

June 2017

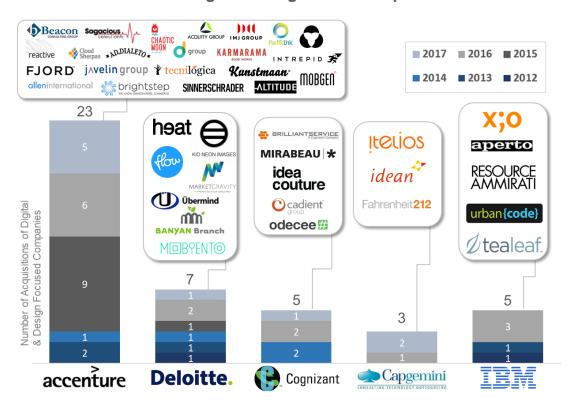
# The Lighthouse

Software
Online & Digital
Tech Enabled Business Services

## **Pharus Observations**

#### Who will beat Accenture at the M&A Game?

Large IT Service Providers are using M&A to Expand Their Digital Advertising and Design Service Capabilities



The frenzy continues as big-name acquirers continue to buy up as many digital innovation and design services firms they can get their hands on. Traditional advertising agencies, consulting firms, IT companies and other tech companies are actively pursuing inorganic growth to build their digital and design capabilities. Despite the growing number of acquisitions under their belts, these companies seem to have adopted DJ Khaled's mantra of "another one" as they continue to make acquisitions in the space like clockwork. As we enter the 2<sup>nd</sup> half of 2017, the digital innovation and design services sector shows no signs of slowing down. Exactly how long can this acquisition spree last before it begins to lose steam?

IT services providers are among the most active the space. We, at Pharus, observed two notable transactions this month. On June 28, **Accenture** acquired mobile design and development firm **Intrepid**. The acquisition expands Accenture's' mobile capabilities in design and app development. Earlier in the month, **Deloitte** acquired design consultancy **Market Gravity** to grow their consulting business by strengthening their creative services around innovative products and services.

Pharus maintains an active practice in the digital innovation and design services space, with notable transactions in the sector. We look forward to speaking with you about our experience and thoughts on the sector.



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Capital market trends



# Capital market trends

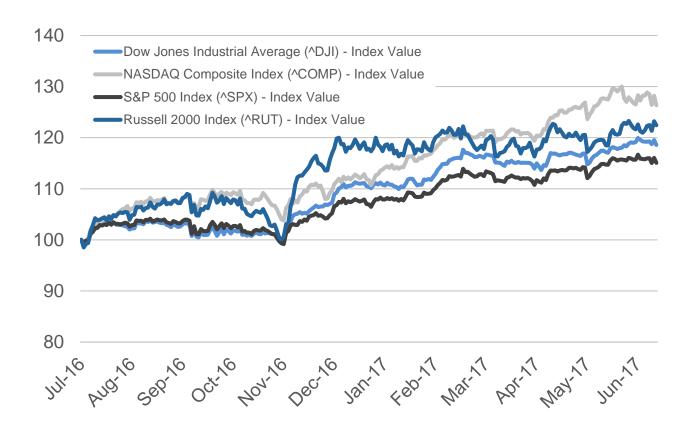






#### **Relative Performance of Major Indices**

Through June 30, 2017 (Base = 100, 07/01/2016)



			Change %	
Index	As of 30-Jun-17	1 Year	3 Months	1 Month
Dow Jones	21,349.63	19.1%	3.3%	1.6%
Nasdaq	6,140.42	26.8%	3.9%	-0.9%
S&P 500	2,423.41	15.5%	2.6%	0.5%
Russell 2000	1,415.36	22.9%	2.1%	3.3%

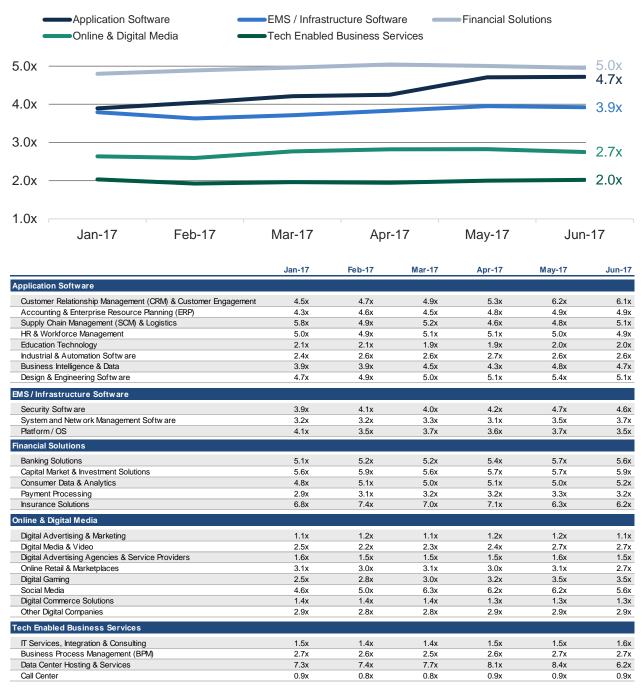








#### **Historical Median TEV / Revenue Multiples**







## **Current & Forward Market Multiples**

	Median TEV/Rev	/enue	Median TEV/EB	TDA
	LTM	NTM	LTM	NTM
Application Software				
Customer Relationship Management (CRM) & Customer Engagement	6.1x	5.2x	53.5x	27.83
Accounting & Enterprise Resource Planning (ERP)	4.9x	4.6x	20.8x	15.3
Supply Chain Management (SCM) & Logistics	5.1x	4.7x	24.2x	21.8
HR & Workforce Management	4.9x	4.3x	28.8x	31.5
Education Technology	2.0x	3.1x	13.3x	19.4
Industrial & Automation Software	2.1x	2.0x	14.5x	12.2
Business Intelligence & Data	4.7x	4.1x	15.6x	28.9
Design & Engineering Software	5.1x	4.9x	20.6x	14.7
MS / Infrastructure Software				
Security Software	4.6x	4.1x	26.5x	18.8
System and Network Management Software	3.7x	3.3x	13.2x	11.5
Platform / OS	3.5x	4.2x	11.9x	11.3
inancial Solutions				
Banking Solutions	5.4x	5.2x	16.6x	13.9
Capital Market & Investment Solutions	5.9x	5.3x	17.6x	14.7
Consumer Data & Analytics	5.2x	5.0x	16.2x	15.0
Payment Processing	3.2x	3.2x	14.3x	13.1
Insurance Solutions	6.2x	6.4x	17.1x	15.7
Online & Digital Media				
Digital Advertising & Marketing	1.1x	2.9x	19.8x	10.6
Digital Media & Video	2.7x	3.0x	14.5x	13.2
Digital Advertising Agencies & Service Providers	1.5x	1.4x	10.0x	9.5
Online Retail & Marketplaces	2.7x	2.5x	25.1x	17.4
Digital Gaming	3.5x	3.1x	16.4x	12.3
Social Media	5.6x	4.7x	24.8x	15.6
Digital Commerce Solutions	1.3x	1.3x	15.9x	10.6
Other Digital Companies	2.9x	2.9x	15.3x	10.5
ech Enabled Business Services				
IT Services, Integration & Consulting	1.6x	1.4x	11.3x	10.1
Business Process Management (BPM)	2.7x	2.3x	15.5x	12.5
Data Center Hosting & Services	6.2x	7.2x	22.2x	17.0
Call Center	0.9x	0.9x	8.1x	7.5
Med	ians			
Application Software	4.6x	4.1x	18.0x	15.3
EMS / Infrastructure Software	3.9x	3.6x	16.6x	16.0
Financial Solutions	5.0x	5.0x	16.1x	14.7
Online & Digital Media	2.7x	2.7x	17.4x	12.0
Tech Enabled Business Services	2.1x	1.9x	11.6x	10.2





## **Application Software**

				TEV/Rev	enue/	TEV/EBI	TDA
(\$ in millions)		TEV	Market Cap	LTM	NTM	LTM	NTN
Customer Pelationship Manag	gement (CRM) & Customer Enga	gement					
Bazaarvoice	NasdagGS:BV	\$358	\$417	1.8x	1.7x	NM	16.3
Five9	NasdagGM:FIVN	\$1,161	\$1.172	6.8x	5.8x	NM	87.8
LivePerson	NasdagGS:LPSN	\$595	\$643	2.7x	2.8x	75.5x	30.4
MINDBODY	NasdagGM:MB	\$1,116	\$1.189	7.5x	5.8x	NM	NN
NICE Systems	TASE:NICE	\$4,991	\$4,853	4.4x	3.7x	20.6x	12.9
Pegasystems	NasdagGS:PEGA	\$4,353	\$4,501	5.5x	4.9x	53.5x	37.9
Salesforce.com	NYSE:CRM	\$60,918	\$61,602	6.9x	5.6x	NM	25.2
SDL	LSE:SDL	\$635	\$663	1.8x	1.8x	15.8x	13.9
Veeva	NYSE:VEEV	\$7,904	\$8,568	13.6x	11.3x	55.9x	36.4
Zendesk	NYSE:ZEN	\$2,501	\$2,749	7.4x	5.6x	NM	NN
Median				6.1x	5.2x	53.5x	27.8
Accounting & Enterprise Reso	ource Planning (ERP)						
BasWare	HLSE:BAS1V	\$655	\$646	3.8x	3.7x	NM	NN
Blackline	NasdaqGS:BL	\$1,735	\$1,836	12.8x	9.4x	NM	NN
Coupa Software	NasdaqGS:COUP	\$1,297	\$1,536	8.9x	7.0x	NM	NN
Intuit	NasdaqGS:INTU	\$32,935	\$34,028	6.5x	6.0x	20.8x	15.6
Kingdee International	SEHK:268	\$1,113	\$1,208	4.2x	3.5x	31.1x	10.9
Model N	NYSE:MODN	\$386	\$383	3.3x	2.7x	NM	NN
Oracle	NYSE:ORCL	\$199,630	\$207,413	5.3x	5.1x	13.6x	10.8
QAD	NasdaqGS:QADA	\$454	\$593	1.6x	1.5x	45.0x	29.5
Sage	LSE:SGE	\$10,093	\$9,654	4.5x	4.4x	15.8x	15.3
SAP	DB:SAP	\$126,476	\$125,588	4.9x	4.6x	18.8x	13.2
Upland Software	NasdaqGM:UPLD	\$484	\$446	6.2x	5.3x	56.5x	16.5
Median				4.9x	4.6x	20.8x	15.3
Supply Chain Management (S							
Amber Road	NYSE:AMBR	\$240	\$232	3.2x	2.8x	NM	NN
Descartes Systems Group	TSX:DSG	\$1,787	\$1,844	8.1x	7.7x	24.2x	21.8
Manhattan Associates	NasdaqGS:MANH	\$3,236	\$3,337	5.4x	5.2x	16.0x	14.7
SPS Commerce	NasdaqGS:SPSC	\$942	\$1,096	4.7x	4.1x	44.8x	29.0
Median				5.1x	4.7x	24.2x	21.8

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				TEV/Rev	venue	TEV/EBI	TDA
(\$ in millions)		TEV	Market Cap	LTM	NTM	LTM	NTM
HR & Workforce Management							
Atlassian Corporation	NasdaqGS:TEAM	\$7,429	\$7,932	13.0x	9.8x	NM	40.2x
Benefit Focus	NasdaqGM:BNFT	\$1,179	\$1,128	4.9x	4.3x	NM	64.6x
Callidus	NasdaqGM:CALD	\$1,387	\$1,570	6.4x	5.4x	NM	40.7x
CastLight Health	NYSE:CSLT	\$438	\$542	4.1x	3.1x	NM	NM
Cornerstone OnDemand	NasdaqGS:CSOD	\$1,982	\$2,031	4.6x	4.0x	NM	31.5x
Dice Holdings	NYSE:DHX	\$196	\$144	0.9x	0.9x	4.4x	4.3x
Paycom	NYSE:PAYC	\$4,004	\$4,065	11.2x	8.8x	50.5x	31.1x
Paylocity	NasdaqGS:PCTY	\$2,226	\$2,327	7.8x	6.3x	NM	36.1x
TriNet Group	NYSE:TNET	\$2,479	\$2,245	0.8x	0.7x	14.1x	11.6x
Ultimate Software	NasdaqGS:ULTI	\$6,168	\$6,243	7.5x	6.0x	98.4x	24.5x
Verint Systems	NasdaqGS:VRNT	\$2,969	\$2,551	2.8x	2.6x	28.8x	11.8x
Workday	NYSE:WDAY	\$18,505	\$20,079	10.9x	8.5x	NM	57.6x
Xactly Corporation	NYSE:XTLY	\$473	\$504	4.9x	4.0x	NM	NA
Median				4.9x	4.3x	28.8x	31.5x
Industrial & Automation Softw	are						
3M	NYSE:MMM	\$133,790	\$124,339	4.4x	4.3x	15.4x	14.2x
ABB	SWX:ABBN	\$54,298	\$53,590	1.5x	1.6x	11.9x	10.3x
American Software	NasdaqGS:AMSW.A	\$218	\$303	2.1x	2.0x	15.1x	10.9x
Aspen Technology	NasdaqGS:AZPN	\$4,155	\$4,117	8.8x	8.5x	19.0x	17.5x
Dassault	ENXTPA:DSY	\$20,688	\$22,774	5.8x	5.4x	21.6x	16.1x
Emerson	NYSE:EMR	\$37,504	\$38,424	2.6x	2.4x	12.1x	10.6x
Fanuc Corporation	TSE:6954	\$30,527	\$37,367	6.4x	5.7x	18.1x	15.7x
General Electric	NYSE:GE	\$360,044	\$234,554	3.0x	2.8x	20.4x	16.7x
HollySys Automation Tech	NasdaqGS:HOLI	\$762	\$1,002	1.7x	1.5x	8.9x	7.2x
Honeywell	NYSE:HON	\$108,039	\$101,612	2.8x	2.7x	13.8x	12.5x
Johnson Controls	NYSE:JCI	\$54,721	\$40,676	1.3x	1.8x	12.0x	10.9x
KUKA	DB:KU2	\$4,860	\$4,867	1.4x	1.3x	18.0x	15.2x
Materialise NV	NasdaqGS:MTLS	\$547	\$562	4.3x	3.6x	69.7x	34.9x
Metso	HLSE:METSO	\$5,137	\$5,196	1.7x	1.6x	14.5x	11.9x
OMRON Corp	TSE:6645	\$8,173	\$9,279	1.2x	1.1x	9.4x	9.0x
Parametric Technology	NasdaqGS:PTC	\$6,813	\$6,368	6.0x	5.7x	75.2x	23.4x
Rockwell Automation	NYSE:ROK	\$20,197	\$20,867	3.3x	3.2x	16.7x	14.3x
Schneider Electric	ENXTPA:SU	\$48,369	\$42,718	1.7x	1.7x	11.3x	10.2x
Siemens	DB:SIE	\$133,376	\$111,344	1.4x	1.3x	11.2x	9.7x
YASKAWA Electric Corp	TSE:6506	\$5,717	\$5,644	1.6x	1.5x	13.9x	12.2x
Yokogawa Electric Corp.	TSE:6841	\$4,070	\$4,284	1.2x	1.1x	9.1x	8.5x
Median				2.1x	2.0x	14.5x	12.2x





