



Q4 2017

The Lighthouse

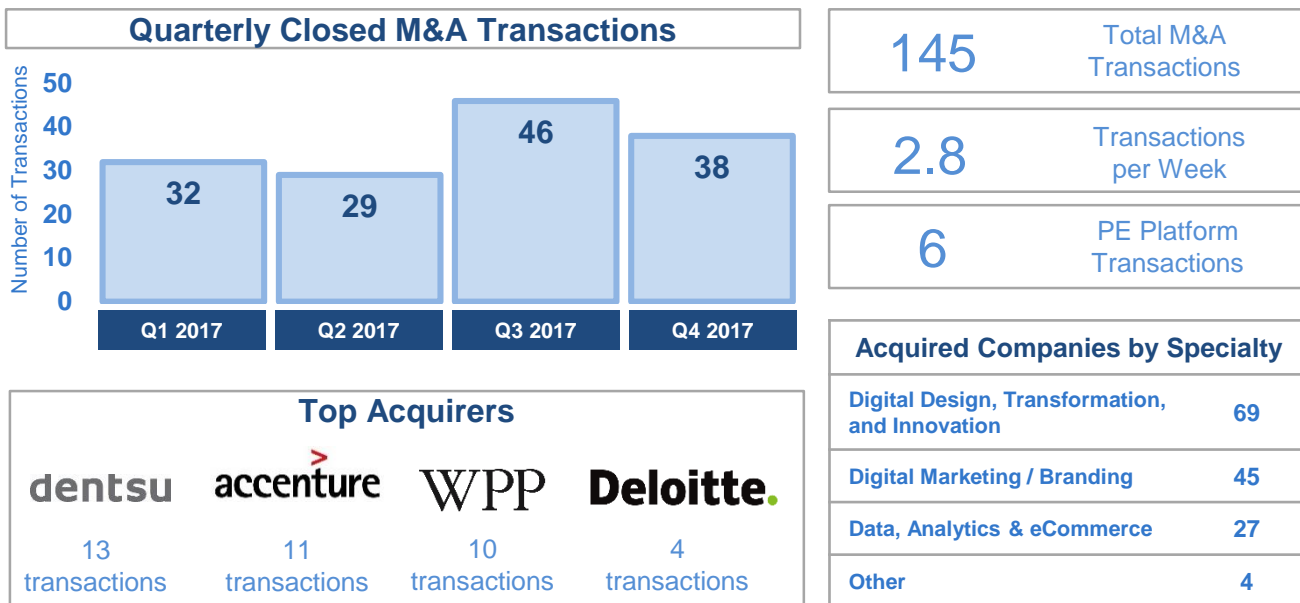
Software

Online & Digital

Tech Enabled Business Services

Pharus Observations

Extraordinary Sustained M&A Activity in the Digital Services Sector



It seems like the Digital Services sector did not get the memo. Spending on deals in the tech M&A market during 2017 slumped by more than one-third compared with 2016 and 2015 (451 Research). However, we at Pharus observed extraordinary M&A appetite for digital services companies witnessed in 2016 continue throughout the past year. We observed an impressive 145 total transactions in the space or approximately 3 transactions per week. The frenzy was led by traditional global ad agencies and major service providers / consultancies in hot focus areas of digital design, user experience, digital transformation, and digital marketing. To keep pace with the rapidly transforming digital space, large firms have dished out cash to buy and/or bolster capabilities to become experts in the latest technologies and digital competencies (Forrester).

While digital services acquisitions has been observed globally with many deals taking place in the US, the UK and Australia have been hot markets that continued to attract acquirers. Both regions have already seen activity from the gorillas in the space over the past few years. **Accenture**, for instance, has been on a prolonged digital services acquisition spree which has included Sydney-based creative agency **The Monkeys**, Australian ad agency **Reactive Media**, and UK creative agency **Karmarama** over the past two years. In Q4, we saw this trend continue in the UK. Digital marketing investment group **Stagwell Group** was an active acquirer in December 2017 as the company acquired London-based digital marketing agency **Forward3D Group**. The deal marked Stagwell's sixteenth transactions since it was founded with \$250M in funding. The company's mission is to reinvent the traditional ad agency holding company model by focusing on digital-first marketing services (WSJ). UK's market also saw the likes of heavyweights like ad agency **Cheil Worldwide** and IT services firm **Cognizant**. Cheil announced the acquisition of UK-based digital marketing agency **Atom42** and Cognizant announced their acquisition of full-service digital agency **Zone**.

With Australia M&A ending the year at a lofty 6-year high (Reuters), it's no surprise that we continue to see digital service transactions in the region. In mid-December 2017, marketing and relationship platform operator **ShareRoot** acquired Australian social media / digital marketing agency **The Social Science**. In October, we observed even more large name acquirers as **IBM** acquired Sydney-based digital and innovation agency **Vivant Digital** to scale capabilities for its internal agency IBM iX.



Table of contents

I.	Capital Market Trends	4
II.	Public Market Valuations	6
III.	M&A Transactions	23
IV.	Selected Transactions	33
V.	Pharus Overview	40

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I Capital market trends

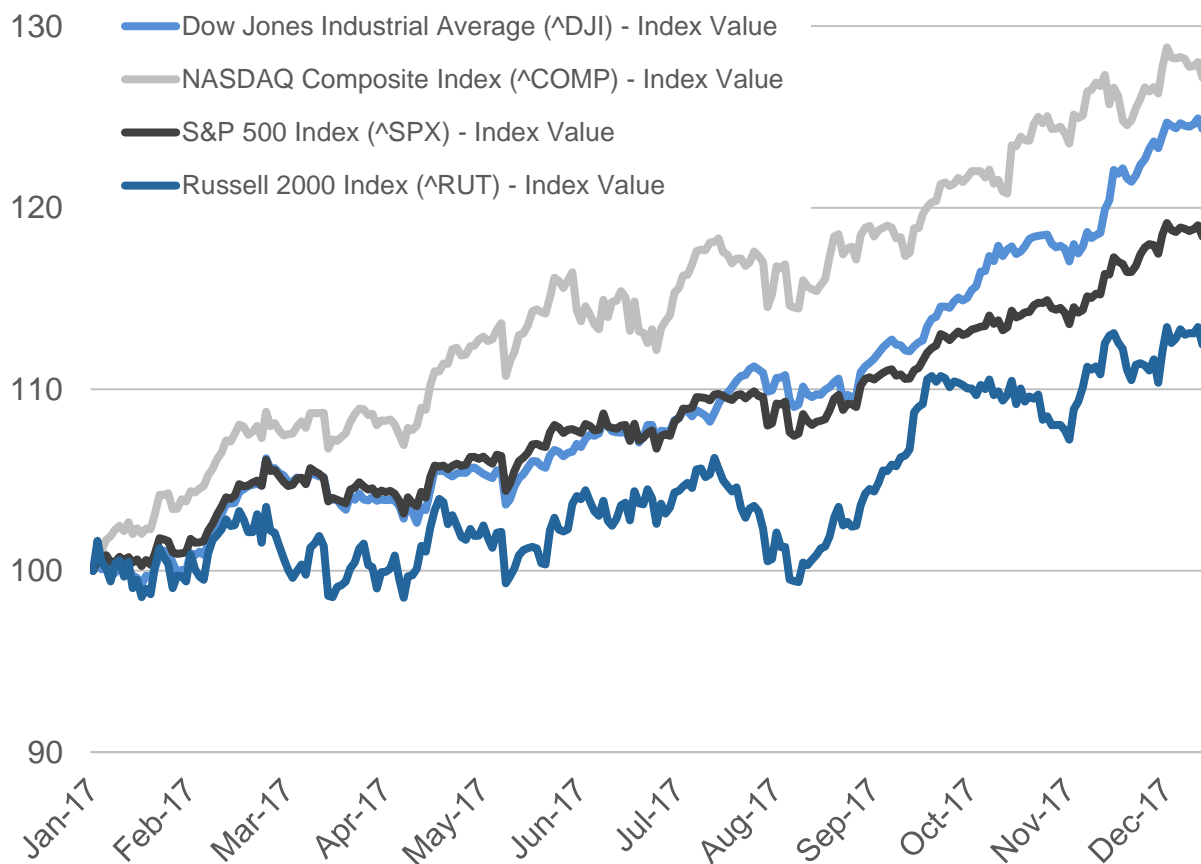


Capital market trends



Relative Performance of Major Indices

Through December 31, 2017 (Base = 100, 01/01/2017)



Index	As of 30-Sep-17	Change %		
		1 Year	3 Months	1 Month
Dow Jones	24,719.22	25.1%	10.3%	1.8%
Nasdaq	6,903.39	28.2%	6.3%	0.4%
S&P 500	2,673.61	19.4%	6.1%	1.0%
Russell 2000	1,535.51	13.1%	3.0%	-0.6%





