



# Selected Recent Transactions (1)

Communication Technology and Electronics

IT Services and BPO





#### Ubisense

#### KPMG CF United States

advised Ubisense on the sale of its SmartSpace division to Investcorp Technology Partners

> USD 44.8 million(2) December 2018

**BCM One** 

KPMG CF United States

advised BCM One on its sale to Thompson

Street Capital Partners

Value not disclosed





### GCI

### KPMG CF United Kingdom

advised GCI on its sale to Mayfair Equity Partners

\$264.2 million May 2018





### TRS Technologies

### **KPMG CF United States**

advised TRS Technologies, Inc. on its sale to Tayca Corporation

Value not disclosed January 2018





### Vitruvian Partners

### KPMG CF Sweden

Value not disclosed December 2017

KPMG



## KPMG



### **Scalar Decisions**

**KPMG CF Canada** 

advised Scalar Decisions on its sale to CDW Canada Inc.

Value not disclosed





### **Nordcloud Solutions Ov**

KPMG CF Finland

advised Nordcloud Solutions Ov on its funding round from new investors Finnvera plc and OP Yrityspankki Oy

USD 22.7 million





### **BeneSys**

### KPMG CF United States

advised BeneSvs on its sale from The

Value not disclosed





### **Mind Tools**

### KPMG CF United Kingdom

advised Mind Tools its sale to Emerald Group Publishing Limited

Value not disclosed



### Flvt KPMG CF United

Kingdom

advised Flyt Limited on the sale to Just Eat Plc

USD 28 5 million





### Ink

### KPMG CF United Kingdom

advised the shareholders of Volanti Media (Holdings) Limited (Ink) on its sale to The Stagwell Group

> Value not disclose October 2018





### ReachLocal Japan

### **KPMG CF United States** & Japan

advised ReachLocal Japan on its sale to New Horizon Capital

Value not disclosed





### **CTM Software**

**KPMG CF United States** 

on its sale to MRI Software, a portfolio company of GI Partners and TA Associates

Value not disclosed





### TA Associates / List Group S.P.A.

KPMG CF Italy

advised TA Associates (UK) on their investment in List Group S.P.A.

Value not disclosed January 2019



### **TVcN**

### KPMG CF Netherlands

advised ManpowerGroup Netherlands B.V. on the sale of TVcN B.V. to Opportunity Partners

Value not disclosed January 2019





### **ProActive** Software

### KPMG CF Netherlands

advised ProActive Software on its sale to Visma Group

Value not disclosed November 2018

2014-201	8 Advisor Rankings <sup>(3)</sup>	# of Deals
1.	KPMG <sup>(1)</sup>	2,260
2.	PwC	2,066
3.	Ernst & Young LLP	1,426
4.	Rothschild & Co.	1,402
5.	Deloitte	1,393
6.	Houlihan Lokey	1,274
7.	BDO	1,100
8.	Lazard	922
9.	IMAP	854
10.	Oaklins	832

2018	Advisor Rankings <sup>(3)</sup>	# of Deals
1.	KPMG <sup>(1)</sup>	464
2.	PwC	365
3.	Deloitte	339
4.	Rothschild & Co.	313
5.	Houlihan Lokey	261
6.	Ernst & Young LLP	235
7.	BDO	229
8.	Lazard	201
9.	Sumitomo Mitsui Financial	184
10.	Oaklins	173

MI Advisor Hankings®	# of Deals
KPMG <sup>(1)</sup>	70
Deloitte	62
BDO	53
PwC	52
Raymond James Financial	51
Rothschild & Co.	48
Ernst & Young LLP	47
Oaklins	46
Houlihan Lokey	44
Sumitomo Mitsui Financial	38
	Deloitte BDO PwC Raymond James Financial Rothschild & Co. Ernst & Young LLP Oaklins Houlihan Lokey

- Represents the Corporate Finance practices of KPMG International's network of independent member firms.
- Using conversion rate as on transaction announcement date.
- (3) League tables include completed deals which have value between \$0 to \$500mm and also where deal value is not disclosed. Source: Thomson Reuters SDC

# KPMG CF Transaction Spotlight





Has been acquired by



A portfolio company of GI PARTNERS



Value not disclosed February 2019











### **Overview:**

- KPMG Corporate Finance ("KPMG CF") acted as the exclusive financial advisor to CTM Software on its sale to MRI Software, a portfolio company of GI Partners and TA Associates.
- CTM Software is a provider of real estate workflow SaaS solutions, enabling residential real estate agents across Colorado to streamline the real estate transaction process.
- MRI Software LLC provides real estate software applications and hosted solutions.
   The company's products offering includes financials suite, commercial suite, residential suite, investment suite, corporate real estate, facilities management, and reporting and analytics.

### **Engagement:**

 The acquisition expands MRI's global residential real estate business for sales, rentals and property management and enhances the company's capabilities in document management workflow and electronic signature solutions.



Acted as the lead financial advisor to



on its sale to



Value not disclosed January 2019





#### Overview

- BCM One is a leading managed technology solutions provider offering businesses a one-stop-shop for any technology needs.
- KPMG CF acted as the exclusive financial advisor to BCM One in its sale to Thompson Street Capital Partners, working closely with the management team and shareholders throughout the process, including providing advisory expertise and managing the marketing, negotiation, and due diligence phases of the transaction.

### **Engagement:**

- KPMG CF ran a thorough marketing process to position BCM One to a group of acquirers who would understand BCM One's industry and the growth potential with the right partner.
- KPMG CF ultimately negotiated the sale of BCM One to Thompson Street Capital Partners, a St Louis-based private equity fund with substantial experience in technology managed services.
- "KPMG CF was a long-term crucial partner to BCM One. We originally got to know the team nearly five years ago, and during that time period, before we had even decided to run a process, they provided sage guidance, thoughtful counsel and tremendous effort. Once we officially kicked off, they were efficient and focused, and brought to the table potential suitors we had never heard of in the end they found us the best potential strategic partner on the best possible terms. I would highly recommend them to any founding team."

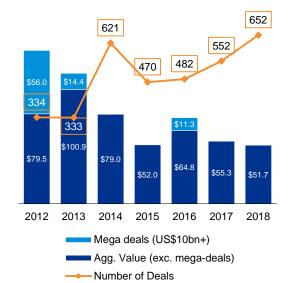
- John Cunningham, Co-Founder & Co-CEO, BCM One



## TMT Country Spotlight: KPMG Russia

### Key trends in TMT market in Russia

- M&A deal activity in Russia grew from 552 deals in 2017 to 652 in 2018, representing year-over-year growth of 18%.
- Strategic players continue to aggressively look for new technologies to differentiate their offerings
- We continue to see the emergence of strategic VC funds by the largest Russian companies looking to invest in next generation technologies (e.g. RDIF, MTS, Sistema, Sberbank, Gazprombank).
- Government institutions are working towards building conducive investment environments, by proactively developing investment funds and providing grants for earlystage technology companies (RVC, IIDF, Skolkovo).



### **Recent Transactions**

### KPMG

#### Project Andromeda Deal Advisory

Acting as financial adviser for a merger of three companies in the gaming segment

Ongoing

### KPMG

### MTS

Deal Advisory

Financial and tax due diligence of an automated cashpoints business

2017

### KPMG

### Project Gemini

Deal Advisory

Acting as a financial adviser for Opportunity to acquire a global provider of advanced satellite networking solutions

Ongoing

### KPMG

#### Rostelecom

Deal Advisory

Advised on potential acquisition of Jolla/Sailfish

2017

### KPMG

### Fosun

Deal Advisory

Assistance to the international investment fund during the planned acquisition of the high tech start up

2018

### KPMG

#### Vimpel-Communications

Deal Advisory

Advised Vympelcom on a potential acquisition of local internet provider

2017

### KPMG

### VTB

Deal Advisory

Pre-investment study of Tekhnoserv

2018

### KPING

#### MegaFon

Deal Advisory

Financial due diligence of Mail.Ru group

> US\$740 million 2017

### KPMG

#### **VB Partners**

Deal Advisory

Advised shareholders of a leading outsourced contact center service provider in Russia, on sale of the business

### KPMG

### Sherbank

Deal Advisory Determination of an indicative market value range of 100% equity stake of one of the largest online marketplaces

2017

### Key TMT Team Members

KPMG's Deal Advisory team has deep local experience in TMT sector



**Maxim Filippov** Partner, M&A 14+ years of M&A experience



Gurgen Agamian Associate Director, M&A



### Vladimir Fomichenko

Director, Transaction Services (TS) 16+ years in TS, integration & audit



**Ekaterina Kashlyuk** 

Manager, M&A



## Global TMT Sector M&A Activity

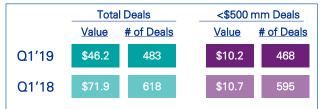
- In Q1'19, global TMT M&A transaction volume reached \$170B across 2,110 deals, representing year-over-year declines of -40% and -25%, respectively.
- Middle market M&A activity (<\$500 million) was also down year-over-year, with aggregate deal value down to \$38.1 billion in Q1'19 compared to \$43.9 billion in Q1'18.
- Despite the year-over-year decline, private equity dry powder remains at an all-time high.
   Furthermore, strategic buyers continue to pay premium multiples for differentiated technology.
   Based on the aforementioned, we expect 2019 M&A activity to strengthen for the remainder of the year.
- The largest Q1'19 deal announced was FIS' \$35B acquisition of Worldpay (EV/LTM revenue multiple: 10.9x). Upon closing, this transaction will represent the largest payment deal of all time. Further legacy consolidation is expected in the payments industry due to increased competition from new cloud solutions coming to market.

### Sub-sector M&A activity

(Aggregate values in \$ billions) (5)

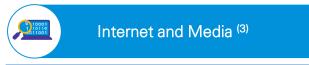


## Communications Technology and Electronics (1)





	Tota	al Deals	<\$500	mm Deals
	<u>Value</u>	# of Deals	<u>Value</u>	# of Deals
Q1′19	\$11.2	416	\$6.6	412
Q1′18	\$30.2	483	\$8.0	473



	Tota	l Deals	<\$500 ı	mm Deals
	<u>Value</u>	# of Deals	<u>Value</u>	# of Deals
Q1′19	\$34.2	520	\$8.7	506
Q1′18	\$147.8	750	\$11.9	730



	Tota	al Deals	<\$500 r	mm Deals
	<u>Value</u>	# of Deals	<u>Value</u>	# of Deals
Q1′19	\$78.1	691	\$12.5	675
Q1′18	\$30.6	926	\$13.3	916

Notes: We have sourced the sub-sector classifications from Thomson One as below:

- (1) Communications Technology and Electronics: Computers & Peripherals; Electronics; Semiconductors; Space and Satellites; Telecommunications Equipment; Telecommunications Services; Wireless; and Other Telecom.
- (2) IT Services and BPO: Companies/targets with primary industry classification as IT Consulting & Services.
- (3) Internet and Media: Advertising & Marketing; Broadcasting; Cable; Casinos & Gaming; E-commerce / B2B; Internet and Catalog Retailing; Internet Infrastructure; Motion Pictures / Audio Visual; Publishing; and Other Media & Entertainment.
- (4) Software: Companies/targets with primary industry classification as Internet Software & Services; Software; and Other High Technology.
- (5) Deal Values are based on transactions with disclosed deal values only.

Sources: Thomson One and other publicly available information.



