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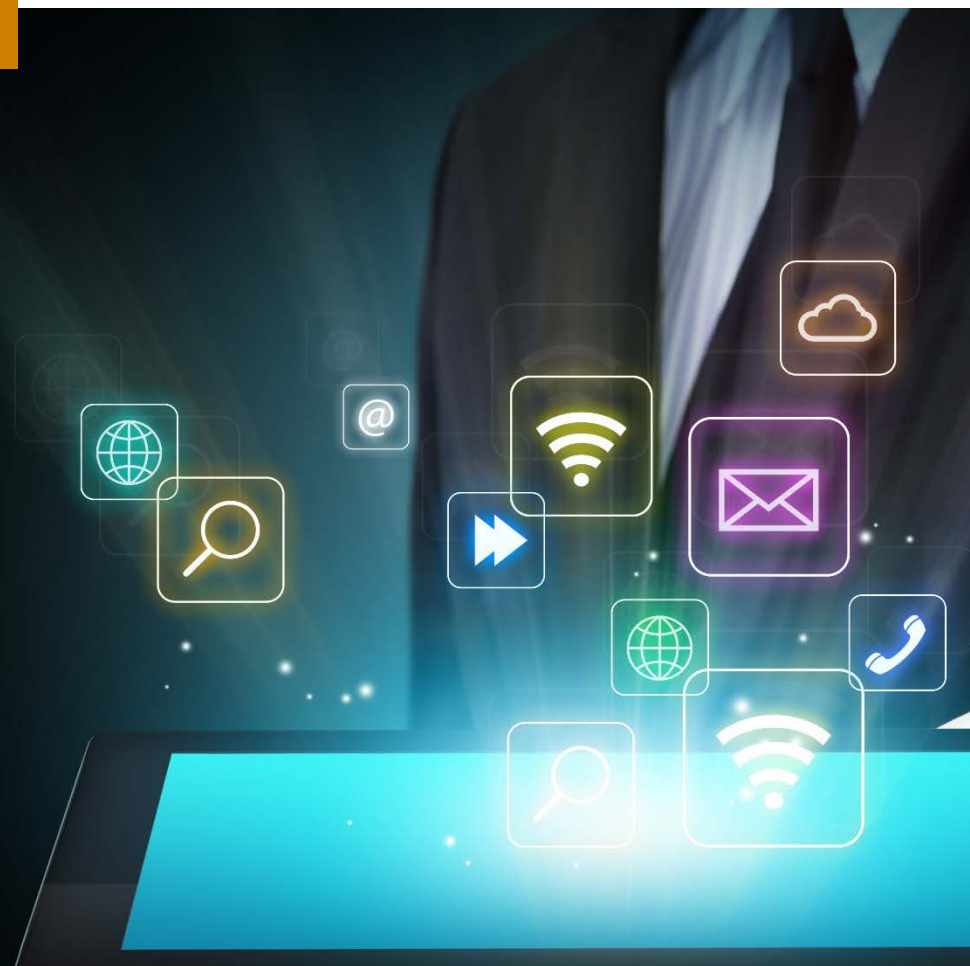
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2016 Top 25 Firm

as ranked by Accounting Today

2015 Best of the Best Firm

as ranked by Accounting Today

2014 Fastest Growing Firm

as ranked by Inside Public Accounting

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MARKET HIGHLIGHTS

The S&P 500 Software (Industry) Index has outperformed the S&P 500 Index over the past 3, 6, 12 and 24 months.

All sectors saw median stock price increases in Q3 except for IT Infrastructure Software (-1.7%). The Engineering Software sector increased the most (+10.9%). Over the last 12 months all sectors saw stock price increases except for Security Software. Engineering Software and CRM Software performed the best in the last 12 months (+34.1% and +29.3%, respectively).

The Engineering Software sector ended the quarter with the highest median LTM revenue multiple (6.7x). The Engineering Software sector and Business Intelligence sector had the largest increase in LTM revenue multiples during Q3 (+9.2% and +3.8%, respectively). The Engineering Software sector had the largest increase in LTM revenue multiples over the last 12 months (+23.7%), while the Security Software sector decreased (-16.9%). The Engineering Software and ERP sectors had the highest NTM revenue multiples (6.4x and 5.9x, respectively).

In terms of LTM EBITDA multiples, **Security Software** had the highest LTM EBITDA multiple (32.3x) while Human Capital Management had the highest NTM EBITDA multiple (29.7x). All sectors saw increases in LTM EBITDA multiples over the last 12 months.

The best individual performer in Q3 was Envestnet (+28.8%), with Bottomline Technologies (+23.9%) taking second place, and Square (+22.8%) close behind in third place. The individual companies that declined the most in Q3 were MicroStrategy (-33.4%) in the Business Intelligence sector and Ellie Mae (-25.3%) in the Fintech Sector.

In M&A news, Global Payments acquired Active Network for \$1.2B and Sage acquired SaaS accounting software firm Intacct for \$850M, with a healthy revenue multiple of 9.7x.

*Nadia Carey, CPA, ABV
Enterprise Software Industry Analyst*

MARKET SECTOR	Median % Change		PEG Ratio	Earnings Ratio	
	Price			LTM	2017E
	3 mo	12 mo	2017E	LTM	2017E
Enterprise Resource Planning (ERP)	4.8%	23.1%	2.4x	30.9x	23.7x
Customer Relationship Management (CRM)	4.5%	29.3%	2.5x	32.3x	42.7x
Supply Chain Management	4.5%	19.7%	2.5x	27.5x	24.0x
Human Capital Management	8.1%	19.7%	2.5x	32.3x	2.5x
Business Intelligence	6.3%	17.4%	10.7x	21.0x	26.1x
FinTech	5.4%	23.8%	1.9x	37.7x	27.5x
Engineering Software	10.9%	34.1%	3.1x	42.7x	33.9x
IT Infrastructure Software	(1.7%)	12.0%	2.2x	27.5x	18.9x
Security Software	5.1%	(1.3%)	2.3x	52.6x	45.7x

INDICIES	9/30/17	3 mo	6 mo	12 mo	24 mo
S&P 500	2,519.36	4.0%	6.4%	16.2%	31.2%
Dow Jones Industrial Average	22,405.09	4.9%	8.1%	22.4%	37.6%
NASDAQ Composite Index	6,495.96	5.8%	9.8%	22.3%	40.6%
Russell 2000 Index	1,490.86	5.3%	7.9%	19.1%	35.4%
S&P 500 Software (Industry)	1,502.71	6.5%	14.1%	30.0%	62.4%
S&P 500 Software & Services (Industry Group)	1,446.81	7.6%	14.3%	26.0%	55.2%
S&P 500 Systems Software (Sub Ind)	1,512.11	5.9%	12.4%	27.8%	59.9%

Source: Capital IQ. (\$ in '000, except per share)

EV/REVENUE MULTIPLES

MARKET SECTOR	LTM			NTM
	Median	Median % Change		Median
	9/30/17	3 mo	12 mo	9/30/17
Enterprise Resource Planning (ERP)	6.1x	3.1%	19.4%	5.9x
Customer Relationship Management (CRM)	5.8x	(0.4%)	19.4%	5.5x
Supply Chain Management	4.6x	1.2%	19.4%	4.6x
Human Capital Management	6.6x	2.4%	18.7%	5.6x
Business Intelligence	5.3x	3.8%	8.4%	4.9x
FinTech	5.2x	1.7%	7.0%	4.9x
Engineering Software	6.7x	9.2%	23.7%	6.4x
IT Infrastructure Software	3.9x	(1.0%)	13.0%	4.3x
Security Software	4.9x	1.7%	(16.9%)	4.2x

EV/EBITDA MULTIPLES

MARKET SECTOR	Median	Median % Change		NTM
		LTM EBITDA Multiples		Median
		9/30/17	3 mo	12 mo
Enterprise Resource Planning (ERP)	21.4x	6.1%	15.8%	15.7x
Customer Relationship Management (CRM)	22.6x	(3.3%)	25.6%	19.4x
Supply Chain Management	20.9x	0.6%	20.7%	14.5x
Human Capital Management	22.6x	(3.7%)	25.6%	29.7x
Business Intelligence	16.6x	(3.7%)	15.8%	13.3x
FinTech	17.9x	3.0%	5.4%	15.4x
Engineering Software	25.3x	2.0%	25.8%	18.0x
IT Infrastructure Software	12.5x	0.3%	10.1%	9.8x
Security Software	32.3x	8.9%	23.5%	20.7x