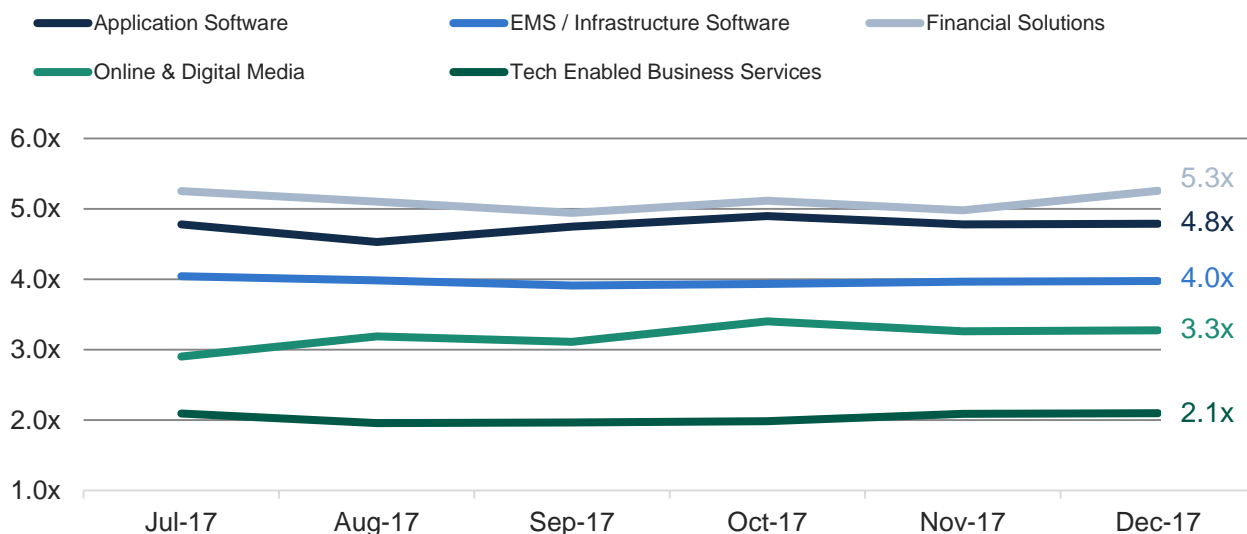
Public
market
valuations



Public market valuations



Historical Median TEV / Revenue Multiples



	Jul-17	Aug-17	Sep-17	Oct-17	Nov-17	Dec-17
Application Software						
Customer Relationship Management (CRM) & Customer Engagement	6.0x	5.4x	5.8x	6.5x	5.9x	5.8x
Accounting & Enterprise Resource Planning (ERP)	4.7x	4.6x	4.9x	5.0x	5.0x	5.3x
Supply Chain Management (SCM) & Logistics	4.5x	4.5x	4.3x	3.9x	4.1x	4.3x
HR & Workforce Management	5.8x	5.6x	5.8x	5.8x	5.7x	5.7x
Education Technology	2.0x	2.3x	2.5x	2.3x	2.1x	2.1x
Industrial & Automation Software	2.6x	2.7x	2.8x	2.7x	2.8x	2.6x
Business Intelligence & Data	5.1x	4.9x	4.9x	5.0x	4.7x	4.9x
Design & Engineering Software	5.3x	5.8x	6.5x	6.9x	6.5x	6.2x
EMS / Infrastructure Software						
Security Software	4.2x	4.0x	4.0x	4.0x	4.1x	4.1x
System and Network Management Software	3.8x	3.7x	3.8x	3.8x	4.0x	4.0x
Platform / OS	3.5x	3.5x	3.4x	3.6x	3.8x	3.8x
Financial Solutions						
Banking Solutions	5.8x	5.5x	5.6x	5.8x	5.9x	5.9x
Capital Market & Investment Solutions	5.9x	5.5x	5.6x	5.8x	5.6x	5.6x
Consumer Data & Analytics	5.3x	5.2x	4.7x	4.9x	5.0x	5.3x
Payment Processing	3.8x	3.8x	3.8x	4.0x	4.0x	4.1x
Insurance Solutions	6.6x	6.5x	7.3x	7.5x	8.0x	8.2x
Online & Digital Media						
Digital Advertising & Marketing	1.6x	1.4x	1.2x	1.2x	1.4x	1.1x
Digital Media & Video	2.7x	2.8x	3.1x	3.0x	3.3x	3.3x
Digital Advertising Agencies & Service Providers	1.4x	1.3x	1.4x	1.3x	1.3x	1.3x
Online Retail & Marketplaces	2.7x	2.9x	2.9x	2.3x	2.7x	2.8x
Digital Gaming	3.6x	4.0x	3.8x	4.0x	3.6x	3.6x
Social Media	6.1x	5.9x	5.4x	6.0x	6.4x	6.0x
Digital Commerce Solutions	1.3x	1.2x	1.3x	1.4x	1.5x	1.4x
Other Digital Companies	5.5x	4.4x	4.1x	4.5x	4.8x	5.2x
Tech Enabled Business Services						
IT Services, Integration & Consulting	1.6x	1.5x	1.7x	1.7x	1.7x	1.7x
Business Process Management (BPM)	2.6x	2.7x	2.8x	2.7x	3.0x	2.9x
Data Center Hosting & Services	6.3x	6.2x	6.0x	6.3x	6.4x	6.2x
Call Center	0.9x	0.8x	0.9x	0.9x	0.8x	0.8x



Public market valuations



Current & Forward Market Multiples

	Median TEV/Revenue		Median TEV/EBITDA	
	LTM	NTM	LTM	NTM
Application Software				
Customer Relationship Management (CRM) & Customer Engagement	5.8x	4.8x	43.4x	28.0x
Accounting & Enterprise Resource Planning (ERP)	5.3x	4.6x	24.7x	17.1x
Supply Chain Management (SCM) & Logistics	4.3x	4.3x	28.6x	22.1x
HR & Workforce Management	5.7x	5.1x	32.2x	29.7x
Education Technology	2.1x	3.1x	23.8x	23.4x
Industrial & Automation Software	2.6x	2.4x	16.7x	13.9x
Business Intelligence & Data	5.2x	4.4x	15.8x	21.5x
Design & Engineering Software	5.7x	5.4x	23.0x	21.1x
EMS / Infrastructure Software				
Security Software	4.4x	3.9x	35.3x	18.0x
System and Network Management Software	5.1x	4.3x	14.0x	13.2x
Platform / OS	3.8x	4.6x	13.3x	13.1x
Financial Solutions				
Banking Solutions	6.2x	5.8x	21.2x	16.8x
Capital Market & Investment Solutions	5.6x	4.9x	18.0x	16.0x
Consumer Data & Analytics	5.3x	5.0x	15.1x	14.2x
Payment Processing	4.1x	3.3x	14.0x	12.9x
Insurance Solutions	8.2x	7.3x	21.3x	18.0x
Online & Digital Media				
Digital Advertising & Marketing	2.8x	3.0x	18.4x	12.5x
Digital Media & Video	3.3x	3.0x	15.1x	13.3x
Digital Advertising Agencies & Service Providers	1.3x	1.3x	8.9x	8.4x
Online Retail & Marketplaces	2.9x	2.2x	25.2x	15.3x
Digital Gaming	3.6x	3.2x	15.8x	13.0x
Social Media	6.0x	5.1x	26.6x	15.9x
Digital Commerce Solutions	1.4x	1.3x	15.8x	12.7x
Other Digital Companies	5.5x	4.5x	19.2x	14.3x
Tech Enabled Business Services				
IT Services, Integration & Consulting	1.7x	1.4x	12.0x	10.1x
Business Process Management (BPM)	3.2x	2.7x	15.7x	13.1x
Data Center Hosting & Services	4.1x	3.6x	21.3x	17.9x
Call Center	0.8x	0.8x	7.4x	7.1x

Medians				
Application Software	4.8x	4.4x	20.4x	18.6x
EMS / Infrastructure Software	4.2x	4.0x	20.2x	14.3x
Financial Solutions	5.3x	5.0x	17.2x	15.5x
Online & Digital Media	3.3x	2.9x	18.6x	13.5x
Tech Enabled Business Services	2.1x	1.9x	12.0x	10.9x



Public market valuations

Application Software



		TEV	Market Cap	TEV/Revenue		TEV/EBITDA	
				LTM	NTM	LTM	NTM
(\$ in millions)							
Customer Relationship Management (CRM) & Customer Engagement							
Bazaarvoice	NasdaqGS:BV	\$404	\$469	2.0x	1.9x	NM	13.7x
Five9	NasdaqGM:FIVN	\$1,367	\$1,385	7.2x	6.2x	NM	65.2x
LivePerson	NasdaqGS:LPSN	\$630	\$685	2.9x	2.8x	55.1x	32.9x
MINDBODY	NasdaqGM:MB	\$1,212	\$1,422	7.1x	5.6x	NM	72.4x
NICE Systems	TASE:NICE	\$5,690	\$5,617	4.4x	4.0x	21.1x	14.1x
Pegasystems	NasdaqGS:PEGA	\$3,477	\$3,671	4.3x	4.0x	62.7x	35.3x
Salesforce.com	NYSE:CRM	\$72,800	\$73,841	7.3x	6.1x	NM	27.3x
SDL	LSE:SDL	\$453	\$488	1.2x	1.1x	10.7x	11.4x
Veeva	NYSE:VEEV	\$7,055	\$7,813	10.8x	9.1x	43.4x	28.0x
Zendesk	NYSE:ZEN	\$3,208	\$3,435	8.1x	6.2x	NM	NM
Median				5.8x	4.8x	43.4x	28.0x
Accounting & Enterprise Resource Planning (ERP)							
BasWare	HLSE:BAS1V	\$848	\$819	4.7x	4.4x	NM	82.2x
Blackline	NasdaqGS:BL	\$1,625	\$1,734	10.0x	7.7x	NM	NM
Coupa Software	NasdaqGS:COUP	\$1,499	\$1,719	8.8x	7.1x	NM	NM
Intuit	NasdaqGS:INTU	\$40,434	\$40,336	7.7x	7.0x	24.7x	18.7x
Kingdee International	SEHK:268	\$1,555	\$1,635	5.3x	4.2x	37.8x	14.1x
Model N	NYSE:MODN	\$462	\$462	3.5x	3.1x	NM	84.3x
Oracle	NYSE:ORCL	\$185,248	\$195,720	4.8x	4.6x	12.2x	9.8x
QAD	NasdaqGS:QADA	\$596	\$722	2.0x	1.9x	68.0x	33.0x
Sage	LSE:SGE	\$12,651	\$11,653	5.5x	4.9x	20.3x	17.1x
SAP	DB:SAP	\$135,356	\$134,660	4.8x	4.6x	19.1x	13.4x
Upland Software	NasdaqGM:UPLD	\$489	\$450	5.5x	4.2x	40.1x	12.0x
Median				5.3x	4.6x	24.7x	17.1x
Supply Chain Management (SCM) & Logistics							
Amber Road	NYSE:AMBR	\$214	\$200	2.8x	2.5x	NM	70.3x
Descartes Systems Group	TSX:DSG	\$2,210	\$2,188	9.5x	8.4x	28.6x	24.4x
Manhattan Associates	NasdaqGS:MANH	\$3,285	\$3,415	5.5x	5.8x	16.5x	19.8x
SPS Commerce	NasdaqGS:SPSC	\$673	\$837	3.2x	2.8x	29.0x	18.8x
Median				4.3x	4.3x	28.6x	22.1x



