

February 2020

The Lighthouse

Software
Online & Digital
Tech Enabled Business Services

Pharus Observations

2020 Brings Continued Acquisition Interest in Contract Management Solutions Space

There has been an abundance of M&A activity in the Legal Tech space over the past few years, and 2020 is no exception. Under the umbrella of legal tech, Contract Management Solutions, specifically, has seen several noteworthy middle market transactions in the last year. Contract Management Services providers have attracted acquisition interest from primarily strategic acquirers in recent months, as these larger solutions providers buyers aim to expand their capabilities in the Legal Tech space and snap up market share in the rapidly growing sector.

This February, leader in electronic contract management, **DocuSign**, announced that it would acquire the remaining equity **Seal Software**, a company focused on AI technology integration in the contract space for \$188 million. DocuSign, already an investor in the target, uses Seal's analytics and machine learning application as part of the Agreement Cloud, and going forward the plan is to further include Seal Software's AI technology into this platform.

In April, **Coupa Software**, a leader in business spend management, acquired **Exari**, a global leader in providing contract lifecycle management. The deal had a value of \$215 million. The combination of Exari's advanced contract lifecycle management capabilities and Coupa Software's business spend management platform will allow the business to management the entire contract management lifecycle – from contract request to signature capture.

In February, **Corcentric**, a global leader in procurement and financial process automation solutions, announced the completion of its acquisition of **Determine**, a leader in Source-to-Pay and Enterprise Contract Lifecycle Management Cloud Platform solutions. The deal was valued at \$32 million. The acquisition of Determine will open the opportunity to deliver more value to customers and increase Corcentric's global market footprint.

In February, **MRI Software**, a global leader in real estate software solutions, announced the acquisition of **CTM Software**, a global provider of transaction management software and residential real estate workflow, valued at \$35 million. The acquisition of CTM Software positions MRI software to enter the extensive real estate contract management space and highlights the appetite for vertical-specific contract management specialists.



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Capital markettrends



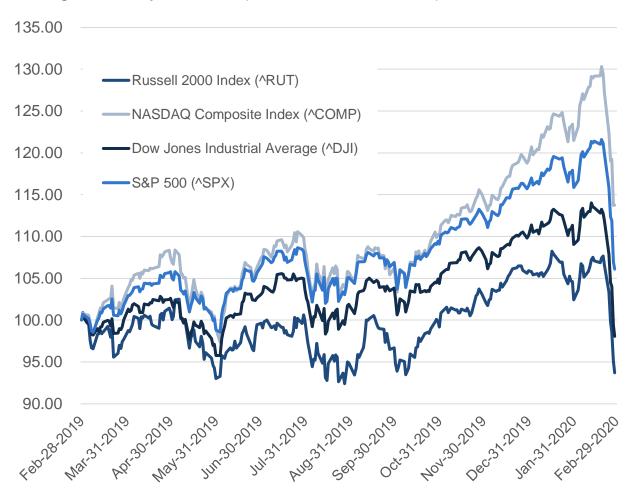
Capital market trends





Relative Performance of Major Indices

Through February 29, 2020 (Base = 100, 2/28/2019)



			Change %			
Index	As of 31-Jan-20	1 Year	3 Months	1 Month		
Dow Jones	25,409.36	-1.95%	-9.42%	-10.07%		
Nasdaq	8,567.37	13.74%	-1.13%	-6.38%		
S&P 500	2,954.22	6.10%	-5.95%	-8.41%		
Russell 2000	1,476.43	-6.29%	-9.11%	-8.53%		



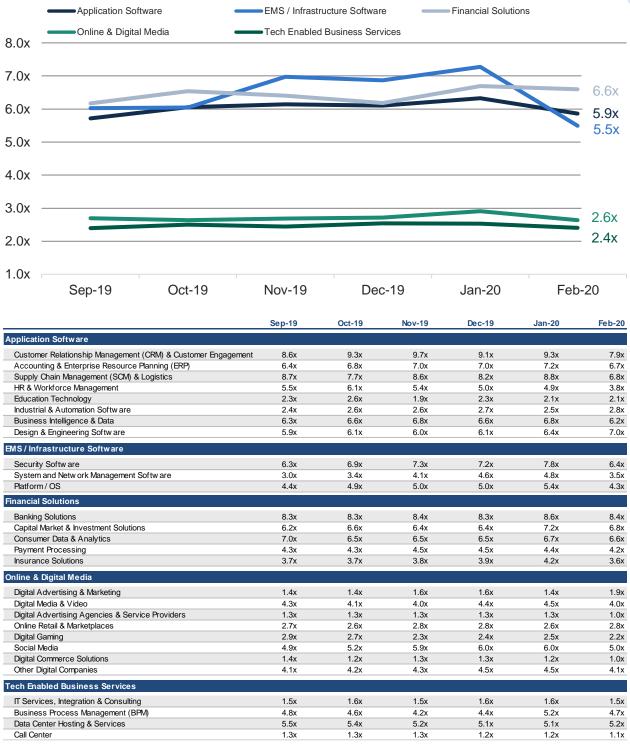








Historical Median TEV / Revenue Multiples







Current & Forward Market Multiples

	Median TEV/Rev	enue	Median TEV/EBI	TDA
	LTM	NTM	LTM	NTM
Application Software				
Customer Relationship Management (CRM) & Customer Engagement	7.9x	6.6x	33.2x	31.3x
Accounting & Enterprise Resource Planning (ERP)	6.7x	6.1x	28.5x	24.1x
Supply Chain Management (SCM) & Logistics	6.8x	6.5x	30.9x	26.1x
HR & Workforce Management	3.8x	3.9x	62.5x	30.2x
Education Technology	2.1x	2.0x	29.0x	20.6x
Industrial & Automation Software	2.8x	2.2x	14.1x	13.3x
Business Intelligence & Data	6.2x	5.4x	17.9x	14.6x
Design & Engineering Software	7.0x	5.6x	35.1x	22.2x
EMS / Infrastructure Software				
Security Software	6.4x	5.2x	24.9x	22.3x
System and Network Management Software	3.5x	2.9x	14.8x	13.6x
Platform / OS	4.3x	4.2x	13.2x	10.9x
Financial Solutions				
Banking Solutions	8.4x	7.2x	29.9x	18.4x
Capital Market & Investment Solutions	6.8x	6.6x	20.7x	20.0x
Consumer Data & Analytics	6.6x	6.3x	24.0x	18.1x
Payment Processing	4.2x	3.9x	18.6x	13.0x
Insurance Solutions	3.6x	6.6x	15.6x	19.4x
Online & Digital Media				
Digital Advertising & Marketing	1.9x	1.8x	7.0x	10.9x
Digital Media & Video	4.0x	4.3x	25.0x	18.5x
Digital Advertising Agencies & Service Providers	1.0x	1.2x	6.9x	6.5x
Online Retail & Marketplaces	2.8x	2.3x	21.7x	12.9x
Digital Gaming	2.2x	1.9x	8.2x	7.6x
Social Media	5.0x	4.5x	14.3x	11.4x
Digital Commerce Solutions	1.0x	1.0x	7.6x	7.8x
Other Digital Companies	4.1x	2.5x	14.2x	11.4x
Tech Enabled Business Services				
IT Services, Integration & Consulting	1.5x	1.4x	12.5x	10.3x
Business Process Management (BPM)	4.7x	3.9x	12.4x	11.3x
Data Center Hosting & Services	5.5x	4.9x	24.8x	20.3x
Call Center	1.1x	1.0x	7.7x	8.7x

	Medians			
Application Software	6.0x	4.9x	26.0x	19.7
EMS / Infrastructure Software	5.5x	4.7x	18.5x	15.0
Financial Solutions	6.6x	6.1x	23.4x	18.
Online & Digital Media	2.6x	2.3x	12.0x	11.
Tech Enabled Business Services	2.4x	1.9x	12.5x	10.





Application Software

				TEV/Rev	venue	TEV/EBITDA	
(\$ in millions)		TEV	Market Cap	LTM	NTM	LTM	NTM
Customer Relationship Manage	ement (CRM) & Customer Enga	gement					
Five9	NasdaqGM:FIVN	\$2,861	\$2,946	9.9x	8.5x	NM	48.7x
LivePerson	NasdaqGS:LPSN	\$2,000	\$2,031	7.5x	6.3x	NM	NM
Medallia	NYSE:MDLA	\$2,865	\$3,184	7.6x	6.3x	NM	NM
NICE Systems	TASE:NICE	\$10,094	\$9,944	6.5x	5.9x	23.4x	18.0x
Pegasystems	NasdaqGS:PEGA	\$7,209	\$7,209	7.9x	6.6x	NM	NM
Salesforce.com	NYSE:CRM	\$149,066	\$151,145	8.7x	7.1x	43.0x	24.2x
SDL	LSE:SDL	\$663	\$639	1.4x	1.3x	12.5x	10.5x
Veeva	NYSE:VEEV	\$19,627	\$21,095	19.2x	14.1x	62.5x	38.4x
Zendesk	NYSE:ZEN	\$9,095	\$8,990	11.1x	8.5x	NM	95.5x
Median				7.9x	6.6x	33.2x	31.3x
Accounting & Enterprise Resou	rce Planning (ERP)						
Avalara, Inc.	NYSE:AVLR	\$6,211	\$6,611	16.2x	13.1x	NM	NM
BasWare	HLSE:BAS1V	\$462	\$412	2.8x	2.6x	NM	24.1x
Blackline	NasdaqGS:BL	\$3,320	\$3,523	11.5x	9.5x	NM	88.6x
Coupa Software	NasdaqGS:COUP	\$9,482	\$9,554	26.8x	20.7x	NM	NM
Intuit	NasdaqGS:INTU	\$67,739	\$69,251	9.5x	8.6x	31.6x	24.0x
Kingdee International	SEHK:268	\$4,021	\$4,253	9.1x	7.8x	73.2x	36.7x
Linx S.A.	NYSE:LINX	\$1,318	\$1,250	7.9x	6.8x	61.2x	26.6x
Model N	NYSE:MODN	\$962	\$967	6.7x	6.1x	NM	66.3x
Oracle	NYSE:ORCL	\$185,750	\$158,650	4.7x	4.6x	11.3x	9.9x
QAD	NasdaqGS:QADA	\$844	\$947	2.7x	2.6x	98.6x	42.8x
Sage	LSE:SGE	\$10,003	\$9,500	4.0x	4.0x	16.2x	15.8x
SAP	DB:SAP	\$157,968	\$146,446	5.2x	4.8x	18.4x	13.1x
Upland Software	NasdaqGM:UPLD	\$1,341	\$983	6.0x	4.9x	25.5x	13.2x
Median				6.7x	6.1x	28.5x	24.1x
Supply Chain Management (SC	CM) & Logistics						
Descartes Systems Group	TSX:DSG	\$3,490	\$3,496	11.4x	10.0x	30.9x	26.1x
Manhattan Associates	NasdagGS:MANH	\$4,224	\$4,295	6.8x	6.5x	31.9x	29.6x
SPS Commerce	NasdaqGS:SPSC	\$1,644	\$1,834	5.9x	5.3x	27.0x	19.6x





Application Software (continued)

				TEV/Rev	/enue	TEV/EBI	TDA
(\$ in millions)		TEV	Market Cap	LTM	NTM	LTM	NTM
HR & Workforce Management							
Atlassian Corporation	NasdaqGS:TEAM	\$34,797	\$35,577	24.6x	19.4x	NM	77.2x
Benefit Focus	NasdaqGM:BNFT	\$559	\$409	2.0x	1.7x	NM	21.7x
CastLight Health	NYSE:CSLT	\$97	\$135	0.7x	0.7x	NM	NM
Ceridian HCM	NYSE:CDAY	\$10,670	\$10,235	12.9x	11.8x	67.4x	55.2x
Cornerstone OnDemand	NASDAQ: CSOD	\$2,464	\$2,514	4.3x	3.9x	67.8x	15.7x
DHI Group	NYSE:DHX	\$138	\$114	0.9x	0.9x	4.4x	4.4x
Paycom	NYSE:PAYC	\$16,226	\$16,298	22.0x	17.8x	62.5x	42.2x
Paylocity	NasdaqGS:PCTY	\$6,882	\$6,943	13.3x	11.0x	83.7x	38.8x
TriNet Group	NYSE:TNET	\$3,809	\$3,634	1.0x	3.8x	12.1x	9.7x
Upwork	NasdaqGS:UPWK	\$876	\$971	2.9x	2.6x	NM	NM
Verint Systems	NasdaqGS:VRNT	\$4,180	\$3,667	3.2x	2.9x	20.3x	11.5x
Workday	NasdaqGS:WDAY	\$39,473	\$39,848	10.9x	9.1x	NM	40.6x
Median				3.8x	3.9x	62.5x	30.2x
Industrial & Automation Softw	are						
3M	NYSE:MMM	\$104,814	\$85,903	3.3x	3.1x	11.5x	11.6x
ABB	SWX:ABBN	\$52,297	\$45,868	1.9x	1.9x	14.6x	13.7x
American Software	NasdaqGS:AMSW.A	\$432	\$526	3.8x	3.7x	46.9x	28.9x
Aspen Technology	NasdaqGS:AZPN	\$7,533	\$7,233	12.5x	12.0x	26.6x	23.3x
Dassault	ENXTPA:DSY	\$43,583	\$40,604	9.9x	7.9x	31.9x	23.0x
Endava	NYSE:DAVA	\$2,748	\$2,786	6.5x	5.5x	71.0x	25.0x
Emerson	NYSE:EMR	\$44,146	\$39,225	2.4x	2.4x	11.9x	11.5x
Fanuc Corporation	TSE:6954	\$27,107	\$31,831	5.6x	5.4x	19.4x	17.8x
General Electric	NYSE:GE	\$176,176	\$95,094	1.9x	1.9x	13.2x	14.7x
HollySys Automation Tech	NasdaqGS:HOLI	\$373	\$914	0.6x	0.6x	2.8x	2.5x
Honeywell	NYSE:HON	\$122,072	\$115,562	3.3x	3.2x	13.7x	12.8x
Johnson Controls	NYSE:JCI	\$35,231	\$27,895	1.5x	1.4x	12.0x	9.7x
KUKA	DB:KU2	\$1,671	\$1,242	0.5x	0.5x	12.6x	8.5x
Materialise	NasdaqGS:MTLS	\$879	\$875	4.1x	3.7x	38.3x	22.9x
Metso	HLSE:METSO	\$4,877	\$4,823	6.7x	1.1x	36.6x	7.4x
OMRON Corp	TSE:6645	\$9,477	\$11,067	1.4x	1.5x	11.8x	11.4x
Parametric Technology	NasdaqGS:PTC	\$9,809	\$8,726	7.7x	6.4x	59.1x	20.0x

\$23,334

\$61,970

\$117,743

\$8,477

\$3,949

\$21,320

\$54,842

\$83,115

\$8,166

\$4,280

3.5x

2.1x

1.2x

2.2x

1.1x

3.3x

2.0x

1.2x

2.1x

1.0x

2.2x

16.0x

11.4x

10.6x

21.7x

7.8x

14.1x



NYSE:ROK

ENXTPA:SU

DB:SIE

TSE:6506

TSE:6841

Rockwell Automation

YASKAWA Electric Corp

Yokogawa Electric Corp.