Source: Capital IQ. (\$ in '000, except per share)

COMPANY	TICKER	Price 9/30/17	% Change		52-Week		Market Cap	Ent Val (TEV)	LTM		NTM		EPS		Earnings Ratio		PEG Ratio 2017E	
			3 mo	12 mo	High	Low			Rev	EBITDA	Rev	EBITDA	2017E	2018E	LTM	2017E		
Enterprise Resource Planning (ERP)																		
Microsoft Corporation	MSFT	\$ 74.49	8.1%	29.3%	\$75.97	\$56.32	\$573,740	\$533,337	\$92,560	\$32,108	\$104,417	\$40,182	\$ 3.03	\$ 3.20	27.5x	NM	NM	
Oracle Corporation	ORCL	48.35	(3.6%)	23.1%	53.14	37.62	201,788	188,589	38,320	14,893	40,094	18,971	2.64	2.94	21.0x	NM	NM	
SAP SE	SAP	109.44	4.5%	19.7%	113.84	88.64	131,212	133,185	23,379	5,888	24,302	8,502	4.90	5.30	32.3x	23.0x	2.5x	
Intuit Inc.	INTU	142.14	7.0%	29.2%	146.72	103.22	36,242	35,953	5,177	1,626	5,691	2,157	4.39	4.97	38.2x	NM	NM	
The Sage Group plc	SGE	9.37	4.8%	(2.5%)	10.83	7.98	10,110	10,563	1,725	494	1,802	513	0.41	0.44	30.9x	24.4x	2.2x	
BlackLine, Inc.	BL	34.12	(4.5%)	NM	40.28	21.66	1,790	1,683	148	(13)	195	1	(0.17)	(0.10)	NM	NM	NM	
Coupa Software Incorporated	COUP	31.15	7.5%	NM	41.61	22.50	1,670	1,461	159	(34)	199	(13)	(1.69)	(0.48)	NM	NM	NM	
Median			4.8%	23.1%											30.9x	23.7x	2.4x	

EV/REVENUE MULTIPLES

COMPANY	TICKER	TTM					NTM 9/30/17
		Trailing		% Change			
		9/30/17	3 mo	12 mo	3 mo	12 mo	
Enterprise Resource Planning (ERP)							
Microsoft Corporation	MSFT	5.8x	5.7x	4.6x	1.2%	26.1%	5.1x
Oracle Corporation	ORCL	4.9x	5.3x	4.0x	(7.0%)	24.2%	4.7x
SAP SE	SAP	5.7x	4.9x	4.8x	16.2%	19.4%	5.5x
Intuit Inc.	INTU	6.9x	6.5x	6.0x	7.3%	15.2%	6.3x
The Sage Group plc	SGE	6.1x	4.5x	5.6x	35.9%	8.8%	5.9x
BlackLine, Inc.	BL	11.3x	12.8x	NA	(11.6%)	NM	8.6x
Coupa Software Incorporated	COUP	9.2x	8.9x	NA	3.1%	NM	7.4x
Median		6.1x	5.7x	4.8x	3.1%	19.4%	5.9x

EV/EBITDA MULTIPLES

COMPANY	TICKER	TTM					NTM 9/30/17
		Trailing		% Change			
		9/30/17	3 mo	12 mo	3 mo	12 mo	
Enterprise Resource Planning (ERP)							
Microsoft Corporation	MSFT	16.6x	17.2x	14.3x	(3.7%)	15.8%	13.3x
Oracle Corporation	ORCL	12.7x	13.6x	10.1x	(7.0%)	25.6%	9.9x
SAP SE	SAP	22.6x	18.8x	16.8x	20.1%	34.3%	15.7x
Intuit Inc.	INTU	22.1x	20.8x	19.4x	6.1%	13.9%	16.7x
The Sage Group plc	SGE	21.4x	15.8x	21.1x	35.1%	1.3%	20.6x
BlackLine, Inc.	BL	NM	NM	NA	NM	NM	NM
Coupa Software Incorporated	COUP	NM	NM	NA	NM	NM	NM
Median		21.4x	17.2x	16.8x	6.1%	15.8%	15.7x

Source: Capital IQ. (\$ in '000, except per share)

COMPANY	TICKER	Price 9/30/17	% Change		52-Week		Market Cap	Ent Val (TEV)	LTM		NTM		EPS		Earnings Ratio		PEG Ratio 2017E	
			3 mo	12 mo	High	Low			Rev	EBITDA	Rev	EBITDA	2017E	2018E	LTM	2017E		
Customer Relationship Management (CRM)																		
Microsoft Corporation	MSFT	\$ 74.49	8.1%	29.3%	\$75.97	\$56.32	\$573,740	\$533,337	\$92,560	\$32,108	\$104,417	\$40,182	\$ 3.03	\$ 3.20	27.5x	NM	NM	
Oracle Corporation	ORCL	48.35	(3.6%)	23.1%	53.14	37.62	201,788	188,589	38,320	14,893	40,094	18,971	2.64	2.94	21.0x	NM	NM	
SAP SE	SAP	109.44	4.5%	19.7%	113.84	88.64	131,212	133,185	23,379	5,888	24,302	8,502	4.90	5.30	32.3x	23.0x	2.5x	
Salesforce.com, inc.	CRM	93.42	7.9%	31.0%	98.22	66.43	67,141	66,222	9,388	464	11,387	2,558	0.98	1.32	NM	NM	NM	
Blackbaud, Inc.	BLKB	87.80	2.4%	32.3%	93.81	55.88	4,123	4,493	770	135	819	194	2.13	2.38	84.5x	42.7x	2.7x	
Pegasystems, Inc.	PEGA	57.65	(1.2%)	95.5%	64.85	28.43	4,475	4,295	804	75	891	134	0.94	1.15	92.3x	61.4x	2.4x	
Zendesk, Inc.	ZEN	29.11	4.8%	(5.2%)	31.36	19.77	2,926	2,685	364	(87)	483	17	(0.17)	(0.02)	NM	NM	NM	
Median			4.5%	29.3%											32.3x	42.7x	2.5x	

EV/REVENUE MULTIPLES

COMPANY	TICKER	TTM		% Change		NTM 9/30/17	
		Trailing 9/30/17	3 mo	12 mo	3 mo		12 mo
Customer Relationship Management (CRM)							
Microsoft Corporation	MSFT	5.8x	5.7x	4.6x	1.2%	26.1%	5.1x
Oracle Corporation	ORCL	4.9x	5.3x	4.0x	(7.0%)	24.2%	4.7x
SAP SE	SAP	5.7x	4.9x	4.8x	16.2%	19.4%	5.5x
Salesforce.com, inc.	CRM	7.1x	6.9x	6.7x	2.5%	5.0%	5.8x
Blackbaud, Inc.	BLKB	5.8x	5.9x	5.1x	(0.4%)	15.2%	5.5x
Pegasystems, Inc.	PEGA	5.3x	5.5x	2.9x	(2.4%)	85.9%	4.8x
Zendesk, Inc.	ZEN	7.4x	7.4x	10.2x	(0.6%)	(27.5%)	5.6x
Median		5.8x	5.7x	4.8x	(0.4%)	19.4%	5.5x

COMPANY	TICKER	TTM		% Change		NTM 9/30/17	
		Trailing 9/30/17	3 mo	12 mo	3 mo		12 mo
Customer Relationship Management (CRM)							
Microsoft Corporation	MSFT	16.6x	17.2x	14.3x	(3.7%)	15.8%	13.3x
Oracle Corporation	ORCL	12.7x	13.6x	10.1x	(7.0%)	25.6%	9.9x
SAP SE	SAP	22.6x	18.8x	16.8x	20.1%	34.3%	15.7x
Salesforce.com, inc.	CRM	NM	NM	89.7x	NM	NM	25.9x
Blackbaud, Inc.	BLKB	33.3x	34.5x	30.5x	(3.3%)	9.2%	23.2x
Pegasystems, Inc.	PEGA	57.1x	53.5x	22.4x	6.8%	155.3%	32.1x
Zendesk, Inc.	ZEN	NM	NM	NM	NM	NM	NM
Median		22.6x	18.8x	19.6x	(3.3%)	25.6%	19.4x