Public market valuations



Application Software (continued)

		TEV	Market Cap	TEV/Revenue		TEV/EBITDA	
				LTM	NTM	LTM	NTM
(\$ in millions)							
HR & Workforce Management							
Atlassian Corporation	NasdaqGS:TEAM	\$9,666	\$10,280	14.3x	10.7x	NM	38.8x
Benefit Focus	NasdaqGM:BNFT	\$910	\$844	3.6x	3.4x	NM	38.0x
Callidus	NasdaqGM:CALD	\$1,775	\$1,951	7.4x	6.2x	NM	42.9x
CastLight Health	NYSE:CSLT	\$420	\$502	3.4x	2.7x	NM	NM
Comerstone OnDemand	NasdaqGS:CSOD	\$1,983	\$2,046	4.3x	3.9x	NM	24.6x
Dice Holdings	NYSE:DHX	\$142	\$95	0.7x	0.7x	4.0x	3.5x
Paycom	NYSE:PAYC	\$4,648	\$4,680	11.4x	9.0x	54.0x	29.7x
Paylocity	NasdaqGS:PCTY	\$2,379	\$2,477	7.5x	6.1x	NM	30.5x
TriNet Group	NYSE:TNET	\$3,249	\$3,081	1.0x	4.2x	13.6x	12.2x
Ultimate Software	NasdaqGS:ULTI	\$6,391	\$6,520	7.1x	6.0x	92.3x	25.6x
Verint Systems	NasdaqGS:VRNT	\$3,133	\$2,669	2.8x	2.6x	32.2x	9.8x
Workday	NasdaqGS:WDAY	\$19,628	\$21,365	9.8x	7.8x	NM	46.4x
Median				5.7x	5.1x	32.2x	29.7x
Industrial & Automation Software							
3M	NYSE:MMM	\$148,493	\$140,188	4.8x	4.5x	17.0x	15.0x
ABB	SWX:ABBN	\$60,939	\$57,207	1.8x	1.7x	14.3x	12.6x
American Software	NasdaqGS:AMSW.A	\$270	\$351	2.6x	2.4x	18.4x	14.1x
Aspen Technology	NasdaqGS:AZPN	\$4,883	\$4,802	10.1x	9.8x	22.4x	20.3x
Dassault	ENXTPA:DSY	\$24,991	\$27,136	6.5x	6.1x	24.6x	18.5x
Emerson	NYSE:EMR	\$46,153	\$44,507	3.0x	2.8x	14.2x	13.0x
Fanuc Corporation	TSE:6954	\$39,359	\$46,571	7.1x	6.0x	19.6x	17.4x
General Electric	NYSE:GE	\$296,278	\$151,328	2.4x	2.4x	16.7x	17.5x
HollySys Automation Tech	NasdaqGS:HOLI	\$1,043	\$1,344	2.3x	2.0x	11.4x	8.5x
Honeywell	NYSE:HON	\$122,834	\$116,064	3.1x	2.9x	15.0x	13.7x
Johnson Controls	NYSE:JCI	\$49,650	\$35,268	1.6x	1.6x	10.3x	9.9x
KUKA	DB:KU2	\$5,997	\$5,798	1.4x	1.4x	19.4x	17.5x
Materialise NV	NasdaqGS:MTLS	\$608	\$602	4.0x	2.8x	55.4x	30.0x
Metso	HLSE:METSO	\$5,201	\$5,128	1.6x	1.5x	15.7x	11.6x
OMRON Corp	TSE:6645	\$11,525	\$12,671	1.6x	1.4x	11.3x	10.5x
Parametric Technology	NasdaqGS:PTC	\$7,471	\$7,057	6.4x	6.1x	67.6x	25.5x
Rockwell Automation	NYSE:ROK	\$24,523	\$25,210	3.9x	3.6x	20.4x	16.4x
Schneider Electric	ENXTPA:SU	\$53,515	\$47,429	1.8x	1.8x	11.6x	10.3x
Siemens	DB:SIE	\$143,960	\$116,467	1.4x	1.4x	11.5x	10.6x
YASKAWA Electric Corp	TSE:6506	\$11,758	\$11,739	3.0x	2.8x	22.3x	NA
Yokogawa Electric Corp.	TSE:6841	\$4,886	\$5,120	1.4x	1.4x	11.4x	10.0x
Median				2.6x	2.4x	16.7x	13.9x



Public market valuations



Application Software (continued)

(\$ in millions)		TEV	Market Cap	TEV/Revenue		TEV/EBITDA	
				LTM	NTM	LTM	NTM
Education Technology							
Blackbaud	NasdaqGS:BLKB	\$4,761	\$4,440	6.2x	5.6x	34.4x	23.4x
Cambium Learning Group	NasdaqCM:ABCD	\$323	\$265	2.1x	NA	10.6x	NA
Instructure	NYSE:INST	\$935	\$1,002	6.4x	5.0x	NM	NM
K12 Inc	NYSE:LRN	\$540	\$657	0.6x	0.6x	13.2x	4.6x
Rosetta Stone	NYSE:RST	\$240	\$278	1.3x	1.3x	76.8x	27.0x
Median				2.1x	3.1x	23.8x	23.4x
Business Intelligence & Data							
Alteryx	NYSE:AYX	\$1,339	\$1,495	11.3x	8.2x	NM	NM
AppFolio	NasdaqGM:APPF	\$1,366	\$1,409	10.2x	8.0x	NM	51.9x
Apptio	NasdaqGM:APTI	\$814	\$950	4.5x	4.0x	NM	NM
Cloudera	NYSE:CLDR	\$1,944	\$2,333	5.8x	4.5x	NM	NM
Corelogic	NYSE:CLGX	\$5,455	\$3,806	2.9x	2.9x	13.8x	11.2x
CoStar Group	NasdaqGS:CSGP	\$10,416	\$10,733	11.2x	9.7x	44.3x	28.8x
Gridsum Holding	NasdaqGS:GSUM	\$282	\$281	3.6x	2.0x	NM	21.5x
Hortonworks	NasdaqGS:HDP	\$1,355	\$1,418	5.7x	4.4x	NM	NM
Inovalon Holdings	NASDAQ:INOV	\$1,906	\$2,188	4.4x	4.0x	26.0x	16.2x
MicroStrategy	NasdaqGS:MSTR	\$857	\$1,503	1.7x	1.7x	8.8x	11.2x
MongoDB	NasdaqGM:MDB	\$1,213	\$1,501	8.7x	6.4x	NM	NM
NantHealth	NasdaqGS:NH	\$447	\$326	4.4x	3.7x	NM	NM
New Relic	NYSE:NEWR	\$2,953	\$3,181	9.6x	7.5x	NM	NM
Open Text	NasdaqGS:OTEX	\$11,864	\$9,470	4.9x	4.3x	17.9x	11.9x
PROS Holdings	NYSE:PRO	\$897	\$844	5.5x	5.0x	NM	NM
Sabre	NasdaqGS:SABR	\$8,849	\$5,634	2.5x	2.4x	11.8x	8.4x
Splunk	NasdaqGS:SPLK	\$10,738	\$11,718	9.3x	7.4x	NM	58.2x
Tableau	NYSE:DATA	\$4,575	\$5,518	5.2x	5.0x	NM	74.1x
TrueCar	NasdaqGS:TRUE	\$953	\$1,120	3.0x	2.7x	NM	26.6x
Varonis Systems	NasdaqGS:VRNS	\$1,223	\$1,352	6.2x	5.1x	NM	NM
Workiva	NYSE:WK	\$839	\$897	4.2x	3.7x	NM	NM
Yext	NYSE:YEXT	\$984	\$1,098	6.2x	4.7x	NM	NM
Median				5.2x	4.4x	15.8x	21.5x



Public market valuations

Application Software (continued)



(\$ in millions)

		TEV	Market Cap	TEV/Revenue		TEV/EBITDA	
				LTM	NTM	LTM	NTM
Design & Engineering Software							
Ansys	NasdaqGS:ANSS	\$11,598	\$12,525	10.9x	10.1x	24.8x	21.1x
Altair Engineering	NasdaqGS:ALTR	\$1,580	\$1,505	4.8x	4.5x	NM	44.0x
Autodesk	NasdaqGS:ADSK	\$23,222	\$23,091	11.7x	9.7x	NM	76.1x
Aveva Group	LSE:AVV	\$2,211	\$2,391	7.3x	7.1x	45.1x	26.9x
Cadence Design Systems	NasdaqGS:CDNS	\$11,770	\$11,808	6.2x	5.9x	27.0x	18.5x
Hexagon	OM:HEXA B	\$20,525	\$18,093	5.2x	4.8x	20.6x	14.4x
Progress Software	NasdaqGS:PRGS	\$1,967	\$2,035	4.9x	4.9x	14.7x	10.6x
RIB Software AG	DB:RIB	\$1,164	\$1,336	8.9x	8.6x	23.0x	24.3x
Synopsys	NasdaqGS:SNPS	\$11,776	\$12,676	4.3x	4.1x	23.0x	15.3x
Twilio	NYSE:TWLO	\$1,912	\$2,196	5.2x	4.2x	NM	NM
Median				5.7x	5.4x	23.0x	21.1x