Schneider Electric

Siemens

Median

15.1x

10.5x 9.5x

18.2x

7.0x

13.3x





Application Software (continued)

			_	TEV/Rev		TEV/EBITDA	
(\$ in millions)		TEV	Market Cap	LTM	NTM	LTM	NTM
Education Technology							
Blackbaud	NasdaqGS:BLKB	\$3,795	\$3,243	4.2x	4.0x	29.0x	20.6x
Instructure	NYSE:INST	\$1,797	\$1,866	7.0x	5.9x	NM	NM
K12	NYSE:LRN	\$617	\$780	0.6x	0.6x	10.1x	4.5x
Rosetta Stone	NYSE:RST	\$387	\$416	2.1x	2.0x	86.7x	69.5x
Sunlands Online Education Group	NYSE:STG	\$332	\$453	1.1x	1.1x	NM	NM
Median				2.1x	2.0x	29.0x	20.6x
Business Intelligence & Data							
Alteryx	NYSE:AYX	\$9,079	\$9,132	21.7x	16.1x	NM	NM
AppFolio	NasdaqGM:APPF	\$4,220	\$4,189	17.7x	13.2x	NM	82.7x
Cardylitics	NasdaqGM:CDLX	\$1,946	\$2,041	10.3x	7.1x	NM	NM
Cloudera	NYSE:CLDR	\$2,376	\$2,556	3.3x	2.8x	NM	NM
Corelogic	NYSE:CLGX	\$5,295	\$3,583	3.0x	3.1x	13.5x	10.3x
CoStar Group	NasdaqGS:CSGP	\$23,543	\$24,464	16.8x	14.2x	49.8x	45.2x
Datadog	NasdaqGS:DDOG	\$12,699	\$13,413	35.0x	23.3x	NM	NM
Domo, Inc.	NasdaqGM:DOMO	\$572	\$588	3.4x	NM	NM	NM
Elastic N.V.	NYSE:ESTC	\$5,767	\$6,025	15.0x	NM	NM	NM
Gridsum Holding	NasdaqGS:GSUM	\$108	\$33	2.7x	NA	NM	NA
Health Catalyst	NasdaqGS:HCAT	\$956	\$1,132	6.2x	NM	NM	NM
Inovalon Holdings	NASDAQ:INOV	\$3,933	\$3,021	6.1x	5.6x	20.6x	16.6x
MicroStrategy	NasdaqGS:MSTR	\$913	\$1,366	1.9x	1.7x	26.9x	12.5x
MMTEC	NasdaqCM:MTC	\$25	\$30	123.3x	NA	NM	NA
MongoDB	NasdaqGM:MDB	\$8,532	\$8,653	22.2x	17.4x	NM	NM
NantHealth	NasdaqGS:NH	\$463	\$251	4.8x	4.5x	NM	NA
New Relic	NYSE:NEWR	\$3,089	\$3,334	5.4x	4.6x	NM	39.1x
Open Text	NasdaqGS:OTEX	\$14,440	\$11,315	4.9x	4.3x	15.1x	11.6x
PROS Holdings	NYSE:PRO	\$1,803	\$1,969	7.2x	6.2x	NM	NM
Sabre	NasdaqGS:SABR	\$6,730	\$3,727	1.7x	1.8x	12.3x	10.5x
Splunk	NasdaqGS:SPLK	\$23,149	\$22,979	10.6x	8.5x	NM	50.7x
TrueCar	NasdaqGS:TRUE	\$143	\$282	0.4x	0.4x	NM	8.3x
Varonis Systems	NasdaqGS:VRNS	\$2,400	\$2,455	9.4x	8.3x	NM	NM
Workiva	NYSE:WK	\$1,836	\$2,004	6.2x	5.3x	NM	NM
Yext	NYSE:YEXT	\$1,614	\$1,741	5.7x	4.2x	NM	NM
Median				6.2x	5.4x	17.9x	14.6x



IV

				TEV/Re	TEV/Revenue		TEV/EBITDA	
(\$ in millions)		TEV	Market Cap	LTM	NTM	LTM	NTM	
Design & Engineering Softwar	е							
Ansys	NasdaqGS:ANSS	\$20,544	\$20,808	13.6x	12.3x	35.1x	28.3x	
Altair Engineering	NasdaqGS:ALTR	\$2,504	\$2,520	5.5x	5.1x	58.0x	48.4x	
Aurora Mobile	NasdaqGM:JG	\$281	\$308	2.1x	1.2x	NM	21.9x	
Autodesk	NasdaqGS:ADSK	\$42,701	\$42,000	13.0x	10.8x	76.7x	33.3x	
Aveva Group	LSE:AVV	\$9,044	\$9,029	8.6x	8.2x	42.5x	27.2x	
Cadence Design Systems	NasdaqGS:CDNS	\$18,277	\$18,530	7.8x	7.1x	27.7x	19.7x	
Hexagon	OM:HEXA B	\$21,663	\$19,463	5.1x	4.7x	15.9x	13.7x	
Progress Software	NasdaqGS:PRGS	\$1,805	\$1,682	4.4x	4.0x	14.0x	9.9x	
RIB Software AG	DB:RIB	\$1,481	\$1,574	7.0x	4.9x	39.8x	22.5x	
Synopsys	NasdaqGS:SNPS	\$20,885	\$20,721	6.2x	5.6x	31.5x	17.6x	
Twilio	NYSE:TWLO	\$14,236	\$15,449	12.5x	9.5x	NM	NM	
Median				7.0x	5.6x	35.1x	22.2x	





EMS / Infrastructure Software

				TEV/Rev	venue	TEV/EBITDA	
(\$ in millions)		TEV	Market Cap	LTM	NTM	LTM	NTM
Security Software							
Check Point Software	NasdaqGS:CHKP	\$13,523	\$15,103	6.8x	6.6x	15.0x	13.2x
Cheetah Mobile	NYSE:CMCM	\$85	\$405	0.1x	0.2x	NM	NA
CrowdStrike	NasdaqGS:CRWD	\$11,844	\$12,677	28.9x	18.8x	NM	NM
CyberArk Software	NasdaqGS:CYBR	\$3,386	\$3,966	7.8x	6.6x	46.4x	27.8x
Everbridge	NasdaqGM:EVBG	\$3,531	\$3,617	17.6x	13.5x	NM	NM
FireEye	NasdaqGS:FEYE	\$2,962	\$2,902	3.3x	3.1x	NM	22.3x
ForeScout	NasdaqGM:FSCT	\$1,523	\$1,575	4.5x	4.0x	NM	NM
Fortinet	NasdaqGS:FTNT	\$15,587	\$17,607	7.2x	6.1x	36.5x	22.8x
Mimecast	NasdaqGS:MIME	\$2,526	\$2,475	6.2x	5.2x	39.4x	27.2x
MobileIron	NasdaqGS:MOBL	\$375	\$454	1.8x	1.9x	NM	NM
Okta	NasdaqGS:OKTA	\$15,251	\$15,521	28.5x	21.6x	NM	NM
OneSpan	NasdaqCM:OSPN	\$593	\$660	2.4x	2.2x	24.9x	17.2x
Palo Alto Networks	NYSE:PANW	\$17,143	\$18,408	5.5x	4.7x	NM	21.7x
Ping Identity Holding	NYSE:PING	\$1,836	\$1,843	7.8x	7.3x	36.9x	83.1x
Proofpoint	NasdaqGM:PFPT	\$5,995	\$6,079	6.7x	5.6x	NM	42.4x
Qualys	NasdaqGS:QLYS	\$2,887	\$3,134	9.0x	7.9x	24.9x	18.2x
Rapid7	NasdaqGM:RPD	\$2,350	\$2,325	7.2x	5.9x	NM	NM
SecureWorks	NasdaqGS:SCWX	\$1,019	\$1,128	1.9x	1.8x	NM	90.8x
Tenable	NasdaqGS:TENB	\$2,271	\$2,437	6.4x	5.2x	NM	NM
Trend Micro	TSE:4704	\$5,306	\$6,897	3.5x	3.3x	10.7x	10.5x
Tufin Software	NYSE:TUFN	\$318	\$412	3.1x	2.7x	NM	NM
Zix	NasdaqGS:ZIXI	\$704	\$424	4.1x	3.2x	18.2x	13.9x
Zscaler	NasdaqGS:ZS	\$6,302	\$6,653	17.5x	13.2x	NM	NM
Median				6.4x	5.2x	24.9x	22.3x

Median				3.5x	2.9x	14.8x	13.6x
Dynatrace	NYSE:DT	\$9,421	\$9,070	18.4x	14.7x	NM	56.4x
Vmware	NYSE:VMW	\$53,921	\$50,342	5.0x	4.5x	19.8x	13.0x
SolarWinds	NYSE:SWI	\$7,520	\$5,673	8.1x	7.2x	31.2x	15.6x
Software	XTRA:SOW	\$2,156	\$2,400	2.2x	2.2x	7.7x	10.5x
ServiceNow	NYSE:NOW	\$61,332	\$61,892	17.7x	13.8x	NM	48.0x
SailPoint	NYSE:SAIL	\$2,179	\$2,272	7.6x	6.7x	NM	NM
Parsons Corporation	NYSE:PSN	\$4,263	\$3,880	1.1x	1.1x	14.8x	14.2x
One Stop Systems	NasdaqCM:OSS	\$33	\$34	0.6x	0.5x	NM	9.2x
Nutanix	NasdaqGS:NTNX	\$4,400	\$4,583	3.5x	2.9x	NM	NM
Netscout Systems	NasdaqGS:NTCT	\$2,083	\$1,898	2.3x	2.3x	12.2x	11.4x
Micro Focus	LSE:MCRO	\$7,474	\$3,153	2.3x	2.4x	7.2x	6.6x
CommVault Systems	NasdaqGS:CVLT	\$1,623	\$1,943	2.4x	2.3x	39.1x	15.2x
Cloudflare	NYSE:NET	\$5,767	\$6,394	20.1x	14.7x	NM	NM
Anaplan	NYSE:PLAN	\$5,736	\$6,004	16.5x	12.3x	NM	NM
A10 Networks	NYSE:ATEN	\$419	\$521	2.0x	1.8x	NM	NA









EMS / Infrastructure Software (continued)

			Market Cap	TEV/Revenue		TEV/EBITDA	
(\$ in millions)		TEV M		p LTM	NTM	LTM	NTM
Platform / OS							
Citrix Systems	NasdaqGS:CTXS	\$13,061	\$12,651	4.3x	4.2x	17.3x	12.5x
Hewlett-Packard	NYSE:HPQ	\$30,562	\$30,212	0.5x	0.5x	5.8x	6.1x
Fastly	NYSE:FSLY	\$1,753	\$1,854	8.7x	6.7x	NM	NM
IBM	NYSE:IBM	\$175,060	\$115,626	2.3x	2.2x	9.2x	9.3x
Microsoft Corp.	NasdaqGS:MSFT	\$1,185,172	\$1,232,256	8.8x	7.9x	18.8x	17.5x
Median				4.3x	4.2x	13.2x	10.9x



IV

Financial Solutions

				TEV/Revenue		TEV/EBITDA	
(\$ in millions)		TEV	Market Cap	LTM	NTM	LTM	NTM
Banking Solutions							
Black Knight	NYSE:BKI	\$11,450	\$9,873	9.7x	9.5x	33.8x	19.0x
Bottomline Technologies	NasdaqGS:EPAY	\$1,987	\$1,949	4.6x	4.2x	46.5x	18.4x
Fidelity National	NYSE:FIS	\$105,763	\$86,112	10.2x	7.8x	29.6x	17.7x
Fiserv	NasdaqGS:FISV	\$97,893	\$74,266	9.6x	6.1x	26.0x	16.3x
GreenSky	NasdaqGS:GSKY	\$616	\$506	1.2x	1.1x	4.1x	3.2x
Jack Henry & Associates	NasdaqGS:JKHY	\$11,640	\$11,641	7.1x	6.6x	25.3x	20.6x
Pintec Technology	NasdaqGM:PT	\$147	\$85	1.1x	NA	32.9x	NA
Q2 Holdings	NYSE:QTWO	\$3,987	\$3,649	12.6x	9.6x	NM	NM
Senmiao Technology Limited	NasdaqCM:AIHS	\$13	\$13	0.8x	NA	NM	NA
Temenos Group	SWX:TEMN	\$11,083	\$10,061	11.4x	9.6x	30.3x	23.5x
Median				8.4x	7.2x	29.9x	18.4x
Capital Market & Investment Sc							
Envestnet	NYSE:ENV	\$4,577	\$3,993	5.1x	4.5x	43.2x	20.4x
FactSet Research Systems	NYSE:FDS	\$10,561	\$10,083	7.3x	7.0x	20.7x	20.4x
IRESS	ASX:IRE	\$1,491	\$1,329	4.5x	4.1x	18.2x	16.2x
Moodys	NYSE:MCO	\$49,432	\$44,982	10.2x	9.6x	20.6x	19.7x
Morningstar	NasdaqGS:MORN	\$6,609	\$6,289	5.6x	NA	18.8x	NA
MSCI	NYSE:MSCI	\$26,807	\$25,056	17.2x	15.4x	31.3x	27.4x
SimCorp	CPSE:SIM	\$3,830	\$3,786	7.7x	7.0x	24.4x	23.9x
SS&C Technologies Holdings	NasdaqGS:SSNC	\$21,599	\$14,190	4.7x	4.5x	12.2x	11.3x
Thomson Reuters	TSX:TRI	\$38,670	\$36,836	6.8x	6.2x	89.9x	19.7x
Median				6.8x	6.6x	20.7x	20.0x
Consumer Data & Analytics							
Equifax	NYSE:EFX	\$20,347	\$17,220	5.8x	5.5x	24.0x	16.0x
Experian	LSE:EXPN	\$34,162	\$29,782	6.6x	6.3x	20.4x	18.1x
Fair Isaac	NYSE:FICO	\$11,873	\$10,961	9.9x	9.3x	41.1x	27.9x