EV/EBITDA MULTIPLES

COMPANY	TICKER	TTM		% Change		NTM 9/30/17	
		Trailing 9/30/17	3 mo	12 mo	3 mo		12 mo
Customer Relationship Management (CRM)							
Microsoft Corporation	MSFT	16.6x	17.2x	14.3x	(3.7%)	15.8%	13.3x
Oracle Corporation	ORCL	12.7x	13.6x	10.1x	(7.0%)	25.6%	9.9x
SAP SE	SAP	22.6x	18.8x	16.8x	20.1%	34.3%	15.7x
Salesforce.com, inc.	CRM	NM	NM	89.7x	NM	NM	25.9x
Blackbaud, Inc.	BLKB	33.3x	34.5x	30.5x	(3.3%)	9.2%	23.2x
Pegasystems, Inc.	PEGA	57.1x	53.5x	22.4x	6.8%	155.3%	32.1x
Zendesk, Inc.	ZEN	NM	NM	NM	NM	NM	NM
Median		22.6x	18.8x	19.6x	(3.3%)	25.6%	19.4x

Source: Capital IQ. (\$ in '000, except per share)

COMPANY	TICKER	Price 9/30/17	% Change		52-Week		Market Cap	Ent Val (TEV)	LTM		NTM		EPS		Earnings Ratio		PEG Ratio	
			3 mo	12 mo	High	Low			Rev	EBITDA	Rev	EBITDA	2017E	2018E	LTM	2017E		2017E
Supply Chain Management																		
Microsoft Corporation	MSFT	\$ 74.49	8.1%	29.3%	\$75.97	\$56.32	\$573,740	\$533,337	\$92,560	\$32,108	\$104,417	\$40,182	\$ 3.03	\$ 3.20	27.5x	NM	NM	
Oracle Corporation	ORCL	48.35	(3.6%)	23.1%	53.14	37.62	201,788	188,589	38,320	14,893	40,094	18,971	2.64	2.94	21.0x	NM	NM	
SAP SE	SAP	109.44	4.5%	19.7%	113.84	88.64	131,212	133,185	23,379	5,888	24,302	8,502	4.90	5.30	32.3x	23.0x	2.5x	
Manhattan Associates, Inc.	MANH	41.57	(13.5%)	(27.9%)	59.60	40.83	2,865	2,779	598	200	604	214	1.87	1.28	24.0x	24.0x	1.6x	
Aspen Technology, Inc.	AZPN	62.81	13.7%	34.2%	64.87	45.47	4,591	4,629	486	218	493	235	1.97	1.98	29.8x	NM	NM	
SPS Commerce, Inc.	SPSC	56.71	(11.1%)	(22.7%)	73.92	48.11	977	818	213	23	237	34	0.88	1.05	107.3x	65.0x	3.0x	
QAD Inc.	QADA	34.35	7.2%	53.5%	34.90	21.80	640	505	290	11	301	17	0.40	0.31	NM	NM	NM	
American Software, Inc.	AMSW.A	11.36	10.4%	2.3%	12.10	9.00	338	254	106	12	110	21	0.27	0.36	21.9x	NM	NM	
Amber Road, Inc.	AMBR	7.68	(10.4%)	(20.4%)	12.30	6.71	209	221	76	(11)	85	1	(0.37)	(0.22)	NM	NM	NM	
Median			4.5%	19.7%											27.5x	24.0x	2.5x	

EV/REVENUE MULTIPLES

COMPANY	TICKER	TTM		% Change		NTM
		Trailing		3 mo	12 mo	
Supply Chain Management						
Microsoft Corporation	MSFT	5.8x	5.7x	4.6x	1.2%	26.1%
Oracle Corporation	ORCL	4.9x	5.3x	4.0x	(7.0%)	24.2%
SAP SE	SAP	5.7x	4.9x	4.8x	16.2%	19.4%
Manhattan Associates, Inc.	MANH	4.6x	5.4x	6.8x	(14.1%)	(32.2%)
Aspen Technology, Inc.	AZPN	9.5x	8.8x	7.5x	8.5%	26.8%
SPS Commerce, Inc.	SPSC	3.8x	4.7x	6.4x	(18.8%)	(39.8%)
QAD Inc.	QADA	1.7x	1.6x	1.1x	8.7%	60.1%
American Software, Inc.	AMSW.A	2.4x	2.1x	2.2x	16.9%	7.4%
Amber Road, Inc.	AMBR	2.9x	3.2x	3.8x	(10.0%)	(23.0%)
Median		4.6x	4.9x	4.6x	1.2%	19.4%

COMPANY	TICKER	TTM		% Change		NTM
		Trailing		3 mo	12 mo	
Supply Chain Management						
Microsoft Corporation	MSFT	16.6x	17.2x	14.3x	(3.7%)	15.8%
Oracle Corporation	ORCL	12.7x	13.6x	10.1x	(7.0%)	25.6%
SAP SE	SAP	22.6x	18.8x	16.8x	20.1%	34.3%
Manhattan Associates, Inc.	MANH	13.9x	16.0x	21.5x	(13.0%)	(35.3%)
Aspen Technology, Inc.	AZPN	21.3x	19.0x	16.0x	11.9%	33.1%
SPS Commerce, Inc.	SPSC	35.2x	44.8x	63.3x	(21.3%)	(44.3%)
QAD Inc.	QADA	47.2x	45.0x	34.5x	4.8%	36.9%
American Software, Inc.	AMSW.A	20.5x	15.1x	19.3x	35.5%	6.3%
Amber Road, Inc.	AMBR	NM	NM	NM	NM	NM
Median		20.9x	18.0x	18.1x	0.6%	20.7%

EV/EBITDA MULTIPLES

COMPANY	TICKER	TTM		% Change		NTM
		Trailing		3 mo	12 mo	
Supply Chain Management						
Microsoft Corporation	MSFT	16.6x	17.2x	14.3x	(3.7%)	15.8%
Oracle Corporation	ORCL	12.7x	13.6x	10.1x	(7.0%)	25.6%
SAP SE	SAP	22.6x	18.8x	16.8x	20.1%	34.3%
Manhattan Associates, Inc.	MANH	13.9x	16.0x	21.5x	(13.0%)	(35.3%)
Aspen Technology, Inc.	AZPN	21.3x	19.0x	16.0x	11.9%	33.1%
SPS Commerce, Inc.	SPSC	35.2x	44.8x	63.3x	(21.3%)	(44.3%)
QAD Inc.	QADA	47.2x	45.0x	34.5x	4.8%	36.9%
American Software, Inc.	AMSW.A	20.5x	15.1x	19.3x	35.5%	6.3%
Amber Road, Inc.	AMBR	NM	NM	NM	NM	NM
Median		20.9x	18.0x	18.1x	0.6%	20.7%

Source: Capital IQ. (\$ in '000, except per share)

COMPANY	TICKER	Price 9/30/17	% Change		52-Week		Market Cap	Ent Val (TEV)	LTM		NTM		EPS		Earnings Ratio		PEG Ratio 2017E	
			3 mo	12 mo	High	Low			Rev	EBITDA	Rev	EBITDA	2017E	2018E	LTM	2017E		
Human Capital Management																		
Microsoft Corporation	MSFT	\$ 74.49	8.1%	29.3%	\$75.97	\$56.32	\$573,740	\$533,337	\$92,560	\$32,108	\$104,417	\$40,182	\$ 3.03	\$ 3.20	27.5x	NM	NM	
Oracle Corporation	ORCL	48.35	(3.6%)	23.1%	53.14	37.62	201,788	188,589	38,320	14,893	40,094	18,971	2.64	2.94	21.0x	NM	NM	
SAP SE	SAP	109.44	4.5%	19.7%	113.84	88.64	131,212	133,185	23,379	5,888	24,302	8,502	4.90	5.30	32.3x	23.0x	2.5x	
Workday, Inc.	WDAY	105.39	8.6%	14.9%	111.45	65.79	21,921	20,372	1,853	(230)	2,347	374	0.03	0.83	NM	NM	NM	
The Ultimate Software Group, Inc.	ULTI	189.60	(9.7%)	(7.2%)	233.42	180.29	5,655	5,554	861	62	1,022	235	3.53	4.36	195.7x	55.3x	2.3x	
Paycom Software, Inc.	PAYC	74.96	9.6%	49.5%	76.75	39.15	4,466	4,432	383	74	487	141	1.15	1.43	81.3x	69.5x	2.5x	
Cornerstone OnDemand, Inc.	CSOD	40.61	13.6%	(11.6%)	46.60	30.31	2,338	2,272	445	(45)	521	76	0.39	0.74	NM	100.3x	4.5x	
Paylocity Holding Corporation	PCTY	48.82	8.1%	9.8%	49.65	29.69	2,526	2,423	300	19	370	72	0.58	0.81	NM	NM	NM	
Callidus Software Inc.	CALD	24.65	1.9%	34.3%	27.35	15.15	1,667	1,495	228	(8)	268	38	0.32	0.46	NM	76.4x	3.6x	
Median			8.1%	19.7%											32.3x	69.5x	2.5x	

