

Scoreboard

	Margin %		Growth %		Multiples		
	GM	EBITDA	Revenue	5 Yr EPS	EV/Revenue	EV/EBITDA	P/E
IT & IT-ENABLED OUTSOURCED SERVICES							
Commercial IT Professional Services - North America	30.0%	14.5%	9.0%	13.9%	2.13x	13.9x	19.4x
Governmental IT Professional Services - North America	22.4	9.1	6.6	10.0	1.39	14.7	21.7
IT Professional Services - Europe	16.2	11.6	-0.2	11.6	1.29	9.9	16.8
IT Professional Services - India	25.4	16.6	7.3	14.5	2.28	11.9	19.7
IT Professional Services - China	27.4	5.3	15.3	25.5	1.44	18.8	30.4
IT Staff Augmentation	26.9	5.8	8.9	16.5	1.10	12.7	22.4
IT SUPPLY CHAIN SERVICES							
IT Solution Providers - North America	15.3%	3.6%	3.0%	11.4%	0.57x	9.2x	12.1x
IT Solution Providers - Europe	14.7	4.3	3.7	17.0	0.67	12.0	26.0
IT Products Distributors	9.4	3.7	6.0	10.2	0.32	7.3	9.4
BUSINESS PROCESS OUTSOURCING							
Business Process Outsourcing - North America	37.6%	18.9%	5.4%	11.3%	3.63x	13.6x	20.6x
Business Process Outsourcing - India	25.5	12.4	9.8	12.4	2.28	10.9	14.1
SOFTWARE							
SaaS	72.2%	- 3.7%	28.9%	28.9%	10.74x	36.0x	64.0x
Enterprise Applications	83.5	29.3	6.7	12.8	6.89	16.8	27.4

Commercial IT Professional Services - North America

As of September 4, 2018

\$ in millions except per share data

Company	Current Price	% of 52 Wk. High	Market Value		Revenue		EBITDA		'17E - '18E			Valuation Multiples						EPS
					LTM	2018E	LTM	2018E	Growth Rate	Gross Margin LTM	EBITDA Margin LTM	EV/Rev		EV/EBITDA		P/E		Growth Rate
												LTM	2018E	LTM	2018E	LTM	2018E	
Accenture Plc Class A	\$169.50	99.8%	\$108,607	\$107,034	\$40,602	\$40,330	\$6,724	\$6,916	10.9%	30.1%	16.6%	2.64x	2.65x	15.9x	15.5x	27.2x	24.6x	10.5%
DXC Technology Co.	90.71	84.1	25,504	31,059	23,925	22,347	5,254	4,832	9.7	20.2	22.2	1.30x	1.39x	5.9	6.4	14.2	11.2	7.4
CGI Group Inc. Class A	64.66	97.4	16,538	19,856	8,680	8,895	1,567	1,624	3.6	13.1	16.4	2.29x	2.23x	12.7	12.2	22.9	19.7	9.8
EPAM Systems, Inc.	142.80	99.0	7,680	7,522	1,647	1,834	241	327	26.5	33.7	14.5	4.57x	4.10x	31.2	23.0	64.0	34.5	19.6
Globant SA	64.79	97.6	2,326	2,338	473	515	56	94	24.6	34.5	15.5	4.95x	4.54x	42.1	24.9	52.7	38.3	13.9
Virtusa Corporation	58.06	99.1	1,727	1,932	1,087	1,196	72	103	22.0	28.3	6.6	1.78x	1.61x	27.0	18.8	NA	27.5	20.0
Perficient, Inc.	28.76	99.8	1,001	1,020	500	499	57	69	2.8	30.0	11.4	2.04x	2.05x	17.9	14.9	39.9	19.0	NA
Unisys Corporation	19.15	99.0	977	1,080	2,789	2,775	427	394	1.1	24.5	15.3	0.39x	0.39x	2.5	2.7	32.7	10.2	NA
Hackett Group, Inc.	20.24	98.3	596	653	289	295	38	50	3.2	32.5	13.3	2.26x	2.21x	17.1	12.9	19.3	18.9	16.7
Edgewater Technology, Inc.	5.01	68.6	72	70	104	-	NA	-	NA	32.1	-3.9	0.67x	NA	NA	NA	NA	NA	NA
RCM Technologies, Inc.	4.84	64.5	59	88	197	202	9	9	8.4	24.7	4.7	0.45x	0.44x	9.5	9.8	22.0	13.1	NA