Public market valuations



EMS / Infrastructure Software

(\$ in millions)		TEV	Market Cap	TEV/Revenue		TEV/EBITDA	
				LTM	NTM	LTM	NTM
Security Software							
Barracuda Networks	NYSE:CUDA	\$1,268	\$1,474	3.5x	3.3x	38.9x	17.0x
Check Point Software	NasdaqGS:CHKP	\$15,426	\$16,936	8.4x	7.9x	16.9x	14.4x
Cheetah Mobile	NYSE:CMCM	\$1,478	\$1,672	2.0x	1.8x	21.1x	13.4x
Cyber-Ark Software	NasdaqGS:CYBR	\$1,164	\$1,438	4.7x	4.0x	39.6x	17.9x
Everbridge	NasdaqGM:EVBG	\$792	\$840	8.2x	6.4x	NM	NM
FireEye	NasdaqGS:FEYE	\$2,512	\$2,621	3.4x	3.2x	NM	23.9x
ForeScout	NasdaqGM:FSCT	\$1,445	\$1,209	7.1x	5.8x	NM	NM
Fortinet	NasdaqGS:FTNT	\$6,322	\$7,598	4.4x	3.9x	37.3x	18.2x
Gemalto	ENXTAM:GTO	\$6,352	\$5,343	1.7x	1.7x	11.4x	11.0x
Imperva	NasdaqGS:IMPV	\$1,007	\$1,350	3.3x	2.8x	NM	20.1x
Mimecast	NasdaqGS:MIME	\$1,555	\$1,643	7.0x	5.5x	NM	57.2x
MobileIron	NasdaqGS:MOBL	\$292	\$375	1.7x	1.6x	NM	NM
NetQin Mobile	NYSE:NQ	\$491	\$433	1.4x	NA	51.8x	NA
Okta	NasdaqGS:OKTA	\$2,387	\$2,610	10.3x	7.6x	NM	NM
Palo Alto Networks	NYSE:PANW	\$12,346	\$13,318	6.6x	5.4x	NM	21.3x
Proofpoint	NasdaqGM:PFPT	\$3,903	\$3,982	8.2x	6.3x	NM	47.6x
Qualys	NasdaqGS:QLYS	\$1,948	\$2,251	8.8x	7.5x	34.3x	20.4x
Rapid7	NasdaqGM:RPD	\$735	\$819	3.9x	3.3x	NM	NM
SecureWorks	NasdaqGS:SCWX	\$619	\$719	1.3x	1.3x	NM	NM
Symantec	NasdaqGS:SYMC	\$21,580	\$17,397	4.7x	4.3x	36.2x	8.7x
Trend Micro	TSE:4704	\$6,543	\$7,800	5.0x	4.7x	13.8x	13.7x
VASCO	NasdaqCM:VDSI	\$396	\$554	2.1x	2.0x	38.0x	19.2x
Zix	NasdaqGS:ZIXI	\$208	\$241	3.2x	3.0x	14.4x	9.9x
Median				4.4x	3.9x	35.3x	18.0x
System and Network Management Software							
A10 Networks	NYSE:ATEN	\$422	\$546	1.8x	1.7x	NM	27.2x
CA	NasdaqGS:CA	\$14,029	\$13,929	3.4x	3.3x	11.7x	8.6x
CommVault Systems	NasdaqGS:CVLT	\$1,930	\$2,425	2.9x	2.6x	NM	18.6x
Micro Focus	LSE:MCRO	\$16,319	\$14,844	11.3x	5.2x	28.7x	13.6x
Mulesoft	NYSE:MULE	\$2,841	\$3,023	10.8x	7.7x	NM	NM
Netscout Systems	NasdaqGS:NTCT	\$2,646	\$2,653	2.4x	2.2x	13.5x	8.3x
Nutanix	NasdaqGS:NTNX	\$5,294	\$5,660	6.2x	4.6x	NM	NM
Presidio	NasdaqGS:PSDO	\$2,656	\$1,758	0.9x	0.9x	12.0x	11.0x
SailPoint	NYSE:SAIL	\$1,548	\$1,238	9.5x	7.7x	86.5x	NM
ServiceNow	NYSE:NOW	\$22,004	\$22,519	12.4x	9.3x	NM	39.3x
Software AG	XTRA:SOW	\$4,246	\$4,299	4.0x	4.0x	14.0x	12.2x
Vmware	NYSE:VMW	\$43,141	\$50,521	6.1x	5.1x	23.3x	13.2x
Median				5.1x	4.3x	14.0x	13.2x



Public market valuations

EMS / Infrastructure Software (continued)



(\$ in millions)

		TEV	Market Cap	TEV/Revenue		TEV/EBITDA	
				LTM	NTM	LTM	NTM
Platform / OS							
Citrix Systems	NasdaqGS:CTXS	\$13,172	\$13,259	3.8x	4.6x	13.3x	13.1x
Hewlett-Packard	NYSE:HPQ	\$34,251	\$34,566	0.7x	0.6x	7.8x	7.7x
IBM	NYSE:IBM	\$176,292	\$142,035	2.2x	2.2x	10.5x	8.8x
Microsoft Corp.	NasdaqGS:MSFT	\$615,246	\$659,906	6.6x	5.7x	19.2x	14.3x
Red Hat	NYSE:RHT	\$20,298	\$21,251	7.3x	6.3x	38.3x	22.7x
Median				3.8x	4.6x	13.3x	13.1x



Public market valuations



Financial Solutions

		TEV	Market Cap	TEV/Revenue		TEV/EBITDA	
				LTM	NTM	LTM	NTM
(\$ in millions)							
Banking Solutions							
Black Knight	NYSE:BKI	\$8,175	\$6,776	7.8x	7.2x	22.4x	14.8x
Bottomline Technologies	NasdaqGS:EPAY	\$1,463	\$1,404	4.1x	3.8x	40.5x	16.9x
Fidelity National	NYSE:FIS	\$39,907	\$31,414	4.3x	4.4x	15.8x	12.6x
Fiserv	NasdaqGS:FISV	\$32,113	\$27,327	5.7x	5.4x	17.9x	14.8x
Jack Henry & Associates	NasdaqGS:JKHY	\$8,929	\$9,033	6.2x	5.8x	19.9x	16.8x
Q2 Holdings	NYSE:QTWO	\$1,447	\$1,536	7.8x	6.4x	NM	87.6x
Temenos Group	SWX:TEMN	\$9,292	\$9,016	13.5x	11.6x	48.8x	32.2x
Median				6.2x	5.8x	21.2x	16.8x
Capital Market & Investment Solutions							
Investnet	NYSE:ENV	\$2,419	\$2,209	3.7x	3.2x	42.4x	15.9x
FactSet Research Systems	NYSE:FDS	\$7,860	\$7,539	6.2x	5.7x	18.6x	16.7x
Fidessa Group	LSE:FDSA	\$1,222	\$1,318	2.6x	2.5x	14.1x	11.6x
IRESS Limited	ASX:IRE	\$1,668	\$1,532	5.2x	4.8x	22.1x	17.4x
Moody's	NYSE:MCO	\$33,071	\$28,208	8.3x	7.5x	17.3x	16.0x
Morningstar	NasdaqGS:MORN	\$4,005	\$4,124	4.5x	NA	16.8x	NA
MSCI	NYSE:MSCI	\$12,676	\$11,397	10.3x	9.2x	20.0x	17.3x
SimCorp A/S	CPSE:SIM	\$2,255	\$2,245	5.9x	4.9x	26.4x	19.0x
SS&C Technologies Holdings	NasdaqGS:SSNC	\$10,447	\$8,333	6.4x	6.0x	17.1x	13.9x
Thomson Reuters	TSX:TRI	\$37,863	\$31,012	3.4x	3.3x	14.9x	10.5x
Median				5.6x	4.9x	18.0x	16.0x
Consumer Data & Analytics							
Equifax	NYSE:EFX	\$16,616	\$14,160	5.0x	4.9x	14.3x	13.9x
Experian	LSE:EXPN	\$23,577	\$20,074	5.3x	5.0x	15.1x	14.2x
Fair Isaac	NYSE:FICO	\$5,094	\$4,595	5.5x	5.1x	24.1x	19.8x
Median				5.3x	5.0x	15.1x	14.2x



Public market valuations



Financial Solutions (continued)

(\$ in millions)

		TEV	Market Cap	TEV/Revenue		TEV/EBITDA	
				LTM	NTM	LTM	NTM
Payment Processing							
ACI Worldwide	NasdaqGS:ACIW	\$3,315	\$2,688	3.2x	3.2x	17.1x	12.9x
Cielo	BOVESPA:CIEL3	\$21,550	\$19,269	6.1x	3.3x	14.0x	12.8x
Euronet Worldwide	NasdaqGS:EEFT	\$4,122	\$4,439	1.9x	1.7x	11.0x	8.9x
First Data Corporation	NYSE:FDC	\$36,516	\$15,431	4.6x	2.9x	12.0x	11.3x
Global Payments	NYSE:GPN	\$20,190	\$15,952	4.7x	5.2x	16.9x	15.2x
Net 1 Ueps Technologies	NasdaqGS:UEPS	\$681	\$677	1.1x	1.1x	4.7x	NA
Square	NYSE:SQ	\$12,958	\$13,472	6.3x	10.9x	NM	61.2x
Total System Services	NYSE:TSS	\$17,100	\$14,540	3.6x	4.9x	16.7x	13.7x
Median				4.1x	3.3x	14.0x	12.9x
Insurance Solutions							
CorVel	NasdaqGS:CRVL	\$959	\$997	1.8x	NA	13.4x	NA
Ebix	NasdaqGS:EBIX	\$2,775	\$2,493	8.2x	6.7x	23.3x	19.1x
Guidewire Software	NYSE:GWRE	\$5,143	\$5,704	9.7x	7.8x	NM	39.6x
Sapiens International	NasdaqCM:SPNS	\$566	\$567	2.2x	1.9x	38.1x	12.6x
Verisk	NasdaqGS:VRSK	\$18,546	\$15,810	8.9x	8.2x	19.3x	16.8x
Median				8.2x	7.3x	21.3x	18.0x