Median

6.3x

24.0x

18.1x





Financial Solutions (continued)

				TEV/Rev	enue/	TEV/EBI	TDA
(\$ in millions)		TEV	Market Cap	LTM	NTM	LTM	NTM
Payment Processing							
ACI Worldwide	NasdaqGS:ACIW	\$4,568	\$3,237	3.6x	3.1x	20.4x	10.6x
Cielo	BOVESPA:CIEL3	\$6,310	\$4,124	2.5x	2.5x	9.9x	10.8x
Euronet Worldwide	NasdaqGS:EEFT	\$6,730	\$6,702	2.4x	2.2x	8.9x	9.9x
EVO Payments	NasdaqGM:EVOP	\$2,282	\$1,043	4.7x	4.2x	16.7x	13.0x
Global Payments	NYSE:GPN	\$63,764	\$55,122	13.0x	8.2x	31.5x	18.1x
i3 Verticals, Inc.	NasdaqGS:IIIV	\$619	\$422	1.9x	3.7x	22.8x	12.9x
Net 1 Ueps Technologies	NasdaqGS:UEPS	\$252	\$192	0.9x	0.9x	NM	NM
PagSeguro Digital	NYSE:PAGS	\$9,620	\$10,300	10.9x	6.0x	NM	15.5x
Square	NYSE: SQ	\$35,803	\$36,268	7.6x	6.0x	NM	69.5x
StoneCo Ltd.	NasdaqGS:STNE	\$11,594	\$11,064	47.2x	14.2x	NM	24.4x
Median				4.2x	3.9x	18.6x	13.0x
Insurance Solutions							
CorVel	NasdaqGS:CRVL	\$1,259	\$1,248	2.1x	NA	13.1x	NA
Ebix	NasdaqGS:EBIX	\$1,498	\$806	2.6x	2.3x	8.0x	8.4x
Guidewire Software	NYSE:GWRE	\$8,463	\$9,052	12.2x	10.7x	NM	64.8x
Sapiens International	NasdaqCM:SPNS	\$1,188	\$1,157	3.6x	3.1x	18.2x	17.6x
Verisk	NasdaqGS:VRSK	\$28,506	\$25,295	10.9x	10.1x	25.8x	21.2x
Median				3.6x	6.6x	15.6x	19.4x





Online & Digital

				TEV/Rev	/enue	TEV/EBI	TDA
(\$ in millions)		TEV	Market Cap	LTM	NTM	LTM	NTM
Digital Advertising & Marketi	ing						
Alphabet	NasdaqGS:GOOG.L	\$816,767	\$920,475	5.0x	4.3x	16.2x	12.0x
Baidu	NasdaqGS:BIDU	\$32,356	\$41,493	2.1x	2.0x	8.0x	10.9x
Criteo	NasdaqGS:CRTO	\$569	\$789	0.3x	0.7x	1.8x	2.3x
Hubspot	NYSE:HUBS	\$7,415	\$7,768	11.0x	8.8x	NM	77.3x
iClick Interactive	NasdaqGM:ICLK	\$344	\$296	1.9x	1.5x	NM	78.1x
Marin Software	NasdaqGM:MRIN	\$7	\$9	0.1x	NA	NM	NA
Perion Network	NasdaqGS:PERI	\$165	\$186	0.6x	0.5x	5.5x	4.3x
QuinStreet	NasdaqGS:QNST	\$605	\$666	1.3x	1.1x	23.8x	10.8x
SINA Corp	NasdaqGS:SINA	\$2,619	\$2,278	1.2x	1.2x	6.1x	6.0x
Sogou	NYSE:SOGO	\$594	\$1,663	0.5x	0.5x	5.4x	3.9x
Telaria	NYSE:TLRA	\$545	\$581	8.0x	7.0x	NM	NM
The Rubicon Project	NYSE:RUBI	\$558	\$625	3.6x	3.1x	NM	15.7x
Yandex	NasdaqGS:YNDX	\$12,704	\$13,396	4.5x	3.7x	18.7x	12.7x
Median				1.9x	1.8x	7.0x	10.9x

Digital Media & Video							
Adobe Systems	NasdaqGS:ADBE	\$166,747	\$166,786	14.9x	12.7x	43.5x	27.2x
Bilibili	NasdaqGS:BILI	\$7,788	\$8,375	9.4x	6.0x	NM	NM
Blucora	NasdaqGS:BCOR	\$1,152	\$831	1.6x	1.4x	9.4x	7.8x
Brightcove	NasdaqGS:BCOV	\$298	\$303	1.6x	1.5x	81.2x	18.5x
Digimarc	NasdaqGS:DMRC	\$210	\$244	9.1x	7.6x	NM	NA
HUYA Inc.	NYSE:HUYA	\$3,018	\$4,337	2.9x	2.0x	87.6x	20.7x
IAC/Interactive	NasdaqGS:IAC	\$18,501	\$17,286	3.9x	3.5x	21.2x	17.2x
iQIYI	NasdaqGS:IQ	\$17,225	\$16,264	4.1x	3.6x	21.4x	9.6x
Leaf Group	NYSE:LEAF	\$66	\$69	0.4x	0.4x	NM	NM
Netflix	NasdaqGS:NFLX	\$173,287	\$161,933	8.6x	7.1x	59.0x	38.6x
Pluralsight	NasdaqGS:PS	\$1,988	\$1,860	6.3x	5.0x	NM	NM
Qutoutiao	NasdaqGS:QTT	\$1,279	\$1,326	1.7x	1.3x	NM	NM
Roku	NasdaqGS:ROKU	\$13,309	\$13,423	11.8x	8.3x	NM	NM
Sonic Foundry	OTCPK:SOFO	\$17	\$12	0.5x	NA	23.5x	NA
TiVo	NasdaqGS:TIVO	\$1,606	\$965	2.4x	2.4x	8.2x	6.9x
VeriSign	NasdaqGS:VRSN	\$22,669	\$22,090	18.4x	17.9x	26.6x	24.4x
Xunlei	NasdaqGS:XNET	\$50	\$295	0.3x	NA	NM	NA
Zoom Video Communications	Nasdaq:ZM	\$28,267	\$29,022	52.3x	35.4x	NM	NM
Median				4.0x	4.3x	25.0x	18.5x





Online & Digital (continued)

				TEV/Revenue		TEV/EBITDA	
(\$ in millions)		TEV	Market Cap	LTM	NTM	LTM	NTM
Digital Advertising Agen	cies & Service Providers						
Dentsu	TSE:4324	\$9,765	\$7,112	1.0x	1.0x	6.6x	6.1x
IPG	NYSE:IPG	\$12,329	\$8,284	1.4x	1.4x	7.2x	8.1x
M&C Saatchi	AIM:SAA	\$154	\$107	0.3x	0.5x	4.3x	3.1x
MDC Partners	NasdaqGS:MDCA	\$1,465	\$181	1.0x	NA	7.2x	NA
Omnicom	NYSE:OMC	\$18,290	\$15,025	1.2x	1.2x	6.9x	7.6x
Publiclis	ENXTPA:PUB	\$14,612	\$9,116	1.2x	1.2x	5.5x	5.5x
WPP	LSE:WPP	\$17,063	\$11,751	1.0x	1.2x	6.9x	6.8x
Median				1.0x	1.2x	6.9x	6.5x

Online Retail & Marketplace	s						
1-800-Flowers.com	NasdaqGS:FLWS	\$1,034	\$1,160	0.8x	0.7x	10.1x	9.7x
Alibaba	NYSE:BABA	\$540,826	\$558,006	7.7x	6.2x	28.4x	20.7x
Amazon	NasdaqGS:AMZN	\$960,264	\$937,750	3.4x	2.9x	23.5x	18.8x
ASOS	AIM:ASC	\$3,318	\$3,202	1.0x	0.8x	43.0x	14.9x
Blue Apron	NYSE:APRN	\$120	\$38	0.3x	0.3x	NM	NM
boohoo.com	AIM:BOO	\$4,108	\$4,321	3.1x	2.3x	33.5x	23.5x
Booking Holding	NasdaqGS:BKNG	\$71,407	\$69,627	4.7x	4.9x	11.5x	13.0x
Cango	NYSE:CANG	\$1,028	\$1,060	5.4x	4.1x	22.2x	NA
CarGurus	NasdaqGS:CARG	\$2,760	\$2,862	4.7x	4.1x	52.7x	30.1x
Carvana	NYSE:CVNA	\$5,740	\$4,191	1.5x	1.0x	NM	NM
Ebay	NasdaqGS:EBAY	\$33,173	\$27,576	3.1x	3.4x	10.0x	9.3x
Eventbrite	NYSE:EB	\$837	\$1,233	2.6x	2.4x	NM	NM
Expedia	NasdaqGS:EXPE	\$17,138	\$13,806	1.4x	1.3x	11.5x	7.2x
Fiverr	NYSE:FVRR	\$854	\$976	8.0x	6.1x	NM	NM
Groupon	NasdaqGS:GRPN	\$382	\$760	0.2x	0.2x	3.0x	2.5x
Grubhub	NYSE:GRUB	\$4,588	\$4,400	3.5x	3.1x	46.6x	40.9x
EverQuote, Inc.	NasdaqGM:EVER	\$1,020	\$1,062	4.1x	3.2x	NM	70.0x
Ocado Group	LSE:OCDO	\$9,339	\$9,513	4.2x	3.7x	NM	NM
Overstock	NasdaqGM:OSTK	\$281	\$250	0.2x	0.2x	NM	NM
Pinduoduo Inc.	NasdaqGS:PDD	\$36,724	\$41,589	10.5x	6.1x	NM	NM
Quotient Technology	NYSE:QUOT	\$745	\$796	1.7x	1.5x	NM	12.5x
Rakuten	TSE:4755	\$13,613	\$11,305	1.2x	1.0x	NM	10.2x
RumbleON	NasdaqCM:RMBL	\$83	\$15	0.1x	0.1x	NM	NM
Shutterstock	NYSE:SSTK	\$1,122	\$1,368	1.7x	1.7x	21.1x	11.1x
So-Young International	NasdaqGM:SY	\$868	\$1,231	6.4x	3.6x	51.3x	12.9x
Stamps.com	NasdaqGS:STMP	\$2,303	\$2,409	4.0x	3.9x	18.9x	15.7x
The Trade Desk	NasdaqGM:TTD	\$13,026	\$13,091	19.7x	15.0x	81.8x	49.6x
TripAdvisor	NasdaqGS:TRIP	\$3,039	\$3,191	1.9x	1.9x	11.6x	6.8x
Wayfair	NYSE:W	\$7,332	\$5,949	0.8x	0.7x	NM	NM
JMU	NasdaqCM:MFH	\$8	\$8	NM	NA	NM	NA
Yelp	NYSE:YELP	\$2,066	\$2,246	2.0x	1.8x	18.5x	8.2x
Median				2.8x	2.3x	21.7x	12.9x







Online & Digital (continued)