EV/REVENUE MULTIPLES

COMPANY	TICKER	TTM					NTM
		Trailing		% Change			
		9/30/17	3 mo	12 mo	3 mo	12 mo	
Human Capital Management							
Microsoft Corporation	MSFT	5.8x	5.7x	4.6x	1.2%	26.1%	5.1x
Oracle Corporation	ORCL	4.9x	5.3x	4.0x	(7.0%)	24.2%	4.7x
SAP SE	SAP	5.7x	4.9x	4.8x	16.2%	19.4%	5.5x
Workday, Inc.	WDAY	11.0x	10.9x	12.4x	1.1%	(11.5%)	8.7x
The Ultimate Software Group, Inc.	ULTI	6.5x	7.5x	8.3x	(13.9%)	(22.5%)	5.4x
Paycom Software, Inc.	PAYC	11.6x	11.2x	10.4x	3.7%	11.7%	9.1x
Cornerstone OnDemand, Inc.	CSOD	5.1x	4.6x	6.5x	12.1%	(21.6%)	4.4x
Paylocity Holding Corporation	PCTY	8.1x	7.8x	9.5x	3.0%	(14.8%)	6.6x
Callidus Software Inc.	CALD	6.6x	6.4x	5.5x	2.4%	18.7%	5.6x
Median		6.5x	6.4x	6.5x	2.4%	11.7%	5.5x

EV/EBITDA MULTIPLES

COMPANY	TICKER	TTM					NTM
		Trailing		% Change			
		9/30/17	3 mo	12 mo	3 mo	12 mo	
Human Capital Management							
Microsoft Corporation	MSFT	16.6x	17.2x	14.3x	(3.7%)	15.8%	13.3x
Oracle Corporation	ORCL	12.7x	13.6x	10.1x	(7.0%)	25.6%	9.9x
SAP SE	SAP	22.6x	18.8x	16.8x	20.1%	34.3%	15.7x
Workday, Inc.	WDAY	NM	NM	NM	NM	NM	54.5x
The Ultimate Software Group, Inc.	ULTI	89.2x	98.4x	87.8x	(9.4%)	1.5%	23.6x
Paycom Software, Inc.	PAYC	60.0x	50.5x	43.9x	18.8%	36.5%	31.3x
Cornerstone OnDemand, Inc.	CSOD	NM	NM	NM	NM	NM	29.7x
Paylocity Holding Corporation	PCTY	NM	NM	NM	NM	NM	33.8x
Callidus Software Inc.	CALD	NM	NM	NM	NM	NM	39.4x
Median		22.6x	18.8x	16.8x	(3.7%)	25.6%	29.7x

Source: Capital IQ. (\$ in '000, except per share)

COMPANY	TICKER	Price 9/30/17	% Change		52-Week		Market Cap	Ent Val (TEV)	LTM		NTM		EPS		Earnings Ratio		PEG Ratio 2017E	
			3 mo	12 mo	High	Low			Rev	EBITDA	Rev	EBITDA	2017E	2018E	LTM	2017E		
Business Intelligence																		
Microsoft Corporation	MSFT	\$ 74.49	8.1%	29.3%	\$75.97	\$56.32	\$573,740	\$533,337	\$92,560	\$32,108	\$104,417	\$40,182	\$ 3.03	\$ 3.20	27.5x	NM	NM	
Oracle Corporation	ORCL	48.35	(3.6%)	23.1%	53.14	37.62	201,788	188,589	38,320	14,893	40,094	18,971	2.64	2.94	21.0x	NM	NM	
SAP SE	SAP	109.44	4.5%	19.7%	113.84	88.64	131,212	133,185	23,379	5,888	24,302	8,502	4.90	5.30	32.3x	23.0x	2.5x	
Splunk Inc.	SPLK	66.43	16.8%	13.2%	69.61	50.64	9,300	8,297	1,074	(284)	1,350	167	0.33	0.54	NM	NM	NM	
Open Text Corporation	OTEX	32.29	2.4%	(0.4%)	35.21	29.30	8,532	10,660	2,291	632	2,726	989	2.00	2.50	8.1x	NM	NM	
Tableau Software, Inc.	DATA	74.89	22.2%	35.5%	76.30	41.41	5,923	4,931	869	(94)	920	71	0.23	0.30	NM	NM	18.9x	
MicroStrategy Incorporated	MSTR	127.71	(33.4%)	(23.7%)	207.28	122.91	1,462	830	507	99	501	76	4.71	3.96	17.6x	29.3x	NM	
Workiva Inc.	WK	20.85	9.4%	15.0%	21.05	12.15	872	820	192	(32)	220	(22)	(0.63)	(0.45)	NM	NM	NM	
Median			6.3%	17.4%											21.0x	26.1x	10.7x	

COMPANY	TICKER
Business Intelligence	
Microsoft Corporation	MSFT
Oracle Corporation	ORCL
SAP SE	SAP
Splunk Inc.	SPLK
Open Text Corporation	OTEX
Tableau Software, Inc.	DATA
MicroStrategy Incorporated	MSTR
Workiva Inc.	WK
Median	

EV/REVENUE MULTIPLES							
COMPANY	TICKER	TTM				NTM	
		Trailing		% Change			
		9/30/17	3 mo	12 mo	3 mo		12 mo
Business Intelligence							
Microsoft Corporation	MSFT	5.8x	5.7x	4.6x	1.2%	26.1%	5.1x
Oracle Corporation	ORCL	4.9x	5.3x	4.0x	(7.0%)	24.2%	4.7x
SAP SE	SAP	5.7x	4.9x	4.8x	16.2%	19.4%	5.5x
Splunk Inc.	SPLK	7.7x	6.8x	8.8x	13.2%	(12.0%)	6.1x
Open Text Corporation	OTEX	4.7x	5.0x	4.8x	(6.4%)	(2.8%)	3.9x
Tableau Software, Inc.	DATA	5.7x	4.5x	4.5x	26.8%	26.8%	5.4x
MicroStrategy Incorporated	MSTR	1.6x	3.1x	2.6x	(46.6%)	(38.2%)	1.7x
Workiva Inc.	WK	4.3x	4.0x	4.4x	6.4%	(2.5%)	3.7x
Median		5.3x	4.9x	4.5x	3.8%	8.4%	4.9x

EV/EBITDA MULTIPLES							
COMPANY	TICKER	TTM				NTM	
		Trailing		% Change			
		9/30/17	3 mo	12 mo	3 mo		12 mo
Business Intelligence							
Microsoft Corporation	MSFT	16.6x	17.2x	14.3x	(3.7%)	15.8%	13.3x
Oracle Corporation	ORCL	12.7x	13.6x	10.1x	(7.0%)	25.6%	9.9x
SAP SE	SAP	22.6x	18.8x	16.8x	20.1%	34.3%	15.7x
Splunk Inc.	SPLK	NM	NM	NM	NM	NM	49.7x
Open Text Corporation	OTEX	16.9x	17.5x	15.3x	(3.5%)	10.5%	10.8x
Tableau Software, Inc.	DATA	NM	NM	NM	NM	NM	69.3x
MicroStrategy Incorporated	MSTR	8.4x	13.7x	10.6x	(38.6%)	(20.5%)	11.0x
Workiva Inc.	WK	NM	NM	NM	NM	NM	NM
Median		16.6x	17.2x	14.3x	(3.7%)	15.8%	13.3x

Source: Capital IQ. (\$ in '000, except per share)