Public market valuations



Online & Digital

(\$ in millions)		TEV	Market Cap	TEV/Revenue		TEV/EBITDA	
				LTM	NTM	LTM	NTM
Digital Advertising & Marketing							
Baidu	NasdaqGS: BIDU	\$71,179	\$81,324	6.0x	4.8x	20.7x	17.3x
Criteo	NasdaqGS: CRTO	\$1,387	\$1,718	0.6x	1.5x	6.8x	5.5x
comScore	OTCPK: SCOR	\$0	\$1,632	0.0x	0.0x	NA	NM
Google	NasdaqGS: GOOGL	\$633,279	\$729,458	6.1x	5.1x	18.4x	12.7x
Hubspot	NYSE: HUBS	\$3,105	\$3,304	9.0x	6.9x	NM	NM
iClick Interactive	NasdaqGM: ICLK	\$307	\$233	2.8x	NA	NM	NA
Marin Software	NYSE: MRIN	\$35	\$62	0.4x	NA	NM	NA
Perion Network	NasdaqGS: PERI	\$107	\$80	0.4x	0.4x	6.1x	4.1x
QuinStreet	NasdaqGS: QNST	\$333	\$383	1.1x	1.0x	61.1x	12.4x
SendGrid	NYSE: SEND	\$1,069	\$1,008	10.4x	8.3x	NM	NM
SINA Corp	NasdaqGS: SINA	\$5,769	\$7,174	4.1x	3.0x	17.3x	7.7x
Sogou	NYSE: SOGO	\$4,922	\$5,051	6.1x	4.0x	41.1x	23.0x
Telaria	NYSE: TLRA	\$129	\$206	0.7x	2.3x	NM	30.6x
The Rubicon Project	NYSE: RUBI	-\$47	\$92	NM	-0.4x	NM	2.9x
Yandex	NasdaqGS: YNDX	\$10,002	\$10,669	6.5x	5.4x	27.5x	16.7x
YuMe	NYSE: YUME	\$128	\$167	0.8x	NA	8.8x	NA
Median				2.8x	3.0x	18.4x	12.5x
Digital Media & Video							
Adobe Systems	NasdaqGS: ADBE	\$82,445	\$86,383	11.3x	9.4x	33.1x	21.1x
Blucora	NasdaqGS: BCOR	\$1,304	\$1,019	2.6x	2.5x	14.2x	11.3x
Brightcove	NasdaqGS: BCOV	\$224	\$246	1.5x	1.4x	NM	71.5x
Digimarc	NasdaqGS: DMRC	\$342	\$403	13.4x	14.7x	NM	NM
IAC/Interactive	NasdaqGS: IAC	\$10,929	\$10,015	3.5x	2.9x	31.7x	13.4x
Leaf Group	NYSE: LFGR	\$166	\$199	1.3x	1.2x	NM	NM
Netflix	NasdaqGS: NFLX	\$86,209	\$83,067	7.9x	6.0x	NM	49.9x
Pandora Media	NYSE: P	\$1,451	\$1,199	1.0x	1.0x	NM	NM
RhythmOne	AIM: RTHM	\$156	\$195	0.8x	0.4x	NM	4.4x
Roku	NasdaqGS: ROKU	\$5,287	\$5,065	11.2x	8.6x	NM	NM
Sonic Foundry	NasdaqCM: SOFO	\$17	\$13	0.4x	NA	NM	NA
TiVo	NasdaqGS: TIVO	\$2,675	\$1,904	3.1x	3.0x	9.9x	8.5x
VeriSign	NasdaqGS: VRSN	\$11,321	\$11,280	9.8x	9.5x	15.1x	13.3x
Xunlei Limited	NasdaqGS: XNET	\$664	\$1,024	4.0x	NA	NM	NA
Median				3.3x	3.0x	15.1x	13.3x



Public market valuations



Online & Digital (continued)

(\$ in millions)		TEV	Market Cap	TEV/Revenue		TEV/EBITDA	
				LTM	NTM	LTM	NTM
Digital Advertising Agencies & Service Providers							
Dentsu	TSE:4324	\$15,134	\$11,951	1.9x	1.7x	10.0x	9.1x
IPG	NYSE:IPG	\$9,493	\$7,834	1.2x	1.2x	8.6x	7.6x
M&C Saatchi	AIM:SAA	\$424	\$405	1.3x	1.2x	17.1x	9.8x
MDC Partners	NasdaqGS:MDCA	\$1,677	\$569	1.1x	1.1x	9.8x	7.8x
Omnicom	NYSE:OMC	\$20,643	\$16,790	1.3x	1.3x	8.9x	8.6x
Publicis	ENXTPA:PUB	\$17,901	\$15,374	1.5x	1.5x	8.7x	8.4x
WPP	LSE:WPP	\$29,920	\$23,018	1.5x	1.4x	7.8x	8.4x
Median				1.3x	1.3x	8.9x	8.4x
Online Retail & Marketplaces							
1-800-Flowers.com	NasdaqGS:FLWS	\$790	\$691	0.7x	0.7x	9.5x	9.0x
Alibaba	NYSE:BABA	\$438,165	\$442,426	14.8x	10.3x	37.7x	23.7x
Amazon	NasdaqGS:AMZN	\$582,411	\$563,535	3.6x	2.7x	45.1x	24.4x
ASOS	AIM:ASC	\$7,343	\$7,560	2.8x	2.2x	58.2x	31.9x
Blue Apron	NYSE:APRN	\$692	\$766	0.8x	0.8x	NM	NM
boohoo.com	AIM:BOO	\$2,767	\$2,921	4.8x	3.1x	49.6x	34.1x
CarGurus	NasdaqGS:CARG	\$3,228	\$3,181	11.2x	8.8x	NM	NM
Carvana	NYSE:CVNA	\$618	\$307	0.9x	0.4x	NM	NM
Ebay	NasdaqGS:EBAY	\$43,390	\$39,422	4.6x	4.3x	14.9x	11.9x
Expedia	NasdaqGS:EXPE	\$20,354	\$18,264	2.1x	1.8x	15.8x	10.9x
Groupon	NasdaqGS:GRPN	\$2,440	\$2,848	0.8x	0.9x	29.5x	9.3x
Grubhub	NYSE:GRUB	\$5,893	\$6,225	9.6x	6.7x	47.1x	25.4x
Ocado Group	LSE:OCDO	\$3,494	\$3,209	1.8x	1.7x	33.5x	26.1x
Overstock	NasdaqGM:OSTK	\$1,559	\$1,599	0.9x	0.8x	NM	NM
Quotient Technology	NYSE:QUOT	\$907	\$1,090	3.0x	2.5x	NM	15.3x
Rakuten	TSE:4755	\$15,282	\$12,399	1.9x	1.7x	9.1x	9.0x
RumbleON	NasdaqCM:RMBL	\$69	\$67	18.0x	1.5x	NM	NM
Shutterstock	NYSE:SSTK	\$1,257	\$1,492	2.3x	2.1x	22.9x	12.7x
Stamps.com	NasdaqGS:STMP	\$3,251	\$3,286	7.4x	6.4x	18.7x	12.6x
The Priceline Group	NasdaqGS:PCLN	\$87,133	\$84,749	7.1x	6.3x	18.6x	16.9x
The Trade Desk	NasdaqGM:TTD	\$1,773	\$1,878	6.4x	4.9x	25.8x	16.6x
TripAdvisor	NasdaqGS:TRIP	\$4,295	\$4,786	2.8x	2.7x	24.5x	14.1x
Wayfair	NYSE:W	\$6,850	\$7,050	1.6x	1.2x	NM	NM
Wowo	NASDAQ:JMU	\$88	\$84	4.3x	NA	NM	NA
Median				2.9x	2.2x	25.2x	15.3x



Public market valuations



Online & Digital (continued)

		TEV	Market Cap	TEV/Revenue		TEV/EBITDA	
				LTM	NTM	LTM	NTM
(\$ in millions)							
Digital Gaming							
Activision	NasdaqGS:ATVI	\$48,608	\$47,876	7.0x	6.8x	21.2x	17.2x
Capcom	TSE:9697	\$1,626	\$1,738	2.0x	2.0x	8.2x	8.4x
Changyou.com	NasdaqGS:CYOU	\$981	\$1,858	1.7x	1.7x	5.0x	4.7x
Electronic Arts	NasdaqGS:EA	\$28,987	\$32,351	5.7x	5.4x	18.4x	15.4x
Gree	TSE:3632	\$746	\$1,473	1.2x	1.0x	7.9x	4.5x
Konami	TSE:9766	\$6,598	\$7,444	3.0x	2.9x	13.1x	10.6x
NetDragon WebSoft	SEHK:777	\$1,255	\$1,479	2.3x	1.7x	NM	17.2x
Net Entertainment	OM:NET B	\$1,640	\$1,657	8.4x	7.4x	20.4x	15.5x
Nintendo	TSE:7974	\$35,512	\$43,930	5.5x	3.8x	40.5x	18.6x
Playtech	LSE:PTEC	\$3,601	\$3,656	3.8x	3.5x	10.4x	8.8x
Square Enix	TSE:9684	\$4,546	\$5,666	1.8x	1.9x	9.9x	10.0x
Take-Two Interactive	NasdaqGS:TTWO	\$11,310	\$12,520	5.9x	4.3x	56.1x	18.1x
Ubisoft	ENXTPA:UBI	\$8,672	\$8,448	4.4x	3.8x	34.2x	8.3x
Zynga	NasdaqGS:ZNGA	\$2,710	\$3,482	3.3x	3.0x	NM	15.5x
Median				3.6x	3.2x	15.8x	13.0x
Social Media							
Facebook	NasdaqGS:FB	\$474,470	\$512,759	13.0x	9.5x	23.4x	15.6x
LINE	TSE:3938	\$8,128	\$9,043	5.8x	4.7x	62.8x	24.2x
Mail.ru Group	LSE:MAIL	\$5,965	\$6,136	7.0x	5.6x	27.1x	14.4x
Match Group	NasdaqGS: MTCH	\$9,655	\$8,552	7.1x	6.4x	26.0x	17.2x
MeetMe	NasdaqCM:MEET	\$178	\$202	1.6x	1.4x	6.6x	6.8x
Mixi	TSE:2121	\$2,227	\$3,514	1.2x	1.3x	2.7x	3.3x
Momo	NasdaqGS:MOMO	\$3,911	\$4,861	3.3x	2.4x	10.9x	10.0x
Renren	NYSE:RENN	\$720	\$711	5.7x	3.6x	NM	NM
Snap	NYSE:SNAP	\$15,312	\$17,594	21.7x	13.9x	NM	NM
Twitter	NYSE:TWTR	\$15,273	\$17,759	6.3x	6.1x	67.6x	18.2x
XING	XTRA:O1BC	\$1,765	\$1,813	8.5x	6.9x	32.9x	21.8x
Yelp	NYSE:YELP	\$2,920	\$3,478	3.5x	3.2x	59.0x	16.1x
Median				6.0x	5.1x	26.6x	15.9x