Median									9.0%	30.0%	14.5%	2.04x	2.13x	16.5x	13.9x	27.2x	19.4x	13.9%
Mean									11.3%	27.6%	12.0%	2.12x	2.16x	18.2x	14.1x	32.8x	21.7x	14.0%

Source: FactSet; based on consensus estimates.

IT Professional Services - Europe										'17E - '18E			Valuation Multiples						EPS
As of September 4, 2018										Revenue	Gross	EBITDA	EV/Rev		EV/EBITDA		P/E		Growth
\$ in millions except per share data										Growth	Margin	Margin	LTM	2018E	LTM	2018E	LTM	2018E	Rate
Company	Current Price	% of 52 Wk. High	Market Value		Revenue		EBITDA		Rate	LTM	LTM	LTM	2018E	LTM	2018E	LTM	2018E	Rate	
Capgemini SE	\$126.99	90.8%	\$21,439	\$23,161	\$14,837	\$15,236	\$1,997	\$2,182	-4.6%	19.6%	13.5%	1.56x	1.52x	11.6x	10.6x	24.3x	18.5x	7.1%	
Atos SE	118.10	73.1	12,597	12,728	14,304	14,406	1,918	2,067	-7.9	26.0	13.4	0.89x	0.88x	6.6	6.2	17.4	11.8	9.5	
Sage Group plc	7.58	65.5	8,222	9,138	2,296	2,462	658	712	6.5	90.0	29.0	3.98x	3.71x	13.9	12.8	24.1	17.4	5.9	
Sopra Steria Group SA	175.30	80.1	3,600	4,359	4,569	4,756	380	455	-0.2	17.5	8.1	0.95x	0.92x	11.5	9.6	21.3	14.3	12.3	
Alten SA	102.44	95.0	3,465	3,421	2,281	2,566	225	270	5.4	14.8	9.9	1.50x	1.33x	15.2	12.7	20.1	19.2	11.9	
Altran Technologies SA	10.74	62.5	2,759	2,431	2,636	3,341	312	464	20.0	14.4	11.9	0.92x	0.73x	7.8	5.2	12.2	11.8	13.5	
Reply S.p.A.	63.79	90.2	2,386	2,327	1,087	1,159	128	163	7.2	46.6	11.8	2.14x	2.01x	18.1	14.3	23.3	23.0	NA	
Tieto Oyj	31.64	84.3	2,345	2,588	1,819	1,874	249	255	-1.6	26.7	15.1	1.42x	1.38x	10.4	10.2	16.0	15.3	4.0	
Indra Sistemas, S.A. Class A	11.95	72.5	2,111	3,136	3,478	3,520	348	347	-4.3	28.7	10.0	0.90x	0.89x	9.0	9.0	14.0	15.1	13.7	
EVRY ASA	3.89	91.8	1,443	2,013	1,538	1,541	220	210	-4.1	23.5	16.8	1.31x	1.31x	9.2	9.6	25.8	11.3	NA	
Devoteam SA	124.34	97.4	1,036	943	624	735	64	82	10.4	14.9	10.2	1.51x	1.28x	14.8	11.5	36.5	25.6	NA	
Neurones SA	28.43	80.1	690	537	560	570	52	61	-5.6	8.9	9.2	0.96x	0.94x	10.4	8.8	21.8	22.1	NA	
Aubay SA	47.55	88.9	625	633	408	466	40	50	7.0	10.2	9.8	1.55x	1.36x	15.9	12.7	22.5	19.0	11.2	
GFI Informatique SA	9.34	90.5	622	983	1,380	1,500	108	104	7.7	7.2	7.8	0.71x	0.66x	9.1	9.5	14.8	12.2	NA	
NNIT A/S	24.46	75.4	612	684	455	466	74	84	-4.2	18.9	16.2	1.50x	1.47x	9.3	8.2	17.9	16.3	NA	
Allgeier SE	38.94	94.2	389	496	741	795	38	49	12.9	13.0	5.2	0.67x	0.62x	13.1	10.2	44.4	24.6	90.4	
Columbus A/S	2.75	96.5	335	347	189	-	22	-	NA	8.2	11.4	1.84x	NA	16.1	NA	22.2	NA	NA	
Endava Plc Sponsored ADR Class A	26.42	86.6	292	1,420	202	280	36	48	NA	31.8	17.9	7.03x	5.06x	39.3	29.6	65.6	41.5	26.3	
Prodware SA	13.82	81.8	107	220	194	196	33	36	-5.2	13.9	17.1	1.13x	1.12x	6.6	6.1	8.3	7.7	6.3	
ITS Group SA	8.53	93.9	67	75	207	-	9	-	NA	3.9	4.1	0.36x	NA	8.7	NA	18.9	NA	NA	
Median									-0.2%	16.2%	11.6%	1.37x	1.29x	10.9x	9.9x	21.6x	16.8x	11.6%	
Mean									2.3%	21.9%	12.4%	1.64x	1.51x	12.8x	10.9x	23.6x	18.1x	17.7%	