### Global TMT M&A Trend: Q2'16 - Q1'19



### Global TMT M&A Trend by Buyer Type: Q2'16 - Q1'19



### Global TMT Mid-Market M&A Trend (<\$500 mm) (1): Q2'16 – Q1'19

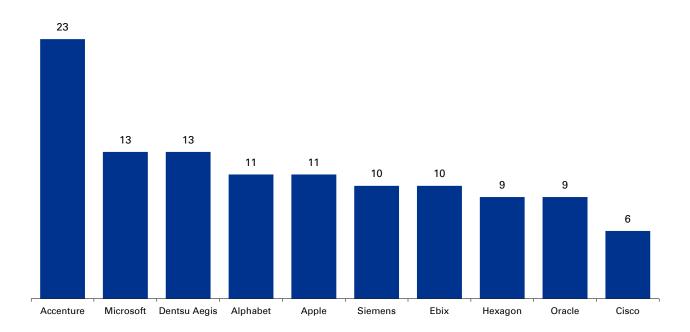


(1) Based on deals with disclosed deal values only. Source: Thomson One



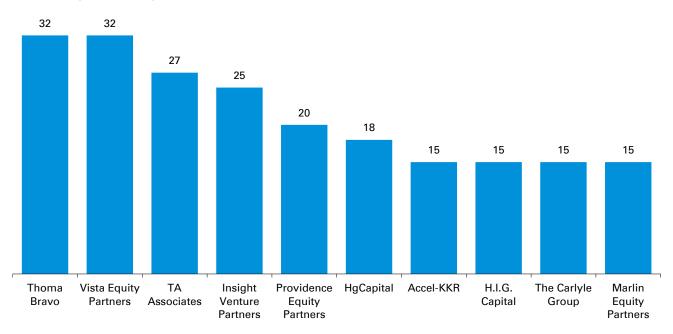
### Top 10 Active Global TMT Strategic Buyers: TTM Q1'19

### Number of acquisitions in the period



### Top 10 Active Global TMT Financial Buyers: TTM Q1'19 (1)

### Number of acquisitions in the period



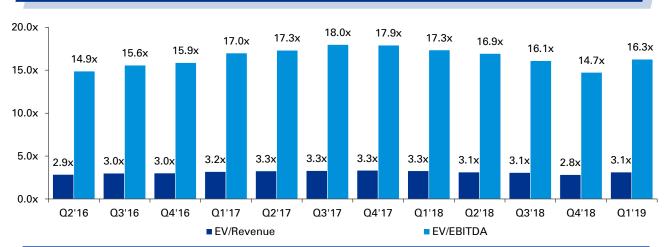
Note: 1. PE deals include bolt-on acquisitions to existing portfolio companies. Source: 451 Research

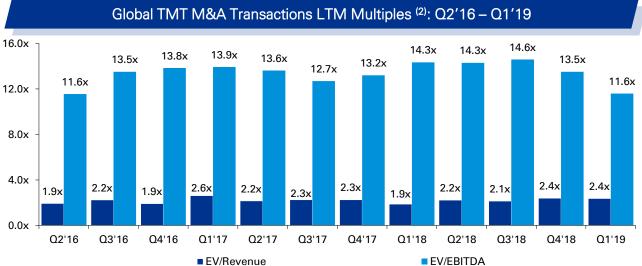


### S&P Global TMT Index Price Performance: Q2'16 - Q1'19



### Global TMT Public LTM Multiples (1,2): Q2'16 - Q1'19





<sup>(1)</sup> Trading multiples include average multiples calculated for all the 'Public Companies' operating in the TMT space (with market capitalization of at least \$500mm) classified under the primary industry classifications listed on all major exchanges globally.

<sup>(2)</sup> EV/Revenue and EV/EBITDA multiples greater than 10.0x and 50.0x, respectively, were excluded from the analysis. Source: Thomson One, Capital IQ.



### Global TMT Selected Public Comps: Communications Technology & Electronics

	M	arket D	ata					(	Operating I	Metrics				Val	uation	Multip	les	
\$ value millions, except per share	Quarter	Share	% of 52 Week	Market	Enterprise		Revenue		Revenue	Growth%	LTM Gross	LTM EBITDA	EV	/ Reve	nue	EV	/EBITD	Д(3)
Company Name	Ending	Price	High	Cap. (1)	Value (2)	LTM	2019E	2020E	2018-19E	2019E-20E	Margin%	Margin%	LTM	2019E	2020E	LTM	2019E	2020
Communication Se	rvices																	
'erizon	Dec-18	\$59.13	96.0%	\$244,207	\$356,967	\$130,863	\$132,205	\$134,034	0.9%	1.4%	57.8%	40.2%	2.7x	2.7x	2.7x	6.8x	7.3x	7.2
T&T	Dec-18	\$31.36	86.2%	\$228,445	\$412,135	\$170,756	\$183,918	\$184,669	7.4%	0.4%	53.5%	33.4%	2.4x	2.2x	2.2x	7.2x	6.8x	6.8
hina Mobile	Dec-18	\$10.19	91.2%	\$208,669	\$147,426	\$107,132	\$112,610	\$116,850	3.9%	3.8%	68.0%	37.0%	1.4x	1.3x	1.3x	3.7x	3.4x	3.4
eutsche Telekom	Dec-18	\$16.62	93.3%	\$78,795	\$158,609	\$89,441	\$87,832	\$89,820	2.0%	2.3%	31.5%	28.1%	1.8x	1.8x	1.8x	6.3x	5.8x	5.6
П	Dec-18	\$42.44	86.3%	\$81,379	\$135,669	\$107,988	\$106,571	\$106,484	NA	(0.1%)	51.4%	26.7%	1.3x	1.3x	1.3x	4.7x	4.8x	4.8
odafone	Sep-18	\$1.82	65.1%	\$49,548	\$87,871	\$52,622	\$50,840	\$51,609	(3.9%)	1.5%	30.0%	26.5%	1.7x	1.7x	1.7x	6.3x	5.4x	5.2
)range	Dec-18	\$16.27	95.1%	\$43,163	\$75,627	\$47,379	\$46,631	\$47,014	(1.2%)	0.8%	38.1%	29.0%	1.6x	1.6x	1.6x	5.5x	5.2x	5.1
elefónica	Dec-18	\$8.38	88.1%	\$42,975	\$106,900	\$56,684	\$54,327	\$55,062	(2.1%)	1.4%	58.9%	30.1%	1.9x	2.0x	1.9x	6.3x	6.1x	5.9
ingTel	Dec-18	\$2.23	84.4%	\$36,388	\$43,756	\$12,886	\$12,848	\$13,002	1.5%	1.2%	28.7%	27.3%	3.4x	3.4x	3.4x	12.4x	12.2x	12.:
elstra	Dec-18	\$2.36	97.5%	\$28,001	\$40,800	\$18,176	\$19,323	\$18,872	(2.8%)	(2.3%)	45.7%	23.6%	2.2x	2.1x	2.2x	9.5x	6.5x	6.7
Comm. Services U	pper Quar	tile	94.6%										2.4x	2.2x	2.2x	7.1x	6.7x	6.7
Comm. Services M	ledian		89.7%										1.8x	1.9x	1.9x	6.3x	5.9x	5.8
Comm. Services Lo	ower Qua	rtile	86.2%										1.6x	1.6x	1.6x	5.7x	5.2x	5.1
Communication Te	chnology	,																
isco Systems	Jan-19	\$53.99	99.6%	\$237,665	\$222,940	\$50,825	\$52,537	\$54,478	3.4%	3.7%	62.1%	30.0%	4.4x	4.2x	4.1x	14.6x	11.9x	11.
SMC	Dec-18	\$7.95	91.6%	\$206,217	\$188,978	\$33,697	\$33,553	\$37,726	(0.4%)	12.4%	48.3%	65.4%	5.6x	5.6x	5.0x	8.6x	8.7x	7.7
Iroadcom	Feb-19	\$300.71	99.1%	\$119,035	\$151,583	\$21,310	\$25,063	\$26,520	17.3%	5.8%	68.0%	46.6%	7.1x	6.0x	5.7x	15.3x	11.1x	10.
Ceyence	Dec-18	\$622.42	96.0%	\$75,477	\$67,753	\$5,253	\$5,673	\$6,571	6.6%	15.8%	82.5%	56.0%	NM	NM	NM	23.1x	21.3x	19.
oxconn (Hon Hai)	Dec-18	\$2.38	63.7%	\$33,004	\$33,483	\$172,944	\$169,009	\$175,409	0.3%	3.8%	6.3%	3.6%	0.2x	0.2x	0.2x	5.3x	5.5x	5.1
lokia	Dec-18	\$5.69	88.4%	\$31,915	\$28,462	\$25,834	\$25,829	\$26,512	1.0%	2.6%	39.9%	11.9%	1.1x	1.1x	1.1x	9.3x	8.7x	6.9
ricsson	Dec-18	\$9.21	94.2%	\$30,394	\$29,229	\$23,725	\$23,061	\$23,541	(1.5%)	2.1%	35.2%	7.0%	1.2x	1.3x	1.2x	17.7x	10.3x	9.2
leetCor Technologies	Dec-18	\$246.59	99.9%	\$21,172	\$24,960	\$2,433	\$2,604	\$2,851	8.0%	9.5%	80.0%	55.2%	NM	9.6x	8.8x	18.6x	16.8x	15.
TE.	Dec-18	\$4.35	88.6%	\$17,225	\$18,182	\$12,433	\$14,638	\$16,769	13.8%	14.6%	32.9%	5.6%	1.5x	1.2x	1.1x	26.1x	12.1x	10.3
Citrix	Dec-18	\$99.66	85.3%	\$13,128	\$13,823	\$2,974	\$3,085	\$3,226	4.1%	4.5%	87.0%	28.1%	4.6x	4.5x	4.3x	16.5x	12.6x	11.8
uniper Networks	Dec-18	\$26.47	85.9%	\$9,210	\$7,838	\$4,648	\$4,490	\$4,648	(4.3%)	3.5%	59.0%	17.1%	1.7x	1.7x	1.7x	9.9x	8.1x	7.5
Amdocs	Dec-18	\$54.11	77.0%	\$7,522	\$7,110	\$4,009	\$4,105	NA	2.5%	NA	34.8%	18.4%	1.8x	1.7x	NA	9.6x	8.2x	N/
Comm. Technolog	y Upper Q	uartile	96.8%										4.6x	5.1x	4.8x	17.9x	12.2x	11.
Comm. Technolog	y Median		90.1%										1.7x	1.7x	2.9x	14.9x	10.7x	10.
Comm. Technolog	y Lower O	luartile	85.8%										1.3x	1.3x	1.1x	9.5x	8.5x	7.6
Electronics																		
pple	Dec-18	\$189.95	81.4%	\$895,667	\$923,970	\$261,612	\$256,777	\$272,729	(1.7%)	6.2%	38.2%	30.4%	3.5x	3.6x	3.4x	11.6x	12.3x	11.
amsung	Dec-18	\$39.26	82.8%	\$260,609	\$191,561	<del> </del>	\$198,175		(9.7%)	7.7%	45.7%	34.8%	0.9x	1.0x	0.9x	2.5x	3.6x	3.0
onv	Dec-18	\$41.92	66.6%	\$52,425	\$51,125	\$77,290		\$81,083	(2.8%)	4.5%	28.0%	12.4%	0.7x	0.7x	0.6x	5.4x	4.6x	4.5
anon	Dec-18	\$29.00	81.2%	\$31,308	\$31,932	\$36,020		\$35,437	(3.9%)	1.1%	46.4%	15.5%	0.7x 0.9x	0.7x 0.9x	0.0x 0.9x	5.4x	6.2x	6.3
anasonic	Dec-18	\$8.61	57.9%	\$20,084	\$22,836	\$74,311	-	\$74,870	(1.2%)	1.1%	28.1%	7.4%	0.3x	0.3x	0.3x	4.1x	3.8x	3.7
G Electronics	Dec-18	\$66.04	66.8%	\$20,084	\$22,836 \$18,844	\$55,101		\$59,733	1.7%	5.4%	24.6%	7.4%	0.3x	0.3x	0.3x	4.1x 4.5x	3.8x 4.4x	4.
G Electronics	Dec-18	\$0.90	95.4%	\$11,203	\$18,844 \$13,137	\$49,966		\$59,733 \$53,314	6.1%	0.6%	14.0%	4.1%	0.3x 0.3x	0.3x 0.2x	0.3x 0.2x	4.5x 6.5x	6.3x	<del> </del>
311070	Dec-18	\$0.90	95.4%	\$10,806	\$13,137	φ49,90b	φ53,000	φοσ,σ14	0.176	U.0%	14.0%	4.170	U.3X	U.ZX	U.ZX	0.5X	0.3X	5.7
	Quartile		82.1%										0.9x	0.9x	0.9x	6.1x	6.3x	6.