Activision NasdargGS:ATVI S41,804 S44,715 6.4x 6.1x 19.3x 16.4x 19.3x 16.4x 16.7x 19.3x 16.4x 19.3x 16.4x 16.7x 19.3x 16.4x 16.7x 19.3x 16.4x 16.7x 19.3x 19.				_	TEV/Rev	venue	TEV/EBI	TDA
Activision NasdaqGS:ATVI \$41,804 \$44,715 6.4x 6.1x 19.3x 16.4b Capcom TSE:997 \$2.405 \$2.896 2.8x 2.2x 10.1x 8.9 Capcom TSE:997 \$2.405 \$2.896 2.8x 2.2x 10.1x 8.9 2.0b Capcom NasdaqGS:CYOU \$330 \$577 0.7x 0.8x 2.8x 2.6b Captur International NasdaqGS:CYOU \$1,374 \$2.522 1.5x 1.0x NM 18.3b Electronic Arts NasdaqGS:EA \$25.000 \$29,364 4.6x 4.8x 10.7x 14.1b 18.3b Capcom TSE:3632 \$116 \$935 0.2x 0.2x 2.2x 2.2x 2.2b Konami TSE:3632 \$3116 \$935 0.2x 0.2x 2.2x 2.2b Konami TSE:3766 \$3,3966 \$4,862 1.6x 1.5x 7.3x 6.2b 18.0b Nathrapan WebSoft \$EHK:777 \$13,39 \$1,551 1.8x 1.5x 8.1x 7.2b Nathrapan WebSoft \$EHK:777 \$13,39 \$1,551 1.8x 1.5x 8.1x 7.2b Nathrapan WebSoft \$EHK:777 \$13,39 \$1,551 1.8x 1.5x 8.1x 7.2b Nathrapan WebSoft \$EHK:777 \$13,39 \$1,551 1.8x 1.5x 8.1x 7.2b Nathrapan WebSoft \$EHK:777 \$13,39 \$1,551 1.8x 1.5x 8.1x 7.2b Nathrapan WebSoft \$EHK:777 \$13,39 \$1,551 1.8x 1.5x 8.1x 7.2b Nathrapan WebSoft \$EHK:777 \$13,39 \$1,551 1.8x 1.5x 8.1x 7.2b Nathrapan WebSoft \$EHK:777 \$1,343 \$983 0.2x 0.2x 2.2x 1.2x 10.4x 8.7x 7.3b Nathrapan WebSoft \$1.5x 7.73x 6.29 \$1,300 1.2x 1.2x 1.2x 1.2x 1.2x 1.2x 1.2x 1.2x	(\$ in millions)		TEV	Market Cap	LTM	NTM	LTM	NTM
Capcom	Digital Gaming							
Changyou.com	Activision	NasdaqGS:ATVI	\$41,804	\$44,715	6.4x	6.1x	19.3x	16.4x
Dou'y1 International NasdaqGS:DOYU \$1,374 \$2,522 1.5x 1.0x NM 18.35	Capcom	TSE:9697	\$2,405	\$2,896	2.8x	2.2x	10.1x	8.9x
Electronic Arts	Changyou.com	NasdaqGS:CYOU	\$330	\$577	0.7x	0.8x	2.8x	2.6x
Gree TSE:3632 \$116 \$935 0.2x 0.2x 2.2x 2.3x Konami TSE:9766 \$3,966 \$4,862 1.0x 1.5x 7.3x 6.2x NetDragon WebSoft SEHK:777 \$1,369 \$1,551 1.0x 1.5x 8.1x 7.2x Net Entertainment OM:NETB \$826 \$600 4.5x 3.0x 9.7x 6.9s Nintendo TSE:7974 \$29,812 \$39,882 2.6x 2.4x 10.4x 8.7x Playtech LSE:PTEC \$1,343 \$963 0.8x 0.8x 4.2x 3.6 SciPlay NasdagGS:SPL \$325 \$205 0.7x 0.6x 2.9x 2.2 Square Enix TSE:9684 \$3,648 \$4,790 1.4x 1.2x 8.2x 2.2x Take-Two Interactive NasdagGS:TWO \$9,730 \$11,539 3.4x 3.7x NM 7.4 4.2x Ubisof ENXTPA:UBI \$9,345 \$8,863 4.3x <t< td=""><td>DouYu International</td><td>NasdaqGS:DOYU</td><td>\$1,374</td><td>\$2,522</td><td>1.5x</td><td>1.0x</td><td>NM</td><td>18.3x</td></t<>	DouYu International	NasdaqGS:DOYU	\$1,374	\$2,522	1.5x	1.0x	NM	18.3x
Nontragion TSE:9766	Electronic Arts	NasdaqGS:EA	\$25,000	\$29,364	4.6x	4.8x	16.7x	14.1x
NetDragon WebSoft	Gree	TSE:3632	\$116	\$935	0.2x	0.2x	2.2x	2.3x
Net Entertainment	Konami	TSE:9766	\$3,966	\$4,862	1.6x	1.5x	7.3x	6.2x
Nintendo TSE:7974 \$29,812 \$39,882 2.6x 2.4x 10.4x 8.7x Playtech LSE:PTEC \$1,343 \$963 0.8x 0.8x 4.2x 3.6b SciPlay NasdaqGS:SCPL \$325 \$205 0.7x 0.6x 2.9x 2.2x Square Enix TSE:9684 \$3,648 \$4,790 1.4x 1.2x 8.2x 7.8b Take-Two Interactive NasdaqGS:TITWO \$9,730 \$11,539 3.4x 3.7x 2.14x 14,2x Unisoft ENYTRA:UBI \$9,345 \$8,863 4.8x 3.7x NM 7.4b Zynga NasdaqGS:ZNGA \$5,740 \$6,365 4.3x 3.5x NM 15.6b Median	NetDragon WebSoft	SEHK:777	\$1,369	\$1,551	1.8x	1.5x	8.1x	7.2x
Playtech LSE:PTEC	Net Entertainment	OM:NET B	\$826	\$600	4.5x	3.6x	9.7x	6.9x
SciPlay NasdaqGS:SCPL \$325 \$205 0.7x 0.6x 2.9x 2.2x	Nintendo	TSE:7974	\$29,812	\$39,882	2.6x	2.4x	10.4x	8.7x
Square Enix TSE:9684 \$3,648 \$4,790 1.4x 1.2x 8.2x 7.8b Take-Two Interactive NasdaqGS:TWO \$9,730 \$11,539 3.4x 3.7x 21.4x 14.2b Ubisoft ENXTPA:UBI \$9,345 \$8,863 4.8x 3.7x NM 7.4b Zynga NasdaqGS:ZNGA \$5,740 \$6,385 4.3x 3.5x NM 16.8b Median 2.2x 1.9x 8.2x 7.6b Social Media Eracebook NasdaqGS:FB \$504,845 \$548,626 7.1x 5.9x 16.3x 11.4b LINE TSE:3938 \$11,548 \$11,745 5.5x 4.7x NM 55.5b Malt La Group LSE:MAIL \$4,494 \$4,185 2.9x 2.9x 12.0x 8.8b Match Group NasdaqCS:MTCH \$19,564 \$18,379 9.5x 8.1x 27.5x 21.4b Meetide NasdaqCS:MTCH \$19,564 \$1,813 1.0x	Playtech	LSE:PTEC	\$1,343	\$963	0.8x	0.8x	4.2x	3.6x
Take-Two Interactive NasdaqGS:TTWO \$9,730 \$11,539 3.4x 3.7x 21.4x 14.2x Ubisoft ENXTPA:UBI \$9,345 \$8,863 4.8x 3.7x NM 7.4 Zynga NasdaqGS:ZNGA \$5,740 \$6,385 4.3x 3.5x NM 15.8i Median Social Media Facebook NasdaqGS:FB \$504,845 \$548,626 7.1x 5.9x 16.3x 11.4y LINE TSE:3938 \$11,548 \$11,745 5.5x 4.7x NM 55.5t Mali,ru Group LSE:MAIL \$4,494 \$4,185 5.5x 4.7x NM 55.5t Methof Group NasdaqGS: MTCH \$19,564 \$19,379 9.5x 8.1x 2.75x 21.4x MetMet NasdaqGS::MOMO \$4,688 \$5,859 2.1x 1.7x 9.5x 8.1x 2.75x 21.4x 1.4x 1.6x 12.9x 8.1y 8.1y 8.1y 8.1y 8.1y	SciPlay	NasdaqGS:SCPL	\$325	\$205	0.7x	0.6x	2.9x	2.2x
Ubisoft	Square Enix	TSE:9684	\$3,648	\$4,790	1.4x	1.2x	8.2x	7.8x
Zynga	Take-Two Interactive	NasdaqGS:TTWO	\$9,730	\$11,539	3.4x	3.7x	21.4x	14.2x
Median Social Media September Sept	Ubisoft	ENXTPA:UBI	\$9,345	\$8,863	4.8x	3.7x	NM	7.4x
NasdaqGS:FB \$504,845 \$548,626 7.1x 5.9x 16.3x 11.4x	Zynga	NasdagGS:ZNGA	\$5,740	\$6,385	4.3x	3.5x	NM	15.8x
Facebook		·			2 2v	1 0v	9 2v	7.6v
Facebook	Median				2.28	1.34	0.21	7.0x
LINE TSE:3938 \$11,548 \$11,745 5.5x 4.7x NM 55.5b Mail.ru Group LSE:MAIL \$4,494 \$4,185 2.9x 2.8x 12.0x 8.8b Match Group NasdaqGS: MTCH \$19,564 \$18,379 9.5x 8.1x 27.5x 21.4b Meet NasdaqCM:MEET \$378 \$366 1.8x 1.6x 12.3x 8.1b Mixi TSE:2121 \$46 \$1,191 0.0x 0.0x 0.3x 0.5b Momo NasdaqGS:MOMO \$4,688 \$5,859 2.1x 1.7x 9.5x 7.4b Pinterest NYSE:PINS \$9,673 \$11,166 8.5x 6.3x NM NM Renren NYSE:RNN \$117 \$30 0.3x 0.2x NM NM Renren NYSE:SNAP \$19,248 \$20,124 11.2x 8.0x NM NM Twitter NYSE:TWTR \$22,574 \$25,925 6.5x 5.7x 24.6x 17.5b New Work XTRA:NWO \$1,479 \$1,508 4.6x 4.2x 18.9x 13.3b Median Digital Commerce Solutions GK Software AG DB:GKS \$168 \$131 1.4x 1.3x 35.2x 11.9b Intereshop XTRA:ISHA \$28 \$33 0.8x 0.8x 0.8x NM 7.4b NCR NYSE:NCR \$7,185 \$3,242 1.0x 1.0x 7.6x 6.6b PFS Web NasdaqCM:PFSW \$138 \$73 0.6x 0.5x 5.8x 8.2b Shopify NYSE:SHOP \$51,676 \$53,993 32.7x 23.6x NM NM ND Diebold Nixdorf NYSE:DBD \$2,615 \$544 0.6x 0.6x 6.8x 5.9b Worldline S.A ENXTPA:WLN \$14,706 \$13,779 5.6x 5.2x 25.4x 19.6b Worldline S.A	Social Media							
Mail.ru Group LSE:MAIL \$4,494 \$4,185 2.9x 2.8x 12.0x 8.8b Match Group NasdaqGS: MTCH \$19,564 \$18,379 9.5x 8.1x 27.5x 21.4b MeetMe NasdaqCM:MEET \$378 \$366 1.8x 1.6x 12.3x 8.1y Mixi TSE:2121 \$46 \$1,191 0.0x 0.0x 0.0x 0.5x 0.5x Momo NasdaqGS:MOMO \$4,688 \$5,859 2.1x 1.7x 9.5x 7.4b Pinterest NYSE:PINS \$9,673 \$11,166 8.5x 6.3x NM NM Renren NYSE:RENN \$117 \$30 0.3x 0.2x NM NM Snap NYSE:RENN \$117 \$30 0.3x 0.2x NM NM Snap NYSE:RENN \$117 \$30 0.3x 0.2x NM NM Writter NYSE:RENN \$19,248 \$20,124 11.2x 8.0x NM	Facebook	NasdaqGS:FB	\$504,845	\$548,626	7.1x	5.9x	16.3x	11.4x
Match Group NasdaqGS: MTCH \$19,564 \$18,379 9.5x 8.1x 27.5x 21.4y MeetMe NasdaqCM:MEET \$378 \$366 1.8x 1.6x 12.3x 8.1y Mixi TSE:2121 \$46 \$1,191 0.0x 0.0x 0.3x 0.5y Momo NasdaqGS:MOMO \$4,688 \$5,859 2.1x 1.7x 9.5x 7.4y Pinterest NYSE:PINS \$9,673 \$11,166 8.5x 6.3x NM NM Renren NYSE:RENN \$117 \$30 0.3x 0.2x NM NM Snap NYSE:SNAP \$19,248 \$20,124 11.2x 8.0x NM NM Twitter NYSE:TWTR \$22,574 \$25,925 6.5x 5.7x 24.6x 17.5y New Work XTRA:NWO \$1,479 \$1,508 4.6x 4.2x 18.9x 13.3y Median 50x \$14.5x \$14.5x \$14.3x \$14.4x Di	LINE	TSE:3938	\$11,548	\$11,745	5.5x	4.7x	NM	55.5x
MeetMe NasdaqCM:MEET \$378 \$366 1.8x 1.6x 12.3x 8.1x Mixi TSE:2121 \$46 \$1,191 0.0x 0.0x 0.3x 0.5x Momo NasdaqGS:MOMO \$4,688 \$5,859 2.1x 1.7x 9.5x 7.4y Pinterest NYSE:PINS \$9,673 \$11,166 8.5x 6.3x NM NM Renren NYSE:RENN \$117 \$30 0.3x 0.2x NM NM Snap NYSE:SNAP \$19,248 \$20,124 11.2x 8.0x NM NM New Work NYSE:TWTR \$22,574 \$25,925 6.5x 5.7x 24.6x 17.5y New Work XTRA:NWO \$1,479 \$1,508 4.6x 4.2x 18.9x 11.4x Digital Commerce Solutions \$6 \$0.0x 4.5x 14.3x 11.4x Digital Commerce Solutions \$168 \$131 1.4x 1.3x 35.2x 11.9y Intershop<	Mail.ru Group	LSE:MAIL	\$4,494	\$4,185	2.9x	2.8x	12.0x	8.8x
Mixi TSE:2121 \$46 \$1,191 0.0x 0.0x 0.3x 0.5x Momo NasdaqGS:MOMO \$4,688 \$5,859 2.1x 1.7x 9.5x 7.4y Pinterest NYSE:PINS \$9,673 \$11,166 8.5x 6.3x NM NM Renren NYSE:RENN \$117 \$30 0.3x 0.2x NM NM Snap NYSE:SNAP \$19,248 \$20,124 11.2x 8.0x NM NM Twitter NYSE:TWTR \$22,574 \$25,925 6.5x 5.7x 24.6x 17.5y New Work XTRA:NWO \$1,479 \$1,508 4.6x 4.2x 18.9x 13.3y Median 5.0x 4.5x 14.3x 11.4x Digital Commerce Solutions \$168 \$131 1.4x 1.3x 35.2x 11.9y Intershop XTRA:ISHA \$28 \$33 0.8x 0.8x NM 7.4y NCR NYSE:NCR	Match Group	NasdaqGS: MTCH	\$19,564	\$18,379	9.5x	8.1x	27.5x	21.4x
Momo NasdaqGS:MOMO \$4,688 \$5,859 2.1x 1.7x 9.5x 7.4y Pinterest NYSE:PINS \$9,673 \$11,166 8.5x 6.3x NM NM Renren NYSE:RENN \$117 \$30 0.3x 0.2x NM NM Snap NYSE:SNAP \$19,248 \$20,124 11.2x 8.0x NM NM Twitter NYSE:TWTR \$22,574 \$25,925 6.5x 5.7x 24.6x 17.5y New Work XTRA:NWO \$1,479 \$1,508 4.6x 4.2x 18.9x 13.3y Median 5.0x 4.5x 14.3x 11.4y Digital Commerce Solutions Gk Software AG DB:GKS \$168 \$131 1.4x 1.3x 35.2x 11.4y Digital Commerce Solutions Gk Software AG DB:GKS \$168 \$131 1.4x 1.3x 35.2x 11.9y Intershop XTRA:ISHA \$28	MeetMe	NasdaqCM:MEET	\$378	\$366	1.8x	1.6x	12.3x	8.1x
Pinterest NYSE:PINS \$9,673 \$11,166 8.5x 6.3x NM NM Renren NYSE:RENN \$117 \$30 0.3x 0.2x NM NM Snap NYSE:SNAP \$19,248 \$20,124 11.2x 8.0x NM NM Twitter NYSE:TWTR \$22,574 \$25,925 6.5x 5.7x 24.6x 17.5y New Work XTRA:NWO \$1,479 \$1,508 4.6x 4.2x 18.9x 13.3y Median 5.0x 4.5x 14.3x 11.4x Digital Commerce Solutions \$168 \$131 1.4x 1.3x 35.2x 11.9y Intershop XTRA:ISHA \$28 \$33 0.8x 0.8x NM 7.4y NCR NYSE:NCR \$7,185 \$3,242 1.0x 1.0x 7.6x 6.6x PFS Web NasdaqCM:PFSW \$138 \$73 0.6x 0.5x 5.8x 8.2y Shopify NYSE:DBD \$51,676	Mixi	TSE:2121	\$46	\$1,191	0.0x	0.0x	0.3x	0.5x
Renren NYSE:RENN \$117 \$30 0.3x 0.2x NM NM Snap NYSE:SNAP \$19,248 \$20,124 11.2x 8.0x NM NM Twitter NYSE:TWTR \$22,574 \$25,925 6.5x 5.7x 24.6x 17.5y New Work XTRA:NWO \$1,479 \$1,508 4.6x 4.2x 18.9x 13.3y Median 5.0x 4.5x 14.3x 11.4x Digital Commerce Solutions Solutions Gk Software AG DB:GKS \$168 \$131 1.4x 1.3x 35.2x 11.9y Intershop XTRA:ISHA \$28 \$33 0.8x 0.8x NM 7.4y NCR NYSE:NCR \$7,185 \$3,242 1.0x 1.0x 7.6x 6.6y PFS Web NasdaqCM:PFSW \$138 \$73 0.6x 0.5x 5.8x 8.2y Shopify NYSE:SHOP \$51,676 \$53,993 32.7x 23.6x NM	Momo	NasdaqGS:MOMO	\$4,688	\$5,859	2.1x	1.7x	9.5x	7.4x
Snap NYSE:SNAP \$19,248 \$20,124 11.2x 8.0x NM NM Twitter NYSE:TWTR \$22,574 \$25,925 6.5x 5.7x 24.6x 17.5y New Work XTRA:NWO \$1,479 \$1,508 4.6x 4.2x 18.9x 13.3y Median 5.0x 4.5x 14.3x 11.4x 1.3x 13.3y 11.4x 1.3x 35.2x 11.9y Digital Commerce Solutions \$168 \$131 1.4x 1.3x 35.2x 11.9y Intershop XTRA:ISHA \$28 \$33 0.8x 0.8x NM 7.4y NCR NYSE:NCR \$7,185 \$3,242 1.0x 1.0x 7.6x 6.6y PFS Web NasdaqCM:PFSW \$138 \$73 0.6x 0.5x 5.8x 8.2y Shopify NYSE:BOP \$51,676 \$53,993 32.7x 23.6x NM NW Diebold Nixdorf NYSE:DBD \$2,615 \$544 0.6x	Pinterest	NYSE:PINS	\$9,673	\$11,166	8.5x	6.3x	NM	NM
Twitter NYSE:TWTR \$22,574 \$25,925 6.5x 5.7x 24.6x 17.5y New Work XTRA:NWO \$1,479 \$1,508 4.6x 4.2x 18.9x 13.3y Median 5.0x 4.5x 14.3x 11.4x Digital Commerce Solutions Gk Software AG DB:GKS \$168 \$131 1.4x 1.3x 35.2x 11.9y Intershop XTRA:ISHA \$28 \$33 0.8x NM 7.4y NCR NYSE:NCR \$7,185 \$3,242 1.0x 1.0x 7.6x 6.6y PFS Web NasdaqCM:PFSW \$138 \$73 0.6x 0.5x 5.8x 8.2y Shopify NYSE:SHOP \$51,676 \$53,993 32.7x 23.6x NM NM Worldline S.A ENXTPA:WLN \$14,706 \$13,779 5.6x 5.2x 25.4x 19.6y	Renren	NYSE:RENN	\$117	\$30	0.3x	0.2x	NM	NM
New Work XTRA:NWO \$1,479 \$1,508 4.6x 4.2x 18.9x 13.3x Median 5.0x 4.5x 14.3x 11.4x Digital Commerce Solutions Gk Software AG DB:GKS \$168 \$131 1.4x 1.3x 35.2x 11.9x Intershop XTRA:ISHA \$28 \$33 0.8x 0.8x NM 7.4x NCR NYSE:NCR \$7,185 \$3,242 1.0x 1.0x 7.6x 6.6x PFS Web NasdaqCM:PFSW \$138 \$73 0.6x 0.5x 5.8x 8.2x Shopify NYSE:SHOP \$51,676 \$53,993 32.7x 23.6x NM NM Diebold Nixdorf NYSE:DBD \$2,615 \$544 0.6x 0.6x 6.8x 5.9x Worldline S.A ENXTPA:WLN \$14,706 \$13,779 5.6x 5.2x 25.4x 19.6x	Snap	NYSE:SNAP	\$19,248	\$20,124	11.2x	8.0x	NM	NM
Median 5.0x 4.5x 14.3x 11.4x Digital Commerce Solutions Gk Software AG DB:GKS \$168 \$131 1.4x 1.3x 35.2x 11.9y Intershop XTRA:ISHA \$28 \$33 0.8x 0.8x NM 7.4y NCR NYSE:NCR \$7,185 \$3,242 1.0x 1.0x 7.6x 6.6y PFS Web NasdaqCM:PFSW \$138 \$73 0.6x 0.5x 5.8x 8.2y Shopify NYSE:SHOP \$51,676 \$53,993 32.7x 23.6x NM NM Diebold Nixdorf NYSE:DBD \$2,615 \$544 0.6x 0.6x 6.8x 5.9y Worldline S.A ENXTPA:WLN \$14,706 \$13,779 5.6x 5.2x 25.4x 19.6y	Twitter	NYSE:TWTR	\$22,574	\$25,925	6.5x	5.7x	24.6x	17.5x
Digital Commerce Solutions Gk Software AG DB:GKS \$168 \$131 1.4x 1.3x 35.2x 11.9y Intershop XTRA:ISHA \$28 \$33 0.8x 0.8x NM 7.4y NCR NYSE:NCR \$7,185 \$3,242 1.0x 1.0x 7.6x 6.6y PFS Web NasdaqCM:PFSW \$138 \$73 0.6x 0.5x 5.8x 8.2y Shopify NYSE:SHOP \$51,676 \$53,993 32.7x 23.6x NM NM Diebold Nixdorf NYSE:DBD \$2,615 \$544 0.6x 0.6x 6.8x 5.9y Worldline S.A ENXTPA:WLN \$14,706 \$13,779 5.6x 5.2x 25.4x 19.6y	New Work	XTRA:NWO	\$1,479	\$1,508	4.6x	4.2x	18.9x	13.3x
Gk Software AG DB:GKS \$168 \$131 1.4x 1.3x 35.2x 11.9x Intershop XTRA:ISHA \$28 \$33 0.8x 0.8x NM 7.4x NCR NYSE:NCR \$7,185 \$3,242 1.0x 1.0x 7.6x 6.6x PFS Web NasdaqCM:PFSW \$138 \$73 0.6x 0.5x 5.8x 8.2x Shopify NYSE:SHOP \$51,676 \$53,993 32.7x 23.6x NM NM Diebold Nixdorf NYSE:DBD \$2,615 \$544 0.6x 0.6x 6.8x 5.9x Worldline S.A ENXTPA:WLN \$14,706 \$13,779 5.6x 5.2x 25.4x 19.6x	Median				5.0x	4.5x	14.3x	11.4x
Gk Software AG DB:GKS \$168 \$131 1.4x 1.3x 35.2x 11.9x Intershop XTRA:ISHA \$28 \$33 0.8x 0.8x NM 7.4x NCR NYSE:NCR \$7,185 \$3,242 1.0x 1.0x 7.6x 6.6x PFS Web NasdaqCM:PFSW \$138 \$73 0.6x 0.5x 5.8x 8.2x Shopify NYSE:SHOP \$51,676 \$53,993 32.7x 23.6x NM NM Diebold Nixdorf NYSE:DBD \$2,615 \$544 0.6x 0.6x 6.8x 5.9x Worldline S.A ENXTPA:WLN \$14,706 \$13,779 5.6x 5.2x 25.4x 19.6x	Digital Commerce Solutions							
Intershop XTRA:ISHA \$28 \$33 0.8x 0.8x NM 7.4y NCR NYSE:NCR \$7,185 \$3,242 1.0x 1.0x 7.6x 6.6y PFS Web NasdaqCM:PFSW \$138 \$73 0.6x 0.5x 5.8x 8.2y Shopify NYSE:SHOP \$51,676 \$53,993 32.7x 23.6x NM NM Diebold Nixdorf NYSE:DBD \$2,615 \$544 0.6x 0.6x 6.8x 5.9y Worldline S.A ENXTPA:WLN \$14,706 \$13,779 5.6x 5.2x 25.4x 19.6y		DD.CVC	0400	C424	4.4	4.00	25.25	44.0:
NCR NYSE:NCR \$7,185 \$3,242 1.0x 1.0x 7.6x 6.6x PFS Web NasdaqCM:PFSW \$138 \$73 0.6x 0.5x 5.8x 8.2x Shopify NYSE:SHOP \$51,676 \$53,993 32.7x 23.6x NM NM Diebold Nixdorf NYSE:DBD \$2,615 \$544 0.6x 0.6x 6.8x 5.9x Worldline S.A ENXTPA:WLN \$14,706 \$13,779 5.6x 5.2x 25.4x 19.6x								
PFS Web NasdaqCM:PFSW \$138 \$73 0.6x 0.5x 5.8x 8.2y Shopify NYSE:SHOP \$51,676 \$53,993 32.7x 23.6x NM NM Diebold Nixdorf NYSE:DBD \$2,615 \$544 0.6x 0.6x 6.8x 5.9x Worldline S.A ENXTPA:WLN \$14,706 \$13,779 5.6x 5.2x 25.4x 19.6x	· ·		· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·				
Shopify NYSE:SHOP \$51,676 \$53,993 32.7x 23.6x NM NM Diebold Nixdorf NYSE:DBD \$2,615 \$544 0.6x 0.6x 6.8x 5.9x Worldline S.A ENXTPA:WLN \$14,706 \$13,779 5.6x 5.2x 25.4x 19.6x								
Diebold Nixdorf NYSE:DBD \$2,615 \$544 0.6x 0.6x 6.8x 5.9x Worldline S.A ENXTPA:WLN \$14,706 \$13,779 5.6x 5.2x 25.4x 19.6x		·						
Worldline S.A ENXTPA:WLN \$14,706 \$13,779 5.6x 5.2x 25.4x 19.6x								
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Median 1.0x 1.0x 7.6x 7.8x	vvoridline S.A	ENXIPA:WLN	\$14,706	\$13,779	5.6x	5.2x	25.4x	19.6x
	Median				1.0x	1.0x	7.6x	7.8x