Source: FactSet; based on consensus estimates.

IT Professional Services - India										'17E - '18E		Valuation Multiples						EPS	
As of September 4, 2018										Revenue	Gross	EBITDA	EV/Rev		EV/EBITDA		P/E		Growth
\$ in millions except per share data										Growth	Margin	Margin	LTM	2018E	LTM	2018E	LTM	2018E	Rate
Company	Current Price	% of 52 Wk. High	Market Value		Revenue		EBITDA		Rate	LTM	LTM	LTM	2018E	LTM	2018E	LTM	2018E	Rate	
Tata Consultancy Services Limited	\$29.29	99.2%	\$112,127	\$104,291	\$18,346	\$19,822	\$4,907	\$5,331	5.9%	31.8%	26.7%	5.68x	5.26x	21.3x	19.6x	28.5x	26.3x	11.7%	
Infosys Limited	10.29	98.3	44,963	41,359	10,420	11,177	2,835	2,949	3.9	35.9	27.2	3.97x	3.70x	14.6	14.0	19.8	19.7	9.8	
Cognizant Technology Solutions Corp	75.64	88.9	43,889	40,745	15,512	16,172	3,036	3,754	9.2	35.1	19.6	2.63x	2.52x	13.4	10.9	30.6	16.7	15.0	
HCL Technologies Limited	15.06	90.4	20,973	20,063	7,509	8,057	1,693	1,847	7.3	28.5	22.5	2.67x	2.49x	11.9	10.9	16.3	15.5	9.8	
Wipro Limited	4.39	83.9	19,847	16,807	7,874	8,145	1,459	1,552	-1.1	28.5	18.5	2.13x	2.06x	11.5	10.8	17.7	16.8	7.4	
Tech Mahindra Limited	10.67	97.3	10,464	8,802	4,553	4,791	738	793	5.7	24.3	16.5	1.93x	1.84x	11.9	11.1	16.8	17.1	11.7	
Oracle Financial Services Software Lir	55.40	80.6	4,745	4,353	670	709	275	300	4.7	47.5	41.4	6.49x	6.14x	15.8	14.5	25.9	22.6	12.5	
Mphasis Limited	17.73	97.5	3,428	3,181	981	1,049	166	180	8.8	NA	17.1	3.24x	3.03x	19.2	17.7	26.3	23.9	14.4	
Mindtree Limited	15.65	94.7	2,569	2,501	835	931	119	141	12.5	25.4	14.2	3.00x	2.69x	21.0	17.7	29.6	26.7	23.6	
L&T Technology Services Ltd.	24.25	96.4	2,514	2,511	585	642	100	109	18.3	19.9	16.1	4.29x	3.91x	25.0	23.0	28.5	28.5	14.5	
NIIT Technologies Limited	19.15	96.3	1,178	1,097	446	482	76	82	8.6	37.3	16.8	2.46x	2.28x	14.4	13.3	26.0	24.0	23.4	
Cyient Limited	10.22	77.5	1,154	1,058	587	637	79	89	8.5	23.2	13.7	1.80x	1.66x	13.3	11.9	20.0	17.9	15.0	
Sonda S.A.	1.28	59.5	1,117	1,306	1,215	1,159	152	137	-18.2	17.6	12.5	1.08x	1.13x	8.6	9.5	13.5	28.7	14.0	
Zensar Technologies Limited	23.08	96.0	1,039	1,001	470	515	59	68	9.4	22.9	12.3	2.13x	1.94x	16.9	14.8	26.1	23.3	25.8	
Persistent Systems Limited	11.77	87.0	942	802	451	484	73	79	6.5	21.6	16.4	1.78x	1.66x	11.0	10.2	19.6	17.9	22.3	
KPIT Technologies Limited	4.19	92.2	827	788	547	595	61	70	9.9	21.0	11.0	1.44x	1.32x	12.9	11.3	20.1	17.7	20.8	
Sonata Software Limited	4.96	85.7	521	446	360	381	38	40	3.7	18.4	9.7	1.24x	1.17x	11.6	11.0	17.3	16.5	NA	
Roit India Limited	0.47	36.2	78	413	398	-	114	-	NA	25.7	27.9	1.04x	NA	3.6	NA	NA	NA	NA	
Median									7.3%	25.4%	16.6%	2.30x	2.28x	13.4x	11.9x	20.1x	19.7x	14.5%	
Mean									6.1%	27.3%	18.9%	2.72x	2.64x	14.3x	13.7x	22.5x	21.2x	15.7%	