Source: Capital IQ. Financials are calendarized to December year-end.

81.2%

66.7%

<sup>(3)</sup> EV/EBITDA multiple less than 0 or greater than 50 have been marked Not Meaningful (NM) in the analysis.



**Electronics Median** 

Electronics Lower Quartile

0.7x 0.7x 0.6x 5.4x 4.6x 4.5x

0.3x 0.3x 0.3x 4.3x 4.1x 3.9x

<sup>(1)</sup> Market Data including Market Capitalization amounts are based on closing share prices as of March 31, 2019.

<sup>(2)</sup> Enterprise Value (EV) equals Market Capitalization plus Debt, Preferred Equity, and Minority Interest, minus Cash and Cash Equivalents.

### Global TMT Selected Transactions (1): Communications Technology & Electronics

Announced Date	Target Name	Target Country	Acquirer Name	Deal Value (\$ mm)	EV / Revenue	EV / EBITDA
27-Mar-2019	Quantenna Communications	U.S.	ON Semiconductor	\$1,070	4.2x	121.8x <sup>(2)</sup>
25-Mar-2019	Inmarsat	U.K.	Apax / Warburg Pincus / CPPIB / OTPP	\$3,400	3.8x	7.6x
18-Mar-2019	NII Holdings (Nextel Brazil assets)	U.S.	America Movil	\$905	1.5x	-
13-Mar-2019	Pointer Telocation	Israel	I.D. Systems	\$140	1.8x	11.0x
11-Mar-2019	NGINX	U.S.	F5 Networks	\$670	25.8x	-
11-Mar-2019	Mellanox Technologies	U.S.	NVIDIA	\$6,778	6.2x	31.5x
04-Mar-2019	Mist Systems	U.S.	Juniper Networks	\$405	-	-
27-Feb-2019	UPC Switzerland [Liberty Global]	Switzerland	Sunrise Communications [TDC]	\$2,600	4.8x	8.5x
26-Feb-2019	Kaleyra	Italy	GigCapital	\$192	-	-
20-Feb-2019	Telefonica (Panama, Costa Rica and Nicaragua operations)	Spain	Millicom International Cellular	\$1,650	2.3x	-
19-Feb-2019	Altia Systems [Intel Capital, Naya Ventures]	U.S.	GN Audio [GN Store Nord]	\$125	-	-
12-Feb-2019	Hispasat [Abertis Infraestructuras, Atlantia]	Spain	Red El©ctrica	\$1,074	4.7x	-
11-Feb-2019	Endeavor Robotic Holdings [Arlington Capital Partners]	U.S.	FLIR Systems	\$385	-	-
31-Jan-2019	GLOBALFOUNDRIES (Fab 3E assets) [Mubadala]	Singapore	Vanguard International Semiconductor	\$236	-	-
30-Jan-2019	Mastodon Design	U.S.	CACI International	\$225	-	-
28-Jan-2019	Aeryon Labs	Canada	FLIR Systems	\$200	-	-
25-Jan-2019	Telefonica (Guatemala and El Salvador operations)	Spain	America Movil	\$648	-	9.7x
22-Jan-2019	Tangible Play	U.S.	Think & Learn	\$120	-	-
16-Jan-2019	Fiber-Line	U.S.	PolyOne	\$120	-	-
02-Jan-2019	PCI [Chuan Hup Holdings]	Singapore	Platinum Equity	\$194	0.5x	3.6x
04-Jan-2019	TomTom (telematics business)	Netherlands	Bridgestone	\$1,034	6.5x	-
Median					4.2x	9.1x

<sup>(2)</sup> EV/EBITDA Multiple for Quantenna - ON Semiconductor transaction is excluded as it is an outlier. Source: 451research.



<sup>(1)</sup> Top M&A transactions on the basis of disclosed deal value in Q1'19.

### Global TMT Selected Public Comps: IT Services and BPO (1/2)

	N	larket C	ata			Operating Metrics							Valuation Multiples					
\$ value millions, except per share	Quarter	Share	% of 52 Week	Market	Enterprise		Revenue		Revenue	Growth%	LTM Gross	LTM EBITDA	EV	/ Reve	nue	EV	/EBITI	DA
Company Name	Ending	Price	High	Cap. (1)	Value (2)	LTM	2019E	2020E	2018-19E	2019E-20E	Margin%	Margin%	LTM	2019E	2020E	LTM	2019E	2020
T Commercial Serv	<u>rices</u>																	
ccenture	Feb-19	\$176.02	99.2%	\$112,271	\$108,219	\$40,840	\$43,793	\$46,775	7.9%	6.8%	31.5%	16.3%	2.6x	2.5x	2.3x	16.2x	14.7x	13.6
apgemini	Dec-18	\$121.32	90.2%	\$19,502	\$22,214	\$15,110	\$15,784	\$16,654	4.7%	5.5%	12.1%	12.7%	1.5x	1.4x	1.3x	11.6x	9.6x	9.0
GI Group	Dec-18	\$68.74	99.6%	\$18,778	\$20,153	\$8,541	\$9,026	\$9,243	5.9%	2.4%	30.4%	16.8%	2.4x	2.2x	2.2x	14.0x	12.1x	11.
XC Technology	Dec-18	\$64.31	61.2%	\$17,253	\$22,672	\$23,880	\$20,756	\$21,162	(4.5%)	2.0%	29.5%	23.1%	0.9x	1.1x	1.1x	4.1x	4.7x	4.5
tos	Dec-18	\$96.52	67.5%	\$10,340	\$15,838	\$14,035	\$14,903	\$15,140	6.1%	1.6%	15.3%	13.4%	1.1x	1.1x	1.0x	8.4x	8.2x	7.2
irtusa	Dec-18	\$53.45	91.2%	\$1,599	\$1,804	\$1,202	\$1,357	\$1,531	13.1%	12.8%	29.1%	7.7%	1.5x	1.3x	1.2x	19.6x	13.9x	10.
erficient	Dec-18	\$27.39	88.1%	\$909	\$984	\$498	\$531	\$558	7.4%	5.0%	35.8%	12.1%	2.0x	1.9x	1.8x	16.4x	11.8x	10.
nisys	Dec-18	\$11.67	55.7%	\$604	\$696	\$2,825	\$2,846	\$2,924	1.1%	2.7%	25.2%	9.6%	0.2x	0.2x	0.2x	2.6x	1.6x	1.6
T Commercial Svs	Upper Qu	ıartile	93.2%										2.1x	1.9x	1.9x	16.3x	12.5x	11.
T Commercial Svs	Median		89.2%										1.5x	1.4x	1.3x	12.8x	10.7x	9.8
T Commercial Svs	Lower Q	uartile	65.9%										1.1x	1.1x	1.1x	7.4x	7.4x	6.5
Sovernment Consu	Iltina																	
ooz Allen Hamilton	Dec-18	\$58.14	99.5%	\$8,144	\$9,707	\$6,559	\$7,019	\$7,459	8.0%	6.3%	23.9%	10.2%	1.5x	1.4x	1.3x	14.6x	13.9x	13.
yler Technologies	Dec-18	\$204.40	81.0%	\$7,827	\$7,649	\$935	\$1,090	\$1,211	16.2%	11.1%	47.0%	20.5%	8.2x	7.0x	6.3x	39.9x	24.3x	21
cience Applications	Feb-19	\$76.95	82.5%	\$4,554	\$6,444	\$4,659	\$6,579	\$6,767	41.8%	2.9%	10.0%	7.6%	1.4x	1.0x	1.0x	18.2x	11.8x	11.
IAXIMUS	Dec-18	\$70.98	96.2%	\$4,528	\$4,602	\$2,434	\$3,063	\$3,221	25.5%	5.2%	24.7%	14.3%	1.9x	1.5x	1.4x	13.2x	11.1x	10.
ACI International	Dec-18	\$182.02	90.6%	\$4,525	\$5,510	\$4,642	\$5,193	\$5,549	12.0%	6.9%	33.5%	9.8%	1.2x	1.1x	1.0x	12.1x	11.4x	10.
lanTech International	Dec-18	\$54.02	79.3%	\$2,148	\$2,151	\$1,959	\$2,113	\$2,253	8.1%	6.6%	14.3%	8.4%	1.1x	1.0x	1.0x	13.0x	12.2x	11.
CF International	Dec-18	\$76.08	92.5%	\$1,431	\$1,620	\$1,338	\$1,464	\$1,528	11.4%	4.3%	35.9%	9.0%	1.2x	1.1x	1.1x	13.4x	11.7x	10.
	1 500 10	470.00	02.070	41,101	<b>41,020</b>	1,000	1 41/101	Ţ 1,020	111170	1.070	1 00.070	1 0.070		L	L	10.1%		1.0
Govt. Consulting U	pper Qua	rtile	94.3%										1.7x	1.4x	1.4x	16.4x	13.0x	12.
Govt. Consulting N	ledian		90.6%										1.4x	1.1x	1.1x	13.4x	11.8x	11.
Govt. Consulting L	ower Qua	rtile	81.7%										1.2x	1.0x	1.0x	13.1x	11.6x	10.
Offshore Consulting	a																	
ata Consultancy ervices	Dec-18	\$28.89	87.9%	\$108,407	\$101,942	\$20,191	\$22,685	\$24,973	12.0%	10.1%	43.5%	27.1%	5.0x	4.5x	4.1x	18.6x	17.1x	15
fosys	Dec-18	\$10.74	96.3%	\$46,547	\$42,774	\$11,545	\$12,731	\$13,759	12.2%	8.1%	34.3%	26.1%	3.7x	3.4x	3.1x	14.2x	13.5x	12.
ognizant	Dec-18	\$72.45	86.9%	\$41,666	\$37,900	\$16,125	\$17,352	<u> </u>	7.7%	8.2%	39.0%	20.6%	2.4x	2.2x	2.0x	11.4x	10.1x	9.
/ipro	Dec-18	\$3.68	85.8%	\$22,082	\$18,476	\$8,239	\$8,820	\$9,002	6.9%	2.1%	29.6%	18.2%	2.2x	2.1x	2.1x	12.3x	10.3x	10
CL Technologies	Dec-18	\$15.70	96.7%	\$21,287	\$21,010	\$8,393	\$9,472	\$10,544	13.7%	11.3%	35.0%	23.2%	2.5x	2.2x	2.0x	10.8x	9.3x	8.
ech Mahindra	Dec-18	\$11.20	92.4%	\$9,933	\$8,878	\$4,871	\$5,327	\$5,656	9.4%	6.2%	35.2%	17.8%	1.8x	1.7x	1.6x	10.3x	9.2x	8.
lphasiS	Dec-18	\$14.27	77.4%	\$2,658	\$2,492	\$1,070	\$1,222	\$1,403	13.8%	14.8%	43.6%	17.4%	2.3x	2.0x	1.8x	13.4x	11.4x	10
lindtree	Dec-18	\$13.63	79.8%	\$2,239	\$2,098	\$955	\$1,095	\$1,220	14.4%	11.4%	32.0%	15.3%	2.2x	1.9x	1.7x	14.4x	12.6x	11
exaware Technologies		\$4.98	61.9%	\$1,484	\$1,366	\$668	\$787	\$887	17.6%	12.6%	23.5%	15.6%	2.0x	1.7x	1.5x	13.1x	11.0x	9.
Offshore Consultin	a Upper C	)uartile	92.4%										2.5x	2.2x	2.1x	14.2x	12.6x	11
		Laurune	86.9%															
Offshore Consultin													2.3x	2.1x	2.0x	13.1x	11.0x	

 $<sup>\</sup>hbox{\it (3) EV/EBITDA multiple less than 0 or greater than 50 have been marked Not Meaningful (NM) in the analysis. } \\$ 



<sup>(1)</sup> Market Data including Market Capitalization amounts are based on closing share prices as of March 31, 2019.