COMPANY	TICKER	Price 9/30/17	% Change		52-Week		Market Cap	Ent Val (TEV)	LTM		NTM		EPS		Earnings Ratio		PEG Ratio 2017E	
			3 mo	12 mo	High	Low			Rev	EBITDA	Rev	EBITDA	2017E	2018E	LTM	2017E		
FinTech																		
Automatic Data Processing, Inc.	ADP	\$ 109.32	6.7%	23.9%	\$121.77	\$85.48	\$ 48,584	\$ 47,803	\$12,380	\$ 2,722	\$ 13,055	\$ 2,778	\$ 3.72	\$ 3.81	28.4x	NM	NM	
Fidelity National Information Services, Inc.	FIS	93.39	9.4%	21.2%	93.73	73.25	31,044	40,084	9,351	2,499	9,132	3,093	4.28	4.88	46.8x	22.3x	1.9x	
Fiserv, Inc.	FISV	128.96	5.4%	29.6%	129.61	92.81	27,142	31,584	5,591	1,749	5,905	2,137	5.10	5.78	31.6x	25.1x	2.1x	
Experian plc	EXPN	20.10	(1.7%)	(0.0%)	22.90	18.50	18,344	21,793	4,335	1,516	4,598	1,608	0.90	0.96	21.9x	NM	NM	
First Data Corporation	FDC	18.04	(0.9%)	37.1%	19.20	12.93	16,651	37,430	8,100	2,765	12,323	3,168	1.53	1.66	30.2x	12.2x	1.2x	
Equifax Inc.	EFX	105.99	(22.9%)	(21.2%)	147.02	89.59	12,758	15,247	3,294	1,220	3,464	1,283	5.97	6.19	22.5x	18.0x	1.6x	
Global Payments Inc.	GPN	95.03	5.2%	23.8%	98.14	64.63	14,491	18,147	4,189	1,148	3,777	1,245	3.96	4.70	73.7x	25.1x	1.5x	
Broadridge Financial Solutions, Inc.	BR	80.82	7.0%	19.2%	82.02	59.86	9,414	10,244	4,143	705	4,247	786	3.14	3.67	29.9x	NM	NM	
Square, Inc.	SQ	28.81	22.8%	147.1%	29.00	10.88	11,054	10,484	1,904	(41)	1,073	174	0.24	0.43	NM	139.4x	1.4x	
Jack Henry & Associates, Inc.	JKHY	102.79	(1.0%)	20.2%	109.67	79.00	7,960	7,895	1,431	447	1,508	527	3.14	3.29	32.7x	NM	NM	
SS&C Technologies Holdings, Inc.	SSNC	40.15	4.5%	24.9%	40.53	28.43	8,248	10,457	1,638	610	1,727	736	1.94	2.19	42.8x	21.7x	1.7x	
Tyler Technologies, Inc.	TYL	174.32	(0.8%)	1.8%	182.49	139.61	6,503	6,423	816	183	891	269	3.86	4.36	52.2x	44.1x	2.7x	
Temenos Group AG	TEMN	101.96	14.1%	61.5%	103.72	62.75	7,156	7,452	694	192	763	268	2.48	2.94	59.1x	45.6x	3.0x	
Guidewire Software, Inc.	GWRE	77.86	13.3%	29.8%	81.46	49.18	5,840	5,267	514	47	620	129	0.85	0.98	278.1x	NM	NM	
Fair Isaac Corporation	FICO	140.50	0.8%	12.8%	147.02	109.77	4,304	4,785	915	202	977	272	4.93	5.73	37.7x	29.9x	1.9x	
Ellie Mae, Inc.	ELLI	82.13	(25.3%)	(22.0%)	114.95	77.60	2,824	2,490	400	82	438	130	1.48	1.79	54.5x	60.7x	3.9x	
ACI Worldwide, Inc.	ACIW	22.78	1.8%	17.5%	24.65	15.11	2,693	3,295	1,032	173	1,033	253	0.48	0.58	105.7x	50.9x	4.1x	
Envestnet, Inc.	ENV	51.00	28.8%	39.9%	52.00	30.80	2,245	2,477	630	57	720	144	1.28	1.62	NM	41.5x	2.6x	
Ebix, Inc.	EBIX	65.25	21.1%	14.8%	65.40	52.40	2,052	2,338	321	114	382	132	3.05	3.43	21.3x	22.3x	1.5x	
Q2 Holdings, Inc.	QTWO	41.65	12.7%	45.3%	41.80	25.23	1,720	1,641	173	(17)	219	14	(0.07)	0.16	NM	NM	NM	
Bottomline Technologies (de), Inc.	EPAY	31.83	23.9%	36.6%	32.33	21.52	1,286	1,343	349	30	374	85	0.96	1.06	NM	NM	NM	
Median			5.4%	23.8%											37.7x	27.5x	1.9x	

Source: Capital IQ. (\$ in '000, except per share)

EV/REVENUE MULTIPLES

COMPANY	TICKER	TTM				NTM	
		Trailing		% Change			
		9/30/17	3 mo	12 mo	3 mo	12 mo	9/30/17
FinTech							
Automatic Data Processing, Inc.	ADP	3.9x	3.7x	3.3x	5.1%	15.9%	3.7x
Fidelity National Information Services, Inc.	FIS	4.3x	4.0x	4.5x	7.5%	(4.7%)	4.4x
Fiserv, Inc.	FISV	5.6x	5.4x	4.9x	3.8%	16.1%	5.3x
Experian plc	EXPN	5.0x	5.0x	5.3x	1.5%	(5.0%)	4.7x
First Data Corporation	FDC	4.6x	4.8x	4.3x	(4.1%)	7.0%	3.0x
Equifax Inc.	EFX	4.6x	5.9x	6.6x	(21.4%)	(29.8%)	4.4x
Global Payments Inc.	GPN	4.3x	4.3x	5.4x	1.7%	(20.5%)	4.8x
Broadridge Financial Solutions, Inc.	BR	2.5x	2.6x	2.9x	(5.6%)	(13.8%)	2.4x
Square, Inc.	SQ	5.5x	4.6x	2.3x	19.8%	134.4%	9.8x
Jack Henry & Associates, Inc.	JKHY	5.5x	5.7x	4.9x	(3.3%)	12.4%	5.2x
SS&C Technologies Holdings, Inc.	SSNC	6.4x	6.5x	7.0x	(1.8%)	(9.0%)	6.1x
Tyler Technologies, Inc.	TYL	7.9x	8.3x	9.3x	(5.0%)	(15.2%)	7.2x
Temenos Group AG	TEMN	10.7x	9.5x	7.4x	13.3%	46.1%	9.8x
Guidewire Software, Inc.	GWRE	10.2x	9.8x	8.8x	4.9%	15.8%	8.5x
Fair Isaac Corporation	FICO	5.2x	5.2x	4.9x	(0.0%)	6.2%	4.9x
Ellie Mae, Inc.	ELLI	6.2x	8.8x	11.5x	(29.5%)	(46.0%)	5.7x
ACI Worldwide, Inc.	ACIW	3.2x	3.2x	3.0x	(0.4%)	7.4%	3.2x
Envestnet, Inc.	ENV	3.9x	3.3x	3.7x	19.9%	7.5%	3.4x
Ebix, Inc.	EBIX	7.3x	6.2x	7.2x	17.5%	1.7%	6.1x
Q2 Holdings, Inc.	QTWO	9.5x	8.9x	8.1x	7.0%	16.7%	7.5x
Bottomline Technologies (de), Inc.	EPAY	3.8x	3.1x	2.6x	22.5%	45.5%	3.6x
Median		5.2x	5.2x	4.9x	1.7%	7.0%	4.9x

EV/EBITDA MULTIPLES

	TTM				NTM	
	Trailing		% Change			
	9/30/17	3 mo	12 mo	3 mo	12 mo	9/30/17
	17.6x	16.2x	15.3x	8.5%	14.6%	17.2x
	16.0x	15.6x	17.5x	3.0%	(8.2%)	13.0x
	18.1x	17.1x	14.2x	5.4%	27.5%	14.8x
	14.4x	14.1x	16.9x	1.8%	(14.8%)	13.6x
	13.5x	12.6x	12.8x	7.4%	5.4%	11.8x
	12.5x	16.2x	19.4x	(23.0%)	(35.6%)	11.9x
	15.8x	15.8x	23.8x	(0.1%)	(33.5%)	14.6x
	14.5x	15.1x	13.7x	(3.7%)	6.0%	13.0x
	NM	NM	NM	NM	NM	60.1x
	17.7x	16.0x	14.1x	10.5%	25.5%	15.0x
	17.1x	18.3x	22.1x	(6.2%)	(22.5%)	14.2x
	35.1x	38.2x	45.5x	(8.2%)	(22.9%)	23.9x
	38.9x	35.4x	29.8x	9.8%	30.7%	27.8x
	NM	NM	NM	NM	NM	40.7x
	23.7x	23.0x	20.3x	3.1%	16.4%	17.6x
	30.4x	43.4x	63.7x	(29.9%)	(52.3%)	19.2x
	19.0x	23.6x	28.4x	(19.5%)	(33.1%)	13.1x
	43.7x	40.0x	41.5x	9.3%	5.3%	17.2x
	20.4x	17.1x	19.2x	19.8%	6.7%	17.8x
	NM	NM	NM	NM	NM	NM
	44.6x	36.9x	22.8x	20.8%	95.6%	15.8x
Median	17.9x	17.1x	19.9x	3.0%	5.4%	15.4x