Public market valuations



Online & Digital (continued)

		TEV	Market Cap	TEV/Revenue		TEV/EBITDA	
				LTM	NTM	LTM	NTM
(\$ in millions)							
Digital Commerce Solutions							
Gk Software AG	DB:GKS	\$262	\$259	2.4x	2.3x	23.4x	17.7x
Intershop	XTRA:ISH2	\$59	\$68	1.4x	1.3x	38.6x	16.1x
NCR	NYSE:NCR	\$7,805	\$4,140	1.2x	1.2x	8.7x	6.7x
PFS Web	NasdaqCM:PFSW	\$180	\$141	0.6x	0.5x	10.2x	7.9x
Shopify	NYSE:SHOP	\$9,161	\$10,088	15.8x	10.5x	NM	NM
Wincor Nixdorf	XTRA:WIN	\$2,790	\$2,614	1.0x	1.0x	10.0x	11.6x
Worldline S.A	ENXTPA:WLN	\$6,147	\$6,490	3.5x	3.0x	21.5x	13.8x
Median				1.4x	1.3x	15.8x	12.7x
Other Digital Companies							
Akamai	NasdaqGS:AKAM	\$10,907	\$11,002	4.4x	4.1x	16.5x	11.6x
Box	NYSE:BOX	\$2,787	\$2,875	5.8x	4.7x	NM	NM
Endurance International	NasdaqGS:EIGI	\$3,093	\$1,205	2.6x	2.7x	11.2x	9.2x
GoDaddy	NYSE:GDDY	\$8,966	\$6,826	4.2x	3.6x	36.2x	14.3x
Just Eat	LSE:JE	\$6,951	\$7,178	11.4x	8.7x	40.1x	26.3x
Limelight Networks	NasdaqGS:LLNW	\$428	\$486	2.4x	2.2x	46.7x	14.4x
Moneysupermarket.com	LSE:MONY	\$2,557	\$2,581	5.8x	5.4x	17.0x	14.1x
NetEase	NasdaqGS:NTES	\$40,231	\$45,294	5.2x	4.4x	17.6x	18.5x
Opera Software	OB:OPERA	\$394	\$454	0.9x	0.8x	31.9x	7.9x
Phoenix New Media	NYSE:FENG	\$380	\$464	1.7x	1.5x	30.6x	56.8x
Redfin Corporation	NasdaqGS:RDFN	\$2,337	\$2,550	6.9x	5.2x	NM	NM
Sea	NYSE:SE	\$4,668	\$4,359	12.3x	9.3x	NM	NM
Tencent Holdings	SEHK:700	\$489,586	\$489,722	15.1x	10.4x	36.4x	28.0x
United Internet	DB:UTDI	\$16,070	\$13,769	3.2x	2.7x	14.8x	11.2x
Web.com	NasdaqGS:WEB	\$1,720	\$1,063	2.3x	2.2x	11.3x	8.6x
Wix	NasdaqGS:WIX	\$2,409	\$2,616	6.2x	4.6x	NM	25.8x
Zillow	NasdaqGS:ZG	\$7,210	\$7,511	7.1x	5.8x	NM	24.4x
Zoopla Property Group	LSE:ZPG	\$2,208	\$1,949	6.7x	5.2x	19.2x	13.5x
Median				5.5x	4.5x	19.2x	14.3x



Public market valuations



Tech Enabled Business Services

		TEV	Market Cap	TEV/Revenue		TEV/EBITDA	
				LTM	NTM	LTM	NTM
(\$ in millions)							
IT Services, Integration & Consulting							
Accenture	NYSE:ACN	\$91,540	\$94,406	2.6x	2.4x	15.6x	13.6x
Atos Origin	ENXTPA:ATO	\$15,491	\$15,258	1.0x	1.0x	7.9x	7.4x
Bechtle	XTRA:BC8	\$3,477	\$3,506	0.8x	0.8x	15.6x	13.6x
CACI International	NYSE:CACI	\$4,363	\$3,259	1.0x	1.0x	12.0x	11.0x
Cancom	XTRA:COK	\$1,386	\$1,439	1.0x	0.9x	15.3x	12.0x
Cap Gemini	ENXTPA:CAP	\$21,949	\$19,347	1.4x	1.4x	11.3x	10.1x
CGI Group	TSX:GIB.A	\$16,858	\$15,445	1.9x	1.9x	11.7x	10.1x
Cognizant Technology	NasdaqGS:CTSH	\$37,987	\$41,877	2.6x	2.4x	13.2x	11.2x
ComputaCenter	LSE:CCC	\$1,701	\$1,887	0.4x	0.3x	10.5x	9.4x
DXC Technology	NYSE:DXC	\$33,293	\$27,072	2.1x	1.4x	15.2x	6.8x
ePlus	NasdaqGS:PLUS	\$1,163	\$1,066	0.8x	0.8x	11.4x	11.1x
FDM Group	LSE:FDM	\$1,317	\$1,357	4.4x	4.2x	23.3x	21.7x
Fujitsu	TSE:6702	\$19,711	\$14,612	0.5x	0.5x	6.9x	6.0x
HCL Technologies	NSEI:HCLTECH	\$18,401	\$19,423	2.4x	2.2x	10.9x	9.9x
Infosys	NSEI:INFY	\$29,920	\$35,479	2.8x	2.6x	10.3x	10.0x
Luxoft Holdings	NYSE:LXFT	\$1,815	\$1,870	2.1x	1.8x	19.7x	11.0x
ManTech International	NasdaqGS:MANT	\$1,808	\$1,957	1.1x	1.0x	14.3x	12.5x
MAXIMUS	NYSE:MMS	\$4,503	\$4,662	1.8x	1.8x	12.1x	11.8x
NCC Group	LSE:NCC	\$936	\$876	2.8x	2.7x	21.7x	16.5x
Nomura Research Institute	TSE:4307	\$10,571	\$11,094	2.7x	2.5x	13.1x	12.2x
NSD	TSE:9759	\$679	\$905	1.3x	1.3x	9.3x	8.6x
OBIC	TSE:4684	\$5,640	\$6,539	9.9x	9.3x	18.8x	19.2x
Perficient	NasdaqGS:PRFT	\$728	\$666	1.6x	1.4x	14.3x	9.3x
SCSK Corporation	TSE:9719	\$4,096	\$4,617	1.4x	1.3x	10.9x	9.9x
Sopra Group	ENXTPA:SOP	\$4,569	\$3,758	1.0x	1.0x	12.0x	9.8x
Syntel	NasdaqGS:SYNT	\$2,184	\$1,905	2.4x	2.5x	8.9x	9.8x
Talend	NasdaqGM:TLND	\$998	\$1,092	7.3x	5.5x	NM	NM
Tata Consultancy Services	NSEI:TCS	\$75,910	\$81,016	4.1x	3.7x	15.2x	14.2x
The Hackett Group	NasdaqGS:HCKT	\$456	\$450	1.7x	1.6x	11.1x	8.9x
Tieto	HLSE:TIE1V	\$2,498	\$2,300	1.4x	1.3x	11.3x	9.5x
Unisys	NYSE:UIS	\$434	\$411	0.2x	0.2x	3.2x	1.2x
Virtusa	NasdaqGS:VRTU	\$1,359	\$1,294	1.5x	1.3x	22.8x	15.3x
Wipro	BSE:507685	\$20,070	\$23,776	2.3x	2.3x	11.6x	10.9x
Xerox	NYSE:XRX	\$11,886	\$7,421	1.2x	1.2x	7.7x	6.9x
Median				1.7x	1.4x	12.0x	10.1x



Public market valuations



Tech Enabled Business Services (continued)