				TEV/Revenue		TEV/EBITDA	
(\$ in millions)		TEV	Market Cap	LTM	NTM	LTM	NTM
Education Technology							
Blackbaud	NasdaqGS:BLKB	\$4,368	\$4,025	5.9x	5.4x	34.5x	23.0x
Cambium Learning Group	NasdaqCM:ABCD	\$314	\$234	2.0x	NA	11.2x	NA
Instructure	NYSE:INST	\$815	\$853	6.7x	5.0x	NM	NM
K12 Inc	NYSE:LRN	\$558	\$727	0.6x	0.6x	13.3x	4.5x
Rosetta Stone	NYSE:RST	\$202	\$239	1.0x	1.1x	NM	19.4x
Median				2.0x	3.1x	13.3x	19.4x
Business Intelligence & Data							
Alteryx	NYSE:AYX	\$974	\$1,139	10.2x	7.4x	NM	NM
AppFolio	NasdaqGM:APPF	\$1,076	\$1,104	9.4x	7.3x	NM	62.4x
Apptio	NasdaqGM:APTI	\$578	\$689	3.4x	3.1x	NM	NM
Cloudera	NYSE:CLDR	\$2,537	\$2,101	8.9x	6.9x	NM	NM
Corelogic	NYSE:CLGX	\$5,156	\$3,672	2.7x	2.8x	12.9x	10.8x
CoStar Group	NasdaqGS:CSGP	\$8,364	\$8,633	9.7x	8.5x	37.6x	28.9x
Covisint	NasdaqGS:COVS	\$67	\$100	1.0x	NA	NM	NA
Gridsum Holding	NasdaqGS:GSUM	\$242	\$255	3.8x	2.3x	NM	35.8x
Hortonworks	NasdaqGS:HDP	\$741	\$824	3.7x	2.9x	NM	NM
Inovalon Holdings	NASDAQ:INOV	\$1,645	\$1,920	3.8x	3.6x	20.2x	15.2x
MicroStrategy	NasdaqGS:MSTR	\$1,575	\$2,194	3.1x	3.0x	13.7x	11.2x
NantHealth	NasdaqGS:NH	\$582	\$514	5.6x	4.0x	NM	NM
New Relic	NYSE:NEWR	\$2,095	\$2,301	8.0x	6.1x	NM	NM
Open Text	NasdaqGS:OTEX	\$10,495	\$8,324	5.0x	4.1x	17.5x	11.2x
PROS Holdings	NYSE:PRO	\$867	\$861	5.6x	5.2x	NM	NM
Sabre	NasdaqGS:SABR	\$9,283	\$6,054	2.7x	2.6x	12.9x	8.4x
Splunk	NasdaqGS:SPLK	\$6,869	\$7,872	6.8x	5.4x	NM	46.7x
Tableau	NYSE:DATA	\$3,824	\$4,778	4.5x	4.3x	NM	73.6x
TrueCar	NasdaqGS:TRUE	\$1,766	\$1,851	6.1x	5.3x	NM	59.8x
Varonis Systems	NasdaqGS:VRNS	\$891	\$1,012	5.1x	4.3x	NM	NM
Workiva	NYSE:WK	\$744	\$788	4.0x	3.5x	NM	NM
Yext	NYSE:YEXT	\$1,067	\$1,200	7.9x	5.9x	NM	NM
Median				4.7x	4.1x	15.6x	28.9x

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				TEV/Rev	enue/	TEV/EBI	TDA
(\$ in millions)		TEV	Market Cap	LTM	NTM	LTM	NTM
Design & Engineering Softwa	re						
Ansys	NasdaqGS:ANSS	\$9,537	\$10,404	9.4x	9.0x	21.0x	18.6x
Autodesk	NasdaqGS:ADSK	\$21,900	\$22,220	10.9x	10.3x	NM	NM
Aveva Group	LSE:AVV	\$1,441	\$1,611	5.1x	5.0x	21.3x	18.3x
Cadence Design Systems	NasdaqGS:CDNS	\$9,510	\$9,364	5.2x	4.9x	23.3x	15.2x
Hexagon	OM:HEXA B	\$18,588	\$17,102	5.1x	4.6x	20.3x	14.2x
Progress Software	NasdaqGS:PRGS	\$1,373	\$1,491	3.4x	3.5x	10.7x	9.6x
RIB Software AG	DB:RIB	\$574	\$756	5.1x	4.5x	13.7x	14.7x
Synopsys	NasdaqGS:SNPS	\$10,248	\$10,962	4.0x	3.8x	20.6x	14.4x
Twilio	NYSE:TWLO	\$2,345	\$2,634	7.7x	6.2x	NM	NM
Median				5.1x	4.9x	20.6x	14.7x