Online & Digital (continued)

				TEV/Revenue		TEV/EBITDA	
(\$ in millions)		TEV	Market Cap	LTM	NTM	LTM	NTM
Other Digital Companies							
Akamai	NasdaqGS:AKAM	\$15,139	\$14,004	5.2x	4.9x	14.4x	11.4x
CooTek (Cayman)	NYSE:CTK	\$353	\$404	2.3x	1.5x	NM	25.5x
Endurance International	NasdaqGS:EIGI	\$2,221	\$551	2.0x	2.0x	7.3x	7.5x
GoDaddy	NYSE:GDDY	\$13,787	\$12,145	4.6x	4.2x	27.9x	15.5x
Just Eat Takeaway.com	ENXTAM:TKWY	\$12,705	\$12,462	27.8x	5.9x	NM	50.3x
Limelight Networks	NasdaqGS:LLNW	\$596	\$598	3.0x	2.6x	75.6x	19.6x
Moneysupermarket.com	LSE:MONY	\$2,096	\$2,127	4.2x	4.0x	13.0x	11.2x
NetEase	NasdaqGS:NTES	\$34,584	\$40,782	4.1x	3.5x	14.2x	13.3x
Opera	NasdaqGS:OPRA	\$835	\$961	2.5x	1.5x	11.3x	11.3x
Otello Corporation	OB:OTELLO	\$241	\$241	1.1x	1.0x	14.8x	10.0x
Phoenix New Media	NYSE:FENG	-\$102	\$127	NM	-0.4x	2.9x	4.4x
Redfin Corporation	NasdaqGS:RDFN	\$2,431	\$2,520	3.1x	2.2x	NM	NM
Sea	NYSE:SE	\$19,236	\$20,874	11.4x	4.7x	NM	NM
SurveyMonkey	NasdaqGS:SVMK	\$2,664	\$2,489	8.7x	7.0x	NM	60.5x
Tencent Holdings	SEHK:700	\$478,102	\$470,357	9.5x	7.5x	25.8x	20.5x
United Internet	DB:UTDI	\$9,272	\$5,833	1.6x	1.5x	7.0x	6.3x
Wix	NasdaqGS:WIX	\$6,573	\$6,856	8.6x	6.9x	NM	46.0x
YayYo	OTCPK:YAYO	\$12	\$6	1.8x	0.8x	NM	5.7x
Zillow	NasdaqGS:ZG	\$11,761	\$11,670	4.3x	2.4x	NM	NM
Median				4.1x	2.6x	14.2x	12.3x