		TEV	Market Cap	TEV/Revenue		TEV/EBITDA	
				LTM	NTM	LTM	NTM
(\$ in millions)							
Business Process Management (BPM)							
Appian	APPN	\$1,831	\$1,904	11.5x	9.8x	NM	NM
Broadridge Financial Solutions	NYSE:BR	\$11,561	\$10,557	2.8x	2.7x	15.9x	13.7x
Cardtronics	NasdaqGS:CATM	\$1,734	\$846	1.2x	1.3x	5.4x	6.1x
Cass Information Systems	NasdaqGS:CASS	\$473	\$715	3.5x	NA	11.4x	NA
Computershare	ASX:CPU	\$8,031	\$6,917	3.7x	3.6x	16.0x	13.4x
CSG Systems International	NasdaqGS:CSGS	\$1,545	\$1,469	2.0x	1.9x	11.1x	8.6x
DST Systems	NYSE:DST	\$4,242	\$3,738	2.1x	1.9x	9.8x	9.4x
EVERTEC	NYSE:EVTC	\$1,586	\$988	3.9x	4.0x	10.7x	9.6x
Exlservice Holdings	NasdaqGS:EXLS	\$1,845	\$2,048	2.5x	2.3x	17.8x	12.8x
Genpact	NYSE:G	\$6,908	\$6,127	2.6x	2.4x	15.5x	15.1x
Tabula Rasa Healthcare	NasdaqGM:TRHC	\$569	\$538	4.8x	3.3x	NM	19.6x
Trans Cosmos	TSE:9715	\$956	\$1,061	0.4x	0.4x	14.7x	9.9x
Vantiv	NYSE:VNTV	\$16,668	\$11,955	4.3x	7.4x	18.2x	15.4x
WEX	NYSE:WEX	\$8,246	\$6,060	6.8x	6.0x	20.9x	15.1x
Wirecard	XTRA:WDI	\$12,884	\$13,809	7.8x	4.7x	29.3x	21.8x
WNS	NYSE:WNS	\$1,941	\$2,021	2.9x	2.6x	22.7x	11.4x
Median				3.2x	2.7x	15.7x	13.1x
Data Center Hosting & Services							
Equinix	NasdaqGS:EQIX	\$43,883	\$35,457	10.7x	8.9x	24.9x	18.4x
Interxion Holding	NYSE:INXN	\$5,112	\$4,203	9.2x	8.1x	21.3x	17.5x
Pure Storage	NYSE:PSTG	\$2,887	\$3,438	3.2x	2.3x	NM	43.5x
Switch	NYSE:SWCH	\$1,493	\$654	4.1x	3.6x	8.8x	7.1x
Tintri	NasdaqGM:TNTR	\$173	\$160	1.3x	1.6x	NM	NM
Median				4.1x	3.6x	21.3x	17.9x
Call Center							
Convergys	NYSE:CVG	\$2,271	\$2,172	0.8x	0.8x	6.4x	6.6x
Sykes Enterprises	NasdaqGS:SYKE	\$1,277	\$1,338	0.8x	0.8x	7.4x	7.1x
TeleTech Holdings	NasdaqGS:TTEC	\$2,029	\$1,845	1.5x	1.3x	11.9x	9.4x
Median				0.8x	0.8x	7.4x	7.1x





 M&A
transactions



M&A transactions

Application Software



Date Announced	Period	Target	Buyer	Enterprise Value	Revenue Multiple
Dec-17	Q4'2017	Clavis Technology	Ascential (LSE:ASCL)	\$219.0	16.9x
Dec-17	Q4'2017	Aconex (ASX:ACX)	Vantive Australia	\$1,234.8	10.0x
Dec-17	Q4'2017	Gemalto (ENXTAM:GTO)	Thales (ENXTPA:HO)	\$6,521.4	1.8x
Dec-17	Q4'2017	Micrologistics	Wisetech Global (ASX:WTC)	\$30.4	5.9x
Dec-17	Q4'2017	Gemalto (ENXTAM:GTO)	Atos (ENXTPA:ATO)	\$5,994.9	1.7x
Dec-17	Q4'2017	Healthcare Communications UK	IMImobile (AIM:IMO)	\$20.1	4.2x
Nov-17	Q4'2017	Bazaarvoice (NasdaqGS:BV)	Marlin Equity Partners	\$456.0	2.2x
Nov-17	Q4'2017	Anisa Group	Sanderson Group (AIM:SND)	\$15.9	1.2x
Nov-17	Q4'2017	Reckon, Reckon Accountants Practice Management Business	MYOB Group (ASX:MYO)	\$136.6	5.6x
Nov-17	Q4'2017	IGE+XAO Group (ENXTPA:IGE)	Schneider Electric Industries	\$172.2	5.1x
Nov-17	Q4'2017	Klavis	Money Forward (TSE:3994)	\$7.0	8.0x
Oct-17	Q4'2017	Trayport	TMX Group (TSX:X)	\$721.3	9.5x
Oct-17	Q4'2017	Netmessage	Link Mobility Group (OB:LINK)	\$11.6	1.0x
Oct-17	Q4'2017	BroadSoft (NasdaqGS:BSFT)	Cisco Systems (NasdaqGS:CSCO)	\$1,917.0	5.3x
Oct-17	Q4'2017	Silverlake Digitale Sdn Bhd	Silverlake Axis (SGX:5CP)	\$11.0	2.4x
Oct-17	Q4'2017	Sback Tecnologia Da Informacao	Linx Sistemas E Consultoria	\$17.8	3.8x
Oct-17	Q4'2017	Resource Connect	SmartTrans Holdings (ASX:SMA)	\$13.1	2.2x
Oct-17	Q4'2017	Onvia	Project Diamond Intermediate Holdings Corporation	\$65.6	2.7x
Oct-17	Q4'2017	Vendman Systems	Vianet Group (AIM:VNET)	\$5.6	2.4x
Sep-17	Q3'2017	Intermarketing	Loomis (OM:LOOMB)	\$22.4	2.0x
Sep-17	Q3'2017	Exa Corporation (NasdaqGM:EXA)	Dassault Systèmes Simulia	\$385.9	5.3x
Sep-17	Q3'2017	Chengdu E-store Technology	Besttone Holding (SHSE:600640)	\$37.5	2.1x
Sep-17	Q3'2017	Silver Spring Networks (NYSE:SSNI)	Itron (NasdaqGS:ITRI)	\$840.4	1.9x
Sep-17	Q3'2017	Planet Traders	Wisetech Global (ASX:WTC)	\$9.2	2.9x
Sep-17	Q3'2017	Cargoguide International	Wisetech Global (ASX:WTC)	\$5.5	3.5x
Sep-17	Q3'2017	Integrity Group Consulting / Asset Controls	Updater (ASX:UPD)	\$27.0	3.8x
Sep-17	Q3'2017	eg solutions (AIM:EGS)	Verint Ws Holdings	\$30.3	2.2x
Sep-17	Q3'2017	NemusTech	Naver (KOSE:A035420)	\$8.0	1.6x
Aug-17	Q3'2017	RevStream	Aptitude Software	\$15.7	4.5x
Aug-17	Q3'2017	rakumo (51.01% Stake)	Mobile Internet Capital; HDE; i Mercury Capital; OptVentures; Spiral Ventures Japan	\$6.0	1.9x
Aug-17	Q3'2017	Affecto (HLSE:AFE1V)	CGI Nordic Investments	\$118.6	0.8x



M&A transactions



Application Software (continued)

Date Announced	Period	Target	Buyer	Enterprise Value	Revenue Multiple
Aug-17	Q3'2017	Halarose	IDOX (AIM:IDOX)	\$6.5	1.5x
Aug-17	Q3'2017	MacroPoint	The Descartes Systems Group (TSX:DSG)	\$107.0	8.6x
Aug-17	Q3'2017	AdGeek Marketing Consulting (66.7% Stake)	FreakOut Holdings (TSE:6094)	\$12.4	8.9x
Aug-17	Q3'2017	CMS Transport Systems	Wisetech Global (ASX:WTC)	\$7.1	2.3x
Aug-17	Q3'2017	MatsSoft	Netcall (AIM:NET)	\$28.8	4.0x
Aug-17	Q3'2017	ScanScout, Buyer Platform	Taptica	\$27.5	0.2x
Aug-17	Q3'2017	Numerex (NasdaqGS:NMRX)	Sierra Wireless (TSX:SW)	\$130.3	2.0x
Aug-17	Q3'2017	Impero Solutions	Investcorp Bank (BAX:INVCORP)	\$36.3	3.6x
Jul-17	Q3'2017	Linkury	Algomizer (TASE:ALMO)	\$11.0	0.6x
Jul-17	Q3'2017	Explicitly Grand Investments	Digital Zone Global	\$8.1	45.2x
Jul-17	Q3'2017	SM Mobile Communications	iRiver (KOSDAQ:A060570)	\$20.0	39.0x
Jul-17	Q3'2017	iBabs (60% Stake)	Euronext (ENXTPA:ENX)	\$57.1	8.6x
Jul-17	Q3'2017	TechJini Solutions (71.1% Stake)	Datamatics Global Services (BSE:532528)	\$8.5	1.6x
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



M&A transactions



Application Software (continued)

Date Announced	Period	Target	Buyer	Enterprise Value	Revenue Multiple
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
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



M&A transactions

EMS / Infrastructure Software



Date Announced	Period	Target	Buyer	Enterprise Value	Revenue Multiple
Nov-17	Q4'2017	Barracuda Networks (NYSE:CUDA)	Thoma Bravo	\$1,405.6	3.8x
Nov-17	Q4'2017	CYREN (NasdaqCM:CYRN) (54.31% Stake)	Warburg Pincus	\$72.9	2.3x
Oct-17	Q4'2017	Gigamon (NYSE:GIMO) (93% Stake)	Elliott Management ; Qatar Investment Authority; Elliott International Capital Advisors	\$1,329.1	4.4x
Oct-17	Q4'2017	IntraLinks Holdings	Siris Capital Group	\$1,020.8	3.5x
Oct-17	Q4'2017	Quantum Storage (Hong Kong)	Kronologi Asia Berhad (KLSE:KRONO)	\$10.6	1.1x
Sep-17	Q3'2017	Deltagon (77.35% Stake)	UTIB INVL Technology	\$7.5	2.4x
Jul-17	Q3'2017	Guidance Software (NasdaqGM:GUID)	Open Text (NasdaqGS:OTEX)	\$223.9	2.1x
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	Ixia (NasdaqGS:XXIA)	Keysight Technologies (NYSE:KEYS)	\$1,526.5	3.1x