#### **EMS / Infrastructure Software**

Security Software					TEV/Rev	venue	TEV/EBITDA	
AVG Technologies OTCPK:AVGT.F \$1,426 \$1,304 3.3x NA 11.4x  Barracuda Networks NYSE:CUDA \$1,025 \$1,221 2.9x 2.7x 27.2x 14  Cheek Point Sottware NasdagGS:CHKP \$16,306 \$17,228 9.2x 8.6x 18.7x 14  Cheetah Mobile NYSE:CMCM \$1,324 \$1,492 2.0x 1.7x 58.6x 20  Cyber-Ark Sottware NasdagGS:CYBR \$1,448 \$1,735 6.3x 5.1x 34.2x 22  Everbridge NasdagGS:CYBR \$1,448 \$1,735 6.3x 5.1x 34.2x 22  Everbridge NasdagGS:EYEF \$2,569 \$2,713 3.6x 3.5x NM 40  FireEye NasdagGS:FEYE \$2,569 \$2,713 3.6x 3.5x NM 40  Fortinet NasdagGS:FTNT \$5,382 \$6,580 4.0x 3.5x 10,00 16  Gemaito ENTAM:GTO \$5,449 \$5,367 1.5x 1.5x 8.8x NM 37  Mimecast NasdagGS:MIMPV \$1,288 \$1,601 4.7x 3.8x NM 37  Miccom Mobile NYSE:NQ \$355 \$367 1.0x NA NM  NetClin Mobile NYSE:NQ \$355 \$367 1.0x NA NM  NetClin Mobile NYSE:NQ \$355 \$367 1.0x NA NM  NetClin Mobile NYSE:NQ \$355 \$367 1.0x NA NM  Palo Alto Networks NYSE:PANW \$11,433 \$12,287 6.9x 5.7x NM 22  Proofpoint NasdagGS:CVTA \$1,484 \$2,173 10,7x 7.7x NM 22  Proofpoint NasdagGS:CVY \$1,266 \$1,511 6.2x 5.4x 25.9x 1M  Papid No Networks NySE:PANW \$11,283 \$1,501 6.3x 5.4x 25.9x 1M  Papid No Networks NasdagGS:CVY \$1,266 \$1,511 6.2x 5.4x 25.9x 1M  NasdagGS:CVY \$1,266 \$1,511 6.2x 5.4x 22.9x 3.8x 1M  Symantec NasdagGS:CVY \$2,113 \$17,183 5.5x 4.1x 29.0x 8  Trend Micro TSE:4704 \$5,972 \$7,077 4.9x 4.6x 14.2x 23.6x 15  Median \$1,446 3.8x 3.5x 4.1x 26.5x 18   System and Network Management Software  NasdagGS:CVLT \$2,087 \$2,537 2.3x 3.0x 1M 17  NasdagGS:CVLT \$2,087 \$2,537 3.2x 3.0x 1M  Palo Altoworks NasdagGS:CVLT \$2,087 \$2,537 3.2x 3.0x 1M  NasdagGS:NTNX \$2,203 \$3,023 4.0x 2.2x 3.0x 1M  NasdagGS:NTNX \$2,203 \$3,	(\$ in millions)		TEV	Market Cap	LTM	NTM	LTM	NTM
AVG Technologies OTCPK:AVGT.F \$1,426 \$1,304 3.3x NA 11.4x  Barracuda Networks NYSE:CUDA \$1,025 \$1,221 2.9x 2.7x 27.2x 14  Cheek Point Software NasdargGS:CHKP \$16,360 \$17,828 9.2x 8.6x 18.7x 16  Cheek Point Software NasdargGS:CHKP \$16,360 \$17,828 9.2x 8.6x 18.7x 16  Cheek Point Software NasdargGS:CHKP \$16,360 \$17,828 9.2x 1.7x 58.6x 16  Cheek A Software NasdargGS:CHKP \$1,448 \$1,735 6.3x 5.1x 34.2x 22  Everbridge NasdargGM:EVBG \$839 \$679 7.7x 5.9x NM  FireEye NasdargGS:FEYE \$2,589 \$2,713 3.6x 3.5x NM 40  FireEye NasdargGS:FEYE \$2,589 \$2,713 3.6x 3.5x 50.0x 16  Gamalto EnxtTank-GTO \$5,449 \$5,387 1.5x 1.5x 8.8x 81  Impena NasdargGS:MIPV \$1,288 \$1,601 4.7x 3.8x NM 37  Milmecast NasdargGS:MIPV \$1,288 \$1,601 4.7x 3.8x NM 70  Mobieleron NasdargGS:MOBL \$467 \$558 2.8x 2.5x NM 70  NetQin Mobile NYSE:NQ \$355 \$367 1.0x NA NM  NetQin Mobile NYSE:NQ \$355 \$367 1.0x NA NM  NetQin Mobile NYSE:NQ \$355 \$367 1.0x NA NM  Polo Alto Networks NYSE:PANW \$11,433 \$12,287 6.9x 5.7x NM 59  Poolpoint NasdargGS:GUTS \$1,266 \$1,511 6.2x 5.4x 25.9x 17  NasdargGS:GUTS \$1,266 \$1,511 6.2x 5.4x 25.9x 17  NasdargGS:SWWX \$662 \$753 1.5x 1.4x NM  SecureWorks NasdargGS:CWX \$662 \$753 1.5x 1.4x NM  SecureWorks NasdargGS:CWX \$662 \$753 1.5x 1.4x NM  SecureWorks NasdargGS:SWWX \$662 \$753 1.5x 1.4x NM  SecureWorks NasdargGS:SWWX \$662 \$753 1.5x 1.4x NM  SecureWorks NasdargGS:SWWX \$662 \$753 1.5x 1.4x NM  SecureWorks NasdargGS:CWX \$662 \$753 1.5x 1.4x NM  SecureWorks NasdargGS:SWW \$2,113 \$17,163 5.3x 4.1x 29.0x 8  Terned Micro TSE4704 \$5,972 \$5,707 4.9x 4.6x 4.2x 23.6x 15  Median NYSE:GIMO \$1,1467 \$14,679 3.6x 3.5x 11.7x 10  North NasdargGS:CWT \$2,087 \$2,537 3.2x 3.0x NM  SecureWorks NasdargGS:CWT \$2,087 \$2,537 3.2x 3.0x NM  Segmand Network Management Software  A10 Networks NYSE:ATEN \$469 \$585 2.0x 1.8x NM  Segmand Network Management Software  NYSE:ATEN \$2,087 \$2,537 3.2x 3.0x NM  Segmand Network Management Software  A10 Network Management Software  NasdargGS:CWT \$2,087 \$2,537 3.2x 3.0x NM  Millor Focus LSE-MCRO \$3,490 \$6,774 6.0x 6.2x 1.1x NM  NasdargGS:CWT \$2,087								
Barracuda Networks         NYSE:CUDA         \$1,025         \$1,221         2.9x         2.7x         27.2x         14           Check Point Software         NasdaqSS:CHKP         \$16,360         \$17,828         9.2x         8.6x         18,7x         16           Cheetah Mobile         NYSE:CMCM         \$1,324         \$1,492         2.0x         1.7x         \$6.6x         20           Cyber-Ark Software         NasdaqGS:CYBR         \$1,448         \$1,735         6.3x         5.1x         34.2x         22           Everbridge         NasdaqGS:FEYE         \$2,569         \$2,713         3.6x         3.5x         NM         40           Fortinet         NasdaqGS:FINT         \$5,382         \$6,580         4.0x         3.5x         8.8x         8         75         1.5x         1.5x         8.8x         8         8         8         8         8         8         8         8         8         8         8         8         8         8         8         8         8         8         8         8         8         8         8         8         8         8         8         8         8         8         8         8         8         8         8	Security Software							
Check Point Software         NasdaqGS:CHKP         \$16,360         \$17,828         9.2x         8.6x         18.7x         16           Cheetah Mobile         NYSE:CMCM         \$1,324         \$1,492         2.0x         1.7x         56.6x         20           Cyber-Ark Software         NasdaqGS:CYBR         \$1,448         \$1,735         6.3x         5.1x         34.2x         22           Everbridge         NasdaqGS:FEVB         \$2,589         \$2,713         3.6x         3.5x         NM           FireEye         NasdaqGS:FEVB         \$2,589         \$2,713         3.6x         3.5x         NM         40           Fortinet         NasdaqGS:FTNT         \$5,382         \$6,589         4.0x         3.6x         \$0.0x         40           Gemalto         ENXTAM:GTO         \$5,449         \$5,367         1.5x         1.5x         8.8x         8           Imperva         NasdaqGS:MIME         \$1,400         \$1,509         7.5x         5.7x         NM         37           Mimecast         NasdaqGS:MOBL         \$467         \$558         2.8x         2.5x         NM           Melician         NYSE:NO         \$355         \$367         1.0x         NM         MM      <	AVG Technologies	OTCPK:AVGT.F	\$1,426	\$1,304	3.3x	NA	11.4x	NA
Cheetah Mobile         NYSE:CMCM         \$1,324         \$1,492         2.0x         1.7x         58.6x         20           Cyber-Ark Software         NasdagGS:CYBR         \$1,448         \$1,735         6.3x         5.1x         34.2x         20           Everbridge         NasdagGM:EVBG         \$639         \$679         7.7x         5.9x         NM           FireEye         NasdagGS:FEYE         \$2,589         \$2,713         3.6x         3.5x         NM         40           Fortinet         NasdagGS:FFYE         \$2,589         \$2,713         3.6x         3.5x         NM         40           Fortinet         NasdagGS:FFYE         \$2,589         \$2,713         3.6x         3.5x         NM         40           Gemalto         ENTAMIGTO         \$5,449         \$5,367         1.5x         1.5x         8.8x         8           Impena         NasdagGS:MIMPU         \$1,288         \$1,601         4.7x         3.8x         NM         70           Milmecast         NasdagGS:MIMPU         \$1,288         \$1,601         4.7x         3.8x         NM         70           Nettoin Mobile         NYSE:NQ         \$355         \$367         1.0x         NA         NM <td>Barracuda Networks</td> <td>NYSE:CUDA</td> <td>\$1,025</td> <td>\$1,221</td> <td>2.9x</td> <td>2.7x</td> <td>27.2x</td> <td>14.5x</td>	Barracuda Networks	NYSE:CUDA	\$1,025	\$1,221	2.9x	2.7x	27.2x	14.5x
Cyber-Ark Software         NasdaqGS:CYBR         \$1,448         \$1,735         6.3x         5.1x         34.2x         22           Everbridge         NasdaqGM:EVBG         \$639         \$679         7.7x         5.9x         NM         40           FireEye         NasdaqGS:FEYE         \$2,589         \$2,713         3.6x         3.5x         NM         40           Fortinet         NasdaqGS:FTNT         \$5,382         \$6,580         4.0x         3.5x         50.0x         16           Gemalto         ENXTAM:GTO         \$5,449         \$5,367         1.5x         1.5x         8.8x         8.8x <th< td=""><td>Check Point Software</td><td>NasdaqGS:CHKP</td><td>\$16,360</td><td>\$17,828</td><td>9.2x</td><td>8.6x</td><td>18.7x</td><td>16.0x</td></th<>	Check Point Software	NasdaqGS:CHKP	\$16,360	\$17,828	9.2x	8.6x	18.7x	16.0x
Everbridge         NasdaqGM:EVBG         \$639         \$679         7.7x         5.9x         NM           FireEye         NasdaqGS:FEYE         \$2,689         \$2,713         3.6x         3.5x         NM         4           Fortinet         NasdaqGS:FITNT         \$5,382         \$6,680         4.0x         3.5x         50.0x         16           Gemalto         ENXTAM.GTO         \$5,449         \$5,367         1.5x         1.5x         8.8x         8           Impere         NasdaqGS:IMPV         \$1,288         \$1,601         4.7x         3.8x         NM         37           Mimecast         NasdaqGS:IMPV         \$1,288         \$1,601         4.7x         3.8x         NM         37           Mobilefron         NasdaqGS:IMPE         \$1,400         \$1,509         7.5x         5.7x         NM         37           Micton         NasdaqGS:MCBL         \$467         \$558         2.8x         2.5x         NM           Metoin Mobile         NYSE:NQ         \$355         \$367         1.0x         NA         NM           Nettin Mobile         NYSE:NW         \$1,143         \$1,2287         6.9x         5.7x         NM           Okta         NYSE:PARW	Cheetah Mobile	NYSE:CMCM	\$1,324	\$1,492	2.0x	1.7x	58.6x	20.6x
FireEye NasdaqGS:FEYE \$2,589 \$2,713 3.6x 3.5x NM 40 Fortinet NasdaqGS:FINT \$5,382 \$6,580 4.0x 3.5x 50.0x 16 Gemalto ENXTAM:GTO \$5,349 \$5,367 1.5x 1.5x 8.8x 8.8r Imperva NasdaqGS:IMPV \$1,288 \$1,601 4.7x 3.8x NM 37 Mimecast NasdaqGS:IMPV \$1,288 \$1,601 4.7x 3.8x NM 77 Mimecast NasdaqGS:MIME \$1,400 \$1,509 7.5x 5.7x NM 77 Mimecast NasdaqGS:MIME \$1,400 \$1,509 7.5x 5.7x NM 77 Mimecast NasdaqGS:MOBL \$467 \$558 2.8x 2.5x NM NotClin Mobile NYSE:NQ \$355 \$367 1.0x NA NM NM NotClin Mobile NYSE:NQ \$355 \$367 1.0x 7.7x NM NM NotClin Mobile NYSE:NQ \$355 \$367 1.0x 7.7x NM NM NotClin Mobile NYSE:NQ \$355 \$367 1.0x 7.7x NM Palo Alto Networks NasdaqGM:PPT \$3,765 \$3,796 9.2x 7.1x NM 92 N	Cyber-Ark Software	NasdaqGS:CYBR	\$1,448	\$1,735	6.3x	5.1x	34.2x	22.9x
Fortinet NasdaqGS:FTNT \$5,382 \$6,580 \$4.0x 3.5x 50.0x 166 Gemalto ENXTAM:GTO \$5,449 \$5,367 1.5x 1.5x 8.8x 8 Impera NasdaqGS:IMPV \$1,288 \$1,601 4.7x 3.8x NM 37 Mimecast NasdaqGS:MMPV \$1,408 \$1,601 4.7x 3.8x NM 37 Mimecast NasdaqGS:MMPE \$1,400 \$1,509 7.5x 5.7x NM 70 Mobiletron NasdaqGS:MOBL \$467 \$558 2.2x 2.5x NM NetQin Mobile NYSE:NO \$355 \$367 1.0x NA NM Okta NasdaqGS:OKTA \$1,948 \$2,173 10.7x 7.7x NM 90 Palo Alto Networks NYSE:PANW \$11,433 \$12,287 6.9x 5.7x NM 99 Proofpoint NasdaqGS:OLYS \$1,266 \$1,511 6.2x 5.4x 2.5y 17 Rapid7 NasdaqGS:QLYS \$1,266 \$1,511 6.2x 5.4x 2.5y 17 Rapid7 NasdaqGS:QLYS \$1,266 \$1,511 6.2x 5.4x 2.5y 17 Rapid7 NasdaqGS:CWX \$662 \$753 1.5x 1.4x NM 99 SecureWorks NasdaqGS:SCWX \$662 \$753 1.5x 1.4x NM 99 Symantec NasdaqGS:SCWX \$662 \$753 1.5x 1.4x NM 99 Name NasdaqGS:SCWX \$662 \$753 1.5x 1.4x NM 99 Name NasdaqGS:SCWX \$662 \$753 1.5x 1.4x NM 99 NasdaqGS:SCWX \$662 \$753 1.5x 1.4x NM 99 NasdaqGS:SCWX \$662 \$753 2.3x 2.3x 34.8x 25 NasdaqGS:SCWX \$75.8x 34.8x 35.8x 35.8x 34.8x 35.8x 35.8x 34.8x 35.8x 34.8x 35.8x 34.8x 35.8x 34.8x 35.8x 34.8x 35.8x 34.8x 35.8x 35.8x 34.8x 35.8x 35.8x 34.8x 35.8x	Everbridge	NasdaqGM:EVBG	\$639	\$679	7.7x	5.9x	NM	NM
Gemalto         ENXTAM:GTO         \$5,449         \$5,367         1.5x         1.5x         8.8x         8           Impena         NasdaqGS:IMPV         \$1,288         \$1,601         4.7x         3.8x         NM         37           Mimecast         NasdaqGS:MIME         \$1,400         \$1,509         7.5x         5.7x         NM         70           MobileIron         NasdaqGS:MIME         \$1,400         \$1,509         7.5x         5.7x         NM         70           MobileIron         NasdaqGS:MIME         \$467         \$558         2.8x         2.5x         NM           NetQin Mobile         NYSE:NQ         \$355         \$367         1.0x         NA         NM           Okta         NasdaqGS:CNTA         \$1,948         \$2,173         10.7x         7.7x         NM         70           Palo Alto Networks         NYSE:PANW         \$11,433         \$21,287         6.9x         5.7x         NM         20           Proofpoint         NasdaqGM:PPT         \$3,755         \$3,766         9.2x         7.1x         NM         50           Qualys         NasdaqGS:QLYS         \$1,266         \$1,511         6.2x         5.4x         25.9x         17      R	FireEye	NasdaqGS:FEYE	\$2,589	\$2,713	3.6x	3.5x	NM	40.9x
Imperva	Fortinet	NasdaqGS:FTNT	\$5,382	\$6,580	4.0x	3.5x	50.0x	16.6x
Mimecast         NasdaqGS:MIME         \$1,400         \$1,509         7.5x         5.7x         NM         70           MobileIon         NasdaqGS:MOBL         \$467         \$558         2.8x         2.5x         NM         NM           NetQin Mobile         NYSE:NQ         \$355         \$367         1.0x         NA         NM           Okta         NasdaqGS:OKTA         \$1,948         \$2,173         10.7x         7.7x         NM           Palo Alto Networks         NYSE:PANW         \$11,433         \$12,287         6.9x         5.7x         NM         23           Proofpoint         NasdaqGS:QLYS         \$1,566         \$1,511         6.9x         5.7x         NM         59           Qualys         NasdaqGS:QLYS         \$1,266         \$1,511         6.2x         5.4x         25.9x         77           Rapid7         NasdaqGS:QLYS         \$1,266         \$1,511         6.2x         5.4x         25.9x         7           Rapid7         NasdaqGS:SCWX         \$661         \$731         3.9x         3.2x         NM           SecureWorks         NasdaqGS:SWX         \$662         \$753         1.5x         1.4x         NM         1           Yestoure Works	Gemalto	ENXTAM:GTO	\$5,449	\$5,367	1.5x	1.5x	8.8x	8.8x
MobileIron         NasdaqGS:MOBL         \$467         \$558         2.8x         2.5x         NM           NetQin Mobile         NYSE:NQ         \$355         \$367         1.0x         NA         NM           Okta         NasdaqGS:OKTA         \$1,948         \$2,173         10.7x         7.7x         NM           Palo Alto Networks         NYSE:PANW         \$11,433         \$2,287         6.9x         5.7x         NM           Proofpoint         NasdaqGM:PFPT         \$3,755         \$3,796         9.2x         7.1x         NM         59           Qualys         NasdaqGS:QLYS         \$1,266         \$1,511         6.2x         5.4x         25.9x         17           Rapid7         NasdaqGS:QLYS         \$1,266         \$1,511         6.2x         5.4x         25.9x         17           Repid7         NasdaqGS:CWX         \$662         \$753         1.5x         1.4x         NM           SecureWorks         NasdaqGS:SYMC         \$21,113         \$17,83         5.3x         4.1x         29.0x         8           Trend Micro         TSE:4704         \$5,972         \$7,077         4.9x         4.6x         14.2x         13           VASCO         NasdaqGS:ZMI	Imperva	NasdaqGS:IMPV	\$1,288	\$1,601	4.7x	3.8x	NM	37.9x
NetQin Mobile	Mimecast	NasdaqGS:MIME	\$1,400	\$1,509	7.5x	5.7x	NM	70.4x
Okta         NasdaqGS:OKTA         \$1,948         \$2,173         10.7x         7.7x         NM           Palo Alto Networks         NYSE:PANW         \$11,433         \$12,287         6.9x         5.7x         NM         23           Proofpoint         NasdaqGM:PFPT         \$3,755         \$3,796         9.2x         7.1x         NM         59           Qualys         NasdaqGS:QLYS         \$1,266         \$1,511         6.2x         5.4x         25.9x         17           Rapid7         NasdaqGS:GWPD         \$651         \$731         3.9x         3.2x         NM           SecureWorks         NasdaqGS:SCWX         \$662         \$753         1.5x         1.4x         NM           Symantec         NasdaqGS:SYMC         \$21,113         \$17,183         5.3x         4.1x         29.0x         8           Trend Micro         TSE:4704         \$5,972         \$7,077         4.9x         4.6x         14.2x         13           VASCO         NasdaqGS:ZIXI         \$286         \$310         4.6x         4.2x         23.6x         15           Median         ***         ***         ***         ***         ***         ***         ***         ***         ***	MobileIron	NasdaqGS:MOBL	\$467	\$558	2.8x	2.5x	NM	NM
Palo Alto Networks         NYSE:PANW         \$11,433         \$12,287         6.9x         5.7x         NM         23           Proofpoint         NasdaqGM:PFPT         \$3,755         \$3,796         9.2x         7.1x         NM         59           Qualys         NasdaqGS:QLYS         \$1,266         \$1,511         6.2x         5.4x         25.9x         17           Rapid7         NasdaqGS:SCWX         \$661         \$731         3.9x         3.2x         NM           SecureWorks         NasdaqGS:SCWX         \$662         \$753         1.5x         1.4x         NM           Symantec         NasdaqGS:SYMC         \$21,113         \$17,183         5.3x         4.1x         29.0x         8           Trend Micro         TSE:4704         \$5,972         \$7,077         4.9x         4.6x         14.2x         13           VASCO         NasdaqCM:VDSI         \$427         \$573         2.3x         2.3x         34.8x         25           Zix         NasdaqGS:ZIXI         \$286         \$310         4.6x         4.1x         26.5x         18           System and Network Management Software           A10 Networks         NYSE:ATEN         \$469         \$585         2.0x	NetQin Mobile	NYSE:NQ	\$355	\$367	1.0x	NA	NM	NA