<sup>(2)</sup> Enterprise Value (EV) equals Market Capitalization plus Debt, Preferred Equity, and Minority Interest, minus Cash and Cash Equivalents.

### Global TMT Selected Public Comps: IT Services and BPO (2/2)

The Consideration   Dec 18   \$78.82   \$28.96   \$2.276		M	arket D	ata			Operating Metrics							Valuation Multiples					
Company Name   Roff or   Price   Vigo   Que   Value	parabara	Quarter	Share		Market	Enterprise		Revenue		Revenue	Growth%			EV	/ Rever	nue	EV	/EBITI	DA
## A Proper Consulting   Dec-18   47.22   82.8%   \$1.024   \$1.288   \$1.795   \$825   \$883   \$5.3%   \$4.6%   \$3.4%   \$1.8%   \$1.6x   \$1.							LTM	2019E	2020E	2018-19E	2019E-20E	Margin%	Margin%	LTM	2019E	2020E	LTM	2019E	2020
Uron Consulting   De-18   \$47.22   \$2.8%   \$1.024   \$1.288   \$6.795   \$825   \$863   \$5.3%   \$4.6%   \$3.4%   \$1.8%   \$1.6x   \$1.6x   \$1.6x   \$1.4x   \$1.27x	ement Consulti	ing																	
avigant Consulting Dec 18 519.47 71.1% 5789 5886 \$673 5749 5700 8.2% 5.4% 29.1% 6.8% 0.9% 0.8x 0.7x 10.3x 8.0x esources Connection Novel 9 156-54 94.9% 5255 5542 5724 5757 NA 5.5% NA 3.5% NA 37.9% 8.7% 0.7x 0.7x 0.7x 0.7x 0.7x 0.7x 0.7x 0.7x	ulting I	Dec-18	\$76.82	93.8%	\$2,832	\$2,786	\$2,028	\$2,067	\$2,147	3.8%	3.8%	34.5%	12.9%	1.4x	1.3x	1.3x	10.7x	10.7x	10.5
Secures Connection Nov-18 516.54 94.8% \$525 \$542 \$724 \$727 \$464 \$726 \$727 \$10.0 \$10.	nsulting I	Dec-18	\$47.22	82.8%	\$1,024	\$1,288	\$795	\$825	\$863	5.3%	4.6%	34.4%	11.5%	1.6x	1.6x	1.5x	14.1x	12.7x	11.2
The Hackett Group	Consulting I	Dec-18	\$19.47	71.1%	\$789	\$586	\$673	\$749	\$790	8.2%	5.4%	29.1%	8.5%	0.9x	0.8x	0.7x	10.3x	8.0x	7.1
RA International Dec 18 \$50.54 86.0% \$407 \$369 \$418 \$444 \$468 6.7% 5.6% 30.7% 9.3% 0.9x 0.9x 0.9x 0.9x 11.4x 7.4x 10.9x 0.9x 0.9x 0.9x 11.4x 10.4x 10.9x 0.9x 0.9x 0.9x 0.9x 11.4x 10.4x 10.9x 0.9x 0.9x 0.9x 0.9x 0.9x 0.9x 0.9x	s Connection	Nov-18	\$16.54	84.8%	\$525	\$542	\$724	\$757	NA	5.4%	NA	37.9%	8.7%	0.7x	0.7x	NA	8.6x	9.1x	N/
Mgmt. Consulting Upper Quartile   92.4%   8171   \$250   \$276   \$279   \$283   \$(0.6%)   5.1%   \$42.0%   7.9%   0.9%   0.9%   0.9%   0.9%   1.1%   7.4%   1.0%   0.9%   0.9%   0.9%   1.1%   1.07%   9.2%   0.9%   0	ett Group I	Dec-18	\$15.80	69.2%	\$472	\$464	\$265	\$283	\$296	(0.4%)	4.8%	38.2%	15.8%	1.8x	1.6x	1.6x	11.1x	9.4x	8.7
Mgmt Consulting Upper Quartile	rnational I	Dec-18	\$50.54	86.0%	\$407	\$369	\$418	\$441	\$466	6.7%	5.6%	30.7%	9.3%	0.9x	0.8x	0.8x	9.5x	NA	N/
Mgmt. Consulting Median 82.8%  Mgmt. Consulting Lower Quartile 79.8%  Dec. 18 \$159.74 99.9% \$99.587 \$70,007 \$13,839 \$14,649 \$15,695 6.4% 7.1% 44.2% 23.4% 5.1% 4.8% 4.5% 21.7% 19.8% eychex Feb-19 \$80.20 99.3% \$28,924 \$28,945 \$3,041 \$4,040 \$4,278 16.7% 5.9% 69.2% 41.7% 7.9% 7.2% 6.6% 19.9% 17.6% 18.0% 19.0%	on Services	Dec-18	\$3.73	68.4%	\$171	\$250	\$276	\$279	\$293	(0.6%)	5.1%	42.0%	7.9%	0.9x	0.9x	0.9x	11.4x	7.4x	6.6
Mgmt. Consulting Median 82.8%  Mgmt. Consulting Lower Quartile 79.8%  Dec. 18 \$159.74 99.9% \$99.587 \$70,007 \$13,839 \$14,649 \$15,695 6.4% 7.1% 44.2% 23.4% 5.1% 4.8% 4.5% 21.7% 19.8% eychex Feb-19 \$80.20 99.3% \$28,924 \$28,945 \$3,041 \$4,040 \$4,278 16.7% 5.9% 69.2% 41.7% 7.9% 7.2% 6.6% 19.9% 17.6% 18.0% 19.0%	Consulting Up	ner Ou	artile	92.4%										1.5x	1.5x	1.4x	11.3x	10.4x	10.
PO  PO  De-18 \$159.74 99.9% \$89.587 \$70.007 \$13.839 \$14,849 \$15.695 \$6.4% 7.1% 44.2% 23.4% 51. 48x 45x 21.7x 19.8x aychex Feb-19 \$80.20 99.3% \$28,824 \$28,945 \$3.641 \$4,040 \$4,278 16.7% 5.9% 69.2% 41.7% 7.9x 7.2x 6.8x 19.0x 17.6x 18.1x 19.8x 19.1x 19.8x 19.1x																			8.7
Property			outilo																
Dec 18   \$159,74   99.9%   \$69,587   \$70,007   \$13,839   \$14,649   \$15,695   6.4%   7.1%   44.2%   23.4%   5.1%   4.8%   4.5%   21.7%   19.8%   sychex   Feb-19   \$80,20   99.3%   \$28,824   \$28,945   \$3,641   \$4,040   \$4,278   16.7%   5.9%   69.2%   41.7%   7.9%   7.2%   6.8%   19.0%   17.6%   11.6%   19.0%	Consulting Lot	wer da	ur tilo	70.070										O.O.A.	Olox	Olox	0.0%	0.2.1	
sychex Feb-19 \$80.20 99.3% \$28,824 \$29,945 \$3,641 \$4,040 \$4,278 16.7% 5.9% 69.2% 41.7% 7.9x 7.2x 6.8x 19.0x 17.6x fills Towers Watson Dec-18 \$179.80 93.5% \$22,677 \$26,393 \$8,513 \$8,904 \$9,244 4.4% 3.8% 43.1% 22.3% 3.1x 3.0x 2.9x 13.9x 12.0x eleperformance Dec-18 \$179.80 93.3% \$10,394 \$12,271 \$5,085 \$5,762 \$6,142 13.7% 6.6% 34.2% 16.0% 2.5x 2.2x 2.1x 15.6x 12.6x on Mountain Dec-18 \$35.48 99.9% \$5,665 \$7,802 \$3,001 \$3,364 \$3,880 13.0% 9.4% 36.0% 15.0% 2.5x 2.2x 2.1x 15.6x 12.6x 12.2x eleperformance Dec-18 \$55.18 99.9% \$5,665 \$7,802 \$3,001 \$3,364 \$3,880 13.0% 9.4% 36.0% 15.0% 2.5x 2.2x 2.1x 16.9x 13.0x 10.0x																			
Signature   Sign	ı	Dec-18	\$159.74	99.9%	\$69,587	\$70,007	\$13,839	\$14,649	\$15,695	6.4%	7.1%	44.2%	23.4%	5.1x	4.8x	4.5x	21.7x	19.8x	17.
Belgerformance Dec-18 \$179.80 93.3% \$10,354 \$12,721 \$5,086 \$5,762 \$6,142 13.7% 6.6% 34.2% 16.0% 2.5x 2.2x 2.1x 15.6x 12.6x on Mountain Dec-18 \$35.46 95.0% \$10,155 \$18,205 \$4,226 \$4,324 \$4,492 2.3% 3.9% 57.5% 34.1% 4.3x 4.2x 4.1x 12.6x 12.2x enpact Dec-18 \$35.18 99.9% \$5,665 \$7,602 \$3,001 \$3,364 \$3,680 13.0% 9.4% 36.0% 15.0% 2.5x 2.3x 2.1x 16.9x 13.0x INS Dec-18 \$53.27 97.8% \$2,662 \$2,602 \$801 \$849 \$925 8.1% 9.0% 36.7% 17.0% 3.2x 3.1x 2.8x 19.1x 15.1x 40.8evice Dec-18 \$60.02 89.5% \$2,060 \$2,065 \$883 \$991 \$1,074 12.3% 8.5% 33.8% 17.0% 3.2x 2.1x 10.9x 17.5x 15.1x 12.2x ITC Dec-18 \$36.23 96.5% \$1,674 \$1,886 \$1,509 \$1,620 \$1,767 8.0% 5.9% 23.3% 11.2% 1.2x 1.2x 1.1x 11.2x 9.2x 18.65 \$1.64 \$1.89 \$1.90 \$1,200 \$1,761 8.0% 5.9% 23.3% 11.2% 1.2x 1.2x 1.1x 11.2x 9.2x 18.65 \$1.64 \$1.89 \$1.64 \$1.89 \$5.7 \$1.65 \$1.64 \$1.77 2.2% 3.7% 37.3% 10.2% 0.7x 0.7x 0.7x 0.7x 0.7x 1.0x 0.3x 18.55 \$1.64 \$1.65 \$1.64 \$1.65 \$1.64 \$1.65 \$1.64 \$1.65 \$1.64 \$1.65 \$1.64 \$1.65 \$1.65 \$1.64 \$1.65 \$1.65 \$1.64 \$1.65 \$1.65 \$1.64 \$1.65	ı	Feb-19	\$80.20	99.3%	\$28,824	\$28,945	\$3,641	\$4,040	\$4,278	16.7%	5.9%	69.2%	41.7%	7.9x	7.2x	6.8x	19.0x	17.6x	16.
On Mountain   Dec-18   \$35.46   95.0%   \$10,155   \$18,205   \$4,226   \$4,324   \$4,492   2.3%   3.9%   57.5%   34.1%   4.3x   4.2x   4.1x   12.6x   12.2x	wers Watson I	Dec-18	\$175.65	93.5%	\$22,677	\$26,393	\$8,513	\$8,904	\$9,244	4.4%	3.8%	43.1%	22.3%	3.1x	3.0x	2.9x	13.9x	12.0x	11.
Sempact   Dec-18   \$35.18   99.9%   \$6,666   \$7,602   \$3,001   \$3,364   \$3,680   13.0%   9.4%   36.0%   15.0%   2.5x   2.3x   2.1x   16.9x   13.0x     NNS	rmance I	Dec-18	\$179.80	93.3%	\$10,354	\$12,721	\$5,085	\$5,762	\$6,142	13.7%	6.6%	34.2%	16.0%	2.5x	2.2x	2.1x	15.6x	12.6x	11.