Source: Capital IQ. (\$ in '000, except per share)

COMPANY	TICKER	Price 9/30/17	% Change		52-Week		Market Cap	Ent Val (TEV)	LTM		NTM		EPS		Earnings Ratio		PEG Ratio 2017E	
			3 mo	12 mo	High	Low			Rev	EBITDA	Rev	EBITDA	2017E	2018E	LTM	2017E		
Engineering Software																		
Dassault Systèmes SE	DSY	\$ 101.16	13.0%	16.5%	\$107.55	\$80.09	\$ 25,785	\$ 23,640	\$ 3,193	\$ 845	\$ 3,392	\$ 1,126	\$ 3.11	\$ 3.46	47.3x	33.9x	3.4x	
Autodesk, Inc.	ADSK	112.26	11.3%	55.2%	119.73	67.15	24,607	24,484	1,956	(342)	2,267	165	(0.55)	(0.55)	NM	NM	NM	
Synopsys, Inc.	SNPS	80.53	10.4%	35.7%	81.57	56.03	12,099	11,233	2,662	535	2,745	719	3.31	3.58	37.8x	25.9x	2.8x	
Ansys, Inc.	ANSS	122.73	0.9%	32.5%	132.74	82.28	10,403	9,539	1,034	461	1,099	532	3.86	4.12	39.4x	34.4x	3.1x	
Cadence Design Systems, Inc.	CDNS	39.47	17.9%	54.6%	39.49	24.15	11,060	11,044	1,910	436	1,972	613	1.39	1.52	45.9x	30.4x	2.7x	
PTC Inc.	PTC	56.28	2.1%	27.0%	60.22	43.10	6,506	6,939	1,164	137	1,207	321	1.20	1.46	NM	50.1x	3.9x	
Median			10.9%	34.1%											42.7x	33.9x	3.1x	

COMPANY	TICKER
Engineering Software	
Dassault Systèmes SE	DSY
Autodesk, Inc.	ADSK
Synopsys, Inc.	SNPS
Ansys, Inc.	ANSS
Cadence Design Systems, Inc.	CDNS
PTC Inc.	PTC
Median	

EV/REVENUE MULTIPLES							
COMPANY	TICKER	TTM				NTM	
		Trailing		% Change			
		9/30/17	3 mo	12 mo	3 mo		12 mo
Engineering Software							
Dassault Systèmes SE	DSY	7.4x	5.8x	6.2x	27.6%	19.9%	7.0x
Autodesk, Inc.	ADSK	12.5x	10.9x	6.7x	14.6%	86.9%	10.8x
Synopsys, Inc.	SNPS	4.2x	4.0x	3.4x	6.3%	22.7%	4.1x
Ansys, Inc.	ANSS	9.2x	9.4x	7.5x	(1.7%)	22.6%	8.7x
Cadence Design Systems, Inc.	CDNS	5.8x	5.2x	4.2x	12.2%	37.8%	5.6x
PTC Inc.	PTC	6.0x	6.0x	4.8x	0.0%	24.8%	5.7x
Median		6.7x	5.9x	5.5x	9.2%	23.7%	6.4x

EV/EBITDA MULTIPLES							
COMPANY	TICKER	TTM				NTM	
		Trailing		% Change			
		9/30/17	3 mo	12 mo	3 mo		12 mo
Engineering Software							
Dassault Systèmes SE	DSY	28.0x	21.6x	23.8x	29.5%	17.7%	21.0x
Autodesk, Inc.	ADSK	NM	NM	NM	NM	NM	NM
Synopsys, Inc.	SNPS	21.0x	20.6x	19.5x	2.0%	7.8%	15.6x
Ansys, Inc.	ANSS	20.7x	21.0x	16.4x	(1.3%)	25.8%	17.9x
Cadence Design Systems, Inc.	CDNS	25.3x	23.3x	17.7x	8.8%	43.4%	18.0x
PTC Inc.	PTC	50.6x	75.2x	33.4x	(32.7%)	51.4%	21.6x
Median		25.3x	21.6x	19.5x	2.0%	25.8%	18.0x

Source: Capital IQ. (\$ in '000, except per share)

COMPANY	TICKER	Price 9/30/17	% Change		52-Week		Market Cap	Ent Val (TEV)	LTM		NTM		EPS		Earnings Ratio		PEG Ratio 2017E	
			3 mo	12 mo	High	Low			Rev	EBITDA	Rev	EBITDA	2017E	2018E	LTM	2017E		
IT Infrastructure Software																		
Microsoft Corporation	MSFT	\$ 74.49	8.1%	29.3%	\$ 75.97	\$56.32	\$573,740	\$533,337	\$92,560	\$32,108	\$104,417	\$40,182	\$ 3.03	\$ 3.39	27.5x	NM	NM	
Oracle Corporation	ORCL	48.35	(3.6%)	23.1%	53.14	37.62	201,788	188,589	38,320	14,893	40,094	18,971	2.64	2.94	21.0x	NM	NM	
International Business Machines Corporation	IBM	145.08	(5.7%)	(8.7%)	182.79	139.13	135,206	168,710	78,367	17,757	77,936	19,964	13.79	13.92	12.0x	11.1x	2.3x	
VMware, Inc.	VMW	109.19	24.9%	48.9%	112.00	72.05	44,636	37,234	7,093	1,850	8,106	3,062	NA	5.07	39.3x	NM	NM	
CA, Inc.	CA	33.38	(3.2%)	0.9%	36.54	30.01	14,062	14,018	4,078	1,199	4,223	1,595	2.45	2.46	18.5x	NM	NM	
Red Hat, Inc.	RHT	110.86	15.8%	37.2%	113.73	68.54	19,673	18,771	2,644	490	3,096	838	2.27	2.78	66.4x	NM	NM	
Citrix Systems, Inc.	CTXS	76.82	(3.5%)	(9.9%)	95.90	70.24	11,639	11,680	3,464	975	2,877	1,000	4.80	4.85	22.6x	16.9x	1.4x	
Akamai Technologies, Inc.	AKAM	48.72	(2.2%)	(8.1%)	71.64	44.65	8,352	8,320	2,456	673	2,555	929	2.56	2.63	27.8x	20.8x	2.2x	
Progress Software Corporation	PRGS	38.17	23.6%	40.3%	38.51	26.23	1,843	1,775	399	133	399	185	1.85	1.87	NM	23.1x	2.3x	
Presidio, Inc.	PSDO	14.15	(1.1%)	0.0%	16.38	12.75	1,290	2,258	2,818	210	2,955	242	1.23	1.26	283.0x	NM	NM	
Median			(1.7%)	12.0%											27.5x	18.9x	2.2x	

EV/REVENUE MULTIPLES

COMPANY	TICKER	TTM					NTM
		Trailing		% Change			
		9/30/17	3 mo	12 mo	3 mo	12 mo	
IT Infrastructure Software							
Microsoft Corporation	MSFT	5.8x	5.7x	4.6x	1.2%	26.1%	5.1x
Oracle Corporation	ORCL	4.9x	5.3x	4.0x	(7.0%)	24.2%	4.7x
International Business Machines Corporation	IBM	2.2x	2.2x	2.3x	(3.3%)	(7.1%)	2.2x
VMware, Inc.	VMW	5.2x	4.0x	3.5x	30.2%	49.4%	4.6x
CA, Inc.	CA	3.4x	3.6x	3.3x	(5.5%)	5.6%	3.3x
Red Hat, Inc.	RHT	7.1x	6.4x	6.3x	11.1%	13.0%	6.1x
Citrix Systems, Inc.	CTXS	3.4x	3.5x	3.9x	(4.4%)	(13.8%)	4.1x
Akamai Technologies, Inc.	AKAM	3.4x	3.5x	4.0x	(4.1%)	(14.7%)	3.3x
Progress Software Corporation	PRGS	4.4x	3.4x	3.1x	30.8%	45.6%	4.4x
Presidio, Inc.	PSDO	0.8x	0.8x	NA	3.0%	NM	0.8x
Median		3.9x	3.6x	3.9x	(1.0%)	13.0%	4.3x