Proofpoint         NasdaqGM:PFPT         \$3,755         \$3,796         9.2x         7.1x         NM         59           Qualys         NasdaqGS:QLYS         \$1,266         \$1,511         6.2x         5.4x         25.9x         17           Rapid7         NasdaqGM:RPD         \$661         \$731         3.9x         3.2x         NM           SecureWorks         NasdaqGS:SVMX         \$662         \$753         1.5x         1.4x         NM           Symantec         NasdaqGS:SYMC         \$21,113         \$17,183         5.3x         4.1x         29.0x         8           Trend Micro         TSE:4704         \$5,972         \$7,077         4.9x         4.6x         14.2x         13           VASCO         NasdaqCM:VDSI         \$427         \$573         2.3x         2.3x         34.8x         25           Zix         NasdaqGS:ZIXI         \$286         \$310         4.6x         4.1x         26.5x         18           Median         ***         ***         ***         ***         ***         ***         ***         ***         ***         ***         ***         ***         ***         ***         ***         ***         ***         ***	Okta	NasdaqGS:OKTA	\$1,948	\$2,173	10.7x	7.7x	NM	NM
Qualys         NasdaqGS:QLYS         \$1,266         \$1,511         6.2x         5.4x         25.9x         17           Rapid7         NasdaqGM:RPD         \$651         \$731         3.9x         3.2x         NM           SecureWorks         NasdaqGS:SCWX         \$662         \$753         1.5x         1.4x         NM           Symantec         NasdaqGS:SYMC         \$21,113         \$17,183         5.3x         4.1x         29.0x         8           Trend Micro         TSE:4704         \$5,972         \$7,077         4.9x         4.6x         14.2x         13           VASCO         NasdaqCM:VDSI         \$427         \$573         2.3x         2.3x         34.8x         25           Zix         NasdaqGS:ZIXI         \$286         \$310         4.6x         4.2x         23.6x         15           Median         4.6x         4.1x         26.5x         18           System and Network Management Software           A10 Networks         NYSE:ATEN         \$469         \$585         2.0x         1.8x         NM         21           CA         NasdaqGS:CA         \$14,676         \$14,519         3.6x         3.5x         11.7x         10	Palo Alto Networks	NYSE:PANW	\$11,433	\$12,287	6.9x	5.7x	NM	23.5x
Rapid7         NasdaqGM:RPD         \$651         \$731         3.9x         3.2x         NM           SecureWorks         NasdaqGS:SCWX         \$662         \$753         1.5x         1.4x         NM           Symantec         NasdaqGS:SYMC         \$21,113         \$17,183         5.3x         4.1x         29.0x         8           Trend Micro         TSE:4704         \$5,972         \$7,077         4.9x         4.6x         14.2x         13           VASCO         NasdaqCM:VDSI         \$427         \$573         2.3x         2.3x         34.8x         25           Zix         NasdaqGS:ZIXI         \$286         \$310         4.6x         4.1x         26.5x         18           Median         4.6x         4.1x         26.5x         18           System and Network Management Software           A10 Networks         NYSE:ATEN         \$469         \$585         2.0x         1.8x         NM         21           CA         NasdaqGS:CA         \$14,676         \$14,519         3.6x         3.5x         11.7x         10           CommVault Systems         NasdaqGS:CVLT         \$2,087         \$2,537         3.2x         3.0x         NM         19 <t< td=""><td>Proofpoint</td><td>NasdaqGM:PFPT</td><td>\$3,755</td><td>\$3,796</td><td>9.2x</td><td>7.1x</td><td>NM</td><td>59.1x</td></t<>	Proofpoint	NasdaqGM:PFPT	\$3,755	\$3,796	9.2x	7.1x	NM	59.1x
SecureWorks         NasdaqGS:SCWX         \$662         \$753         1.5x         1.4x         NM           Symantec         NasdaqGS:SYMC         \$21,113         \$17,183         5.3x         4.1x         29.0x         8           Trend Micro         TSE:4704         \$5,972         \$7,077         4.9x         4.6x         14.2x         13           VASCO         NasdaqCM:VDSI         \$427         \$573         2.3x         2.3x         34.8x         25           Zix         NasdaqGS:ZIXI         \$286         \$310         4.6x         4.2x         23.6x         15           Median         4.6x         4.1x         26.5x         18           System and Network Management Software           System and Network Management Software           William Anagement Software           System and Network Management Software           William Anagement Software           System and Network Management Software           System Anagement Software           System Syst	Qualys	NasdaqGS:QLYS	\$1,266	\$1,511	6.2x	5.4x	25.9x	17.0x
Symantec         NasdaqGS:SYMC         \$21,113         \$17,183         5.3x         4.1x         29.0x         8           Trend Micro         TSE:4704         \$5,972         \$7,077         4.9x         4.6x         14.2x         13           VASCO         NasdaqCM:VDSI         \$427         \$573         2.3x         2.3x         34.8x         25           Zix         NasdaqGS:ZIXI         \$286         \$310         4.6x         4.2x         23.6x         15           Median         4.6x         4.1x         26.5x         18           System and Network Management Software           A10 Networks         NYSE:ATEN         \$469         \$585         2.0x         1.8x         NM         21           CA         NasdaqGS:CA         \$14,676         \$14,519         3.6x         3.5x         11.7x         10           CommVault Systems         NasdaqGS:CVLT         \$2,087         \$2,537         3.2x         3.0x         NM         19           Gigamon         NYSE:GIMO         \$1,181         \$1,446         3.8x         3.5x         41.9x         20           Micro Focus         LSE:MCRO         \$8,490         \$6,774         6.0x         6.2x	Rapid7	NasdaqGM:RPD	\$651	\$731	3.9x	3.2x	NM	NM
Trend Micro         TSE:4704         \$5,972         \$7,077         4.9x         4.6x         14.2x         13           VASCO         NasdaqCM:VDSI         \$427         \$573         2.3x         2.3x         34.8x         25           Zix         NasdaqGS:ZIXI         \$286         \$310         4.6x         4.2x         23.6x         15           Median         4.6x         4.1x         26.5x         18           System and Network Management Software           A10 Networks         NYSE:ATEN         \$469         \$585         2.0x         1.8x         NM         21           CA         NasdaqGS:CA         \$14,676         \$14,519         3.6x         3.5x         11.7x         10           CommVault Systems         NasdaqGS:CVLT         \$2,087         \$2,537         3.2x         3.0x         NM         19           Gigamon         NYSE:GIMO         \$1,181         \$1,446         3.8x         3.5x         41.9x         20           Micro Focus         LSE:MCRO         \$8,490         \$6,774         6.0x         6.2x         16.1x         12           Mulesoft         NYSE:MULE         \$2,872         \$3,212         13.7x         9.	SecureWorks	NasdaqGS:SCWX	\$662	\$753	1.5x	1.4x	NM	NM
VASCO         NasdaqCM:VDSI         \$427         \$573         2.3x         2.3x         34.8x         25           Zix         NasdaqGS:ZIXI         \$286         \$310         4.6x         4.2x         23.6x         15           Median         4.6x         4.1x         26.5x         18           System and Network Management Software           A10 Networks         NYSE:ATEN         \$469         \$585         2.0x         1.8x         NM         21           CA         NasdaqGS:CA         \$14,676         \$14,519         3.6x         3.5x         11.7x         10           CommVault Systems         NasdaqGS:CVLT         \$2,087         \$2,537         3.2x         3.0x         NM         19           Gigamon         NYSE:GIMO         \$1,181         \$1,446         3.8x         3.5x         41.9x         20           Micro Focus         LSE:MCRO         \$8,490         \$6,774         6.0x         6.2x         16.1x         12           Mulesoft         NYSE:MULE         \$2,872         \$3,212         13.7x         9.7x         NM           Netscout Systems         NasdaqGS:NTCT         \$3,012         \$3,155         2.6x         2.5x         13.2x	Symantec	NasdaqGS:SYMC	\$21,113	\$17,183	5.3x	4.1x	29.0x	8.9x
Alian	Trend Micro	TSE:4704	\$5,972	\$7,077	4.9x	4.6x	14.2x	13.3x
Median         4.6x         4.1x         26.5x         18           System and Network Management Software           A10 Networks         NYSE:ATEN         \$469         \$585         2.0x         1.8x         NIM         21           CA         NasdaqGS:CA         \$14,676         \$14,519         3.6x         3.5x         11.7x         10           CommVault Systems         NasdaqGS:CVLT         \$2,087         \$2,537         3.2x         3.0x         NIM         19           Gigamon         NYSE:GIMO         \$1,181         \$1,446         3.8x         3.5x         41.9x         20           Micro Focus         LSE:MCRO         \$8,490         \$6,774         6.0x         6.2x         16.1x         12           Mulesoft         NYSE:MULE         \$2,872         \$3,212         13.7x         9.7x         NIM           Netscout Systems         NasdaqGS:NTCT         \$3,012         \$3,155         2.6x         2.5x         13.2x         9           Nutanix         NasdaqGS:NTNX         \$2,703         \$3,053         4.0x         2.8x         NIM           Presidio         NasdaqGS:PSDO         \$2,212         \$1,301         0.8x         0.7x <t< td=""><td>VASCO</td><td>NasdaqCM:VDSI</td><td>\$427</td><td>\$573</td><td>2.3x</td><td>2.3x</td><td>34.8x</td><td>25.7x</td></t<>	VASCO	NasdaqCM:VDSI	\$427	\$573	2.3x	2.3x	34.8x	25.7x
System and Network Management Software           A10 Networks         NYSE:ATEN         \$469         \$585         2.0x         1.8x         NM         21           CA         NasdaqGS:CA         \$14,676         \$14,519         3.6x         3.5x         11.7x         10           CommVault Systems         NasdaqGS:CVLT         \$2,087         \$2,537         3.2x         3.0x         NM         19           Gigamon         NYSE:GIMO         \$1,181         \$1,446         3.8x         3.5x         41.9x         20           Micro Focus         LSE:MCRO         \$8,490         \$6,774         6.0x         6.2x         16.1x         12           Mulesoft         NYSE:MULE         \$2,872         \$3,212         13.7x         9.7x         NM           Netscout Systems         NasdaqGS:NTCT         \$3,012         \$3,155         2.6x         2.5x         13.2x         9           Nutanix         NasdaqGS:NTNX         \$2,703         \$3,053         4.0x         2.8x         NM           Presidio         NasdaqGS:PSDO         \$2,212         \$1,301         0.8x         0.7x         10.9x         8           ServiceNow         NYSE:NOW         \$17,548         \$18,007	Zix	NasdaqGS:ZIXI	\$286	\$310	4.6x	4.2x	23.6x	15.3x
A10 Networks	Median				4.6x	4.1x	26.5x	18.8x
CA         NasdaqGS:CA         \$14,676         \$14,519         3.6x         3.5x         11.7x         10           CommVault Systems         NasdaqGS:CVLT         \$2,087         \$2,537         3.2x         3.0x         NM         19           Gigamon         NYSE:GIMO         \$1,181         \$1,446         3.8x         3.5x         41.9x         20           Micro Focus         LSE:MCRO         \$8,490         \$6,774         6.0x         6.2x         16.1x         12           Mulesoft         NYSE:MULE         \$2,872         \$3,212         13.7x         9.7x         NM           Netscout Systems         NasdaqGS:NTCT         \$3,012         \$3,155         2.6x         2.5x         13.2x         9           Nutanix         NasdaqGS:NTNX         \$2,703         \$3,053         4.0x         2.8x         NM           Presidio         NasdaqGS:PSDO         \$2,212         \$1,301         0.8x         0.7x         10.9x         8           ServiceNow         NYSE:NOW         \$17,548         \$18,007         11.7x         8.7x         NM         39           Software AG         XTRA:SOW         \$3,236         \$3,343         3.3x         3.2x         11.2x         9	System and Network Manag	jement Software						
CA         NasdaqGS:CA         \$14,676         \$14,519         3.6x         3.5x         11.7x         10           CommVault Systems         NasdaqGS:CVLT         \$2,087         \$2,537         3.2x         3.0x         NM         19           Gigamon         NYSE:GIMO         \$1,181         \$1,446         3.8x         3.5x         41.9x         20           Micro Focus         LSE:MCRO         \$8,490         \$6,774         6.0x         6.2x         16.1x         12           Mulesoft         NYSE:MULE         \$2,872         \$3,212         13.7x         9.7x         NM           Netscout Systems         NasdaqGS:NTCT         \$3,012         \$3,155         2.6x         2.5x         13.2x         9           Nutanix         NasdaqGS:NTNX         \$2,703         \$3,053         4.0x         2.8x         NM           Presidio         NasdaqGS:PSDO         \$2,212         \$1,301         0.8x         0.7x         10.9x         8           ServiceNow         NYSE:NOW         \$17,548         \$18,007         11.7x         8.7x         NM         39           Software AG         XTRA:SOW         \$3,236         \$3,343         3.3x         3.2x         11.2x         9	A10 Networks	NYSE:ATEN	\$469	\$585	2.0x	1.8x	NM	21.4x
CommVault Systems         NasdaqGS:CVLT         \$2,087         \$2,537         3.2x         3.0x         NM         19           Gigamon         NYSE:GIMO         \$1,181         \$1,446         3.8x         3.5x         41.9x         20           Micro Focus         LSE:MCRO         \$8,490         \$6,774         6.0x         6.2x         16.1x         12           Mulesoft         NYSE:MULE         \$2,872         \$3,212         13.7x         9.7x         NM           Netscout Systems         NasdaqGS:NTCT         \$3,012         \$3,155         2.6x         2.5x         13.2x         9           Nutanix         NasdaqGS:NTNX         \$2,703         \$3,053         4.0x         2.8x         NM           Presidio         NasdaqGS:PSDO         \$2,212         \$1,301         0.8x         0.7x         10.9x         8           ServiceNow         NYSE:NOW         \$17,548         \$18,007         11.7x         8.7x         NM         39           Software AG         XTRA:SOW         \$3,236         \$3,343         3.3x         3.2x         11.2x         9				· · · · · · · · · · · · · · · · · · ·				10.2x
Gigamon         NYSE:GIMO         \$1,181         \$1,446         3.8x         3.5x         41.9x         20           Micro Focus         LSE:MCRO         \$8,490         \$6,774         6.0x         6.2x         16.1x         12           Mulesoft         NYSE:MULE         \$2,872         \$3,212         13.7x         9.7x         NM           Netscout Systems         NasdaqGS:NTCT         \$3,012         \$3,155         2.6x         2.5x         13.2x         9           Nutanix         NasdaqGS:NTNX         \$2,703         \$3,053         4.0x         2.8x         NM         Inchestion           Presidio         NasdaqGS:PSDO         \$2,212         \$1,301         0.8x         0.7x         10.9x         8           ServiceNow         NYSE:NOW         \$17,548         \$18,007         11.7x         8.7x         NM         39           Software AG         XTRA:SOW         \$3,236         \$3,343         3.3x         3.2x         11.2x         9		· · · · · · · · · · · · · · · · · · ·						19.4x
Micro Focus         LSE:MCRO         \$8,490         \$6,774         6.0x         6.2x         16.1x         12           Mulesoft         NYSE:MULE         \$2,872         \$3,212         13.7x         9.7x         NM           Netscout Systems         NasdaqGS:NTCT         \$3,012         \$3,155         2.6x         2.5x         13.2x         9           Nutanix         NasdaqGS:NTNX         \$2,703         \$3,053         4.0x         2.8x         NM         Inchested           Presidio         NasdaqGS:PSDO         \$2,212         \$1,301         0.8x         0.7x         10.9x         8           ServiceNow         NYSE:NOW         \$17,548         \$18,007         11.7x         8.7x         NM         39           Software AG         XTRA:SOW         \$3,236         \$3,343         3.3x         3.2x         11.2x         9	•	· · · · · · · · · · · · · · · · · · ·						20.8x
Mulesoft         NYSE:MULE         \$2,872         \$3,212         13.7x         9.7x         NM           Netscout Systems         NasdaqGS:NTCT         \$3,012         \$3,155         2.6x         2.5x         13.2x         9           Nutanix         NasdaqGS:NTNX         \$2,703         \$3,053         4.0x         2.8x         NM           Presidio         NasdaqGS:PSDO         \$2,212         \$1,301         0.8x         0.7x         10.9x         8           ServiceNow         NYSE:NOW         \$17,548         \$18,007         11.7x         8.7x         NM         39           Software AG         XTRA:SOW         \$3,236         \$3,343         3.3x         3.2x         11.2x         9								12.9x
Netscout Systems         NasdaqGS:NTCT         \$3,012         \$3,155         2.6x         2.5x         13.2x         9           Nutanix         NasdaqGS:NTNX         \$2,703         \$3,053         4.0x         2.8x         NM         Inchested           Presidio         NasdaqGS:PSDO         \$2,212         \$1,301         0.8x         0.7x         10.9x         8           ServiceNow         NYSE:NOW         \$17,548         \$18,007         11.7x         8.7x         NM         39           Software AG         XTRA:SOW         \$3,236         \$3,343         3.3x         3.2x         11.2x         9								NM
Nutanix         NasdaqGS:NTNX         \$2,703         \$3,053         4.0x         2.8x         NM           Presidio         NasdaqGS:PSDO         \$2,212         \$1,301         0.8x         0.7x         10.9x         8           ServiceNow         NYSE:NOW         \$17,548         \$18,007         11.7x         8.7x         NM         39           Software AG         XTRA:SOW         \$3,236         \$3,343         3.3x         3.2x         11.2x         9								9.5x
Presidio         NasdaqGS:PSDO         \$2,212         \$1,301         0.8x         0.7x         10.9x         8           ServiceNow         NYSE:NOW         \$17,548         \$18,007         11.7x         8.7x         NM         39           Software AG         XTRA:SOW         \$3,236         \$3,343         3.3x         3.2x         11.2x         9	•			. ,				NM
ServiceNow         NYSE:NOW         \$17,548         \$18,007         11.7x         8.7x         NM         39           Software AG         XTRA:SOW         \$3,236         \$3,343         3.3x         3.2x         11.2x         9		· · · · · · · · · · · · · · · · · · ·						8.9x
Software AG XTRA:SOW \$3,236 \$3,343 3.3x 3.2x 11.2x 9								39.3x
								9.8x
VIIIWALE INTOE. VIVIV	Vmware	NYSE:VMW	\$28,595	\$35,707	4.0x	3.7x	15.5x	10.0x