Tech Enabled Business Services

			_	TEV/Rev	enue/	TEV/EBITDA	
(\$ in millions)		TEV	Market Cap	LTM	NTM	LTM	NTM
IT Services, Integration & Con	sulting						
Accenture	NYSE:ACN	\$112,676	\$114,674	2.6x	2.4x	15.9x	13.7x
Atos Origin	ENXTPA:ATO	\$12,634	\$8,080	0.9x	0.9x	6.0x	6.5x
Bechtle	XTRA:BC8	\$5,751	\$5,492	1.0x	1.0x	17.9x	15.2x
CACI International	NYSE:CACI	\$8,078	\$6,143	1.5x	1.4x	14.6x	13.0x
Cancom	XTRA:COK	\$1,825	\$1,873	1.0x	0.9x	14.4x	11.1x
Cap Gemini	ENXTPA:CAP	\$20,040	\$18,249	1.3x	1.0x	8.6x	6.5x
CGI Group	TSX:GIB.A	\$20,966	\$18,864	2.3x	2.2x	12.9x	11.2x
CLPS Incorporation	NasdaqGM:CLPS	\$28	\$34	0.4x	NA	NM	NA
Cognizant Technology	NasdaqGS:CTSH	\$31,715	\$33,428	1.9x	1.8x	9.0x	9.6x
ComputaCenter	LSE:CCC	\$2,527	\$2,381	0.4x	0.4x	12.5x	10.9x
DXC Technology	NYSE:DXC	\$14,400	\$6,117	0.7x	0.8x	3.8x	4.4x
ePlus	NasdaqGS:PLUS	\$1,192	\$1,024	0.8x	0.7x	10.0x	9.9x
FDM Group	LSE:FDM	\$1,195	\$1,200	3.6x	3.3x	17.8x	15.2x
Fujitsu	TSE:6702	\$24,558	\$20,973	0.7x	0.7x	5.4x	7.8x
HCL Technologies	NSEI:HCLTECH	\$19,780	\$19,985	2.1x	1.9x	8.8x	7.8x
Infosys	NSEI:INFY	\$40,582	\$42,760	3.3x	3.1x	13.7x	12.2x
ManTech International	NasdaqGS:MANT	\$3,170	\$3,010	1.4x	1.3x	13.4x	14.9x
MAXIMUS	NYSE:MMS	\$4,094	\$4,030	1.3x	1.3x	10.0x	9.2x
NCC Group	LSE:NCC	\$802	\$736	2.4x	2.3x	14.8x	12.2x
Nomura Research Institute	TSE:4307	\$13,297	\$12,935	2.7x	2.7x	12.8x	12.1x
NSD	TSE:9759	\$1,047	\$1,269	1.8x	1.6x	11.3x	10.3x
OBIC	TSE:4684	\$9,785	\$10,912	13.4x	12.2x	21.9x	22.0x
Perficient	NasdaqGS:PRFT	\$1,430	\$1,348	2.5x	2.3x	16.4x	12.8x
SCSK Corporation	TSE:9719	\$4,899	\$5,338	1.4x	1.3x	9.6x	9.1x
Sopra Group	ENXTPA:SOP	\$4,182	\$3,240	0.9x	0.8x	7.5x	6.8x
Talend	NasdaqGM:TLND	\$1,128	\$1,145	4.5x	4.1x	NM	NM
Tata Consultancy Services	NSEI:TCS	\$99,396	\$103,441	4.7x	4.4x	17.5x	16.5x
The Hackett Group	NasdaqGS:HCKT	\$442	\$460	1.7x	1.5x	10.4x	8.7x
Tieto	HLSE:TIETO	\$4,526	\$3,333	2.4x	1.4x	16.8x	8.5x
Unisys	NYSE:UIS	\$1,201	\$969	0.4x	0.5x	4.1x	3.1x
Virtusa	NasdaqGS:VRTU	\$1,638	\$1,317	1.3x	1.1x	13.0x	10.5x
Wipro	BSE:507685	\$14,041	\$17,336	1.7x	1.6x	8.0x	8.0x
Xerox	NYSE:XRX	\$8,969	\$6,852	1.0x	1.0x	5.4x	5.9x
Median				1.5x	1.4x	12.5x	10.3x





Tech Enabled Business Services (continued)

				TEV/Rev	/enue	TEV/EBI	TDA
(\$ in millions)		TEV	Market Cap	LTM	NTM	LTM	NTM
Business Process Management ((BPM)						
Appian	APPN	\$2,872	\$2,979	11.0x	9.7x	NM	NM
Broadridge Financial Solutions	NYSE:BR	\$13,848	\$11,981	3.2x	3.0x	15.7x	13.2x
Cardtronics	NasdaqGS:CATM	\$2,397	\$1,618	1.8x	1.7x	7.4x	7.3x
Cass Information Systems	NasdaqGS:CASS	\$504	\$683	3.1x	NA	8.8x	NA
Change Healtchare	NasdaqGS:CHNG	\$1,725	\$1,704	NM	0.5x	NA	1.6x
Computershare	ASX:CPU	\$6,992	\$5,383	3.2x	2.9x	12.1x	9.6x
CSG Systems International	NasdaqGS:CSGS	\$1,680	\$1,404	1.7x	1.8x	8.8x	8.2x
DocuSign	NasdaqGS:DOCU	\$15,463	\$15,489	17.2x	13.4x	NM	NM
EVERTEC	NYSE:EVTC	\$2,554	\$2,090	5.2x	5.0x	12.4x	10.8x
ExIservice Holdings	NasdaqGS:EXLS	\$2,578	\$2,565	2.6x	2.4x	16.0x	13.3x
Genpact	NYSE:G	\$8,648	\$7,312	2.5x	2.2x	13.7x	12.7x
PagerDuty	NYSE:PD	\$1,245	\$1,591	8.1x	6.3x	NM	NM
Smartsheet	NYSE:SMAR	\$4,941	\$5,439	20.2x	14.1x	NM	NM
SS&C Technologies	NasdaqGS:SSNC	\$21,599	\$14,190	4.7x	4.5x	12.2x	11.3x
Tabula Rasa Healthcare	NasdaqGM:TRHC	\$1,382	\$1,173	4.9x	4.1x	NM	28.1x
Trans Cosmos	TSE:9715	\$772	\$908	0.3x	0.3x	6.2x	5.9x
WEX	NYSE:WEX	\$10,495	\$8,106	6.1x	5.5x	17.5x	13.2x
Wirecard	XTRA:WDI	\$13,438	\$15,621	4.7x	3.7x	16.5x	12.2x
WNS	NYSE:WNS	\$3,308	\$3,268	3.7x	NA	17.7x	NA
Zuora	NYSE:ZUO	\$1,340	\$1,498	5.0x	4.3x	NM	NM
Median				4.7x	3.9x	12.4x	11.3x
Data Center Hosting & Services							
Box	NYSE:BOX	\$2,752	\$2,523	4.0x	3.6x	NM	22.8x
Dropbox	NasdaqGS:DBX	\$8,040	\$8,193	4.8x	4.2x	42.3x	15.3x
Equinix	NasdaqGS:EQIX	\$60,360	\$48,942	11.0x	10.0x	23.2x	20.8x
Interxion Holding	NYSE:INXN	\$8,141	\$6,503	12.1x	10.4x	26.3x	20.3x
Pure Storage	NYSE:PSTG	\$3,271	\$3,973	2.0x	1.7x	NM	21.4x
Switch	NYSE:SWCH	\$2,536	\$1,287	5.5x	4.9x	12.3x	9.9x
Median				5.5x	4.9x	24.8x	20.3x
Call Center							
Sykes Enterprises	NasdaqGS:SYKE	\$1,480	\$1,316	0.9x	0.9x	6.6x	8.0x
TTEC Holdings	NasdaqGS:TTEC	\$2,052	\$1,740	1.3x	1.2x	8.8x	9.4x
Median				1.1x	1.0x	7.7x	8.7x





Application Software

Date Announced	Period	Target	Buyer	Enterprise Value	Revenue Multiple
Feb-20	Q1'2020	RIB Software SE (XTRA:RIB)	Rheingoldhöhe 50	\$1,429.1	6.8x
Feb-20	Q1'2020	Qumu Corporation (NasdaqCM:QUMU)	Synacor, Inc. (NasdaqGM:SYNC)	\$39.8	1.2x
Jan-20	Q1'2020	FireMate Software Pty. Ltd.	Halma plc (LSE:HLMA)	\$12.3	9.3x
Jan-20	Q1'2020	Shanghai Pantosoft Company Limited.	Retech Technology Co., Limited (ASX:RTE)	\$11.0	4.1x
Jan-20	Q1'2020	BlackBag Technologies Inc.	Cellebrite Mobile Synchronization Ltd.	\$33.0	2.7x
Jan-20	Q1'2020	AutoEnginuity, L.L.C.	Drew Technologies, Inc.	\$20.0	5.0x
Dec-19	Q4'2019	LogMeIn, Inc. (NasdaqGS:LOGM)	Francisco Partners; Evergreen Coast Capital	\$4,677.0	3.7x
Dec-19	Q4'2019	TiVo Corporation (NasdaqGS:TIVO)	Xperi Corporation (NasdaqGS:XPER)	\$2,177.7	2.9x
Dec-19	Q4'2019	Instructure, Inc. (NYSE:INST)	Thoma Bravo, LLC	\$2,011.0	7.7x
Dec-19	Q4'2019	Telaria, Inc. (NYSE:TLRA)	The Rubicon Project, Inc. (NYSE:RUBI)	\$441.4	5.5x
Nov-19	Q4'2019	The Apri Group of Companies	People Corporation (TSXV:PEO)	\$33.8	2.7x
Dec-19	Q4'2019	Commerce21 Corporation	Estore Corporation (JASDAQ:4304)	\$11.9	0.6x
Dec-19	Q4'2019	Xcelerator Machine Translation Solutions Ltd.	Keywords Studios plc (AIM:KWS)	\$7.9	8.8x
Dec-19	Q4'2019	Brocante Inc.	en-japan inc. (TSE:4849)	\$5.5	8.2x
Dec-19	Q4'2019	P&I Personal & Informatik Aktiengesellschaft	HgCapital LLP	-	15.1x
Dec-19	Q4'2019	CM.Com B.V.	Dutch Star Companies One (ENXTAM:DSC1)	-	2.4x
Dec-19	Q4'2019	Woowa Brothers Corp.	Delivery Hero SE (XTRA:DHER)	-	14.9x
Nov-19	Q4'2019	The Apri Group of Companies	People Corporation (TSXV:PEO)	\$33.8	2.7x
Nov-19	Q4'2019	Buildium, LLC	RealPage, Inc. (NasdaqGS:RP)	\$580.0	11.6x
Nov-19	Q4'2019	Novabase Digital S.A.	VINCI Energies Portugal, SGPS, S.A.	\$40.1	1.0x
Nov-19	Q4'2019	Netalogue Technologies plc	Truecommerce Holdings Limited	\$7.4	3.7x
Oct-19	Q4'2019	Shenzhen HAWK Internet Co., Ltd.	TCL Electronics (Huizhou) Co., Ltd	\$28.4	1.3x
Oct-19	Q4'2019	Business Operating Software Solution Limited	-	\$38.1	11.1x





IV

Date Announced	Period	Target	Buyer	Enterprise Value	Revenue Multiple
Oct-19	Q4'2019	Gauddi BV	ZetaDisplay AB (publ) (OM:ZETA)	\$7.2	1.5x
Oct-19	Q4'2019	Astea International Inc. (OTCPK:ATEA)	IFS Americas, Inc.	\$74.8	2.8x
Oct-19	Q4'2019	Fenix Media Limited / Face US Inc.	Access Intelligence Plc (AIM:ACC)	\$5.8	0.7x
Sep-19	Q3'2019	myelefant SAS	Sinch AB (publ) (OM:SINCH)	\$23.5	2.1x
Sep-19	Q3'2019	Mitrais Pte. Ltd.	CAC Holdings Corporation (TSE:4725)	\$26.9	1.7x
Sep-19	Q3'2019	StatPro Group plc (AlM:SOG)	Confluence Technologies, Inc.	\$244.4	3.4x
Aug-19	Q3'2019	Enterprise Security assets Of Symantec Corporation	Broadcom Inc. (NasdaqGS:AVGO)	-	4.6x
Aug-19	Q3'2019	Pivotal Software, Inc. (NYSE:PVTL)	VMware, Inc. (NYSE:VMW)	\$3,428.1	4.4x
Aug-19	Q3'2019	Carbon Black, Inc. (NasdaqGS:CBLK)	VMware, Inc. (NYSE:VMW)	\$1,816.8	9.0x
Aug-19	Q3'2019	Jiangsu Share-sun Information Technology Co., Ltd.	Shanghai Guao Electronic Technology Co., Ltd. (SZSE:300551)	-	6.0x
Aug-19	Q3'2019	Cxense ASA (OB:CXENSE)	Piano Software B.V.	\$35.0	2.0x
Jul-19	Q3'2019	Decision Dynamics, Inc.	IAA, Inc. (NYSE:IAA)	-	2.5x
Jul-19	Q3'2019	Monotype Imaging Holdings Inc. (NasdaqGS:TYPE)	HGGC, LLC	\$905.6	3.5x
Jul-19	Q3'2019	Gridsum Holding Inc. (NasdaqGS:GSUM)	Beta Dynamic Limited	\$153.6	3.7x
Jul-19	Q3'2019	3Cinteractive, L.L.C.	IMImobile PLC (AIM:IMO)	\$53.1	1.6x
Jul-19	Q3'2019	Construction Computer Software Proprietary Limited	RIB Limited	\$31.5	3.2x
Jul-19	Q3'2019	24i Unit Media B.V.	Amino Technologies plc (AIM:AMO)	\$25.1	8.7x
Jul-19	Q3'2019	Decision Dynamics, Inc.	IAA, Inc. (NYSE:IAA)	\$21.1	2.5x
Jul-19	Q3'2019	Yougetitback Limited	Blancco Technology Group plc (AIM:BLTG)	\$5.8	4.3x
Jun-19	Q2'2019	Kangaloosh Limited	AB Dynamics Plc (AIM:ABDP)	\$27.5	5.1x
Jun-19	Q2'2019	Sceptre Hospitality Resources, LLC	Whiteboard Labs LLC	\$3.3	0.6x
Jun-19	Q2'2019	youperience GmbH	Persistent Systems Germany GmbH	\$7.7	2.4x
Jun-19	Q2'2019	Thoughtonomy Ltd	Blue Prism Group plc (AIM:PRSM)	\$101.1	10.8x