COMPANY	TICKER	TTM					NTM
		Trailing		% Change			
		9/30/17	3 mo	12 mo	3 mo	12 mo	
IT Infrastructure Software							
Microsoft Corporation	MSFT	16.6x	17.2x	14.3x	(3.7%)	15.8%	13.3x
Oracle Corporation	ORCL	12.7x	13.6x	10.1x	(7.0%)	25.6%	9.9x
International Business Machines Corporation	IBM	9.5x	9.8x	10.3x	(3.5%)	(8.1%)	8.5x
VMware, Inc.	VMW	20.1x	15.5x	13.0x	30.2%	54.3%	12.2x
CA, Inc.	CA	11.7x	11.7x	10.6x	0.2%	10.1%	8.8x
Red Hat, Inc.	RHT	38.3x	37.2x	36.7x	2.9%	4.5%	22.4x
Citrix Systems, Inc.	CTXS	12.0x	11.9x	13.7x	0.3%	(12.6%)	11.7x
Akamai Technologies, Inc.	AKAM	12.4x	11.9x	12.7x	3.8%	(2.9%)	9.0x
Progress Software Corporation	PRGS	13.3x	10.7x	11.9x	24.6%	11.7%	9.6x
Presidio, Inc.	PSDO	10.7x	10.9x	NA	(1.3%)	NM	9.3x
Median		12.5x	11.9x	12.7x	0.3%	10.1%	9.8x

EV/EBITDA MULTIPLES

COMPANY	TICKER	TTM					NTM
		Trailing		% Change			
		9/30/17	3 mo	12 mo	3 mo	12 mo	
IT Infrastructure Software							
Microsoft Corporation	MSFT	16.6x	17.2x	14.3x	(3.7%)	15.8%	13.3x
Oracle Corporation	ORCL	12.7x	13.6x	10.1x	(7.0%)	25.6%	9.9x
International Business Machines Corporation	IBM	9.5x	9.8x	10.3x	(3.5%)	(8.1%)	8.5x
VMware, Inc.	VMW	20.1x	15.5x	13.0x	30.2%	54.3%	12.2x
CA, Inc.	CA	11.7x	11.7x	10.6x	0.2%	10.1%	8.8x
Red Hat, Inc.	RHT	38.3x	37.2x	36.7x	2.9%	4.5%	22.4x
Citrix Systems, Inc.	CTXS	12.0x	11.9x	13.7x	0.3%	(12.6%)	11.7x
Akamai Technologies, Inc.	AKAM	12.4x	11.9x	12.7x	3.8%	(2.9%)	9.0x
Progress Software Corporation	PRGS	13.3x	10.7x	11.9x	24.6%	11.7%	9.6x
Presidio, Inc.	PSDO	10.7x	10.9x	NA	(1.3%)	NM	9.3x
Median		12.5x	11.9x	12.7x	0.3%	10.1%	9.8x

Source: Capital IQ. (\$ in '000, except per share)

COMPANY	TICKER	Price 9/30/17	% Change		52-Week		Market Cap	Ent Val (TEV)	LTM		NTM		EPS		Earnings Ratio		PEG Ratio 2017E	
			3 mo	12 mo	High	Low			Rev	EBITDA	Rev	EBITDA	2017E	2018E	LTM	2017E		
Security Software																		
Check Point Software Technologies Ltd.	CHKP	\$ 114.02	4.5%	46.9%	\$116.63	\$74.34	\$ 18,636	\$ 17,037	\$ 1,808	\$ 893	\$ 1,937	\$ 1,062	\$ 5.18	\$ 5.68	25.3x	22.3x	2.4x	
Symantec Corporation	SYMC	32.81	16.1%	30.7%	34.20	22.76	20,163	24,051	4,310	714	5,260	2,426	1.19	1.80	NM	NM	NM	
Palo Alto Networks, Inc.	PANW	144.10	7.7%	(9.6%)	165.69	107.31	13,234	12,384	1,762	(99)	2,149	531	2.59	3.31	NM	NM	NM	
Fortinet, Inc.	FTNT	35.84	(4.3%)	(3.0%)	41.56	28.51	6,302	5,095	1,441	169	1,597	335	0.95	1.14	98.2x	41.7x	2.2x	
FireEye, Inc.	FEYE	16.77	10.3%	13.8%	17.51	10.35	3,055	2,945	730	(161)	767	94	(0.21)	(0.02)	NM	NM	NM	
Proofpoint, Inc.	PFPT	87.22	0.4%	16.5%	97.00	68.04	3,875	3,823	477	(19)	572	73	0.75	1.02	NM	119.8x	4.4x	
CyberArk Software Ltd.	CYBR	41.00	(17.9%)	(17.3%)	56.25	39.34	1,424	1,164	236	35	278	57	1.04	1.31	52.6x	41.6x	2.1x	
Imperva, Inc.	IMPV	43.40	(9.3%)	(19.2%)	57.24	34.40	1,468	1,148	294	(19)	349	48	0.85	0.96	NM	49.8x	1.8x	
SecureWorks Corp.	SCWX	12.35	32.9%	(1.3%)	12.99	8.25	1,001	903	456	(25)	483	(16)	(0.23)	(0.30)	NM	NM	NM	
Qualys, Inc.	QLYS	51.80	27.0%	35.6%	53.55	30.61	1,944	1,665	212	52	246	79	0.90	1.03	50.7x	57.6x	3.3x	
Barracuda Networks, Inc.	CUDA	24.23	5.1%	(4.9%)	26.69	19.06	1,283	1,080	367	33	383	72	0.78	0.75	127.5x	NM	NM	
Median			5.1%	(1.3%)											52.6x	45.7x	2.3x	

EV/REVENUE MULTIPLES

COMPANY	TICKER	TTM					NTM
		Trailing		% Change			
		9/30/17	3 mo	12 mo	3 mo	12 mo	
Security Software							
Check Point Software Technologies Ltd.	CHKP	9.4x	9.2x	7.1x	2.1%	32.8%	8.8x
Symantec Corporation	SYMC	5.6x	5.3x	3.6x	6.2%	56.8%	4.6x
Palo Alto Networks, Inc.	PANW	7.0x	6.9x	9.9x	1.7%	(29.3%)	5.8x
Fortinet, Inc.	FTNT	3.5x	4.0x	4.7x	(12.5%)	(24.4%)	3.2x
FireEye, Inc.	FEYE	4.0x	3.6x	3.3x	12.1%	21.2%	3.8x
Proofpoint, Inc.	PFPT	8.0x	9.2x	9.9x	(12.5%)	(18.8%)	6.7x
CyberArk Software Ltd.	CYBR	4.9x	6.3x	7.6x	(22.1%)	(34.7%)	4.2x
Imperva, Inc.	IMPV	3.9x	4.7x	5.9x	(15.9%)	(33.7%)	3.3x
SecureWorks Corp.	SCWX	2.0x	1.5x	2.3x	32.8%	(14.7%)	1.9x
Qualys, Inc.	QLYS	7.9x	6.2x	6.3x	27.2%	25.7%	6.8x
Barracuda Networks, Inc.	CUDA	2.9x	2.9x	3.5x	1.3%	(16.9%)	2.8x
Median		4.9x	5.3x	5.9x	1.7%	(16.9%)	4.2x

COMPANY	TICKER	TTM					NTM
		Trailing		% Change			
		9/30/17	3 mo	12 mo	3 mo	12 mo	
Security Software							
Check Point Software Technologies Ltd.	CHKP	19.1x	18.7x	13.9x	1.8%	37.0%	16.0x
Symantec Corporation	SYMC	33.7x	29.0x	13.6x	16.0%	147.3%	9.9x
Palo Alto Networks, Inc.	PANW	NM	NM	NM	NM	NM	23.3x
Fortinet, Inc.	FTNT	30.1x	50.0x	NM	(39.7%)	NM	15.2x
FireEye, Inc.	FEYE	NM	NM	NM	NM	NM	31.3x
Proofpoint, Inc.	PFPT	NM	NM	NM	NM	NM	52.6x
CyberArk Software Ltd.	CYBR	33.1x	34.2x	37.2x	(3.2%)	(11.0%)	20.3x
Imperva, Inc.	IMPV	NM	NM	NM	NM	NM	24.1x
SecureWorks Corp.	SCWX	NM	NM	NM	NM	NM	NM
Qualys, Inc.	QLYS	31.8x	25.9x	25.7x	22.6%	23.5%	21.1x
Barracuda Networks, Inc.	CUDA	32.8x	27.2x	71.2x	20.7%	(53.9%)	15.0x
Median		32.3x	28.1x	25.7x	8.9%	23.5%	20.7x