Median

11.5x

13.2x

3.7x

3.3x







# **EMS / Infrastructure Software (continued)**

				TEV/Revenue		TEV/EBITDA	
(\$ in millions)		TEV	Market Cap	LTM	NTM	LTM	NTM
Platform / OS							
Citrix Systems	NasdaqGS:CTXS	\$12,072	\$12,028	3.5x	4.2x	11.9x	11.3x
Hewlett-Packard	NYSE:HPQ	\$30,025	\$29,425	0.6x	0.6x	7.0x	7.0x
IBM	NYSE:IBM	\$176,735	\$144,523	2.2x	2.3x	9.8x	9.0x
Microsoft Corp.	NasdaqGS:MSFT	\$496,594	\$532,175	5.7x	4.9x	17.2x	12.2x
Red Hat	NYSE:RHT	\$16,110	\$16,998	6.4x	5.6x	37.2x	20.2x
Median				3.5x	4.2x	11.9x	11.3x





#### **Financial Solutions**

				TEV/Rev	enue/	TEV/EBI	TDA
(\$ in millions)		TEV	Market Cap	LTM	NTM	LTM	NTM
Banking Solutions							
Black Knight Financial Services	NYSE:BKFS	\$5,361	\$2,848	5.1x	4.8x	15.3x	10.2x
Bottomline Technologies	NasdaqGS:EPAY	\$1,080	\$1,040	3.1x	2.9x	36.9x	13.3x
Fidelity National	NYSE:FIS	\$37,144	\$28,232	4.0x	4.0x	15.6x	11.9x
Fiserv	NasdaqGS:FISV	\$30,312	\$25,982	5.4x	5.2x	17.1x	14.5x
Jack Henry & Associates	NasdaqGS:JKHY	\$8,073	\$8,066	5.7x	5.4x	16.0x	15.5x
Q2 Holdings	NYSE:QTWO	\$1,431	\$1,513	8.9x	7.0x	NM	NM
Temenos Group	SWX:TEMN	\$6,406	\$6,229	9.5x	8.9x	35.4x	24.9x
Median				5.4x	5.2x	16.6x	13.9x
Capital Market & Investment Sol	utions						
Envestnet	NYSE:ENV	\$1,981	\$1,736	3.3x	2.9x	40.0x	14.7x
FactSet Research Systems	NYSE:FDS	\$6,938	\$6,557	5.9x	5.2x	16.9x	15.6x
Fidessa Group	LSE:FDSA	\$1,034	\$1,157	2.4x	2.3x	13.2x	10.1x
IRESS Limited	ASX:IRE	\$1,768	\$1,649	5.9x	5.3x	22.3x	17.7x
Moodys	NYSE:MCO	\$25,294	\$23,277	6.7x	6.6x	14.1x	14.2x
Morningstar	NasdaqGS:MORN	\$3,281	\$3,363	4.0x	NA	14.8x	NA
MSCI	NYSE:MSCI	\$10,695	\$9,316	9.1x	8.4x	18.2x	16.5x
SimCorp A/S	CPSE:SIM	\$2,332	\$2,386	6.6x	5.9x	27.8x	21.1x
SS&C Technologies Holdings	NasdaqGS:SSNC	\$10,172	\$7,836	6.5x	6.0x	18.3x	14.3x
Thomson Reuters	TSX:TRI	\$40,421	\$33,179	3.5x	3.5x	15.7x	11.8x
Median				5.9x	5.3x	17.6x	14.7x
Consumer Data & Analytics							
Equifax	NYSE:EFX	\$19,129	\$16,519	5.9x	5.5x	16.2x	15.0x
Experian	LSE:EXPN	\$22,270	\$18,928	5.0x	4.8x	14.1x	13.8x
Fair Isaac	NYSE:FICO	\$4,827	\$4,317	5.2x	5.0x	23.0x	18.5x
Median				5.2x	5.0x	16.2x	15.0x





## **Financial Solutions (continued)**

				TEV/Rev	enue/	TEV/EBI	TDA
(\$ in millions)		TEV	Market Cap	LTM	NTM	LTM	NTM
Payment Processing							
ACI Worldwide	NasdaqGS:ACIW	\$3,243	\$2,641	3.2x	3.2x	23.6x	13.1x
Cielo	BOVESPA:CIEL3	\$23,202	\$20,169	6.4x	4.4x	14.3x	13.8x
Euronet Worldwide	NasdaqGS:EEFT	\$4,423	\$4,581	2.2x	2.0x	13.3x	10.8x
First Data Corporation	NYSE:FDC	\$37,834	\$16,727	4.8x	3.2x	12.6x	12.3x
Global Payments	NYSE:GPN	\$17,335	\$13,772	4.3x	4.9x	15.8x	15.1x
Monitise	AIM:MONI	\$52	\$85	0.6x	0.7x	NM	66.5x
Net 1 Ueps Technologies	NasdaqGS:UEPS	\$374	\$568	0.6x	0.6x	2.4x	2.4x
Square	NYSE: SQ	\$8,231	\$8,776	4.6x	8.5x	NM	59.1x
Total System Services	NYSE:TSS	\$13,532	\$10,720	2.9x	2.8x	14.4x	11.3x
Median				3.2x	3.2x	14.3x	13.1x
Insurance Solutions							
CorVel	NasdaqGS:CRVL	\$861	\$890	1.7x	NA	12.6x	NA
Ebix	NasdaqGS:EBIX	\$1,898	\$1,700	6.2x	5.1x	17.1x	15.7x
Guidewire Software	NYSE:GWRE	\$4,633	\$5,111	9.8x	8.2x	NM	40.1x
Sapiens International	NasdaqCM:SPNS	\$555	\$549	2.5x	2.0x	24.1x	15.8x
Verisk	NasdaqGS:VRSK	\$16,079	\$13,950	8.0x	7.6x	17.2x	15.2x
Median				6.2x	6.4x	17.1x	15.7x





## **Online & Digital**

				TEV/Rev	/enue	TEV/EBI	TDA
(\$ in millions)		TEV	Market Cap	LTM	NTM	LTM	NTM
Digital Advertising & Marketi	ing						
Baidu	NasdagGS:BIDU	\$54,962	\$62,042	5.3x	4.2x	21.0x	20.8x
Criteo	NasdaqGS:CRTO	\$2,972	\$3,176	1.6x	3.0x	16.6x	9.5x
comScore	OTCPK:SCOR	\$1,390	\$1,504	3.8x	2.7x	37.4x	11.1x
Google	NasdagGS:GOOGL	\$547,338	\$635,840	5.8x	4.9x	17.5x	12.0x
Hubspot	NYSE:HUBS	\$2,282	\$2,404	7.8x	6.0x	NM	NM
Marin Software	NYSE:MRIN	\$21	\$51	0.2x	NA	NM	NA
Perion Network	NasdaqGS:PERI	\$194	\$152	0.6x	0.6x	7.9x	4.3x
QuinStreet	NasdaqGS:QNST	\$148	\$190	0.5x	0.5x	NM	6.6x
Rocket Fuel	NasdagGS:FUEL	\$151	\$128	0.3x	0.4x	NM	26.9x
SINA Corp	NasdagGS:SINA	\$4,864	\$6,069	4.4x	3.2x	24.9x	10.0x
Tremor Video	NYSE:TRMR	\$98	\$125	0.6x	0.5x	NM	NM
The Rubicon Project	NYSE:RUBI	\$61	\$249	0.2x	0.3x	3.2x	2.5x
Yandex	NasdaqGS:YNDX	\$7,803	\$8,505	5.5x	4.8x	19.8x	14.7x
YuMe	NYSE:YUME	\$101	\$161	0.6x	NA	28.8x	NA
Median				1.1x	2.9x	19.8x	10.6x
Digital Media & Video							
Adobe Systems	NasdagGS:ADBE	\$66,744	\$69,787	10.2x	8.5x	31.2x	20.3x
Blucora	NasdaqGS:BCOR	\$1,232	\$911	2.6x	2.4x	14.5x	11.3x
Brightcove	NasdaqGS:BCOV	\$183	\$212	1.2x	1.2x	NM	NM
Digimarc	NasdaqGS:DMRC	\$373	\$429	16.7x	14.4x	NM	NM
IAC/Interactive	NasdaqGS:IAC	\$8,466	\$8,124	2.7x	2.6x	19.6x	13.6x
Leaf Group	NYSE:LFGR	\$116	\$157	1.0x	0.9x	NM	NM
Netflix	NasdagGS:NFLX	\$66,420	\$64,396	7.0x	5.6x	NM	60.8x
Pandora Media	NYSE:P	\$2,307	\$2.162	1.6x	NA	NM	NA
RhythmOne	AIM:RTHM	\$212	\$264	1.4x	0.8x	NM	13.2x
Sonic Foundry	NasdaqCM:SOFO	\$23	\$17	0.6x	NA	NM	NA
TiVo	NasdaqGS:TIVO	\$2,962	\$2,259	4.0x	3.4x	13.0x	9.6x
VeriSign	NasdaqGS:VRSN	\$9,510	\$9,433	8.3x	8.2x	12.7x	11.6x
Xunlei Limited	NasdaqGS:XNET	-\$158	\$214	NM	NA	NM	NA
Median				2.7x	3.0x	14.5x	13.2x







				TEV/Rev	venue	TEV/EBITDA	
(\$ in millions)		TEV	Market Cap	LTM	NTM	LTM	NTM
Digital Advertising Agencies	o <sup>o</sup> Comico Bravidaro						
		•	*				
Dentsu	TSE:4324	\$11,887	\$13,476	1.5x	1.4x	7.3x	7.0x
Havas	ENXTPA:HAV	\$4,291	\$4,443	1.7x	1.6x	10.2x	9.7x
IPG	NYSE:IPG	\$11,133	\$9,720	1.4x	1.4x	10.0x	9.5x
M&C Saatchi	AIM:SAA	\$346	\$337	1.2x	1.2x	12.9x	9.3x
MDC Partners	NasdaqGS:MDCA	\$1,645	\$564	1.2x	1.1x	11.1x	7.9x
Omnicom	NYSE:OMC	\$22,524	\$19,294	1.5x	1.5x	9.7x	9.6x
Publiclis	ENXTPA:PUB	\$18,092	\$16,589	1.6x	1.6x	9.3x	8.9x
Valtech	ENXTPA:LTE	\$321	\$332	1.6x	1.4x	25.5x	17.0x
WPP	LSE:WPP	\$32,619	\$26,679	1.7x	1.6x	9.7x	9.6x
Median				1.5x	1.4x	10.0x	9.5x
Online Retail & Marketplace	es						
1-800-Flowers.com	NasdaqGS:FLWS	\$690	\$637	0.6x	0.6x	9.1x	7.1x
Alibaba	NYSE:BABA	\$353,956	\$356,387	15.4x	10.4x	42.0x	23.5x
Amazon	NasdagGS:AMZN	\$462,748	\$462,680	3.2x	2.7x	38.0x	22.5x
ASOS	AIM:ASC	\$5,999	\$6,200	2.7x	2.2x	55.4x	31.7x
Blue Apron	NYSE:APRN	\$2,056	\$1,771	2.4x	NA	NM	NA
boohoo.com	AIM:BOO	\$3,388	\$3,459	8.9x	5.1x	81.1x	51.5x
Carvana	NYSE:CVNA	\$516	\$308	1.1x	0.4x	NM	NM
Ebay	NasdagGS:EBAY	\$40,007	\$37,795	4.4x	4.2x	13.6x	11.5x
Expedia	NasdagGS:EXPE	\$23,870	\$22,484	2.6x	2.3x	21.7x	12.6x
Groupon	NasdaqGS:GRPN	\$1,689	\$2,156	0.5x	0.6x	55.1x	7.7x
Grubhub	NYSE:GRUB	\$3,397	\$3,758	6.3x	4.9x	27.3x	17.4x
Ocado Group	LSE:OCDO	\$2,459	\$2,245	1.5x	1.3x	26.1x	20.2x
Overstock	NasdagGM:OSTK	\$326	\$407	0.2x	0.2x	NM	NA
Quotient Technology	NYSE:QUOT	\$865	\$1,039	3.1x	2.7x	NM	18.5x
Rakuten	TSE:4755	\$19.323	\$16,443	2.7x	2.4x	13.3x	12.0x
Shutterstock	NYSE:SSTK	\$1,273	\$1,524	2.5x	2.2x	19.8x	11.2x
Stamps.com	NasdagGS:STMP	\$2,656	\$2,623	6.9x	6.0x	17.3x	12.0x
The Priceline Group	NasdaqGS:PCLN	\$94,836	\$91,922	8.6x	7.5x	22.8x	19.8x
The Trade Desk	NasdaqGS.FCLN NasdaqGM:TTD	\$2,040	\$2,121	9.0x	6.8x	34.7x	23.1x
TripAdvisor	· · · · · · · · · · · · · · · · · · ·	\$4,866	\$5,395	3.2x	2.9x	24.1x	14.4x
•	NasdaqGS:TRIP			1.8x	1.4x	NM	
Wayfair	NYSE:W	\$6,425	\$6,660				MM
Wowo	NASDAQ:JMU	\$178	\$180	2.4x	NA	NM	NA
Median				2.7x	2.5x	25.1x	17.4x





				TEV/Rev	/enue	TEV/EBI	TDA
(\$ in millions)		TEV	Market Cap	LTM	NTM	LTM	NTM
Digital Gaming							
Activision	NasdaqGS:ATVI	\$44,533	\$43,388	6.5x	6.7x	19.7x	18.4x
Capcom	TSE:9697	\$1,231	\$1,298	1.6x	1.5x	7.0x	7.0x
Changyou.com	NasdaqGS:CYOU	\$1,171	\$1,977	2.3x	2.1x	7.8x	5.3x
Electronic Arts	NasdaqGS:EA	\$29,187	\$32,729	6.0x	5.6x	20.7x	15.7x
Gree	TSE:3632	\$1,345	\$2,052	2.4x	2.0x	23.6x	9.8x
Konami	TSE:9766	\$6,719	\$7,512	3.3x	3.0x	12.6x	12.3x
NetDragon WebSoft	SEHK:777	\$1,171	\$1,291	2.8x	2.2x	NM	NM
Net Entertainment	OM:NET B	\$2,027	\$2,095	11.4x	9.7x	28.6x	20.4x
Nintendo	TSE:7974	\$31,873	\$40,294	7.3x	4.1x	61.7x	27.6x
Playtech	LSE:PTEC	\$3,819	\$3,882	4.9x	3.8x	13.1x	9.3x
Square Enix	TSE:9684	\$2,825	\$3,900	1.2x	1.3x	8.4x	7.2x
Take-Two Interactive	NasdaqGS:TTWO	\$6,479	\$7,620	3.6x	4.2x	44.0x	22.0x
Ubisoft	ENXTPA:UBI	\$6,343	\$6,250	3.8x	3.3x	8.2x	6.9x
Zynga	NasdaqGS:ZNGA	\$2,410	\$3,131	3.2x	2.8x	NM	23.2x
Median				3.5x	3.1x	16.4x	12.3x
Social Media							
Facebook	NasdaqGS:FB	\$405,261	\$437,567	13.4x	9.9x	24.8x	16.2x
LINE	TSE:3938	\$6,574	\$7,565	5.1x	4.4x	39.7x	24.1x
Mail.ru Group	LSE:MAIL	\$5,412	\$5,567	7.3x	6.0x	24.1x	15.4x
Match Group	NasdagGS: MTCH	\$5,237	\$4,490	4.2x	3.9x	14.2x	10.9x
MeetMe	NasdaqCM:MEET	\$277	\$351	3.3x	2.0x	10.5x	6.4x
Mixi	TSE:2121	\$3,238	\$4,433	1.8x	1.8x	4.0x	4.4x
Momo	NasdagGS:MOMO	\$6,547	\$7,287	8.5x	5.1x	26.9x	15.8x
Renren	NYSE:RENN	\$456	\$417	6.2x	4.8x	NM	NM
Snap	NYSE:SNAP	\$17,724	\$20,951	34.4x	15.3x	NM	NM
Twitter	NYSE:TWTR	\$10.744	\$12,969	4.3x	4.6x	NM	16.9x
XING	XTRA:O1BC	\$1,414	\$1,494	8.0x	6.8x	32.3x	20.6x
Yelp	NYSE:YELP	\$1,934	\$2,419	2.6x	2.2x	59.2x	13.1x
Median				5.6x	4.7x	24.8x	15.6x





