchmarks				
		Closing Price	% of 52-week	Enterprise	Revenue	Rev. Growth	LTM EBITDA	EV / Revenue		EV / EBITDA		
		29-Sep-17	High-Low	Value	LTM	2018 E	Margin	LTM	2017 E	LTM	2017 E	
<b>Solution Providers</b>												
CDW Corporation	CDW	\$ 66.00	98.8% - 151.2%	\$ 14,009.0	\$ 14,519.7	5.3%	7.5%	0.96x	0.93x	12.8x	11.9x	
ePlus inc.	PLUS	\$ 92.45	98.4% - 209.2%	1,386.9	1,398.0	4.1%	7.2%	0.99x	0.94x	13.7x	14.5x	
Insight Enterprises, Inc.	NSIT	\$ 45.92	86.3% - 163.1%	1,953.3	6,021.9	3.5%	3.7%	0.32x	0.30x	8.7x	8.0x	
PC Connection, Inc.	CNXN	\$ 28.19	92.5% - 126.4%	729.6	2,864.4	3.9%	3.1%	0.25x	0.25x	8.1x	7.5x	
PCM, Inc.	PCMI	\$ 14.00	44.9% - 118.6%	320.0	2,256.1	3.5%	2.0%	0.14x	0.14x	7.0x	5.4x	
		<i>Mean</i>	<i>84.2% - 153.7%</i>	<i>\$ 3,679.8</i>	<i>\$ 5,412.0</i>	<i>4.0%</i>	<i>4.7%</i>	<i>0.54x</i>	<i>0.51x</i>	<i>10.1x</i>	<i>9.4x</i>	
		<i>Median</i>	<i>92.5% - 151.2%</i>	<i>\$ 1,386.9</i>	<i>\$ 2,864.4</i>	<i>3.9%</i>	<i>3.7%</i>	<i>0.32x</i>	<i>0.30x</i>	<i>8.7x</i>	<i>8.0x</i>	
<b>Distribution</b>												
Anixter International Inc.	AXE	\$ 85.00	96.6% - 144.1%	\$ 3,995.9	\$ 7,748.1	3.5%	4.9%	0.52x	0.50x	10.5x	9.8x	
Arrow Electronics, Inc.	ARW	\$ 80.41	95.1% - 137.4%	9,819.0	24,603.9	3.6%	4.4%	0.40x	0.38x	9.0x	8.3x	
Avnet, Inc.	AVT	\$ 39.30	76.3% - 110.2%	5,461.2	17,440.0	1.2%	4.2%	0.31x	0.31x	7.4x	7.5x	
ScanSource, Inc.	SCSC	\$ 43.65	97.1% - 150.3%	1,155.5	3,568.2	4.1%	3.3%	0.32x	0.32x	9.7x	8.9x	
SYNNEX Corporation	SNX	\$ 126.51	96.3% - 126.4%	5,885.7	15,620.7	8.4%	4.0%	0.38x	0.36x	9.3x	8.8x	
Tech Data Corporation	TECD	\$ 88.85	80.0% - 120.0%	4,624.3	30,464.5	3.3%	1.6%	0.15x	0.13x	9.3x	6.5x	
		<i>Mean</i>	<i>90.2% - 131.4%</i>	<i>\$ 5,156.9</i>	<i>\$ 16,574.2</i>	<i>4.0%</i>	<i>3.8%</i>	<i>0.35x</i>	<i>0.33x</i>	<i>9.2x</i>	<i>8.3x</i>	
		<i>Median</i>	<i>95.7% - 131.9%</i>	<i>\$ 5,042.7</i>	<i>\$ 16,530.3</i>	<i>3.5%</i>	<i>4.1%</i>	<i>0.35x</i>	<i>0.34x</i>	<i>9.3x</i>	<i>8.6x</i>	

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