EV/EBITDA MULTIPLES

COMPANY	TICKER	TTM					NTM
		Trailing		% Change			
		9/30/17	3 mo	12 mo	3 mo	12 mo	9/30/17
Security Software							
Check Point Software Technologies Ltd.	CHKP	19.1x	18.7x	13.9x	1.8%	37.0%	16.0x
Symantec Corporation	SYMC	33.7x	29.0x	13.6x	16.0%	147.3%	9.9x
Palo Alto Networks, Inc.	PANW	NM	NM	NM	NM	NM	23.3x
Fortinet, Inc.	FTNT	30.1x	50.0x	NM	(39.7%)	NM	15.2x
FireEye, Inc.	FEYE	NM	NM	NM	NM	NM	31.3x
Proofpoint, Inc.	PFPT	NM	NM	NM	NM	NM	52.6x
CyberArk Software Ltd.	CYBR	33.1x	34.2x	37.2x	(3.2%)	(11.0%)	20.3x
Imperva, Inc.	IMPV	NM	NM	NM	NM	NM	24.1x
SecureWorks Corp.	SCWX	NM	NM	NM	NM	NM	NM
Qualys, Inc.	QLYS	31.8x	25.9x	25.7x	22.6%	23.5%	21.1x
Barracuda Networks, Inc.	CUDA	32.8x	27.2x	71.2x	20.7%	(53.9%)	15.0x
Median		32.3x	28.1x	25.7x	8.9%	23.5%	20.7x

Source: Capital IQ. (\$ in '000, except per share)

ACQUIRER	TARGET	Date Announced	Headquarters		Enterprise Value	LTM		Enterprise Value / LTM		
			Buyer	Target		Revenue	EBITDA	Revenue	EBITDA	
Selected Enterprise Application Software M&A Transactions Announced Q3 2017 (with Deal Value Disclosed)										
Global Payments Inc.	Active Network, LLC	8/3/2017	United States	United States	\$1,206,570	NA	NA	NA	NA	
Itron, Inc.	Silver Spring Networks, Inc.	9/18/2017	United States	United States	840,401	452,271	(19,704)	1.9x	NM	
The Sage Group plc	Intacct Corporation (nka:Sage Intacct, Inc.)	7/25/2017	United Kingdom	United States	850,000	88,000	NA	9.7x	NA	
Pitney Bowes Inc.	Newgistics, Inc.	9/6/2017	United States	United States	475,000	NA	NA	NA	NA	
IHS Markit Ltd.	automotiveMastermind, Inc.	9/26/2017	United Kingdom	United States	545,564	NA	NA	NA	NA	
Dassault Systèmes Simulia Corp.	Exa Corporation	9/28/2017	United States	United States	385,910	72,692	1,479	5.3x	260.9x	
Verisk Analytics, Inc.	Sequel Business Solutions Limited	8/21/2017	United States	United Kingdom	322,535	33,544	15,482	9.6x	20.8x	
Cisco Systems, Inc.	Springpath Inc.	8/21/2017	United States	United States	320,000	NA	NA	NA	NA	
H.I.G. Capital, LLC; HIG Middle Market LBO Fund II	NCI, Inc.	7/3/2017	NA	United States	285,056	325,443	29,652	0.9x	9.6x	
Open Text Corporation	Guidance Software, Inc.	7/26/2017	Canada	United States	245,250	108,612	(971)	2.3x	NM	
RealPage, Inc.	On-Site.com, Inc.	8/2/2017	United States	United States	250,000	NA	NA	NA	NA	
Symantec Corporation	Fireglass	7/6/2017	United States	United States	225,000	NA	NA	NA	NA	
Ellie Mae, Inc.	Velocity, Inc.	8/31/2017	United States	United States	128,000	NA	NA	NA	NA	
The Descartes Systems Group Inc	MacroPoint LLC	8/15/2017	Canada	United States	106,600	12,500	NA	8.5x	NA	
Aptos, Inc.	TXT Retail	7/24/2017	United States	Italy	98,975	42,035	5,240	2.4x	18.9x	
SEI Investments Co.	Archway Technology Partners, LLC	7/5/2017	United States	United States	88,000	17,900	3,600	4.9x	24.4x	
Worldline S.A.	First Data Lietuva Uab and First Data Latvia Sia and First Data EESTI OU	7/25/2017	France	Lithuania	85,101	26,813	NA	3.2x	NA	
Hansen Technologies Ltd	Enoro Holding AS	7/3/2017	Australia	Norway	73,439	NA	NA	NA	NA	
Median					267,528	57,364	3,600	4.0x	20.8x	

Source: Capital IQ. (\$ in '000, except per share)

CORPORATE FINANCE SERVICES

The sale of a company can represent the culmination of years of effort by its investors and management. With this in mind, Armanino guides our clients through the sale process, bringing to bear extensive structuring, preparation, negotiation, valuation and corporate finance experience and judgment to optimize value.

Our team has developed its expertise through many M&A, divestiture and strategic partnering transactions for closely-held businesses across most major technology sectors.

Corporate Finance Services include:

- Sell-Side Representation
- Buy-Side Representation
- Exit Planning
- Special Situations M&A
- Purchaser Representative (SEC Reg 501)

The professionals in our practice have many years of business valuation and corporate finance experience with companies in every major industrial sector and size to deliver superior results for private technology companies in Silicon Valley.

SELL SIDE M&A ADVISORY

We help companies pursuing a sale or merger involving all or part of their business, as well as organizations interested in partial divestitures of a division or assets. We provide end-to-end strategic advisory, introducing the company to potential acquirers and managing a rigorous process to optimize competition, achieve strategic valuations and successfully close transactions.

BUY SIDE M&A ADVISORY

We represent clients pursuing strategic acquisitions, such as asset purchases, mergers, and intellectual property procurements. Our financial advisory includes market analyses, target identification, financial modeling, deal negotiations, preliminary due diligence and final negotiation of the definitive agreements.

SPECIAL SITUATIONS M&A

Armanino is among Silicon Valley's most experienced restructuring specialists on behalf of investors, creditors, boards, and executive management of distressed technology companies, including monetizing assets such as intellectual property (IP) on an accelerated timeline.

PURCHASER REPRESENTATIVE SERVICES

A Purchaser Representative may be necessary in merger and acquisition transactions where the consideration is not all cash, but includes securities that are not registered with the SEC.

CONTACT

CORPORATE FINANCE

Sell-Side and Buy-Side Advisory, Special Situations M&A, Purchaser Representative

Gunther Hofmann, CFA, CVA
Managing Director

44 Montgomery Street, Suite 900
San Francisco, CA 94104

gunther.hofmann@armaninollp.com

+1 667 800 6773

TRANSACTION ADVISORY

Financial Due Diligence and other pre and post transaction support

John Dunican, CPA
Partner

12657 Alcosta Blvd., Suite 500
San Ramon, CA 94583

john.dunican@amllp.com

+1 925 498 1902

VALUATION

*Purchase Price Allocation, M&A Valuation
409A Valuation, Gift & Estate Tax*

Greg Ansel, ASA
Partner

12657 Alcosta Blvd., Suite 500
San Ramon, CA 94583

greg.ansel@armaninollp.com

+1 925 302 4107

AUDIT

Matthew Perreault, CPA
Partner

12657 Alcosta Blvd., Suite 500
San Ramon, CA 94583

matt.perreault@armaninollp.com

+1 925 790 2755

TAX

David Sordello, CPA
Partner

50 West Fernando Ave., Suite 500
San Jose, CA 95113

david.sordello@armaninollp.com

+1 408 200 6403

BUSINESS SYSTEMS / ERP

Life Sciences ERP Solutions

Jeffrey J. Russell, Esq.
Director – Industry Practice

50 West Fernando Ave., Suite 500
San Jose, CA 95113

Jeffrey.Russell@armaninollp.com

+1 408 386 8985

GENERAL: info@armaninollp.com, 925 790 2600