Source: FactSet; based on consensus estimates.

IT Professional Services - China										'17E - '18E		Valuation Multiples						EPS	
As of September 4, 2018										Revenue	Gross	EBITDA	EV/Rev		EV/EBITDA		P/E		Growth
\$ in millions except per share data										Growth	Margin	Margin	LTM	2018E	LTM	2018E	LTM	2018E	Rate
Company	Current Price	% of 52 Wk. High	Market Value		Revenue		EBITDA		Rate	LTM	LTM	LTM	2018E	LTM	2018E	LTM	2018E	Rate	
Inspur Electronic Information Industry (\$4.06	94.1%	\$5,239	\$5,981	\$5,183	\$5,812	\$144	\$195	43.4%	11.0%	2.8%	1.15x	1.03x	41.6x	30.7x	73.5x	53.0x	NA	
Neusoft Corporation Class A	1.74	58.9	2,168	2,143	1,041	1,184	55	118	4.5	29.7	5.3	2.06x	1.81x	38.7	18.1	14.2	30.3	NA	
Chinasoft International Ltd.	0.69	70.1	1,675	2,094	1,519	1,617	249	165	10.0	30.6	10.8	1.38x	1.30x	8.4	12.7	15.9	16.5	25.5	
Beijing Teamsun Technology Co., Ltd.	1.16	55.3	1,280	1,656	743	1,041	30	84	20.6	16.8	4.4	2.23x	1.59x	NA	19.6	92.9	30.5	NA	
Beyondsoft Corporation Class A	1.19	57.0	626	518	340	-	39	-	NA	27.4	12.1	1.52x	NA	13.1	NA	19.5	NA	NA	
Median									15.3%	27.4%	5.3%	1.52x	1.44x	25.9x	18.8x	19.5x	30.4x	25.5%	
Mean									19.6%	23.1%	7.1%	1.67x	1.43x	25.5x	20.3x	43.2x	32.6x	25.5%	

Source: FactSet; based on consensus estimates.