NNS Dec-18 \$53.27 97.8% \$2,662 \$2,602 \$801 \$849 \$925 8.1% 9.0% 35.7% 17.0% 3.2x 3.1x 2.8x 19.1x 15.1x x1Service Dec-18 \$60.02 89.5% \$2,060 \$2,065 \$883 \$991 \$1,074 12.3% 8.5% 33.8% 13.4% 2.3x 2.1x 1.9x 17.5x 12.2x TEC Dec-18 \$36.23 96.5% \$1,674 \$1,886 \$1,509 \$1,620 \$1,716 8.0% 5.9% 23.3% 11.2% 1.2x 1.2x 1.2x 1.1x 11.2x 9.2x SG Systems Dec-18 \$42.30 90.3% \$1,347 \$1,544 \$875 \$916 \$935 7.0% 2.1% 48.6% 16.5% 1.8x 1.7x 1.7x 10.7x 7.4x ykes Enterprises Dec-18 \$28.28 90.0% \$1,206 \$1,179 \$1,626 \$1,664 \$1,727 2.2% 3.7% 37.3% 10.2% 0.7x 0.7x 0.7x 0.7x 0.7x 7.1x 6.3x instsource Solutions Dec-18 \$0.68 56.1% \$469 \$527 \$540 \$592 \$635 9.3% 7.4% 31.0% 13.2% 1.0x 0.9x 0.8x 7.4x 6.6x 3PO Upper Quartile 92.4% 3.90 Median 94.2% 79.8% 3.90 Dec-18 \$4853.16 98.3% \$37.998 \$48,724 \$5.072 \$5.58 \$6.069 9.6% 9.2% 48.6% 44.2% 9.6x 8.8x 8.0x 21.8x 18.5x enturyLink Dec-18 \$11.99 49.5% \$12.947 \$48,520 \$23.443 \$22.706 \$22.168 (3.2%) (2.4%) 57.4% 38.5% 2.1x 2.1x 2.2x 5.4x 14.8x 12.2x therefore Dec-18 \$4.96 32.4% \$1.00 \$7.92 \$317 \$321 \$336 (0.3%) 4.8% 56.0% 29.7% 2.5x 2.5x 2.4x 2.4x 40.4x 13.1x therefore Dec-18 \$4.96 32.4% \$12.0 \$792 \$317 \$321 \$336 (0.3%) 4.8% 56.0% 29.7% 2.5x 2.5x 2.4x 2.4x 8.4x 6.5x therefore	ntain I	Dec-18	\$35.46	95.0%	\$10,155	\$18,205	\$4,226	\$4,324	\$4,492	2.3%	3.9%	57.5%	34.1%	4.3x	4.2x	4.1x	12.6x	12.2x	11.
Name	-	Dec-18	\$35.18	99.9%	\$6,665	\$7,602	\$3,001	\$3,364	\$3,680	13.0%	9.4%	36.0%	15.0%	2.5x	2.3x	2.1x	16.9x	13.0x	11.
TEC Dec-18 \$36.23 96.5% \$1,674 \$1,886 \$1,609 \$1,620 \$1,716 8.0% 5.9% 23.3% 11.2% 1.2x 1.2x 1.1x 11.2x 9.2x 1.5x 1.5x 11.2x 1.2x 1.1x 11.2x 9.2x 1.5x 1.5x 11.2x 1.2x 1.1x 11.2x 9.2x 1.5x 1.5x 11.2x 1.2x 1.2x 1.1x 11.2x 9.2x 1.5x 1.5x 11.2x 1.2x 1.2x 1.1x 11.2x 9.2x 1.5x 1.5x 11.2x 1.2x 1.2x 1.2x 1.1x 11.2x 9.2x 1.5x 1.5x 11.2x 1.2x 1.2x 1.2x 1.2x 1.2x 1.2x 1.		Dec-18	\$53.27	97.8%	\$2,662	\$2,602	\$801	\$849	\$925	8.1%	9.0%	35.7%	17.0%	3.2x	3.1x	2.8x	19.1x	15.1x	12.
SG Systems Dec-18 \$42.30 90.3% \$1,347 \$1,544 \$875 \$916 \$935 7.0% 2.1% 48.6% 16.5% 1.8x 1.7x 1.7x 10.7x 7.4x 50.5x	e I	Dec-18	\$60.02	89.5%	\$2,060	\$2,065	\$883	\$991	\$1,074	12.3%	8.5%	33.8%	13.4%	2.3x	2.1x	1.9x	17.5x	12.2x	10.
PPO Upper Quartile PPO Upper Quartile PPO Lower Qua	1	Dec-18	\$36.23	96.5%	\$1,674	\$1,886	\$1,509	\$1,620	\$1,716	8.0%	5.9%	23.3%	11.2%	1.2x	1.2x	1.1x	11.2x	9.2x	8.3
## SPO Upper Quartile	ems I	Dec-18	\$42.30	90.3%	\$1,347	\$1,544	\$875	\$916	\$935	7.0%	2.1%	48.6%	16.5%	1.8x	1.7x	1.7x	10.7x	7.4x	7.2
BPO Upper Quartile 92.4% 3.5x 3.4x 3.2x 17.9x 13.6x 2.5x 2.2x 2.1x 14.8x 12.2x 2.5x 2.1x 2.1x 2.2x 2.1x 2.	terprises I	Dec-18	\$28.28	90.0%	\$1,206	\$1,179	\$1,626	\$1,664	\$1,727	2.2%	3.7%	37.3%	10.2%	0.7x	0.7x	0.7x	7.1x	6.3x	5.9
SPO Median   94.2%   16.8   15.2   14.8   12.2   15.8   15.2   15.8   15.2	ce Solutions I	Dec-18	\$0.68	56.1%	\$469	\$527	\$540	\$592	\$635	9.3%	7.4%	31.0%	13.2%	1.0x	0.9x	0.8x	7.4x	6.6x	6.2
SPO Median   94.2%   16.8   15.2   14.8   12.2   15.8   15.2   15.8   15.2	oper Quartile			92.4%										3.5x	3.4x	3.2x	17.9x	13.6x	11.
Anaged Services    Anaged Services   Anaged Serv				94.2%										2.5x	2.2x	2.1x	14.8x	12.2x	11.
quinix         Dec-18         \$453.16         98.3%         \$37,998         \$48,724         \$5,072         \$5,558         \$6,069         9.6%         9.2%         48.6%         44.2%         9.6x         8.8x         8.0x         21.8x         18.5x           enturyLink         Dec-18         \$11.99         49.5%         \$12,947         \$48,520         \$23,443         \$22,706         \$22,168         (3.2%)         (2.4%)         57.4%         38.5%         2.1x         2.1x         2.2x         5.4x         5.4x           eradata         Dec-18         \$43.65         88.3%         \$5,135         \$4,964         \$2,164         \$2,038         \$2,080         (4.9%)         2.1%         47.6%         5.7%         2.3x         2.4x         2.4x         40.4x         13.1x           eternap         Dec-18         \$4.96         32.4%         \$120         \$792         \$317         \$321         \$336         (0.3%)         4.8%         56.0%         29.7%         2.5x         2.5x         2.4x         8.4x         6.5x														1.6x	1.6x		11.0x		
quinix         Dec-18         \$453.16         98.3%         \$37,998         \$48,724         \$5,072         \$5,558         \$6,069         9.6%         9.2%         48.6%         44.2%         9.6x         8.8x         8.0x         21.8x         18.5x           ienturyLink         Dec-18         \$11.99         49.5%         \$12,947         \$48,520         \$23,443         \$22,706         \$22,168         (3.2%)         (2.4%)         57.4%         38.5%         2.1x         2.1x         2.2x         5.4x         5.4x           eradata         Dec-18         \$43.65         88.3%         \$5,135         \$4,964         \$2,164         \$2,038         \$2,080         (4.9%)         2.1%         47.6%         5.7%         2.3x         2.4x         2.4x         40.4x         13.1x           internap         Dec-18         \$4.96         32.4%         \$120         \$792         \$317         \$321         \$336         (0.3%)         4.8%         56.0%         29.7%         2.5x         2.5x         2.4x         8.4x         6.5x	d Camilana																		
Dec-18 \$11.99 49.5% \$12,947 \$48,520 \$23,443 \$22,706 \$22,168 (3.2%) (2.4%) 57.4% 38.5% 2.1x 2.1x 2.2x 5.4x 5.4x eradata Dec-18 \$43.65 88.3% \$5,135 \$4,964 \$2,164 \$2,038 \$2,080 (4.9%) 2.1% 47.6% 5.7% 2.3x 2.4x 2.4x 40.4x 13.1x etternap Dec-18 \$4.96 32.4% \$120 \$792 \$317 \$321 \$336 (0.3%) 4.8% 56.0% 29.7% 2.5x 2.5x 2.4x 8.4x 6.5x		Dec-18	\$453.16	98 3%	\$37 992	\$48 724	\$5,072	\$5.552	\$6,060	9.6%	9.2%	48.6%	44.2%	9.60	8 8v	8.0~	21 <sup>Q</sup> V	18 5v	16.
eradata Dec-18 \$43.65 88.3% \$5,135 \$4,964 \$2,164 \$2,038 \$2,080 (4.9%) 2.1% 47.6% 5.7% 2.3x 2.4x 2.4x 40.4x 13.1x 1ternap Dec-18 \$4.96 32.4% \$120 \$792 \$317 \$321 \$336 (0.3%) 4.8% 56.0% 29.7% 2.5x 2.5x 2.4x 8.4x 6.5x															<del> </del>	<b></b>			5.4
nternap Dec-18 \$4.96 32.4% \$120 \$792 \$317 \$321 \$336 (0.3%) 4.8% 56.0% 29.7% 2.5x 2.5x 2.4x 8.4x 6.5x															<del> </del>	ļ			
																ļ			11.
Managed Services Upper Quartile 92.4% 4.3x 4.0x 3.8x 26.4x 14.4x	I	⊔ec-18	\$4.96	32.4%	\$120	\$/92	\$317	\$321	\$336	(0.3%)	4.8%	56.0%	29.7%	2.5x	2.5x	2.4x	8.4x	6.5x	6.1
	ed Services Up	per Qu	artile	92.4%										4.3x	4.0x	3.8x	26.4x	14.4x	12.

Source: Capital IQ. Financials are calendarized to December year-end.