Date Announced	Period	Target	Buyer	Enterprise Value	Revenue Multiple
Jun-19	Q2'2019	SoNET Systems Pty Ltd	RM plc (LSE:RM.)	\$9.2	2.4x
Jun-19	Q2'2019	FutureGov Ltd	The Panoply Holdings plc (AlM:TPX)	\$26.7	3.3x
Jun-19	Q2'2019	Redland Business Solutions Limited	Ideagen plc (AIM:IDEA)	\$22.8	4.5x
Jun-19	Q2'2019	Tableau Software, Inc. (NYSE:DATA)	salesforce.com, inc. (NYSE:CRM)	\$17,364.0	13.7x
Jun-19	Q2'2019	Looker Data Sciences, Inc.	Google LLC	\$2,600.0	-
Jun-19	Q2'2019	Corporate Renaissance Group Inc.	Quisitive Technology Solutions, Inc. (TSXV:QUIS)	\$14.5	2.5x
Jun-19	Q2'2019	Beijing Yongyou Audit Software Co., Ltd.	Beijing Youweishi Technology Center (Limited Partnership)	\$4.8	1.0x
May-19	Q2'2019	Object+ Financial Services BV	KRM22 Plc (AIM:KRM)	\$6.7	6.1x
May-19	Q2'2019	Microgen Financial Systems Limited	Silverfleet Capital Partners	\$64.3	2.8x
May-19	Q2'2019	Shenzhen Edraw Software CO.,LTD.	Wondershare Technology Group Co., Ltd. (SZSE:300624)	\$18.5	11.1x
May-19	Q2'2019	Coheris SA (ENXTPA:COH)	ChapsVision	\$12.3	0.7x
May-19	Q2'2019	Vidyo, Inc.	Enghouse Systems Limited (TSX:ENGH)	\$40.0	0.7x
May-19	Q2'2019	Amber Road, Inc. (NYSE:AMBR)	E2open, LLC	\$427.4	4.9x
May-19	Q2'2019	Q Delft B.V.	Netcompany Group A/S (CPSE:NETC)	\$5.6	0.7x
May-19	Q2'2019	EU Supply Plc (AIM:EUSP)	Mercell Holding AS	\$20.4	2.9x
May-19	Q2'2019	GEOMAP S.A.	1Spatial France SAS	\$6.3	0.7x
May-19	Q2'2019	C-Lutions, LLC	Wolters Kluwer ELM Solutions, Inc.	\$42.0	14.0x
May-19	Q2'2019	Bellvedi Limited	Tracsis plc (AlM:TRCS)	\$16.8	8.0x
May-19	Q2'2019	Lambert Automation Limited	Mpac Group plc (AIM:MPAC)	\$22.9	0.8x
May-19	Q2'2019	Sigma Systems Canada LP	Hansen Technologies Ltd (ASX:HSN)	-	2.2x
Apr-19	Q2'2019	Breezy HR, Inc.	Learning Technologies Group plc (AIM:LTG)	\$30.0	8.3x
Apr-19	Q2'2019	Axioma, Inc.	Deutsche Börse Aktiengesellschaft (XTRA:DB1)	\$850.0	8.5x







Date Announced	Period	Target	Buyer	Enterprise Value	Revenue Multiple
Apr-19	Q2'2019	BSM Technologies Inc. (TSX:GPS)	Geotab Inc.	\$88.2	1.9x
Apr-19	Q2'2019	Celtech Software Group	Universe Group plc (AIM:UNG)	\$6.5	2.7x
Mar-19	Q1'2019	lpswitch, Inc.	Progress Software Corporation (NasdaqGS:PRGS)	\$225.0	-
Mar-19	Q1'2019	Dynamic Yield	McDonald's Corporation (NYSE:MCD)	\$300.0	-
Mar-19	Q1'2019	Espial Group Inc. (TSX:ESP)	Enghouse Systems Limited (TSX:ENGH)	\$42.1	0.8x
Mar-19	Q1'2019	Tactical Communications Group, LLC	Curtiss-Wright Corporation (NYSE:CW)	\$50.0	-
Mar-19	Q1'2019	EASY SOFTWARE AG (XTRA:ESY)	Deutsche Balaton AG (DB:BBHK)	\$26.9	0.7x
Mar-19	Q1'2019	Figure Eight Inc.	Appen Limited (ASX:APX)	\$300.0	-





EMS / Infrastructure Software

Date Announced	Period	Target	Buyer	Enterprise Value	Revenue Multiple
Feb-20	Q1'2020	Forescout Technologies, Inc. (NasdaqGM:FSCT)	Advent International Corporation; Crosspoint Capital Partners, LP	\$1,884.2	5.3x
Feb-20	Q1'2020	Ruro, Inc.	Brooks Life Science Systems	\$15.0	3.0x
Jan-20	Q1'2020	GASTROFIX GmbH	Lightspeed POS Inc. (TSX:LSPD)	\$126.3	10.1x
Dec-19	Q4'2019	Nasstar plc (AIM:NASA)	GCI Managed Services Group Limited	\$101.5	2.8x
Dec-19	Q4'2019	Glosfer Co., Ltd.	Glosfer Labs, Inc. (KOSDAQ:A032860)	\$22.3	57.2x
Nov-19	Q4'2019	Carbonite, Inc. (NasdaqGM:CARB)	Open Text Corporation (NasdaqGS:OTEX)	\$1,494.4	3.4x
Oct-19	Q4'2019	Race Roster Business Operation of Fast North Corporation	ASICS Corporation (TSE:7936)	\$28.1	5.4x
Oct-19	Q4'2019	CSG Limited (ASX:CSV)	Fuji Xerox Asia Pacific Pte Ltd.	\$253.2	1.7x
Oct-19	Q4'2019	Cision Ltd. (NYSE:CISN)	MJ23 UK Acquisition Limited	\$2,818.0	3.8x
Oct-19	Q4'2019	PowerupCloud Technologies Pvt. Ltd.	Larsen & Toubro Infotech Limited (NSEI:LTI)	\$15.0	4.3x
Oct-19	Q4'2019	Datatrend Technologies, Inc.	Converge Technology Solutions Corp. (TSXV:CTS)	\$17.5	0.2x
Sep-19	Q3'2019	Dynatech Inc.	ValueCommerce Co., Ltd. (TSE:2491)	\$25.4	1.6x
Sep-19	Q3'2019	Wise lausnir ehf	Centara ehf	\$7.3	0.6x
Sep-19	Q3'2019	Substantially all Assets of Ecomdash	Endurance International Group Holdings, Inc. (NasdaqGS:EIGI)	\$9.6	6.0x
Sep-19	Q3'2019	REGISTER S.p.A.	team.blue	\$441.9	3.8x
Sep-19	Q3'2019	MAM Software Group, Inc. (NasdaqCM:MAMS)	Kerridge Commercial Systems Group Limited	\$158.8	4.1x
Aug-19	Q3'2019	HCL Insys Pte. Ltd.	PCCW Solutions Limited	-	0.5x
Jun-19	Q2'2019	Polystar OSIX AB	Elisa Oyj (HLSE:ELISA)	\$84.8	2.0x
Jun-19	Q2'2019	AIM Software GmbH	SimCorp A/S (CPSE:SIM)	-	3.9x
May-19	Q2'2019	Reseller Business of TPP Wholesale Pty Ltd	CentralNic Group Plc (AlM:CNIC)	\$14.7	1.3x
May-19	Q2'2019	Early Birds SAS	ATTRAQT Group plc (AIM:ATQT)	\$17.9	7.0x
May-19	Q2'2019	SecureLink nv	Orange S.A. (ENXTPA:ORA)	-	2.1x
Apr-19	Q2'2019	Xware AB	Wisetech Global Limited (ASX:WTC)	\$16.4	6.6x
Apr-19	Q2'2019	GBST Holdings Limited (ASX:GBT)	Bravura Solutions Limited (ASX:BVS)	\$123.6	1.8x





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Tech Enabled Services

Date Announced	Period	Target	Buyer	Enterprise Value	Revenue Multiple
Feb-20	Q1'2020	Engineering Ingegneria Informatica S.p.A.	Bain Capital Private Equity, LP; NB Renaissance Partners	\$1,760.6	1.2x
Feb-20	Q1'2020	ICO Group Limited (SEHK:1460)		\$40.6	0.5x
Feb-20	Q1'2020	EdgeRock Technologies, LLC	BG Staffing, Inc. (NYSE:BGSF)	\$21.6	0.5x
Feb-20	Q1'2020	Askida Inc.	Alithya Group Inc. (TSX:ALYA)	\$12.1	1.2x
Feb-20	Q1'2020	IT Business Domain Of Chiyoda System Technologies	TIS Inc. (TSE:3626)	\$3.7	0.1x
Jan-20	Q1'2020	KSNET Inc.	Stonebridge Capital Inc.	\$237.2	1.3x
Jan-20	Q1'2020	sum.cumo GmbH	Sapiens International Corporation N.V. (NasdaqCM:SPNS)	\$31.6	1.7x
Dec-19	Q4'2019	Allat Corporation	KG Mobilians (KOSDAQ:A046440)	\$448.9	2.0x
Dec-19	Q4'2019	Data Respons ASA (OB:DAT)	AKKA Technologies SE (ENXTPA:AKA)	\$428.8	2.1x
Dec-19	Q4'2019	VersaPay Corporation (TSXV:VPY)	1233518 B.C. Ltd.	\$104.0	17.1x
Dec-19	Q4'2019	ChinaSoft Kingsoft Technology (Beijing)	Beijing Chinasoft Intellectual Property Investment	\$18.3	0.9x
Dec-19	Q4'2019	Prop Tech plus Inc.	MINKABU THE INFONOID, Inc. (TSE:4436)	\$11.8	2.3x
Nov-19	Q4'2019	SpireMedia, Inc.	Kin and Carta plc (LSE:KCT)	\$34.9	3.7x
Nov-19	Q4'2019	CYCL AG	LiveTiles Limited (ASX:LVT)	\$22.8	2.4x
Nov-19	Q4'2019	VSS Holdings, LLC	Converge Technology Solutions Corp. (TSXV:CTS)	\$29.2	0.4x
Oct-19	Q4'2019	Intrinsyc Technologies Corporation (TSX:ITC)	Lantronix, Inc. (NasdaqCM:LTRX)	\$24.0	1.0x
Oct-19	Q4'2019	InterXion Holding N.V. (NYSE:INXN)	Digital Realty Trust, Inc. (NYSE:DLR)	\$9,077.3	13.6x
Oct-19	Q4'2019	BroadenGate Software Services Co., Ltd.	Infore Investment Holding Group Co.,Ltd	\$21.3	1.4x
Oct-19	Q4'2019	PeopleWare ICT Solutions B.V.	Proact IT Group AB (publ) (OM:PACT)	\$18.7	0.6x
Oct-19	Q4'2019	Sophos Group plc (LSE:SOPH)	Thoma Bravo, LLC	\$3,914.6	5.5x
Oct-19	Q4'2019	Brady plc (AIM:BRY)	Abalone Asset Management Limited	\$15.3	0.5x
Oct-19	Q4'2019	AECOM Management Services	American Securities LLC; Lindsay Goldberg LLC	\$2,405.0	0.7x
Sep-19	Q3'2019	Substantially All Assets of First Source Electronics, LLC	Commercial Vehicle Group, Inc. (NasdaqGS:CVGI)	\$44.8	1.0x







Tech Enabled Services (continued)

Date Announced	Period	Target	Buyer	Enterprise Value	Revenue Multiple
Sep-19	Q3'2019	1Strategy, LLC	TEKsystems Global Services, LLC	\$3.7	1.8x
Sep-19	Q3'2019	Shanghai Yulun Education Technology	Shanghai Xinnanyang Only Education & Technology	\$11.9	13.5x
Aug-19	Q3'2019	Presidio, Inc. (NasdaqGS:PSDO)	BC Partners	\$2,244.2	0.8x
Aug-19	Q3'2019	Computer Task Group, Incorporated (NasdaqGS:CTG)	Assurance Global Services LLC	\$96.1	0.3x
Aug-19	Q3'2019	Sanderson Group plc (AIM:SND)	Aptean Limited	\$107.9	2.5x
Aug-19	Q3'2019	NCXX Solutions Co., Ltd.	Jitsugyo no Nihon Sha, Ltd.	-	0.2x
Jul-19	Q3'2019	Tascomi Ltd.	IDOX plc (AIM:IDOX)	-	3.8x
Jul-19	Q3'2019	GBST Holdings Limited (ASX:GBT)	FNZ (UK) Ltd	\$184.8	2.9x
Jul-19	Q3'2019	GBST Holdings Limited (ASX:GBT)	SS&C Technologies Holdings, Inc. (NasdaqGS:SSNC)	\$175.2	2.7x
Jul-19	Q3'2019	RightsID and ChannelID Assets of ZEFR	Vobile Group Limited (SEHK:3738)	\$90.0	2.3x
Jul-19	Q3'2019	Shanghai Rili Technology Development Co., Ltd.	Shangying Global Co., Ltd. (SHSE:600146)	\$63.3	0.2x
Jul-19	Q3'2019	Grand-Flo Berhad (KLSE:GRANFLO)	-	\$19.9	1.0x
Jul-19	Q3'2019	DONAT group GmbH	Data Respons ASA (OB:DAT)	\$9.6	0.9x
Jul-19	Q3'2019	Nordisk Systems, Inc.	Converge Technology Solutions Corp. (TSXV:CTS)	\$9.5	0.5x
Jul-19	Q3'2019	ISS Consulting (Thailand) Ltd.	itelligence AG	\$7.7	0.4x
Jul-19	Q3'2019	Lymbyc Solutions Private Limited	Larsen & Toubro Infotech Limited (NSEI:LTI)	\$5.5	5.4x
Jun-19	Q2'2019	Altran Technologies S.A. (ENXTPA:ALT)	Capgemini SE (ENXTPA:CAP)	\$6,059.0	1.7x
Jun-19	Q2'2019	EVRY ASA (OB:EVRY)	Tieto Oyj (HLSE:TIETO)	\$2,252.1	1.5x
Jun-19	Q2'2019	Mobiquity Inc.	Hexaware Technologies, Inc.	\$182.0	2.6x
Jun-19	Q2'2019	SCISYS Group PLC (AIM:SSY)	CGI Group Holdings Europe Limited	\$109.5	1.4x
Jun-19	Q2'2019	Meritgroup Limited	Dods Group plc (AIM:DODS)	\$28.5	2.4x
Jun-19	Q2'2019	Pace Payment Systems, Inc.	i3-SDCR, Inc.	\$134.7	4.6x





Tech Enabled Services (continued)

Date Announced	Period	Target	Buyer	Enterprise Value	Revenue Multiple
May-19	Q2'2019	Total System Services, Inc. (NYSE:TSS)	Global Payments Inc. (NYSE:GPN)	\$26,708.0	6.4x
May-19	Q2'2019	SafeCharge International (AIM:SCH)	11411802 Canada Inc.	\$861.5	5.6x
May-19	Q2'2019	Gencom s.r.l.	Yarix S.r.l.	\$5.6	0.7x
May-19	Q2'2019	Crimson Consultants Holdings Limited	Tribal Group plc (AIM:TRB)	\$13.0	3.3x
Apr-19	Q2'2019	BlueSoft	Orange Polska (WSE:OPL)	\$52.0	1.6x
Apr-19	Q2'2019	Halfmann Goetsch Partner AG	NNIT (CPSE:NNIT)	\$11.2	1.3x
Apr-19	Q2'2019	Jiangxi Samton Technology	SGSG Science&Technology (SZSE:300561)	\$115.6	1.9x
Apr-19	Q2'2019	Certain Business And Assets of Secarma Limited	Shearwater Group PLC (AIM:SWG)	\$9.7	2.0x