				TEV/Rev	/enue	TEV/EBI	TDA
(\$ in millions)		TEV	Market Cap	LTM	NTM	LTM	NTM
Digital Commerce Solutions							
Gk Software AG	DB:GKS	\$196	\$201	2.1x	1.9x	21.1x	14.6x
Intershop	XTRA:ISH2	\$49	\$60	1.2x	1.1x	78.6x	14.2x
NCR	NYSE:NCR	\$8,672	\$4,950	1.3x	1.3x	9.9x	7.5x
PFS Web	NasdaqCM:PFSW	\$193	\$156	0.7x	0.6x	11.9x	7.7x
Shopify	NYSE:SHOP	\$8,097	\$8,492	18.2x	11.8x	NM	NM
Wincor Nixdorf	XTRA:WIN	\$2,514	\$2,449	0.9x	0.8x	14.5x	9.5x
Worldline S.A	ENXTPA:WLN	\$4,262	\$4,534	2.9x	2.4x	17.3x	11.7x
Median				1.3x	1.3x	15.9x	10.6x
Other Digital Companies							
Akamai	NasdagGS:AKAM	\$8,411	\$8.611	3.5x	3.3x	11.9x	8.9x
Bankrate	NYSE:RATE	\$1,263	\$1,150	2.8x	2.4x	13.2x	9.7x
Box	NYSE:BOX	\$2,362	\$2,465	5.5x	4.4x	NM	NM
Endurance International	NasdaqGS:EIGI	\$3,129	\$1,192	2.7x	2.7x	11.4x	9.6x
GoDaddy	NYSE:GDDY	\$4,404	\$3,896	2.3x	1.9x	21.2x	7.6x
Just Eat	LSE:JE.	\$5,623	\$5.781	11.5x	8.7x	39.2x	26.9x
Limelight Networks	NasdagGS:LLNW	\$251	\$312	1.5x	1.4x	48.0x	9.5x
Moneysupermarket.com	LSE:MONY	\$2,431	\$2,489	5.9x	5.5x	17.1x	14.2x
NetEase	NasdagGS:NTES	\$34,406	\$39,460	5.4x	4.2x	15.9x	12.7x
Opera Software	OB:OPERA	\$468	\$565	0.9x	0.8x	14.7x	9.1x
Phoenix New Media	NYSE:FENG	\$142	\$188	0.7x	0.6x	33.6x	NM
Rightside	NasdagGS:NAME	\$122	\$205	2.0x	2.0x	NM	NM
Tencent Holdings	SEHK:700	\$334,159	\$335,579	13.6x	9.5x	34.2x	23.9x
United Internet	DB:UTDI	\$12,554	\$10,919	2.8x	2.6x	13.0x	11.4x
Web.com	NasdagGS:WEB	\$1,819	\$1,171	2.4x	2.4x	12.9x	9.5x
WebMD Health	NasdaqGS:WBMD	\$2,139	\$2,128	3.1x	2.9x	11.8x	8.8x
Wix	NasdaqGS:WIX	\$3,001	\$3,164	9.3x	6.6x	NM	35.0x
Zhaopin	NYSE:ZPIN	\$691	\$1,038	2.6x	NA	13.7x	NA
Zillow	NasdaqGS:ZG	\$8,811	\$8,998	9.7x	7.9x	NM	36.6x
Zoopla Property Group	LSE:ZPG	\$2,316	\$2,044	8.1x	7.0x	25.1x	17.8x
Median				2.9x	2.9x	15.3x	10.5x





#### **Tech Enabled Business Services**

(\$ in millions)				TEV/Revenue		TEV/EBITDA	
(\$ in millions)		TEV	Market Cap	LTM	NTM	LTM	NTM
IT Services, Integration & Cons	ulting						
Accenture	NYSE:ACN	\$73,785	\$76,433	2.2x	2.0x	12.7x	11.9x
Atos Origin	ENXTPA:ATO	\$14,791	\$14,748	1.1x	1.0x	8.5x	7.8x
Bechtle	XTRA:BC8	\$2,624	\$2,695	0.7x	0.7x	13.3x	11.8x
CACI International	NYSE:CACI	\$4,289	\$3,058	1.0x	1.0x	11.4x	11.2x
Cancom	XTRA:COK	\$1,003	\$994	0.8x	0.8x	12.6x	10.2x
Cap Gemini	ENXTPA:CAP	\$18,722	\$16,916	1.3x	1.3x	10.4x	9.2x
CGI Group	TSX:GIB.A	\$16,067	\$14,890	2.0x	1.9x	11.5x	10.0x
Cognizant Technology	NasdaqGS:CTSH	\$36,044	\$39,109	2.6x	2.4x	13.3x	11.8x
ComputaCenter	LSE:CCC	\$1,087	\$1,275	0.3x	0.2x	8.2x	6.9x
DXC Technology	NYSE:DXC	\$23,817	\$21,838	3.1x	1.0x	37.2x	5.0x
ePlus	NasdaqGS:PLUS	\$1,109	\$1,049	0.8x	0.8x	11.3x	11.3x
FDM Group	LSE:FDM	\$1,024	\$1,061	4.2x	3.6x	21.6x	18.6x
Fujitsu	TSE:6702	\$17,267	\$15,110	0.4x	0.5x	6.0x	5.6x
HCL Technologies	NSEI:HCLTECH	\$17,321	\$18,789	2.5x	2.2x	11.1x	10.1x
Infosys	NSEI:INFY	\$28,048	\$33,089	2.7x	2.5x	10.1x	9.5x
Luxoft Holdings	NYSE:LXFT	\$1,926	\$2,035	2.5x	2.0x	19.9x	11.7x
ManTech International	NasdagGS:MANT	\$1,514	\$1,606	0.9x	0.9x	12.1x	11.8x
MAXIMUS	NYSE:MMS	\$4,084	\$4,060	1.7x	1.6x	10.6x	10.5x
NCC Group	LSE:NCC	\$651	\$588	2.1x	2.0x	11.5x	12.0x
Nomura Research Institute	TSE:4307	\$8,975	\$9,774	2.4x	2.2x	11.6x	10.6x
NSD	TSE:9759	\$547	\$764	1.1x	1.1x	8.0x	7.5x
OBIC	TSE:4684	\$4,590	\$5,464	8.4x	8.0x	16.6x	17.0x
Perficient	NasdagGS:PRFT	\$695	\$667	1.5x	1.4x	14.8x	9.1x
SCSK Corporation	TSE:9719	\$4,157	\$4,657	1.4x	1.4x	10.8x	10.1x
Sopra Group	ENXTPA:SOP	\$3,815	\$3,200	0.9x	0.9x	10.0x	9.1x
Syntel	NasdagGS:SYNT	\$1,791	\$1,418	1.9x	2.1x	6.9x	8.4x
Talend	NasdagGM:TLND	\$908	\$1,003	7.8x	5.8x	NM	NM
Tata Consultancy Services	NSEI:TCS	\$65.058	\$72.028	3.6x	3.4x	13.0x	12.5x
The Hackett Group	NasdagGS:HCKT	\$445	\$453	1.7x	1.5x	11.0x	8.8x
Tieto	HLSE:TIE1V	\$2.327	\$2.277	1.3x	1.3x	11.2x	9.5x
Unisys	NYSE:UIS	\$631	\$645	0.2x	0.2x	3.4x	1.7x
Virtusa	NasdagGS:VRTU	\$942	\$886	1.1x	1.0x	21.0x	12.6x
Wipro	BSE:507685	\$16,281	\$19,373	1.1x	1.0x	9.6x	9.4x
Xerox	NYSE:XRX	\$11,512	\$7,302	1.1x	1.1x	7.2x	7.2x
Median		Ψ11,012	ψ., <u>.</u>	1.6x	1.4x	11.3x	10.1x







## **Tech Enabled Business Services (continued)**

				TEV/Revenue		TEV/EBITDA	
(\$ in millions)		TEV	Market Cap	LTM	NTM	LTM	NTN
Business Process Management	· /RPM\						
- J	APPN	¢4.424	£4.000	0.04	C 0w	NIM	N IA
Appian Broadridge Financial Solutions	NYSE:BR	\$1,124	\$1,082 \$8,884	8.3x 2.6x	6.9x 2.3x	15.1x	NN 12.9
		\$9,881					
Cardtronics	NasdaqGS:CATM	\$2,455	\$1,500	1.9x	1.7x	8.3x	7.6
Cass Information Systems	NasdaqGS:CASS	\$591	\$735	4.6x	NA	15.5x	N/
Computershare	ASX:CPU	\$7,229	\$5,928	3.4x	3.4x	15.6x	12.9
CSG Systems International	NasdaqGS:CSGS	\$1,473	\$1,371	1.9x	1.9x	9.7x	8.3
DST Systems	NYSE:DST	\$4,281	\$3,811	2.7x	2.0x	11.4x	9.8
EVERTEC	NYSE:EVTC	\$1,851	\$1,255	4.7x	4.6x	11.9x	9.9>
ExIservice Holdings	NasdaqGS:EXLS	\$1,699	\$1,872	2.4x	2.2x	17.0x	12.4>
Genpact	NYSE:G	\$6,069	\$5,364	2.3x	2.2x	14.5x	12.6>
Tabula Rasa Healthcare	NasdaqGM:TRHC	\$258	\$259	2.5x	2.1x	57.5x	13.7>
Trans Cosmos	TSE:9715	\$862	\$993	0.4x	0.4x	10.1x	7.6>
Vantiv	NYSE:VNTV	\$13,634	\$10,263	3.7x	6.3x	15.8x	13.3>
WEX	NYSE:WEX	\$6,654	\$4,472	6.0x	5.4x	19.6x	13.0>
Wirecard	XTRA:WDI	\$7,033	\$7,855	5.5x	4.3x	19.7x	14.6
WNS	NYSE:WNS	\$1,653	\$1,718	2.7x	2.4x	18.6x	12.2>
Median				2.7x	2.3x	15.5x	12.5>
Data Center Hosting & Services	S						
Equinix	NasdaqGS:EQIX	\$37,695	\$33,437	10.1x	8.6x	24.4x	18.2
Interxion Holding	NYSE:INXN	\$4,007	\$3,251	8.6x	7.2x	19.9x	15.8
Pure Storage	NYSE:PSTG	\$2,138	\$2,674	2.8x	2.0x	NM	NN
Tintri	NasdaqGM:TNTR	\$509	\$225	3.8x	NA	NM	N/
Median				6.2x	7.2x	22.2x	17.0
Call Center							
Convergys	NYSE:CVG	\$2,394	\$2,238	0.8x	0.8x	6.5x	6.6
Sykes Enterprises	NasdaqGS:SYKE	\$1,390	\$1,410	0.9x	0.9x	8.1x	7.5
TeleTech Holdings	NasdaqGS:TTEC	\$1,984	\$1,861	1.5x	1.4x	12.1x	10.2>
Median				0.9x	0.9x	8.1x	7.5x





# IV

## **Application Software**

Date Announced	Period	Target	Buyer	Enterprise Value	Revenue Multiple
Jun-17	Q2'2017	Synchronoss (NasdaqGS:SNCR) (87.07% Stake)	Siris Capital Group	\$986.2	2.1x
Jun-17	Q2'2017	Atex Group	axélero S.p.A. (BIT:AXEL)	\$5.3	0.2x
Jun-17	Q2'2017	EnerNOC (NasdaqGS:ENOC)	Enel Green Power North America	\$293.6	0.7x
Jun-17	Q2'2017	ARI Network Services (NasdaqCM:ARIS)	True Wind Capital	\$138.2	2.7x
Jun-17	Q2'2017	Monitise (AIM:MONI)	Fiserv (Europe)	\$52.3	0.7x
Jun-17	Q2'2017	Kalibrate Technologies (AIM:KLBT)	Hanover Investors Management	\$35.2	1.1x
Jun-17	Q2'2017	PTV Planung Transport (97% Stake)	Porsche Zweite Beteiligung	\$348.1	3.1x
Jun-17	Q2'2017	Covisint (NasdaqGS:COVS)	Open Text (NasdaqGS:OTEX)	\$69.2	1.0x
Jun-17	Q2'2017	SK Planet, Benepia Business	M&Service	\$6.7	0.9x
May-17	Q2'2017	Genband US	Sonus Networks(NasdaqGS:SONS)	\$412.0	1.0x
May-17	Q2'2017	Jive Software (NasdaqGS:JIVE)	Wave Systems	\$334.4	1.6x
May-17	Q2'2017	Xactly (NYSE:XTLY)	Vista Equity Partners	\$535.9	5.6x
May-17	Q2'2017	iSystems	Asure Software (NasdaqCM:ASUR)	\$76.5	5.9x
Apr-17	Q2'2017	Sajan (NasdaqCM:SAJA)	AMPLEXOR	\$24.8	0.9x
Apr-17	Q2'2017	Macrologic (WSE:MCL)	Asseco Business Solutions (WSE:ABS)	\$27.4	2.0x
Apr-17	Q2'2017	Caldera	Dover (NYSE:DOV)	\$37.3	3.2x
Apr-17	Q2'2017	Telvent DTN	TBG	\$900.0	4.2x
Mar-17	Q1'2017	Ingresso Group	acresso Technology Group (AIM:ACSO)	\$36.6	0.7x
Mar-17	Q1'2017	Mobileye (NYSE:MBLY)	Intel (NasdaqGS:INTC)	\$15,003.7	41.9x
Mar-17	Q1'2017	Resterra	Origin (ISE:OIZ)	\$19.7	6.2x
Mar-17	Q1'2017	Tagetik Software	Wolters Kluwer Tax & Accounting	\$317.3	5.3x
Mar-17	Q1'2017	Ontology-Partners	EXFO (TSX:EXF)	\$7.6	1.9x
Feb-17	Q1'2017	Halogen Software (TSX:HGN)	Saba Software	\$174.9	2.4x
Feb-17	Q1'2017	Touchcorp (ASX:TCH)	Afterpay Holdings (ASX:AFY)	\$120.9	4.3x
Feb-17	Q1'2017	Cdnetworks (97.6% Stake)	Hong Kong Wangsu Science & Technology Company	\$142.2	1.5x
Feb-17	Q1'2017	Xura Secure Communications	CLX Communications (OM:CLX)	\$17.0	0.6x
Feb-17	Q1'2017	StoneRiver	Sapiens International Corporation (NasdaqCM:SPNS)	\$102.0	1.3x
Feb-17	Q1'2017	Rubik Financial (ASX:RFL)	Temenos Group (SWX:TEMN)	\$59.4	1.9x