M&A transactions



Tech Enabled Services

Date Announced	Period	Target	Buyer	Enterprise Value	Revenue Multiple
Dec-17	Q4'2017	Metronode	Equinix (REIT) (NasdaqGS:EQIX)	\$791.4	17.3x
Dec-17	Q4'2017	SQS Software Quality Systems (AIM:SQS)	Assystem Technologies	\$418.0	1.1x
Dec-17	Q4'2017	IO Data Centers	Iron Mountain (NYSE:IRM)	\$1,375.0	9.6x
Nov-17	Q4'2017	Aricent	Altran US	\$2,000.0	2.9x
Nov-17	Q4'2017	iStone (51% Stake)	Columbus (CPSE:COLUM)	\$27.6	0.3x
Nov-17	Q4'2017	Fess	Information Development (TSE:4709)	\$17.9	0.6x
Nov-17	Q4'2017	Leapforce	Appen (ASX:APX)	\$80.0	1.7x
Nov-17	Q4'2017	Shenzhen Topevery Technology (51% Stake)	Shenzhen Ta'aiwei Information Technology	\$12.3	1.9x
Nov-17	Q4'2017	Bulletproof Group (ASX:BPF) (83.8% Stake)	Macquarie Cloud Services	\$15.7	0.4x
Nov-17	Q4'2017	Nsecure	Unica Groep	\$29.4	1.0x
Nov-17	Q4'2017	Rockford IT	SysGroup (AIM:SYS)	\$5.2	0.9x
Oct-17	Q4'2017	Shanghai Yungoal Info Tech (70% Stake)	Digital China Group (SZSE:000034)	\$54.2	8.9x
Oct-17	Q4'2017	Vedang Cellular Services (70% Stake)	Quess Corp (BSE:539978)	\$8.8	0.7x
Oct-17	Q4'2017	Dada (BIT:DA) (69.43 % Stake)	HgCapital Mercury 2 Nominees	\$107.3	1.4x
Oct-17	Q4'2017	Avega Group (OM:AVEG B)	Tieto Sweden	\$57.0	1.0x
Oct-17	Q4'2017	Evolve Technologies and Services	TeamLease Staffing Services	\$5.7	0.3x
Oct-17	Q4'2017	Equinix IS2	Equinix (REIT) (NasdaqGS:EQIX)	\$93.0	37.2x
Oct-17	Q4'2017	QSight IT Holding	Koninklijke KPN (ENXTAM:KPN)	\$100.2	1.7x
Sep-17	Q3'2017	RecoBell	Futurestream Networks (KOSDAQ:A214270)	\$12.8	8.9x
Sep-17	Q3'2017	Shenzhen Juqent Information Technology (80% Stake)	Guangdong Zhengye Technology (SZSE:300410)	\$18.0	9.3x
Sep-17	Q3'2017	Beyondwinet Information Technology	Beijing Holystone Technology	\$17.5	0.3x
Sep-17	Q3'2017	Crimson	Harvey Nash Group (AIM:HVN)	\$19.9	0.6x
Sep-17	Q3'2017	ETL Factory	HCL Technologies (NSEI:HCLTECH)	\$9.1	1.1x
Aug-17	Q3'2017	Kabuku (90% Stake)	Futaba Corporation (TSE:6986)	\$13.8	13.9x
Aug-17	Q3'2017	NCXX Solutions (51% Stake)	CAICA (JASDAQ:2315)	\$5.1	0.2x
Aug-17	Q3'2017	Beyondsoft Japan	Beijing Beifang Xinyu Information Technology	\$13.2	0.4x
Aug-17	Q3'2017	Beyondsoft Information Technology (Shanghai)	Beijing Beifang Xinyu Information Technology	\$8.4	2.9x
Jul-17	Q3'2017	Somoto (TASE:SMTO)	-	\$74.6	1.3x



M&A transactions



Tech Enabled Services (continued)

Date Announced	Period	Target	Buyer	Enterprise Value	Revenue Multiple
Jul-17	Q3'2017	PARX Werk	Persistent Systems	\$9.0	1.1x
Jul-17	Q3'2017	PlusServer	BC Partners	\$459.5	4.0x
Jul-17	Q3'2017	OnX Enterprise Solutions	Cincinnati Bell (NYSE:CBB)	\$199.0	0.3x
Jul-17	Q3'2017	Yg Zhihe Zhuoyuan (Beijing) Technology	Yg Gongchuang Intelligent Technology	\$6.5	0.4x
Jul-17	Q3'2017	Getronics International	Bottega	\$250.9	0.5x
Jul-17	Q3'2017	MDCL-Frontline Solutions	Tianjin Lanmo Innovative Cloud Network Technology	\$10.3	0.7x
Jul-17	Q3'2017	NCI (NasdaqGS:NCIT)	H.I.G. Capital	\$289.4	0.9x
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



M&A transactions



Tech Enabled Services (continued)

Date Announced	Period	Target	Buyer	Enterprise Value	Revenue Multiple
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



M&A transactions



Online & Digital

Date Announced	Period	Target	Buyer	Enterprise Value	Revenue Multiple
Dec-17	Q4'2017	HDFC Developers Ltd	Quikr India	\$15.9	16.4x
Dec-17	Q4'2017	Evoke Gaming	Mr Green & Co (OM:MRG)	\$10.0	0.5x
Nov-17	Q4'2017	Big Fish Games	Aristocrat Technologies	\$990.0	2.2x
Nov-17	Q4'2017	Quintessential Marketing Consulting	Elmo Software (ASX:ELO)	\$9.3	2.9x
Sep-17	Q3'2017	Hainan Hong Kong and Macao Information Industry (50.6% Stake)	Shenzhen Quanxin hao Fengze Investment Center	\$172.9	3.1x
Sep-17	Q3'2017	Shanghai AutoKol Network Technology (50.1% Stake)	Lecron Internet Media Industry (SZSE:300343)	\$194.4	4.8x
Sep-17	Q3'2017	LOVOO	The Meet Group (NasdaqCM:MEET)	\$70.0	2.2x
Sep-17	Q3'2017	Snap Interactive (OTCPK:STVI)	OBAR Camden Holdings	\$34.0	1.4x
Sep-17	Q3'2017	Newgistics	Pitney Bowes (NYSE:PBI)	\$475.0	1.0x
Sep-17	Q3'2017	YuMe (NYSE:YUME)	RhythmOne (AIM:RTHM)	\$111.0	0.7x
Aug-17	Q3'2017	MaxPoint Interactive (NasdaqGM:MXPT)	Harland Clarke	\$108.2	0.7x
Aug-17	Q3'2017	CannaRegs	MassRoots (OTCPK:MSRT)	\$11.7	26.0x
Jul-17	Q3'2017	St. Hero' Network Technology	Kingnet Network (SZSE:002517)	\$466.4	26.0x
Jul-17	Q3'2017	WebMD Health (NasdaqGS:WBMD)	Internet Brands	\$3,740.4	5.3x
Jul-17	Q3'2017	Bankrate (NYSE:RATE)	Red Ventures	\$1,438.5	3.1x
Jul-17	Q3'2017	Accelyst Solutions and Freecharge Payment Technologies	Axis Bank (BSE:532215)	\$60.0	93.9x
Jul-17	Q3'2017	Rocket Fuel Inc. (NasdaqGS:FUEL)	Sizmek	\$149.9	0.3x
Jul-17	Q3'2017	Hainan Qiyao Interactive Entertainment Co., Ltd.	Shenzhen Taole Network Technology	\$31.3	16.6x
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)	Eclix 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



M&A transactions



Online & Digital (continued)

Date Announced	Period	Target	Buyer	Enterprise Value	Revenue Multiple
Apr-17	Q2'2017	IsCool 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



IV Selected transactions



Selected transactions



Idean Enterprises OY Acquired By Capgemini

Transaction Summary

- 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 user-centered 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

PHARUS
2017

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."**

Selected transactions



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 privately-held 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.



aquage

has been acquired by

CONAIR

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

PHARUS

2016

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."

Selected transactions

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 our 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 due-diligence, 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.



Fahrenheit**212**

has been acquired by



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

P H A R U S
F E B R U A R Y 2 0 1 6

Selected transactions

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. (NasdaqGS: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.



has been acquired by



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

PHARUS

Selected transactions



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 medium-sized businesses and enterprises, and government organizations; provides eFax, KeepItSafe, LiveDrive, eVoice and Onebox.
 - Digital Media – Operates a portfolio of Web properties, including PCMag.com, IGN.com, Speedtest.net, AskMen.com, and TechBargains.com.



Offers.com[™]

has been acquired by



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

P H A R U S
D E C E M B E R 2 0 1 5

Selected transactions



has been acquired by

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

PHARUS
February 2016

Innovation Services

has been acquired by

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

PHARUS

Retail Solutions

has been acquired by

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

PHARUS
December 2015

Online Marketing

CG CONTROL GROUP
has merged with

to form

The undersigned acted as the exclusive financial advisor to Control Group, Inc. and its affiliates, in connection with the transactions.

Pharus Securities, LLC

Digital Agency

has been acquired by

The undersigned acted as the exclusive financial advisor to RoyaltyShare, Inc. in its sale to The Orchard Enterprises, Inc.

Pharus Securities
November 2014

Digital Revenue Management

Received Series A financing of \$8 million from

The undersigned acted as the exclusive financial advisor to P97 Networks, Inc. in connection with the transaction.

Pharus Securities

Fuel Payment & Coupon

Completed a growth financing with

The undersigned acted as the exclusive financial advisor to Teachers Strategy Inc. in connection with the transaction.

Pharus Securities
May 2014

Education Technology

has been acquired by

The undersigned acted as the exclusive financial advisor to AmberFin Ltd. in its sale to Dalet S.A. (ENWTPA.DLT)

Pharus Securities
April 2014

Broadcast Technology

Remote DBA Business

has been acquired by

The undersigned acted as financial advisor to Bluewolf Inc. in the sale of its Remote DBA Business to General Corporation, Inc.

Pharus Advisors, LLC
December 2012

IT Services

has been acquired by

Principals of the undersigned acted as financial advisors to SocialGuide, Inc. in its sale to Nielsen Holdings N.V. and M&M Inc. LLC a joint venture between Nielsen and McKinsey & Company, Inc.

Pharus Advisors, LLC
November 2012

Social TV Software

has been acquired by

The undersigned acted as financial advisor to ExpertTune Inc. in its sale to Metso Corporation

Pharus Advisors, LLC
November 2012

Industrial Software

has acquired

The undersigned acted as financial advisor to NetKey, Inc. in connection with this acquisition.

Pharus Advisors, LLC
AUGUST 2007

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



**Founded
in 2001**

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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