Managed Services Lower Quartile 79.8%

 $<sup>\</sup>hbox{\it (3) EV/EBITDA multiple less than 0 or greater than 50 have been marked Not Meaningful (NM) in the analysis. } \\$ 



2.2x 2.4x 2.3x 7.6x 6.2x 5.9x

<sup>(1)</sup> Market Data including Market Capitalization amounts are based on closing share prices as of March 31, 2019.

<sup>(2)</sup> Enterprise Value (EV) equals Market Capitalization plus Debt, Preferred Equity, and Minority Interest, minus Cash and Cash Equivalents.

### Global TMT Selected Transactions (1): IT Services and BPO

Announced Date	Target Name	Target Country	Acquirer Name	Deal Value (\$ mm)	EV / Revenue	EV / EBITDA
31-Mar-2019	MG LLC [Clayton Dubilier Rice]	U.S.	Willis Towers Watson	\$1,200	-	-
27-Mar-2019	Defaqto [Independent Research Group, Regulus Topco]	U.K.	The SimplyBiz Group	\$99	5.5x	13.4x
19-Mar-2019	1st Global	U.S.	Blucora	\$180	1.0x	-
11-Mar-2019	Acando	Sweden	CGI Group	\$451	1.5x	14.4x
07-Mar-2019	Azuqua	U.S.	Okta	\$53	-	-
01-Mar-2019	Kforce Government Solutions	U.S.	ManTech International	\$115	1.2x	-
28-Feb-2019	Speedpay [Western Union]	U.S.	ACI Worldwide	\$750	2.1x	-
27-Feb-2019	Wipro (Workday and Cornerstone OnDemand business)	India	Alight Solutions	\$100	-	-
27-Feb-2019	Cogeco Peer 1 [Cogeco Communications]	Canada	Digital Colony Management	\$547	-	-
08-Feb-2019	Earthport	U.K.	Visa	\$299	6.7x	-
30-Jan-2019	LGS Innovations [Madison Dearborn Partners / CoVant]	U.S.	CACI International	\$750	-	-
17-Jan-2019	Avanxo	Colombia	Globant	\$49	-	-
17-Jan-2019	Discovery Benefits	U.S.	WEX	\$425	4.3x	-
16-Jan-2019	First Data	U.S.	Fiserv	\$22,000	4.0x	13.3x
15-Jan-2019	The Sage Group	U.K.	iSolved HCM [Accel-KKR Company]	\$94	1.9x	-
07-Jan-2019	Luxoft Holding	Switzerland	DXC Technology	\$2,006	2.1x	13.7x
Median					2.1x	13.6x

(1) Top M&A transactions on the basis of disclosed deal value in Q1'19. Source: 451research.



### Global TMT Selected Public Comps: Internet and Media

	Ma	arket Da	ita			Operating Metrics							Valuation Multiples					
\$ value millions, except per share	Quarter	Share	% of 52 Week	Market	Enterprise		Revenue		Revenue	Growth%	LTM Gross	LTM EBITDA	EV / Revenue		nue	EV/EBIT		A <sup>(3)</sup>
Company Name	Ending	Price	High	Cap. (1)	Value (2)	LTM	2019E	2020E	2018-19E	2019E-20E	Margin%	Margin%	LTM	2019E	2020E	LTM	2019E	2020
<u>nternet</u>																		
mazon.com	Dec-18	\$1,780.75	86.8%	\$874,710	\$882,749	\$232,887	\$275,096	\$324,864	18.3%	18.1%	40.2%	11.9%	3.8x	3.2x	2.7x	31.8x	20.9x	16.
Alphabet	Dec-18	\$1,176.89	91.1%	\$816,907	\$711,779	\$136,819	\$163,541	\$190,186	19.8%	16.3%	56.5%	29.5%	5.2x	4.4x	3.7x	17.6x	12.1x	10.
acebook	Dec-18	\$166.69	76.2%	\$475,732	\$435,118	\$55,838	\$68,946	\$83,349	24.6%	20.9%	83.2%	52.3%	7.8x	6.3x	5.2x	14.9x	11.9x	9.8
Alibaba	Dec-18	\$182.45	86.2%	\$472,943	\$478,104	\$50,203	\$69,838	\$96,275	38.6%	37.9%	47.8%	25.8%	9.5x	6.8x	5.0x	36.9x	22.2x	16.
encent	Dec-18	\$45.99	83.6%	\$434,834	\$441,373	\$45,465	\$59,894	\$76,176	32.1%	27.2%	45.5%	36.1%	9.7x	7.4x	5.8x	26.9x	22.0x	17.
aidu	Dec-18	\$164.85	58.0%	\$57,593	\$48,614	\$15,103	\$17,784	\$20,664	19.1%	16.2%	50.2%	32.1%	3.2x	2.7x	2.4x	10.0x	14.0x	10.
Bay	Dec-18	\$37.14	86.4%	\$33,979	\$38,305	\$10,746	\$10,856	\$11,560	1.2%	6.5%	77.8%	28.0%	3.6x	3.5x	3.3x	12.8x	10.2x	9.6
witter	Dec-18	\$32.88	68.8%	\$25,140	\$21,651	\$3,042	\$3,484	\$3,979	16.1%	14.2%	68.3%	25.4%	7.1x	6.2x	5.4x	28.1x	17.0x	14.
Snap	Dec-18	\$11.02	69.1%	\$14,558	\$13,296	\$1,180	\$1,546	\$1,997	32.4%	29.1%	32.3%	(97.1%)	NM	8.6x	6.7x	NM	NM	NN
tsy	Dec-18	\$67.22	91.6%	\$8,037	\$7,695	\$604	\$792	\$972	32.4%	22.7%	68.4%	16.2%	NM	9.7x	7.9x	NM	39.2x	29.
nternet Upper Qua	artile		86.7%										8.2x	7.2x	5.7x	29.0x	22.0x	16.
nternet Median			84.9%										6.2x	6.3x	5.1x	22.3x	17.0x	14.
nternet Lower Qua	ertila		70.9%										3.7x	3.7x	3.4x		12.1x	
<u>/ledia</u>																		
Valt Disney	Dec-18	\$111.03	92.4%	\$199,590	\$221,001	\$59,386	\$74,970	\$82,528	26.4%	10.1%	44.4%	29.4%	3.7x	2.9x	2.7x	12.7x	11.4x	9.5
omcast	Dec-18	\$39.98	98.7%	\$180,948	\$291,082	\$94,507	\$112,095	\$117,901	19.0%	5.2%	68.6%	31.8%	3.1x	2.6x	2.5x	9.7x	8.5x	8.0
ox Corp.	Dec-18	\$36.71	88.0%	\$22,779	\$20,946	\$10,981	\$11,376	\$12,571	NA	10.5%	34.4%	22.7%	1.9x	1.8x	1.7x	8.4x	8.6x	7.1
BS	Dec-18	\$47.53	79.8%	\$17,729	\$27,559	\$14,514	\$15,624	\$16,304	6.8%	4.3%	37.2%	21.5%	1.9x	1.8x	1.7x	8.8x	8.0x	7.3
lews Corp.	Dec-18	\$12.44	74.7%	\$7,291	\$8,497	\$9,937	\$10,208	\$10,292	2.8%	0.8%	45.3%	10.7%	0.9x	0.8x	0.8x	8.0x	6.6x	6.1
REA Group	Dec-18	\$53.03	79.4%	\$6,985	\$7,163	\$660	\$679	\$752	10.8%	10.8%	73.3%	51.1%	NM	NM	9.5x	21.2x	18.2x	15.
agardère	Dec-18	\$25.72	85.5%	\$3,340	\$4,884	\$8,310	\$8,379	\$8,646	1.7%	3.2%	100.0%	9.4%	0.6x	0.6x	0.6x	6.2x	6.4x	5.7
MGT	Sep-18	\$8.41	82.7%	\$2,978	\$2,673	\$1,861	\$1,804	\$1,812	0.4%	0.4%	38.6%	10.7%	1.4x	1.5x	1.5x	13.5x	10.8x	10.
Singapore Press	Nov-18	\$1.78	82.5%	\$2,870	\$4,436	\$708	\$728	\$720	2.9%	(1.0%)	49.2%	32.1%	6.3x	6.1x	6.2x	19.5x	18.9x	19.2
∕ledia Upper Quart	tile		88.0%										3.2x	2.7x	2.7x	13.5x	11.4x	10.4
Media Median			82.7%										1.9x	1.8x	1.7x	9.7x	8.6x	8.0
Media Lower Quar	tile		79.8%										1.3x	1.3x	1.5x	8.4x	8.0x	7.1
nformation Servic	<u>es</u>																	
&P Global	Dec-18	\$210.55	96.9%	\$51,812	\$55,215	\$6,258	\$6,536	\$6,945	3.3%	6.3%	72.8%	50.6%	8.8x	8.4x	7.9x	17.4x	16.7x	15.
loody's	Dec-18	\$181.09	96.3%	\$34,192	\$38,252	\$4,443	\$4,662	\$4,954	3.3%	6.3%	72.0%	47.5%	8.6x	8.2x	7.7x	18.1x	17.1x	15.
homson Reuters	Dec-18	\$59.16	99.2%	\$29,649	\$30,282	\$5,501	\$5,941	\$6,195	7.7%	4.3%	27.4%	19.6%	5.5x	5.1x	4.9x	28.1x	21.0x	16.
xperian	Sep-18	\$27.07	98.9%	\$24,394	\$27,828	\$4,819	\$5,031	\$5,508	3.9%	9.5%	42.3%	30.5%	5.8x	5.5x	5.1x	18.9x	16.2x	14.
earson	Dec-18	\$10.89	81.2%	\$8,474	\$8,761	\$5,262	\$5,094	\$5,198	(5.7%)	2.1%	52.9%	13.2%	1.7x	1.7x	1.7x	12.6x	9.1x	8.
nformation Service	es Uppe <u>r (</u>	Quartile	98.9%										8.6x	8.2x	7.7x	18.9x	17.1x	15.
nformation Service			96.9%										5.8x	5.5x	5.1x	18.1x	16.7x	15.
nformation Service		0	06.2%										5.5x	5.1x	4.9x	17.4x	400	

 $<sup>\</sup>hbox{\it (3) EV/EBITDA multiple less than 0 or greater than 50 have been marked Not Meaningful (NM) in the analysis. } \\$ 



<sup>(1)</sup> Market Data including Market Capitalization amounts are based on closing share prices as of March 31, 2019.

<sup>(2)</sup> Enterprise Value (EV) equals Market Capitalization plus Debt, Preferred Equity, and Minority Interest, minus Cash and Cash Equivalents.