# IV

Date Announced	Period	Target	Buyer	Enterprise Value	Revenue Multiple
Feb-17	Q1'2017	Aon, Benefits Administration and HR BPO Platform	The Blackstone Group (NYSE:BX)	\$4,800.0	2.1x
Feb-17	Q1'2017	Comptel (HLSE:CTL1V)	Nokia Solutions and Networks	\$359.5	3.4x
Feb-17	Q1'2017	ClicksMob	ExciteAd Digital Marketing	\$5.1	0.3x
Feb-17	Q1'2017	NetDimensions (AIM:NETD)	Learning Technologies Group (AIM:LTG)	\$55.8	2.2x
Feb-17	Q1'2017	Mytos	Techstep (OB:TECH)	\$13.9	5.3x
Jan-17	Q1'2017	AppDynamics (NasdaqGS:APPD)	Cisco Systems (NasdaqGS:CSCO)	\$3,902.9	18.9x
Jan-17	Q1'2017	msg life (EXTRA:MSGL) (50.9% Stake)	msg systems	\$78.6	0.6x
Jan-17	Q1'2017	Avention	The Dun and Bradstreet Corp (NYSE:DNB)	\$150.0	2.5x
Dec-16	Q4'2016	Smart Technologies (52.09% stake)	Foxconn Singapore	\$247.4	0.7x
Dec-16	Q4'2016	6PM Holdings (MTSE:6PM)	IDOX (AIM:IDOX)	\$37.7	2.4x
Dec-16	Q4'2016	IPI Solutions	ldeagen (AIM:IDEA)	\$7.0	3.3x
Dec-16	Q4'2016	Sinch	CLX Communications(OM:CLX)	\$14.1	0.3x
Dec-16	Q4'2016	IntraLinks Holdings (NYSE:IL)	Synchronoss Technologies, Inc. (NasdagGS:SNCR)	\$854.5	2.9x
Dec-16	Q4'2016	Radiate Media Holding Company	GTN Limited (ASX:GTN)	\$15.0	0.3x
Nov-16	Q4'2016	Agility Applications	HUB24 (ASX:HUB)	\$11.4	1.9x
Nov-16	Q4'2016	ANNOVA Systems	SciSys (AIM:SSY)	\$29.4	3.7x
Nov-16	Q4'2016	Mentor Graphics (NasdaqGS:MENT)	Siemens Industry	\$4,281.3	3.8x
Nov-16	Q4'2016	TubeMogul (NasdaqGS:TUBE)	Adobe Systems (NasdaqGS:ADBE)	\$542.2	2.6x
Oct-16	Q4'2016	ECM Systems (90% Stake)	Playtech (LSE:PTEC)	\$20.2	1.8x
Oct-16	Q4'2016	Pitchbook Data (80% Stake)	Morningstar (NasdaqGS:MORN)	\$225.0	7.2x
Oct-16	Q4'2016	C24 Technologies	Gresham Computing (LSE:GHT)	\$5.8	2.3x
Sep-16	Q3'2016	Financial Synergy	IRESS (ASX:IRE)	\$68.8	3.3x
Sep-16	Q3'2016	SAI Global (ASX:SAI)	Baring Private Equity Asia	\$931.0	2.1x
Sep-16	Q3'2016	Dell EMC, Enterprise Content Division	Open Text (NasdaqGS:OTEX)	\$1,620.0	2.7x
Sep-16	Q3'2016	Hewlett Packard Enterprise Company, Software Business	Micro Focus International (LSE:MCRO)	\$8,730.4	2.8x
Aug-16	Q3'2016	Interactive Intelligence Group (NasdaqGS:ININ)	Genesys Telecommunications Laboratories	\$1,394.3	3.4x
Aug-16	Q3'2016	Macro Kiosk Berhad (70.0% Stake)	GMO Payment Gateway (TSE:3769)	\$15.6	0.7x
Aug-16	Q3'2016	Oneclickretail.com	Ascential (LSE:ASCL)	\$225.0	45.9x
Aug-16	Q3'2016	QHR Corporation (TSXV:QHR)	Loblaw Companies (TSX:L)	\$11,981.0	5.1x





# IV

Date Announced	Period	Target	Buyer	Enterprise Value	Revenue Multiple
Aug-16	Q3'2016	Relay Software	Applied Systems	\$5.2	0.7x
Aug-16	Q3'2016	ByBox Holdings	LDC (Managers) Limited	\$137.3	1.4x
Aug-16	Q3'2016	ICRA Techno Analytics	Nihilent Technologies	\$10.3	0.9x
Aug-16	Q3'2016	Shanghai Huateng Software Systems	Chinasoft International Technology	\$51.3	0.3x
Aug-16	Q3'2016	Fleetmatics Group (NYSE:FLTX)	Verizon Communications (NYSE:VZ)	\$2,183.5	7.0x
Jul-16	Q3'2016	NetSuite (NYSE:N)	Oracle (NYSE:ORCL)	\$8,663.7	10.2x
Jul-16	Q3'2016	OpenLimit (DB:O5H)	Wisekey International (SWX:WIHN)	\$20.4	1.6x
Jul-16	Q3'2016	CST - Computer Simulation Technology	Dassault Systemes Deutschland	\$242.1	4.7x
Jul-16	Q3'2016	Guangdong Header Information Technology	Beijing IRTOUCH Systems (SZSE:300282)	\$120.5	5.8x
Jul-16	Q3'2016	Tax Computer Systems	Eco City Vehicles (AIM:TAX)	\$96.8	5.7x



# IV

#### **EMS / Infrastructure Software**

Date Announced	Period	Target	Buyer	Enterprise Value	Revenue Multiple
May-17	Q2'2017	China Realtime Database (60% Stake)	NARI Technology (SHSE:600406)	\$16.0	0.8x
May-17	Q2'2017	Plesk International (51% Stake)	Oakley Capital Inv. (AIM:OCL)	\$53.7	1.9x
May-17	Q2'2017	VIZIYA	Quarterhill (TSX:QTRH)	\$29.5	2.4x
May-17	Q2'2017	Nebula	Telia Company (OM:TELIA)	\$185.3	4.7x
Apr-17	Q2'2017	TeleSign Corporation	Belgacom International Carrier Services	\$230.0	2.3x
Apr-17	Q2'2017	SecurEnvoy	Shearwater Group (AIM:SWG)	\$25.7	6.2x
Feb-17	Q1'2017	LightCyber	Palo Alto Networks (NYSE:PANW)	\$105.0	10.5x
Feb-17	Q1'2017	Invincea	Sophos Group (LSE:SOPH)	\$120.0	12.2x
Jan-17	Q1'2017	lxia (NasdaqGS:XXIA)	Keysight Technologies (NYSE:KEYS)	\$1,526.5	3.1x
Sep-16	Q3'2016	Infoblox (NYSE:BLOX)	Vista Equity Partners	\$1,254.3	3.5x
Aug-16	Q3'2016	PhenixID (69.9% Stake)	Clavister Holding (OM:CLAV)	\$11.5	10.4x
Jul-16	Q3'2016	Quantum Storage India (80% Stake)	Quantum Storage South Asia	\$7.1	0.6x
Jul-16	Q3'2016	AVG Technologies (NYSE:AVG)	AVAST Software	\$1,453.3	3.4x



# IV

#### **Tech Enabled Services**

Date Announced	Period	Target	Buyer	Enterprise Value	Revenue Multiple
Jun-17	Q2'2017	Clarity Consulting	Perficient (NasdaqGS:PRFT)	\$9.4	0.4x
Jun-17	Q2'2017	PT Packet Systems Indonesia (68.18% Stake)	P.T. Metrodata Electronics (JKSE:MTDL); Logicalis Group	\$10.5	0.1x
Jun-17	Q2'2017	Rightside Group (NasdaqGS:NAME)	Donuts	\$134.6	2.3x
Jun-17	Q2'2017	Beijing Hangxing Yongzhi Technology	Zhongxin Information Development (SZSE:300469)	\$43.5	2.8x
May-17	Q2'2017	TSR (NasdaqCM:TSRI) (92.83% Stake)	Zeff Holding	\$5.9	0.1x
May-17	Q2'2017	Business & Decision (ENXTPA:BND) (67% Stake)	Orange (ENXTPA:ORA)	\$100.8	0.4x
May-17	Q2'2017	SMS Mgmt & Tech (ASX:SMX)	ASG Group	\$101.6	0.4x
May-17	Q2'2017	SCALES	NNIT (CPSE:NNIT)	\$26.1	1.5x
May-17	Q2'2017	Beijing Teevoo Bros Tech	Guangdong Songfa Ceramics (SHSE:603268)	\$65.5	18.5x
Apr-17	Q2'2017	IT2 Solutions	Zalaris (OB:ZAL)	\$20.9	1.0x
Apr-17	Q2'2017	Beijing Sinoage Technology	INESA Intelligent Tech (SHSE:900901)	\$31.7	42.2x
Apr-17	Q2'2017	Ciber, Assets in North America and India	Capgemini America	\$50.0	0.2x
Apr-17	Q2'2017	Zycron	BG Staffing	\$23.0	0.6x
Mar-17	Q1'2017	Keystone Logic Solutions	Zensar Technologies	\$20.4	1.6x
Mar-17	Q1'2017	Infracast	IMImobile (AIM:IMO)	\$21.0	1.6x
Mar-17	Q1'2017	FUSIONi	Trust Tech (TSE:2154)	\$8.7	0.7x
Mar-17	Q1'2017	Santa Monica Networks, Finnish and Estonian Operations	Elisa (HLSE:ELISA)	\$30.1	0.6x
Mar-17	Q1'2017	Ciber (NYSE:CBR)	AMERI Holdings(OTCPK:AMRH)	\$97.9	0.1x
Feb-17	Q1'2017	SMS Management & Technology (ASX:SMX)	DWS (ASX:DWS)	\$98.8	0.4x
Feb-17	Q1'2017	Advanced Design Corporation	Melco (TSE:6676)	\$9.3	2.9x
Feb-17	Q1'2017	Hostworks Group	Inabox (ASX:IAB)	\$5.4	0.3x
Jan-17	Q1'2017	Harris Corp, Government IT Services Business	Veritas Capital	\$690.0	0.7x
Jan-17	Q1'2017	FPLAIN (54.4% Stake)	Fullcast Holdings (TSE:4848)	\$19.2	0.9x
Jan-17	Q1'2017	CynergisTek	Auxilio (OTCPK:AUXO.D)	\$34.2	2.3x
Jan-17	Q1'2017	CEB (NYSE:CEB)	Gartner (NYSE:IT)	\$3,311.9	3.5x
Jan-17	Q1'2017	teamix	ProAct IT Group (OM:PACT)	\$9.4	0.3x
Dec-16	Q4'2016	Bigdatapump	Affecto (HLSE:AFE1V)	\$6.7	3.6x
Dec-16	Q4'2016	Grid Dynamics International	Automated Systems Holdings (SEHK:771)	\$118.0	3.0x







## **Tech Enabled Services (continued)**

Date Announced	Period	Target	Buyer	Enterprise Value	Revenue Multiple
Dec-16	Q4'2016	Conveyancing Alliance	ULS Technology (AIM:ULS)	\$16.6	3.0x
Dec-16	Q4'2016	STRATO	Warburg Pincus; United Internet (DB:UTDI)	\$623.9	4.7x
Dec-16	Q4'2016	NeuStar (NYSE:NSR)	GIC Special Investments; Golden Gate Private Equity	\$2,870.6	2.5x
Dec-16	Q4'2016	Lionbridge Technologies (NasdaqGS:LIOX)	H.I.G. Capital	\$435.3	0.8x
Dec-16	Q4'2016	Qware Technology Group (76% stake)	Hangzhou Zhenxiang Investment Management	\$25.6	0.2x
Nov-16	Q4'2016	Tecnocom Telecomunicaciones y Energia (BME:TEC)	Indra Sistemas (BMW:IDR)	\$358.7	0.8x
Nov-16	Q4'2016	Alternative Networks (AIM:AN.)	Daisy Intermediate Holdings	\$229.7	1.3x
Nov-16	Q4'2016	Integrio Technologies	Sysorex Government Services	\$6.0	0.2x
Nov-16	Q4'2016	Milstream Associates	PROACTIS Holdings (AIM:PHD)	\$20.7	3.4x
Nov-16	Q4'2016	ITC Secure Networking	C5 Capital	\$29.8	1.7x
Nov-16	Q4'2016	Datalink (NasdaqGS:DTLK)	Insight Enterprises (NasdaqGS:NSIT)	\$234.6	0.3x
Nov-16	Q4'2016	EarthLink Holdings (NasdaqGS:ELNK)	Windsteam Holdings (NasdaqGS:WIN)	\$1,056.5	1.1x
Oct-16	Q4'2016	Mediacontech (BIT:MCH) (79.45% Stake)	Europa Investimenti Special Situations	\$54.3	23.2x
Oct-16	Q4'2016	Appirio	Wipro (BSE:507685)	\$500.0	2.6x
Oct-16	Q4'2016	Comtel Solutions (64% Stake)	Quesscorp Holdings	\$31.0	0.5x
Oct-16	Q4'2016	Centerland	Beijing Taikong Panel Industry (SZSE:300344)	\$8.3	1.0x
Oct-16	Q4'2016	Nova Infraestructuras, Infrastructures and Manged	VINCI Energies Portugal	\$42.4	0.4x
Oct-16	Q4'2016	Barstride Group	SHIFT (TSE:3697)	\$7.7	0.4x
Oct-16	Q4'2016	Lumagate	Innofactor (HLSE:IFA1V)	\$11.7	1.2x
Oct-16	Q4'2016	Frontica Business Solutions	Cognizant Technology Solutions (NasdaqGS:CTSH)	\$128.4	0.7x
Sep-16	Q3'2016	ASG Group (ASX:ASZ)	Nomura Research Institute (TSE:4307)	\$262.6	1.8x
Sep-16	Q3'2016	Keysource	Styles&Wood Group (AIM:STY)	\$9.2	0.4x
Sep-16	Q3'2016	Octo Technology Société Anonyme (ENXTPA:ALOCT) (52.6% Stake)	Accenture (NYSE:ACN)	\$136.9	2.8x
Sep-15	Q3'2016	BigAir Group (ASX:BGL)	Superloop (ASX:SLC)	\$172.3	2.9x
Sep-15	Q3'2016	MicroDoc Computersysteme	Data Respons (OB:DAT)	\$11.8	0.8x
Aug-16	Q3'2016	Computer Measurement Technology	Comture (TSE:3844)	\$6.8	0.4x
Aug-16	Q3'2016	Rackspace Hosting (NYSE:RAX)	Inception Parent	\$4,404.7	2.1x







## **Tech Enabled Services (continued)**

Date Announced	Period	Target	Buyer	Enterprise Value	Revenue Multiple
Aug-16	Q3'2016	Modrus	Nasstar (AIM:NASA)	\$17.0	2.2x
Aug-16	Q3'2016	Beijing Mmim Interactive Technologies	Chinasoft International Technology Services	\$15.8	1.1x
Aug-16	Q3'2016	Intecq (ASX:ITQ)	Tabcorp Holdings (ASX:TAH)	\$84.9	2.1x
Aug-16	Q3'2016	Liberata	Outsourcing UK	\$56.6	0.5x
Jul-16	Q3'2016	Epiq Systems (NasdaqGS:EPIQ)	DTI	\$1,009.8	1.9x
Jul-16	Q3'2016	Open Objects Software	IDOX (AIM:IDOX)	\$6.8	1.8x
Jul-16	Q3'2016	Klick2Contact	Eckoh (AIM:ECK)	\$8.8	9.1x
Jul-16	Q3'2016	ISG Technology	WestBridge Fund Managers; Octopus Investments	\$13.6	0.6x
Jul-16	Q3'2016	buw Holding	Convergys Corporation (NYSE:CVG)	\$136.2	0.8x
Jul-16	Q3'2016	CSG - A Columbus Company	Columbus (CPSE:COLUM)	\$6.4	1.3x