Gvt. IT Professional Services - North America

As of September 4, 2018

\$ in millions except per share data

Company	Current Price	% of 52 Wk. High	Market Value		Revenue		EBITDA		'17E - '18E			Valuation Multiples						EPS
					LTM	2018E	LTM	2018E	Growth Rate	Gross Margin LTM	EBITDA Margin LTM	EV/Rev		EV/EBITDA		P/E		Growth Rate
												LTM	2018E	LTM	2018E	LTM	2018E	
Booz Allen Hamilton Holding Corporat	\$51.45	100.0%	\$7,333	\$9,099	\$6,325	\$6,522	\$608	\$624	7.3%	22.4%	9.6%	1.44x	1.39x	15.0x	14.6x	23.0x	21.7x	11.2%
CACI International Inc Class A	196.75	99.9	4,861	5,965	4,468	4,638	413	427	5.1	31.7	9.2	1.34x	1.29x	14.4	14.0	16.5	18.4	10.0
ManTech International Corporation Cl	67.01	100.0	1,768	2,690	1,849	1,948	148	168	13.4	14.5	8.1	1.45x	1.38x	18.1	16.0	21.5	32.6	8.0
ICF International, Inc.	82.15	100.0	1,549	1,815	1,254	1,310	109	123	6.6	34.6	8.7	1.45x	1.39x	16.6	14.7	23.5	21.7	10.0
Kratos Defense & Security Solutions, I	13.55	97.3	1,406	1,516	693	643	48	58	-14.5	24.7	6.9	2.19x	2.36x	31.6	26.1	NA	NA	NA
Engility Holdings, Inc.	34.56	94.7	1,278	2,195	1,917	1,897	174	169	-1.8	12.4	9.1	1.15x	1.16x	12.6	13.0	NA	NA	5.0
KEYW Holding Corporation	8.79	89.4	438	715	503	507	40	46	14.9	21.8	10.9	1.42x	1.41x	17.7	15.4	NA	NA	NA

Median									6.6%	22.4%	9.1%	1.44x	1.39x	16.6x	14.7x	22.2x	21.7x	10.0%
Mean									4.4%	23.2%	8.9%	1.49x	1.48x	18.0x	16.3x	21.1x	22.3x	8.8%

Source: FactSet; based on consensus estimates.

IT Staff Augmentation										'17E - '18E		Valuation Multiples						EPS	
As of September 4, 2018										Revenue	Gross	EBITDA	EV/Rev		EV/EBITDA		P/E		Growth
\$ in millions except per share data										Growth	Margin	Margin	LTM	2018E	LTM	2018E	LTM	2018E	Rate
Company	Current Price	% of 52 Wk. High	Market Value		Revenue		EBITDA		Rate	LTM	LTM	LTM	2018E	LTM	2018E	LTM	2018E	Rate	
Robert Half International Inc.	\$78.78	98.6%	\$9,646	\$9,290	\$5,523	\$5,735	\$609	\$639	8.9%	40.1%	11.0%	1.68x	1.62x	15.2x	14.5x	28.9x	22.8x	17.1%	
ManpowerGroup Inc.	93.53	68.3	6,070	6,587	22,282	22,628	955	940	7.6	16.4	4.3	0.30x	0.29x	6.9	7.0	10.5	10.6	NA	
Insperty, Inc.	120.80	99.7	5,064	4,764	3,559	3,828	172	225	16.0	9.4	4.8	1.34x	1.24x	27.7	21.2	46.9	34.4	16.5	
ASGN Inc	93.01	98.7	4,869	6,127	2,910	3,395	322	396	29.3	29.1	11.0	2.11x	1.80x	19.1	15.5	29.9	22.4	10.0	
Kforce Inc.	42.05	96.6	1,099	1,161	1,389	1,428	80	92	5.1	29.3	5.8	0.84x	0.81x	14.4	12.7	25.4	18.7	NA	
Kelly Services, Inc. Class A	25.39	78.6	986	953	5,508	5,587	104	108	4.0	17.6	1.9	0.17x	0.17x	9.2	8.8	18.5	11.9	NA	
Heidrick & Struggles International, Inc.	44.20	97.6	838	768	691	701	69	73	9.5	26.9	10.0	1.11x	1.10x	11.2	10.6	NA	22.7	NA	
Mastech Digital, Inc.	10.77	96.2	118	157	168	-	13	-	NA	21.9	7.7	0.94x	NA	12.2	NA	24.2	NA	NA	
Hudson Global, Inc.	1.72	70.5	55	17	273	-	NA	-	NA	42.3	-0.5	0.06x	NA	NA	NA	NA	NA	NA	
Median									8.9%	26.9%	5.8%	0.94x	1.10x	13.3x	12.7x	25.4x	22.4x	16.5%	
Mean									11.5%	25.9%	6.2%	0.95x	1.01x	14.5x	12.9x	26.3x	20.5x	14.5%	

Source: FactSet; based on consensus estimates.