### Global TMT Selected Transactions (1): Internet and Media

Announced Date	Target Name	Target Country	Acquirer Name	Deal Value (\$ mm)	EV / Revenue	EV / EBITDA
26-Mar-2019	Careem	U.A.E.	Uber Technologies	\$3,100	-	-
25-Mar-2019	Espial Group	Canada	Enghouse Systems	\$42	0.9x	-
25-Mar-2019	Dynamic Yield	Israel	McDonald's	\$300	-	-
21-Mar-2019	Zoosk Inc.	U.S.	Spark Networks	\$255	-	-
20-Mar-2019	Nexstar Media (8 stations)	U.S.	EW Scripps	\$580	2.2x	10.4x
20-Mar-2019	Nexstar Media (11 stations)	U.S.	TEGNA	\$740	-	-
19-Mar-2019	Owikcilver Solutions	India	Pine Labs	\$110	-	-
15-Mar-2019	Future Today	U.S.	Cinedigm Digital Cinema	\$60	2.5x	-
11-Mar-2019	Yatra Online	India	Ebix	\$336	2.0x	-
07-Mar-2019	HotelTonight	U.S.	Airbnb	\$465	-	-
06-Mar-2019	Turnitin	U.S.	Advance Publications	\$1,750	-	-
05-Mar-2019	Usabilla	Netherlands	SurveyMonkey	\$80	-	-
04-Mar-2019	Zomato Media (Food delivery business in the U.A.E.)	India	Delivery Hero	\$172	-	-
01-Mar-2019	MoNa Mobile Nations	U.S.	Future plc	\$60	3.7x	7.3x
15-Feb-2019	Scout24	Germany	Hellman & Friedman/The Blackstone Group	\$5,539	-	-
05-Feb-2019	Netyear Group	Japan	NTT Data	\$54	1.0x	-
04-Feb-2019	RhythmOne	U.S.	Taptica International	\$176	0.5x	-
01-Feb-2019	Adjarabet [City Loft]	Georgia	Paddy Power Betfair	\$132	1.7x	5.2x
24-Jan-2019	Akazoo [Toscafund Asset Management / Penta Capital]	U.K.	Modern Media Acquisition	\$400	3.4x	35.2x
23-Jan-2019	Allegorithmic	France	Adobe	\$105	-	-
22-Jan-2019	Pluto Inc.	U.S.	Viacom	\$340	3.1x	-
14-Jan-2019	Clarivate Analytics [ONEX Corporation/ Baring Private Equity Asia]	U.S.	Churchill Capital	\$4,200	-	-
08-Jan-2019	Yospace Technologies	U.K.	The RTL Group [Bertelsmann]	\$33	-	-
03-Jan-2019	Falcon.io	Denmark	Cision	\$126	4.7x	-
02-Jan-2019	Weizmann Forex	India	Ebix	\$49	-	-
Median					2.2x	8.8x

(1) Top M&A transactions on the basis of disclosed deal value in Q1'19. Source: 451research.



### Global TMT Selected Public Comps: Software (1/2)

Market Data					Operating Metrics							Valuation Multiples						
\$ value millions, except per share			% of 52 Week Marks		Enterprise	Revenue			Revenue Growth%		LTM Gross	LTM EBITDA	EV / Revenue			EV/EBITDA <sup>(3)</sup>		
Company Name	Ending	Price	High	Market Cap. (1)	Value (2)	LTM	2019E	2020E	2018-19E	2019E-20E	Margin%	Margin%	LTM	2019E	2020E	LTM	2019E	202
Diversified Software																		
/licrosoft	Dec-18	\$117.94	97.6%	\$904,861	\$862,671	\$118,459	\$129,963	\$142,806	9.7%	9.9%	65.1%	41.9%	7.3x	6.6x	6.0x	17.4x	15.5x	13.
.lphabet	Dec-18	\$1,176.89	91.1%	\$816,907	\$711,779	\$136,819	\$163,541	\$190,186	19.8%	16.3%	56.5%	29.5%	5.2x	4.4x	3.7x	17.6x	12.1x	10.
isco Systems	Jan-19	\$53.99	99.6%	\$237,665	\$222,940	\$50,825	\$52,537	\$54,478	3.4%	3.7%	62.1%	30.0%	4.4x	4.2x	4.1x	14.6x	11.9x	11.
)racle	Feb-19	\$53.71	98.8%	\$183,562	\$200,421	\$39,831	\$39,689	\$40,617	(0.2%)	2.3%	79.6%	41.0%	5.0x	5.0x	4.9x	12.3x	10.8x	10
SAP	Dec-18	\$115.49	94.9%	\$137,852	\$140,540	\$28,288	\$30,336	\$32,709	8.0%	7.8%	69.8%	27.4%	5.0x	4.6x	4.3x	18.1x	13.3x	12
Adobe Systems	Mar-19	\$266.49	96.0%	\$130,034	\$130,944	\$9,552	\$11,170	\$13,157	24.1%	17.8%	86.0%	34.0%	13.7x	11.7x	10.0x	40.3x	26.0x	21
BM	Dec-18	\$141.10	87.1%	\$125,560	\$159,580	\$79,591	\$78,283	\$78,376	(1.7%)	0.1%	46.4%	21.0%	2.0x	2.0x	2.0x	9.5x	8.6x	8.
Salesforce.com	Jan-19	\$158.37	94.8%	\$122,103	\$121,128	\$13,282	\$16,062	\$19,209	21.3%	19.6%	74.0%	11.5%	9.1x	7.5x	6.3x	79.5x	30.1x	24
	1																	
Diversified Software	Upper (	Quartile	97.9%										7.7x	6.9x	6.1x	23.7x	18.2x	15.
Diversified Software	Median	1	95.5%										5.1x	4.8x	4.6x	17.5x	12.7x	11
Diversified Softwar	e Lower	Quartile	93.9%										4.8x	4.3x	4.0x	14.0x	11.6x	10
_arge-Cap SaaS (> \$	5R Mark	et Canl																
alesforce.com	Jan-19	\$158.37	94.8%	\$122,103	\$121,128	\$13,282	\$16,062	\$19,209	21.3%	19.6%	74.0%	11.5%	9.1x	7.5x	6.3x	79.5x	30.1x	24
ServiceNow	Dec-18	\$246.49	97.9%	\$44,491	\$43,655	\$2,609	\$3,428	\$4,392	31.3%	28.1%	76.1%	4.1%	16.7x	12.7x	9.9x	NM	46.9x	34
Vorkday	Jan-19	\$192.85	96.4%	\$42,813	\$42,239	\$2,822	\$3,555	\$4,360	26.5%	22.6%	70.1%	(8.5%)	15.0x	11.9x	9.7x	NM	62.4x	46
Atlassian	Dec-18	\$112.39	97.0%	\$26,918	\$26,110	\$1,030	\$1,358	\$1,708	32.7%	25.8%	82.1%	2.8%	25.3x	19.2x	15.3x	NM	76.1x	60
Shopify	Dec-18	\$206.62	98.6%	\$22,968	\$20,989	\$1,073	\$1,490	\$1,963	41.0%	31.7%	55.6%	(6.4%)	19.6x	14.1x	10.7x	NM	NM	N
		\$126.86	98.5%	\$18,576	\$17,485	\$862	\$1,031		20.3%	18.2%	71.6%	27.5%	20.3x	17.0x		73.8x		37
/eeva Systems	Jan-19							\$1,219			<del> </del>	-			14.3x		45.5x	+
wilio	Dec-18	\$129.18	95.0%	\$15,964	\$15,653	\$650	\$1,075	\$1,428	70.5%	32.9%	53.7%	(14.1%)	24.1x	14.6x	11.0x	NM	NM	N
ableau Software he Ultimate Software	Dec-18	\$127.28	93.0%	\$10,957	\$9,935	\$1,155	\$1,367	\$1,627	39.6%	19.0%	87.7%	(4.7%)	8.6x	7.3x	6.1x	NM	46.0x	34
aroup	Dec-18	\$330.13	90.2%	\$10,459	\$10,309	\$1,141	\$1,366	\$1,633	20.2%	19.6%	62.1%	10.8%	9.0x	7.5x	6.3x	83.8x	31.9x	25
Okta	Jan-19	\$82.73	94.3%	\$9,284	\$8,992	\$399	\$534	\$699	36.4%	30.8%	71.6%	(29.1%)	22.5x	16.8x	12.9x	NM	NM	N
endesk .	Dec-18	\$85.00	98.7%	\$9,211	\$9,242	\$599	\$803	\$1,040	35.6%	29.6%	69.7%	(17.3%)	15.4x	11.5x	8.9x	NM	NM	89
Propbox	Dec-18	\$21.80	50.1%	\$8,966	\$8,043	\$1,392	\$1,639	\$1,881	18.3%	14.8%	71.6%	(23.5%)	5.8x	4.9x	4.3x	NM	21.9x	17
OocuSign	Jan-19	\$51.84	75.8%	\$8,808	\$8,478	\$701	\$914	\$1,134	31.5%	24.1%	72.8%	(55.8%)	12.1x	9.3x	7.5x	NM	NM	63
RingCentral	Dec-18	\$107.80	96.5%	\$8,758	\$8,558	\$674	\$855	\$1,055	28.3%	23.4%	76.7%	1.4%	12.7x	10.0x	8.1x	NM	79.9x	60
lubSpot	Dec-18	\$166.21	92.3%	\$6,843	\$6,570	\$513	\$652	\$805	28.7%	23.5%	80.4%	(6.9%)	12.8x	10.1x	8.2x	NM	83.6x	58
Proofpoint	Dec-18	\$121.43	93.2%	\$6,721	\$6,489	\$717	\$873	\$1,056	22.8%	21.0%	71.9%	(3.9%)	9.1x	7.4x	6.1x	NM	49.0x	36
lastic N.V.	Jan-19	\$79.87	79.5%	\$5,854	\$5,547	\$241	\$340	\$452	41.6%	32.8%	71.7%	(33.9%)	23.1x	16.3x	12.3x	NM	NM	N
Vix.com Ltd.	Dec-18	\$120.83	96.0%	\$5,842	\$5,477	\$604	\$760	\$934	26.3%	22.9%	79.0%	(3.2%)	9.1x	7.2x	5.9x	NM	36.7x	29
lew Relic	Dec-18	\$98.70	86.0%	\$5,661	\$5,342	\$446	\$568	\$713	28.6%	25.6%	83.8%	(1.1%)	12.0x	9.4x	7.5x	NM	65.1x	46
Coupa Software	Jan-19	\$90.98	91.0%	\$5,554	\$5,407	\$260	\$328	\$411	29.3%	25.4%	67.9%	(14.7%)	20.8x	16.5x	13.1x	NM	NM	N
ivotal Software	Feb-19	\$20.85	66.7%	\$5,547	\$4,846	\$657	\$803	\$986	21.9%	22.8%	63.4%	(19.3%)	7.4x	6.0x	4.9x	NM	NM	N
lealPage	Dec-18	\$60.69	91.6%	\$5,539	\$5,908	\$869	\$992	\$1,101	13.7%	11.0%	62.2%	16.2%	6.8x	6.0x	5.4x	42.0x	21.0x	18
Alteryx	Dec-18	\$83.87	97.9%	\$5,182	\$5,026	\$254	\$350	\$461	73.6%	31.9%	91.0%	13.5%	19.8x	14.4x	10.9x	NM	NM	87
orgo Con CooC.He	20× Oues	tilo -	06.7%										20.0	14 Ex	10.00	90.60	64 4	60
Large-Cap SaaS Up		tire	96.7%										20.0x	14.5x	10.9x	80.6x	64.4x	
Large-Cap SaaS Me	dian		94.3% 90.6%										12.8x 9.1x	10.1x 7.5x	8.2x 6.2x	76.6x	46.5x 33.1x	

<sup>(3)</sup> EV/EBITDA multiple less than 0 or greater than 100 have been marked Not Meaningful (NM) in the analysis.



<sup>(1)</sup> Market Data including Market Capitalization amounts are based on closing share prices as of March 31, 2019.

<sup>(2)</sup> Enterprise Value (EV) equals Market Capitalization plus Debt, Preferred Equity, and Minority Interest, minus Cash and Cash Equivalents.