# IV

## **Online & Digital**

Date Announced	Period	Target	Buyer	Enterprise Value	Revenue Multiple
Jun-17	Q2'2017	Kongregate	Modern Times Group (OM:MTG B)	\$55.0	1.6x
May-17	Q2'2017	Space Ape (62% Stake)	Supercell	\$90.0	1.0x
May-17	Q2'2017	Grays eCommerce (ASX:GEG)	Eclipx Group (ASX:ECX)	\$132.2	1.3x
May-17	Q2'2017	Angie's List (NasdaqGS:ANGI)	HomeAdvisor	\$574.4	1.8x
May-17	Q2'2017	Global Sources (NasdaqGS:GSOL)	The Blackstone Group (NYSE:BX)	\$378.6	2.5x
May-17	Q2'2017	Changyou.com (NasdaqGS:CYOU)	-	\$1,417.2	2.8x
May-17	Q2'2017	NaturaBuy	NextStage (ENXTPA:NEXTS)	\$11.5	4.0x
May-17	Q2'2017	Postcode Anywhere	GB Group (AIM:GBG)	\$82.1	4.6x
May-17	Q2'2017	Shanghai Woshi Culture Communication	Hakim Unique Internet (SZSE:300300)	\$87.1	6.3x
May-17	Q2'2017	Get Educated International	2U South Africa	\$123.0	7.2x
May-17	Q2'2017	eRepublik Labs	Stillfront Group (OM:SF)	\$23.1	8.3x
Apr-17	Q2'2017	Arithmetic	Aeria (JASDAQ:3758)	\$8.1	0.6x
Apr-17	Q2'2017	lsCool Entertainment (ENXTPA:ALISC) (72.6% Stake)	Hachette Livre	\$8.6	1.3x
Apr-17	Q2'2017	migme (ASX:MIG)	Solaris Power Cells (OTCPK:SPCL)	\$19.6	1.2x
Apr-17	Q2'2017	RetailMeNot (NasdaqGS:SALE)	Harland Clarke Holdings	\$467.7	1.7x
Mar-17	Q1'2017	Incisive Media, Insight Division	Infopro Digital	\$151.0	3.0x
Mar-17	Q1'2017	Teads	Altice N.V. (ENXTAM:ATC)	\$308.2	1.5x
Mar-17	Q1'2017	Anime Consortium Japan (63.9% Stake)	BANDAI NAMCO (TSE:7832)	\$29.1	14.1x
Mar-17	Q1'2017	Beijing Smart Space Technology	6.cn	\$55.1	7.2x
Mar-17	Q1'2017	lfwe	MeetMe (NasdaqCM:MEET)	\$60.0	1.4x
Mar-17	Q1'2017	Hangzhou Joyreach Network Technology	Meisheng Cultural & Creative Corp (SZSE:002699)	\$161.3	4.0x
Feb-17	Q1'2017	Digital Publishing Initiatives Japan (70.52% Stake)	Media Do (TSE:3678)	\$99.3	0.8x
Feb-17	Q1'2017	SinnerSchrader (XTRA:SZZ) (63.78% Stake)	Accenture (NYSE:ACN)	\$101.1	1.8x
Feb-17	Q1'2017	Company Webcast (52% Stake)	Euronext (ENXTPA:ENX)	\$7.5	2.0x
Feb-17	Q1'2017	3Minute	Gree (TSE:3632)	\$38.2	9.8x
Feb-17	Q1'2017	Social Point	Take-Two Invest Espana	\$280.3	3.1x
Jan-17	Q1'2017	Telegraaf Media (ENXTAM:TMG)	Talpa Holding	\$292.2	0.6x
Jan-17	Q1'2017	Hotcourses	IDP Education (ASX:IEL)	\$36.3	2.8x
Jan-17	Q1'2017	ShareASale.com	Digital Window	\$45.0	3.2x







Date Announced	Period	Target	Buyer	Enterprise Value	Revenue Multiple
Dec-16	Q4'2016	Minnano Wedding (TSE:3685) (54.42% stake)		\$42.9	3.0x
Dec-16	Q4'2016	Opera TV	Moore Frères & Company	\$114.3	3.6x
Dec-16	Q4'2016	Dhruva Interactive (90.5% stake)	Starbreeze (OM:STAR B)	\$10.2	2.2x
Dec-16	Q4'2016	Telegraaf Media (ENXTAM:TMG) (58.7% stake)	Mediahuis; N.V. Exploitatie Maatschappij Van Puijenbroek	\$258.0	0.5x
Dec-16	Q4'2016	Zhenbaotong (Shenzhen) Internet Technology (99.06% stake)	Beijing Kingee Culture Development (SZSE:002721)	\$101.7	0.4x
Nov-16	Q4'2016	Creston (LSE:CRE) (71.92% Stake)	RredWhiteBlue Champion	\$89.7	0.7x
Oct-16	Q4'2016	O-uccino (TSE:6084) (54.27% Stake)	-	\$7.9	0.6x
Oct-16	Q4'2016	Digital Globe Services (AIM:DGS) (53.58% Stake)	TRG Holdings	\$22.1	0.5x
Oct-16	Q4'2016	Everyday Health (NYSE:EVDY)	Ziff Davis	\$459.3	1.9x
Oct-16	Q4'2016	AbsoluteIT	AWF Madison Group (NZSE:AWF)	\$11.1	0.2x
Oct-16	Q4'2016	Consol Partners (65% Stake)	Empresaria Group (AIM:EMR)	\$14.6	0.5x
Oct-16	Q4'2016	Pixonic	Mail.Ru Group (LSE:MAIL)	\$30.0	4.1x
Sep-16	Q3'2016	YuMe (NYSE:YUME)	AVI Partners	\$116.8	0.7x
Sep-16	Q3'2016	Shanghai Jiguang Network Technology (90% Stake)	Zhongnan Red Culture Group (SZSE:002445)	\$111.4	13.8x
Sep-16	Q3'2016	Dot Property	Mitula Group (ASX:MUA)	\$8.9	6.9x
Aug-16	Q3'2016	Monster (NYSE:MWW)	Randstad North America	\$382.8	0.6x
Aug-16	Q3'2016	anydooR	Rozetta Corporation (TSE:6182)	\$13.2	2.4x
Jul-16	Q3'2016	Olapic	Monotype Imaging	\$130.0	14.4x
Jul-16	Q3'2016	Best Gaming Technology (90% Stake)	Playtech (LSE:PTEC)	\$170.3	3.7x











#### Idean Enterprises OY Acquired By Capgemini

#### **Transaction Summary**

- Pharus served as the exclusive financial advisor to Pharus served as the exclusive financial advisor to Idean Enterprises Oy in its sale to Capgemini. Transaction terms were not disclosed.
- · This transaction will reinforce Capgemini's usercentered and digital-first experience design and strategy services, particularly in North America, and extend its network of Digital studios. This transaction is geared to meet growing customer demand for the Group's end to end digital services.
- The shareholders of Idean retained Pharus due to our knowledge of the design and strategy services sector, as well as our M&A advisory experience with digital, innovation and cloud services businesses. We executed a comprehensive M&A process that involved identifying and approaching a broad set of strategic buyers, spearheading marketing activities, leading due-diligence, and negotiating transaction terms.

#### **Key Profiles**

- · Idean Enterprises, a fast-growing digital strategy and experience design consultancy focuses, primarily on digital user experience (UX), customer experience (CX), and digital strategy. Their client list extends from disruptive Bay Area start-ups, global tech leaders to prominent brands in automotive and consumer electronics, looking to reinvent themselves for the digital era. Clients include LG, Mercedes-Benz, Sony, Volkswagen, 23andMe, Airbus, Cole Haan, Ericsson, IBM, Intel, and Kesko.
- · Capgemini provides consulting, technology, and outsourcing services. Its consulting services include strategy and transformation, finance and technology transformation, human resources consulting, supply chain management, solutions environment, and innovation. It serves manufacturing, retail, consumer products, distribution and transportation, aerospace and defense, and financial services industries across the world.



The undersigned acted as the exclusive financial advisor to Idean Enterprises Oy in connection with the transaction



#### Risto Lähdesmäki, Chief Executive Officer of Idean, said about Pharus:

"These guys just rock! I could not be happier with having chosen Pharus as our investment banking advisor. Since I knew this would be once-in-a-lifetime deal for me and whole team, I wanted to set multiple records and Pharus accepted the challenge - and boy we set many. At every step Pharus added immense value and astutely guided us to the most optimal outcome for the shareholders and for everyone in Idean.

I'm very pleased with their experience, dedication, and diligence - working hard 24/7 as one team, we were able to get a complicated deal closed in a compressed time frame. Pharus was with us right from beginning to end to ensure a successful process. The way they guided me and the team with a human touch was just amazing -I truly felt they had our back all the time. We could not have achieved these results without Pharus - a deal that worked like a dream for all the stakeholders."







# Strategic Sale of SalonQuest LLC (D/B/A Aquage) to Conair Corporation

#### Transaction Summary

- Pharus served as the exclusive financial advisor to SalonQuest LLC in their sale to Conair Corporation in an all cash transaction.
- Pharus was mandated by SalonQuest's shareholders to execute a comprehensive process, that involved identifying and approaching a targeted set of strategic and financial buyers, spearheading marketing and due-diligence, and negotiating the terms of the transaction.
- Michael Goodman, Pharus' co-founding partner, said, "It was a privilege for Pharus to work with Dennis Lubin, Luis Alvarez and the other professionals at SalonQuest to identify the perfect new owner for Aquage, one who can take the unique business they have built to the next level. Nothing gives us greater satisfaction than helping make the kind of great match this transaction represents between SalonQuest and its new owner, Conair."
- · Transaction terms were not disclosed.

#### **Key Profiles**

- SalonQuest LLC (d/b/a Aquage), a privatelyheld maker of innovative salon hair care products based on marine botanicals. SalonQuest is headquartered in Chagrin Falls, OH.
- Conair Corporation develops, manufactures, and markets hair care, personal grooming, and bath and spa products. Conair is headquartered in Stamford, CT.



The undersigned acted as the exclusive financial advisor to SalonQuest LLC (d/b/a Aquage) in connection with the transaction

PHARUS

# Dennis Lubin, co-founder and CEO of SalonQuest, said,

"We could not have completed the transaction without the tireless efforts of the Pharus Advisors' team. Their industry knowledge and experience, extensive relationships, and sage advice helped ensure we found a great home for our Company with Conair. Our company was at an inflection point, and we wanted to find a partner who could invest in the rapid growth of the innovative products and educational systems that we have developed. Thanks to Pharus, we have found just that partner in Conair."







#### Capgemini US Acquires Fahrenheit 212, a Leading Innovation and Design Consultancy

#### Transaction Summary

- Pharus served as the exclusive financial advisor to Fahrenheit 212 LLC in its sale to Capgemini. Transaction terms were not disclosed.
- This transaction will augment the capabilities of Capgemini's global strategy and transformation consulting organization, Capgemini Consulting, to provide new innovation, business transformation and digital customer experiences solutions. This bolt on acquisition fits into Capgemini's digital innovation growth strategy.
- The shareholders of Fahrenheit 212 retained Pharus due to our knowledge of the innovation services sector, as well as out M&A advisory experience with digital and cloud services businesses. We executed a comprehensive M&A process that involved identifying and approaching a broad set of strategic and private equity buyers, spearheading marketing activities, leading duediligence, and negotiating transaction terms.

#### **Key Profiles**

- Fahrenheit 212, an innovation and design consultancy, focuses on defining innovation strategies and develops new products, services, and experiences that create sustainable, profitable growth for global clients such as The Coca-Cola Company, Marriott, and Citi.
- · Capgemini provides consulting, technology, and outsourcing services. Its consulting services include strategy and transformation, finance and technology transformation, human resources consulting, supply chain management, solutions environment, and innovation. It serves manufacturing, retail, consumer products, distribution and transportation, aerospace and defense, and financial services industries across the world.



The undersigned acted as the exclusive financial advisor to Fahrenheit 212 LLC in connection with the transaction

> HARUS FEBRUARY 2016







#### SPS Commerce (NasdaqGS:SPSC) Acquires Toolbox Solutions, a Leading Provider of Retail Solutions in North America

#### **Transaction Summary**

- Pharus served as the exclusive financial advisor to Toolbox Solutions, Inc. in their sale to SPS Commerce, Inc. (NasdagGS:SPSC)
- The acquisition serves to strengthen SPS
   Commerce's retail analytics portfolio, and further
   broadens their network of more than 60,000
   organizations in 60 countries to include leading
   retailers and CPG suppliers in the North American
   convenience, grocery, and drug store segments.
- Pharus was mandated by Toolbox Solutions' shareholders to execute a comprehensive process, that involved identifying and approaching a targeted set of strategic and financial buyers, spearheading marketing and due-diligence, and negotiating the terms of the transaction.
- SPS Commerce acquired all of the shares of ToolBox Solutions for approximately \$18.4 million in cash and \$4.5 million in stock which represents approximately 65,000 shares.

#### **Key Profiles**

- ToolBox Solutions is a leading provider of point-of-sale analytics, retail and loyalty software solutions, and category management services to retailers and consumer packaged goods suppliers across the US and Canada. The company has established relationships with many leading retailers and CPG suppliers in the convenience, grocery and drug store segments. The employees will continue to be based in Toronto.
- SPS Commerce provides cloud-based supply chain management solutions worldwide through their platform which improves the way suppliers, retailers, distributors, and other customers manage and fulfill orders. The company is headquartered in Minneapolis.





The undersigned acted as the exclusive financial advisor to Toolbox Solutions, Inc. in connection with the transaction









# Ziff Davis Acquires Offers.com, a Leader in the Digital Coupon and Deal Space

#### **Transaction Summary**

- Pharus served as the exclusive financial advisor to Offers.com, LLC in their sale to Ziff Davis, LLC, a subsidiary of j2 Global (NasdaqGS:JCOM).
- The acquisition further expands Ziff Davis' portfolio of market leading digital properties, and strengthens their position in the growing online deals and offers segment.
- Pharus was mandated by Offers.com's shareholders to execute a comprehensive process, that involved identifying and approaching a targeted set of strategic and financial buyers, spearheading marketing and due-diligence, and negotiating the terms of the transaction.
- · Transaction terms were not disclosed.
- Pharus had also served as the exclusive financial advisor to Offers.com in 2010, when it received \$7M in a round of funding from Susquehanna Growth Equity.

#### **Key Profiles**

- Offers.com operates a leading online marketplace that connects millions of consumers with coupons, promo codes, deals, and discounts from thousands of leading merchants. Offers.com is headquartered in Austin, TX.
- Ziff Davis is a digital media company that engages in the digital publishing of content in gaming, technology, and men's lifestyle categories. It operates PCMag.com, IGN.com, and AskMen.com. Ziff Davis is headquartered in New York, NY.
- Ziff Davis is owned by J2 Global. J2 Global operates through two segments:
  - Business Cloud Services Offers cloud services to sole proprietors, small to mediumsized businesses and enterprises, and government organizations; provides eFax, KeepltSafe, LiveDrive, eVoice and Onebox.
  - Digital Media Operates a portfolio of Web properties, including PCMag.com, IGN.com, Speedtest.net, AskMen.com, and TechBargains.com.



The undersigned acted as the exclusive financial advisor to Offers.com, LLC in connection with the transaction













**Innovation Services** 



Retail **Solutions** 



Online Marketing



**Digital Agency** 



**Digital Revenue** Management



**Fuel Payment** & Coupon



**Education Technology** 



**Broadcast Technology** 



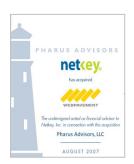
IT **Services** 



Social **TV Software** 



Industrial **Software** 



Retail **Software** 



# Pharus overview



## Pharus overview





#### Introduction to Pharus

We are committed to providing clients a high level of attention, independent and objective advice, and creative solutions in challenging environments



#### Global Reach / Cross-border **Expertise**

New York headquarters, with offices and affiliates in major technology hubs across the globe

#### Extensive Advisory & Capital Market Capabilities

Mergers & Acquisitions

Valuation & Fairness Opinions

Corporate Advisory

Private Placements

Principal Investments

Recapitalizations

#### Industry Specialization & Experience

Digital Media & Advertising

Broadcast & Media Technology

**Education Technology** 

Tech-Enabled **Business Services** 

Industrial Technology

Financial Technology

#### Strong Network of Key Relationships

#### 90+

Successful **Transactions** Completed

#### 900 +

Strategic Buyer Relationships

#### 1,100+

Venture Capital & Private Equity Relationships

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