IT Solution Provider - North America										'17E - '18E		Valuation Multiples						EPS		
As of September 4, 2018										Revenue		Gross	EBITDA	EV/Rev		EV/EBITDA		P/E		EPS
\$ in millions except per share data										Growth	Margin	Margin							Growth	
Company	Current Price	% of 52 Wk. High	Market Value		Revenue		EBITDA		Rate	LTM	LTM	LTM	2018E	LTM	2018E	LTM	2018E	LTM	2018E	Rate
CDW Corp.	\$87.71	98.4%	\$13,276	\$17,026	\$15,665	\$16,047	\$1,199	\$1,259	5.6%	16.3%	7.7%	1.09x	1.06x	14.2x	13.5x	21.8x	17.6x	14.8%		
Insight Enterprises, Inc.	54.83	96.4	1,945	2,181	7,142	7,331	260	288	9.4	13.5	3.6	0.31x	0.30x	8.4	7.6	16.4	12.1	NA		
ePlus inc.	102.65	95.7	1,408	1,383	1,394	1,437	97	107	3.3	22.2	6.5	0.99x	0.96x	14.3	12.9	25.0	20.2	NA		
Presidio, Inc.	15.04	76.2	1,393	2,295	2,821	2,909	217	227	2.7	NA	NA	0.81x	0.79x	10.6	10.1	11.1	10.8	5.0		
PC Connection, Inc.	39.45	99.1	1,053	989	2,823	2,760	97	106	-5.2	13.7	3.4	0.35x	0.36x	10.2	9.3	16.7	15.8	8.0		
ConvergeOne Holdings, Inc. Class A	9.15	84.5	699	1,371	697	1,508	51	152	64.1	25.7	7.3	1.97x	0.91x	26.9	9.0	NA	9.5	NA		
PCM, Inc.	22.60	89.6	270	449	2,198	2,199	35	57	0.3	15.3	1.6	0.20x	0.20x	12.9	7.8	39.0	10.3	20.0		
Pivot Technology Solutions, Inc.	1.21	56.0	48	226	1,499	1,533	24	26	1.4	6.6	1.6	0.15x	0.15x	9.3	8.7	NA	12.1	NA		
Median									3.0%	15.3%	3.6%	0.58x	0.57x	11.7x	9.2x	19.2x	12.1x	11.4%		
Mean									10.2%	16.2%	4.5%	0.73x	0.59x	13.3x	9.9x	21.6x	13.6x	11.9%		

Source: FactSet; based on consensus estimates.