Online & Digital

Date Announced	Period	Target	Buyer	Enterprise Value	Revenue Multiple
Jan-20	Q1'2020	Mamezou Holdings Co.,Ltd. (TSE:3756)	Integral Corporation	\$332.2	1.0x
Jan-20	Q1'2020	Blackstone Federal	ECS Federal, LLC	\$85.0	1.9x
Jan-20	Q1'2020	Incentive Technology Group, LLC	ICF Incorporated, L.L.C.	\$255.0	2.8x
Dec-19	Q4'2019	Nantong Qiyun Technology	Shanghai Donghui Network Technology	\$18.6	10.4x
Oct-19	Q4'2019	Virtual Access (Ireland) Ltd.	Westermo Teleindustri AB	\$20.0	1.5x
Jul-19	Q3'2019	HEXONET Services Inc.	CentralNic Group Plc (AlM:CNIC)	\$11.3	0.6x
Jul-19	Q3'2019	Dreamscape Networks Limited (ASX:DN8)	Web.com Group, Inc.	\$90.1	1.8x
May-19	Q2'2019	Beijing MTM Education Technology Development	Ningbo Meishan Bonded Port Area Qizhi	\$15.0	14.1x









Accenture acquires Bow & Arrow, a U.K.- based digital ventures consultancy

Transaction Summary

- Pharus is pleased to announce our role as the exclusive financial advisor to Bow & Arrow in its sale to Accenture. Bow & Arrow has built its success on its ability to blend analytics with creativity, and vision with execution. The consultancy works with clients across a variety of industries, with a focus on communications, media and technology. Bow & Arrow sits at the center of the disruption and innovation agenda for clients. They work in cross-functional 'Start Up' teams, which combine strategists with commercial, research, creative thinking and analytical skills. They also incorporate creatives who have commercial, strategic, customer and product understanding to design transformational experiences.
- About the transaction with Accenture Interactive, Bow & Arrow CEO and Founder Ben Slater commented, "We work with clients when there is an urgent need for fast growth outside of their core business, but they don't know what to do next. Working with Accenture Interactive dramatically increases our capacity to provide game-changing implementation too for these clients."

Bow& Arrow

has been acquired by

accenture

The undersigned acted as the exclusive financial advisor to Bow & Arrow in connection with the transaction

PHARUS

Key Profiles

- Bow & Arrow is a digital ventures consultancy that works with clients to identify and create new digital products and services that fulfill unmet customer needs. Its expertise is in the emerging category of "white space" identification — finding opportunities for businesses to grow in new market sectors and to offer new experiences.
- Accenture is a leading global professional services company, providing a broad range of services and solutions in strategy, consulting, digital, technology and operations. Combining unmatched experience and specialized skills across more than 40 industries and all business functions underpinned by the world's largest delivery network Accenture works at the intersection of business and technology to help clients improve their performance and create sustainable value for their stakeholders. With 492,000 people serving clients in more than 120 countries, Accenture drives innovation to improve the way the world works and lives. Accenture Interactive helps the world's leading brands transform their customer experiences across the entire customer journey. Through its connected offerings in design, marketing, content and commerce, Accenture Interactive creates new ways to win in today's experience-led economy.

On working with Pharus, Bow & Arrow CEO and Founder Ben Slater commented "...Firstly, Ken and Suhail are not brokers, they are strategic geniuses, with deep emotional intelligence and intellect. Secondly, they speak your language not someone else's, and they care so much about your world inside and outside of the process. Most importantly, they are of a size where they are your day to day guys from the very first meeting to the final execution. Pharus took our business to the next level... they made damn sure that we set ourselves up for success for many years to come."







Accenture Acquires UK-Based Innovation Firm Happen

Transaction Summary

- Pharus is pleased to announce our role as the exclusive financial advisor to Happen GP Ltd.
 (Happen) in its sale to Accenture. Happen will become part of Accenture's Products Industry X.0 business, which helps clients use advanced digital technologies to reinvent their products, services and business models to achieve higher efficiency and growth in operations across the enterprise including design and engineering, manufacturing, supply chain management, logistics and customer support.
- About the transaction with Accenture, Happen cofounder Mark Cowan commented, "Joining Accenture will enable us to scale our offerings and capabilities and deliver our services to an even greater range of clients. We're excited to become part of one of the world's truly great companies."
- Happen's shareholders retained Pharus because
 of our broad expertise in advising market-leading
 digital transformation and innovation services
 companies, our comprehensive knowledge of the
 innovation, strategy, branding and product
 development services competitive landscape, and
 our bespoke, high-impact approach to M&A
 advisory.



has been acquired by

accenture

The undersigned acted as the exclusive financial advisor to Happen Group in connection with the transaction

PHARUS

Key Profiles

- Happen is a global innovation agency that brings world-class talent, technologies and expertise together to grow and protect businesses and brands. Happen's worldwide team, across offices in London, Amsterdam and New York, possess a wide range of innovation skills, including strategy, design, ideation, insight and research. Happen's work, powered in part by proprietary technology and datagathering platforms, drives measurable and meaningful business impact for organizations across the consumer landscape.
- Accenture is a leading global professional services company, providing a broad range of services and solutions in strategy, consulting, digital, technology and operations. Combining unmatched experience and specialized skills across more than 40 industries and all business functions underpinned by the world's largest delivery network Accenture works at the intersection of business and technology to help clients improve their performance and create sustainable value for their stakeholders. With 492,000 people serving clients in more than 120 countries, Accenture drives innovation to improve the way the world works and lives.

On working with Pharus, Happen co-founder David Walker, added "having a seasoned and experienced advisor by our side was critical, which enabled us to secure a perfect and high-calibre match for our next chapter of growth, along with providing high-quality support to see the transaction through."







Trax Retail Acquires Planorama, leading provider of image recognition solutions for CPG and retail execution

Transaction Summary

- Pharus is pleased to announce our role as the exclusive financial advisor to Planorama in its sale to Trax. Transaction terms were not disclosed. Smollan and WPP were minority shareholders of Planorama.
- The transaction will strengthen Trax's position in image recognition technology and services, enhancing retail execution and space planning solutions, while extending its global presence with longstanding high-profile clients.
- The shareholders of Planorama retained Pharus due to our deep expertise in enterprise software (particularly SaaS) and data analytics pertaining to retail technology sectors, our longstanding success in cross-border transaction completions, and our bespoke approach to M&A advisory. We executed a comprehensive M&A process that involved identifying and approaching a broad set of strategic and financial buyers, spearheading marketing activities, leading due-diligence, and negotiating transaction terms.

Key Profiles

- Planorama is a leading pioneer in image recognition solutions providing Artificial Intelligence powered retail execution and space planning solutions to major CPG companies. Based on shelf pictures from any source, its image recognition solutions can instantly analyze and recognize millions of product items and deliver immediate actional retail insights for clients and its teams. Today, Planorama powers multinational companies such as Unilever, Mondelez and Coca Cola as it operates across 6 continents with 5 offices worldwide.
- Trax is the global provider of computer vision solutions and analytics for retail. The company enables tighter execution controls in-store and provides clients with the ability to leverage competitive insights through its in-store execution tools, market measurement and analytics services to unlock revenue opportunities at all points of sale. Many of the world's top brands and retailers leverage Trax globally in more than 50 countries to manage in-store execution and increase revenues at the shelf.



has been acquired by



The undersigned acted as the exclusive financial advisor to CVDM Solutions SAS (dba Planorama) in connection with the transaction



Vincent Jacques, Chairman of Planorama, said about Pharus, "Excellent work Pharus! Way to sprint over the finish line and truly bring in immense value from the initial stages of go-to-market preparation to the very end of negotiation and diligence. The Pharus team has seamlessly helped us through each step of the process, providing a systematic approach and clear insights to ensure a successful transaction. I'm impressed with their vast industry knowledge, business acumen, and dedication working around the clock accommodating different time zones – fantastic job Pharus."







Tata Consultancy Services Acquires W12 Studios, award-winning digital design agency

Transaction Summary

- Pharus is pleased to announce our role as the exclusive financial advisor to W12 Studios Limited (W12) in its sale to Tata Consultancy Services. W12 will become part of TCS Interactive, the digital design division within TCS' Business & Technology Services organization. The transaction, TCS' first in the digital space, will further strengthen TCS Interactive's array of creative and experience service offerings.
- The shareholders of W12 retained Pharus because of our broad expertise in marketing digital transformation services companies, our comprehensive knowledge of the design and strategy services competitive landscape, and our bespoke approach to M&A advisory. We executed a targeted M&A process that involved identifying and approaching a customized universe of strategic buyers, spearheading marketing activities, leading due-diligence, and negotiating transaction terms.

W12 Studios

has been acquired by

TATA CONSULTANCY SERVICES

The undersigned acted as the exclusive financial advisor to W12 Studios Limited in connection with the transaction

PHARUS

Key Profiles

- Founded in 2012 and based in London, W12 imagines and builds iconic products and experiences for renowned media and technology brands worldwide. With industry-leading expertise in visual, interaction, motion, sonic and creative technology, W12's competencies span the full range of the service journey, from developing innovative brand strategies to building expectation-exceeding product ideas and prototypes. W12 has defined, designed, and prototyped digital products for leading media services and technology companies across 14 countries.
- Tata Consultancy Services is an IT services, consulting and business solutions organization that has been partnering with many of the world's largest businesses in their transformation journeys for the last fifty years. TCS offers a consulting-led, cognitive powered, integrated portfolio of IT, Business & Technology Services, and engineering. This is delivered through its unique Location Independent Agile delivery model, recognized as a benchmark of excellence in software development.
- Tata Consultancy Services was founded in 1968 and is based in Mumbai, India. Tata Consultancy Services Limited is a subsidiary of Tata Sons Limited.

Fabian Birgfeld, Co-Founder and Chief Executive Officer of W12, said about Pharus, "We are very grateful to the Pharus team for working tirelessly and supporting us throughout the exploratory process and due diligence stage. Their availability and expertise were absolutely essential in bringing TCS and us together and completing this transaction."







Infosys Acquires Fluido, **Largest Salesforce Consulting Partner in the Nordics**

Transaction Summary

- Pharus served as the exclusive financial advisor to Fluido Oy in their sale to Infosys Limited (NSEI:INFY).
- · Executing on its strategy to help clients navigate the next in their digital transformation journey, this acquisition strengthens Infosys' position as a leading Salesforce enterprise cloud services provider, and enhances its ability to provide clients an unparalleled cloud-first transformation.
- Pharus was mandated by Fluido'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.
- Infosys acquired Fluido for all-cash purchase price of up to €65 million (\$76 million), including earnout and bonuses.

Key Profiles

- Fluido is the leading Salesforce Consultancy and Partner in the Nordics. Fluido offers consulting, development and integration services tailored for customer needs to make customer data meaningful in the moments that matter the most. Fluido's headquarters are in Espoo, Finland, with additional offices in Denmark, Norway, Slovakia and Sweden.
- Infosys is a global leader in next-generation digital services and consulting. They provides business information technology services, including application development and maintenance, independent validation, infrastructure management, and business process management services, as well as engineering services, such as engineering and life cycle solutions; and consulting and systems integration services comprising consulting. enterprise solutions, systems integration, and advanced technologies.
- Infosys was founded in 1981 and is headquartered in Bengaluru, India.





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



Kai Mäkelä, Chief Executive Officer of Fluido, said about Pharus, "The Pharus team is amazing. They were by our side through every step of the process. providing keen insights, thorough preparation and a depth of relationships in our market. Most important the Pharus team worked tirelessly for the best interests of our shareholders and employees. We are confident that the transaction with Infosys provides our shareholders with the greatest value combined with the best platform for our continued growth. THANKS TO THE PHARUS TEAM!!"







Domino Media Group Acquired by Multiply Media

Transaction Summary

- Pharus served as the exclusive strategic advisor to Domino Media Group, Inc. in its transaction with Multiply Media. Transaction terms were not disclosed.
- With this transaction, Multiply reinforces its focus on creating and cultivating enduring, digital-first brands in its sizeable lifestyle categories. Domino joins Multiply's family of brands, which includes FashionBeans, HealthyWay, and Urbo. The Domino brand stands to expand its core audience with additional support centered on analytics and technology.
- Pharus was retained by the shareholders of Domino (including Launch Capital and iNovia) due to our extensive knowledge of and M&A experience in the digital media and eCommerce sectors.
- In its role as an advisor, Pharus was mandated to execute a comprehensive M&A process, that involved identifying and approaching a targeted set of strategic buyers, spearheading marketing activities, leading due-diligence, and negotiating transaction terms.

Key Profiles

- Domino is a Millennial-focused women's lifestyle media and eCommerce company with roots in home, design, DIY, and entertaining. Established in 2005, the company quickly solidified its position as an editorial leader in the home décor space through its publications. Domino relaunched in 2013, introducing their expanded content across print, digital and commerce platforms.
- Multiply is a premium digital publisher fluent in technology and analytics platforms built to support and invest in editorial leaders in high value consumercentric content categories. The Company operates a number of notable digital properties including FashionBeans, HealthyWay, and Urbo.



The undersigned acted as the exclusive financial advisor to Domino Media Group, Inc. in connection with the transaction

PHARUS









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 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

PHARUS

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."







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







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-ofsale 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

HARUS







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

PHARUS











Innovation Services



Retail **Solutions**



Online Marketing



Digital Agency



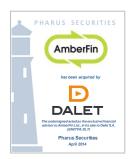
Digital Revenue Management



Fuel Payment & Coupon



Education **Technology**



Broadcast Technology



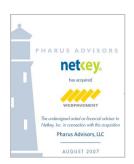
Services



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 Software / SaaS **Education Technology** Digital & Creative Services Performance Marketing Data & Analytics Industrial Technology

Consumer

Strong Network of Key Relationships

110 +

Successful **Transactions** Completed

900 +

Strategic Buyer Relationships

1,500+

Venture Capital & Private Equity Relationships

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