### Global TMT Selected Public Comps: Software (2/2)

Market Data					Operating Metrics							Valuation Multiples						
\$ value millions, except per share	Quarter	Share	% of 52 Week	Market	Enterprise	Revenue			Revenue Growth%		LTM Gross	LTM EBITDA	EV / Revenue			EV/EBITDA <sup>(3)</sup>		
Company Name	Ending	Price	High	Cap. (1)	Value (2)	LTM	2019E	2020E	2018-19E	2019E-20E	Margin%	Margin%	LTM	2019E	2020E	LTM	2019E	2020
Mid-Cap SaaS (< \$5E	Market	t Cap)																
Kero Limited	Sep-18	\$34.54	92.5%	\$4,833	\$5,072	\$315	\$465	\$590	33.6%	27.0%	82.5%	(1.2%)	16.1x	10.9x	8.6x	NM	55.4x	36.3
Paylocity	Dec-18	\$89.19	96.4%	\$4,720	\$4,616	\$418	\$504	\$604	21.3%	20.0%	63.8%	10.4%	11.0x	9.2x	7.6x	NM	31.8x	25.5
Medidata Solutions	Dec-18	\$73.24	82.4%	\$4,419	\$4,272	\$636	\$739	\$851	16.1%	15.1%	75.0%	13.5%	6.7x	5.8x	5.0x	49.7x	23.6x	19.7
Smartsheet	Jan-19	\$40.79	83.2%	\$4,282	\$4,075	\$178	\$255	\$348	45.7%	36.3%	81.0%	(26.7%)	22.9x	15.9x	11.7x	NM	NM	NM
2U	Dec-18	\$70.85	71.9%	\$4,119	\$3,668	\$412	\$548	\$719	33.1%	31.3%	78.0%	(3.3%)	8.9x	6.7x	5.1x	NM	NM	NM
₋ogMeIn	Dec-18	\$80.10	65.1%	\$4,072	\$4,124	\$1,204	\$1,255	\$1,320	4.3%	5.1%	76.7%	29.4%	3.4x	3.3x	3.1x	11.7x	10.1x	10.5
Ellie Mae	Dec-18	\$98.69	84.4%	\$3,459	\$3,156	\$480	\$510	\$554	6.5%	8.6%	58.4%	11.8%	6.6x	6.2x	5.7x	55.6x	21.7x	19.2
Qualys	Dec-18	\$82.74	84.2%	\$3,258	\$2,971	\$279	\$322	\$375	15.4%	16.5%	76.3%	28.4%	10.7x	9.2x	7.9x	37.5x	23.9x	20.0
Cornerstone OnDemand	Dec-18	\$54.78	91.0%	\$3,238	\$3,184	\$538	\$564	\$641	6.4%	13.7%	73.2%	2.5%	5.9x	5.6x	5.0x	NM	26.3x	19.8
ive9	Dec-18	\$52.83	91.3%	\$3,130	\$3,046	\$258	\$301	\$353	19.4%	17.3%	59.6%	6.9%	11.8x	10.1x	8.6x	NM	60.6x	47.3
Ω2 Holdings	Dec-18	\$69.26	96.2%	\$3,018	\$3,024	\$241	\$308	\$377	27.9%	22.5%	49.5%	(6.7%)	12.5x	9.8x	8.0x	NM	NM	77.0
Mimecast	Dec-18	\$47.35	91.7%	\$2,861	\$2,893	\$322	\$398	\$484	24.8%	21.7%	73.1%	8.0%	9.0x	7.3x	6.0x	NM	43.0x	34.3
Вох	Jan-19	\$19.31	64.8%	\$2,787	\$2,682	\$608	\$702	\$814	15.3%	16.0%	71.5%	(14.5%)	4.4x	3.8x	3.3x	NM	57.6x	33.3
AppFolio	Dec-18	\$79.40	86.8%	\$2,692	\$2,651	\$190	\$252	\$312	34.4%	23.6%	61.9%	12.9%	13.9x	10.5x	8.5x	NM	50.6x	37.8
BlackLine	Dec-18	\$46.32	79.7%	\$2,549	\$2,421	\$228	\$278	\$338	22.3%	21.9%	77.7%	(4.8%)	10.6x	8.7x	7.2x	NM	NM	74.0
Cloudera	Jan-19	\$10.94	48.8%	\$2,942	\$2,462	\$480	\$845	\$1,030	7.9%	21.9%	71.6%	(32.0%)	5.1x	2.9x	2.4x	NM	NM	15.7
Everbridge	Dec-18	\$75.01	98.4%	\$2,461	\$2,450	\$147	\$196	\$245	33.6%	25.1%	68.2%	(24.0%)	16.7x	12.5x	10.0x	NM	NM	NM
Rapid7	Dec-18	\$50.61	96.2%	\$2,428	\$2,344	\$244	\$309	\$375	27.4%	21.6%	70.9%	(16.8%)	9.6x	7.6x	6.2x	NM	NM	76.3
Yext	Jan-19	\$21.86	80.4%	\$2,388	\$2,245	\$228	\$299	\$388	31.3%	29.9%	74.9%	(30.2%)	9.8x	7.5x	5.8x	NM	NM	NM
Pluralsight	Dec-18	\$31.74	82.7%	\$2,362	\$2,291	\$232	\$312	\$412	35.3%	32.2%	73.0%	(43.8%)	9.9x	7.3x	5.6x	NM	NM	NM
SVMK	Dec-18	\$18.21	91.1%	\$2,306	\$2,462	\$254	\$294	\$347	16.4%	18.3%	69.3%	(39.1%)	9.7x	8.4x	7.1x	NM	47.5x	38.8
	Dec-18	\$50.70	98.7%	\$2,246	\$2,166	\$244	\$284	\$328	16.9%	15.7%	73.0%	(14.9%)	8.9x	7.6x	6.6x	NM	NM	NM
Zuora	Jan-19	\$20.03	53.0%	\$2,173	\$2,011	\$235	\$292	\$365	24.7%	24.9%	50.4%	(28.5%)	8.5x	6.9x	5.5x	NM	NM	NM
SPS Commerce	Dec-18	\$106.06	93.6%	\$1,884	\$1,705	\$248	\$275	\$300	11.3%	9.3%	67.1%	15.9%	6.9x	6.2x	5.7x	43.3x	26.8x	22.9
_ivePerson	Dec-18	\$29.02	95.8%	\$1,855	\$1,789	\$250	\$288	\$343	15.6%	19.0%	75.0%	1.0%	7.2x	6.2x	5.2x	NM	NM	61.6
nstructure	Dec-18	\$47.12	95.8%	\$1,687	\$1,534	\$210	\$257	\$312	23.0%	21.3%	70.5%	(18.6%)	7.3x	6.0x	4.9x	NM	NM	NM
Benefitfocus	Dec-18	\$49.52	81.6%	\$1,587	\$1,634	\$259	\$305	\$356	18.6%	16.7%	50.0%	(10.8%)	6.3x	5.4x	4.6x	NM	89.9x	48.0
alend	Dec-18	\$50.57	68.8%	\$1,533	\$1,500	\$204	\$249	\$305	21.6%	22.8%	75.8%	(17.8%)	7.3x	6.0x	4.9x	NM	NM	NM
Oomo	Jan-19	\$40.33	85.7%	\$1,062	\$982	\$142	\$174	\$214	23.4%	23.3%	65.2%	(95.0%)	6.9x	5.7x	4.6x	NM	NM	NM
Carbon Black	Dec-18	\$13.95	39.9%	\$987	\$827	\$210	\$243	\$287	16.4%	18.4%	78.2%	(30.2%)	3.9x	3.4x	2.9x	NM	NM	NM
/lobilelron	Dec-18	\$5.47	95.8%	\$584	\$479	\$193	\$211	\$231	9.0%	9.2%	81.9%	(20.0%)	2.5x	2.3x	2.1x	NM	NM	NA
Castlight Health	Dec-18	\$3.75	63.0%	\$538	\$466	\$156	\$156	\$177	0.6%	13.9%	61.5%	(21.1%)	3.0x	3.0x	2.6x	NM	54.5x	27.2
(ero Limited	Sep-18	\$34.54	92.5%	\$4,833	\$5,072	\$315	\$465	\$590	33.6%	27.0%	82.5%	(1.2%)	16.1x	10.9x	8.6x	NM	55.4x	36.3
Mid-Cap SaaS Uppe			94.2%										10.6x	8.8x	7.3x	49.7x	55.0x	

 Mid-Cap SaaS Upper Quartile
 94.2%

 Mid-Cap SaaS Median
 85.0%

 Mid-Cap SaaS Lower Quartile
 75.0%

 43.0%
 43.0%

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 37.5%

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<sup>(3)</sup> EV/EBITDA multiple less than 0 or greater than 100 have been marked Not Meaningful (NM) in the analysis.



<sup>(1)</sup> Market Data including Market Capitalization amounts are based on closing share prices as of March 31, 2019.

<sup>(2)</sup> Enterprise Value (EV) equals Market Capitalization plus Debt, Preferred Equity, and Minority Interest, minus Cash and Cash Equivalents.

### Global TMT Selected Transactions (1): Software

Announced Date	Target Name	Target Country	Acquirer Name	Deal Value (\$ mm)	EV / Revenue	EV / EBITDA
28-Mar-2019	lpswitch	U.S.	Progress Software	\$225	3.0x	-
22-Mar-2019	eFront SAS [Bridgepoint Capital]	France	BlackRock	\$1,300	9.3x	-
19-Mar-2019	Magnitude Software [Audax]	U.S.	3i Group	\$340	-	-
18-Mar-2019	Worldpay	U.S.	Fidelity National Information Services	\$35,500	10.9x	16.9x
18-Mar-2019	AgileCraft	U.S.	Atlassian	\$166	-	-
18-Mar-2019	Foundry Visionmongers [HgCapital]	U.K.	Roper Technologies	\$545	-	-
14-Mar-2019	PIEtech	U.S.	Envestnet	\$500	-	-
11-Mar-2019	Voalte	U.S.	Hill-Rom Holdings	\$180	4.5x	-
10-Mar-2019	Figure Eight	U.S.	Appen	\$175	-	-
21-Feb-2019	Attunity	U.S.	QlikTech [Thoma Bravo]	\$560	6.4x	60.4x
12-Feb-2019	Ellie Mae	U.S.	Thoma Bravo	\$3,700	7.5x	58.8x
11-Feb-2019	Solium Capital	Canada	Morgan Stanley Private Equity	\$828	7.0x	74.5x
04-Feb-2019	Ultimate Software Group	U.S.	Hellman & Friedman-led PE Consortium	\$11,000	9.9x	89.6x
01-Feb-2019	MicroPact [Arlington Capital Partners]	U.S.	Tyler Technologies	\$185	2.6x	-
28-Jan-2019	HelloSign	U.S.	Dropbox	\$230	19.2x	-
28-Jan-2019	Management Systems Resources	Canada	Descartes Systems Group	\$250	-	-
23-Jan-2019	TrendKite	U.S.	Cision	\$225	8.9x	-
22-Jan-2019	Repay Holdings [Corsair Capital]	U.S.	Thunder Bridge Acquisition	\$600	4.6x	-
22-Jan-2019	Prisma Medios de Pago	Argentina	Advent International	\$724	-	-
22-Jan-2019	Rogue Wave Software [Audax Group]	U.S.	Perforce Software [Clearlake Capital Group]	\$480	4.0x	9.6x
14-Jan-2019	QuickBase (Private placement) [Welsh, Carson, Anderson & Stowe]	U.S.	Vista Equity Partners Management	\$1,100	8.8x	20.0x
07-Jan-2019	VaaS International Holdings	U.S.	Motorola Solutions	\$445	-	-
Median					7.3x	58.8x

(1) Top M&A transactions on the basis of disclosed deal value in Q1'19. Source: 451research.



# Global TMT Coverage Team

### Global Coverage. Industry Knowledge. Middle-Market Focus.

The Corporate Finance practices of KPMG International's network of independent member firms (KPMG) have been ranked collectively as the number one global mid-market advisor based on total deal volume announced from 2014 to 2018, according to Thomson Reuters SDC. KPMG firms operate in 155 countries with over 2,600 professionals who are able to meet the needs of clients across the globe.

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