IT Solution Provider - Europe										'17E - '18E		Valuation Multiples						EPS	
As of September 4, 2018										Revenue	Gross	EBITDA	EV/Rev		EV/EBITDA		P/E		Growth
\$ in millions except per share data										Growth	Margin	Margin	LTM	2018E	LTM	2018E	LTM	2018E	Rate
Company	Current Price	% of 52 Wk. High	Market Value		Revenue		EBITDA		Rate	LTM	LTM	LTM	2018E	LTM	2018E	LTM	2018E	Rate	Rate
Bechtle AG	\$103.42	98.0%	\$4,344	\$4,376	\$4,464	\$4,833	\$238	\$267	10.3%	14.7%	5.3%	0.98x	0.91x	18.4x	16.4x	30.8x	27.7x	16.9%	
Softcat Plc	10.79	93.4	2,136	2,081	1,194	1,433	71	93	18.2	16.0	6.0	1.74x	1.45x	29.2	22.5	38.5	29.0	2.0	
Computacenter Plc	17.17	79.4	1,960	1,924	5,283	5,407	185	187	1.9	12.7	3.5	0.36x	0.36x	10.4	10.3	18.8	17.9	17.0	
Atea ASA	14.49	84.2	1,562	1,777	4,092	4,141	144	149	0.4	5.4	3.7	0.43x	0.43x	12.3	11.9	23.2	21.4	18.8	
CANCOM SE	42.66	68.1	1,495	1,444	1,425	1,514	107	119	5.5	8.3	7.6	1.01x	0.95x	13.4	12.2	22.4	24.4	18.9	
Datatec Limited	1.50	31.4	365	401	3,645	3,909	47	61	-6.5	14.9	1.3	0.11x	0.10x	8.6	6.6	NA	42.2	NA	
Plaisio Computers SA	4.80	81.3	106	61	330	-	14	-	NA	21.7	4.3	0.19x	NA	4.3	NA	18.7	NA	NA	
Median									3.7%	14.7%	4.3%	0.43x	0.67x	12.3x	12.0x	22.8x	26.0x	17.0%	
Mean									5.0%	13.4%	4.5%	0.69x	0.70x	13.8x	13.3x	25.4x	27.1x	14.7%	

Source: FactSet; based on consensus estimates.

IT Distributor - North America										'17E - '18E		Valuation Multiples						EPS	
As of September 4, 2018										Revenue	Gross	EBITDA	EV/Rev		EV/EBITDA		P/E		Growth
\$ in millions except per share data										Growth	Margin	Margin	LTM	2018E	LTM	2018E	LTM	2018E	Rate
Company	Current Price	% of 52 Wk. High	Market Value		Revenue		EBITDA		Rate	LTM	LTM	LTM	2018E	LTM	2018E	LTM	2018E	Rate	
Arrow Electronics, Inc.	\$76.98	88.2%	\$6,727	\$10,348	\$28,856	\$29,559	\$1,323	\$1,411	10.2%	11.8%	4.6%	0.36x	0.35x	7.8x	7.3x	13.8x	8.7x	8.7%	
SYNNEX Corporation	95.36	67.2	3,779	5,237	19,114	19,796	709	739	14.6	8.4	3.7	0.27x	0.26x	7.4	7.1	13.5	9.4	12.0	
Tech Data Corporation	72.39	66.6	2,774	3,518	37,663	36,697	660	745	2.3	6.0	1.8	0.09x	0.10x	5.3	4.7	18.9	7.4	5.4	
Anixter International Inc.	71.00	79.9	2,376	3,646	8,132	8,325	381	408	5.0	19.2	4.7	0.45x	0.44x	9.6	8.9	23.0	12.1	11.7	
ScanSource, Inc.	40.35	89.0	1,033	1,258	3,846	3,932	140	146	6.0	10.5	3.6	0.33x	0.32x	9.0	8.6	31.3	12.0	NA	
Wayside Technology Group, Inc.	11.95	69.3	54	42	318	-	5	-	NA	8.4	1.7	0.13x	NA	7.7	NA	18.1	NA	NA	
Median									6.0%	9.4%	3.7%	0.30x	0.32x	7.8x	7.3x	18.5x	9.4x	10.2%	
Mean									7.6%	10.7%	3.3%	0.27x	0.29x	7.8x	7.3x	19.8x	9.9x	9.4%	

Source: FactSet; based on consensus estimates.

Business Process Outsourcing - North America

As of September 4, 2018

\$ in millions except per share data

Company	Current Price	% of 52 Wk. High	Market Value		Revenue		EBITDA		'17E - '18E			Valuation Multiples						EPS
					LTM	2018E	LTM	2018E	Growth Rate	Gross Margin LTM	EBITDA Margin LTM	EV/Rev		EV/EBITDA		P/E		Growth Rate
												LTM	2018E	LTM	2018E	LTM	2018E	
Automatic Data Processing, Inc.	\$145.81	99.2%	\$63,877	\$64,467	\$13,326	\$13,747	\$2,933	\$3,091	6.9%	45.1%	22.0%	4.84x	4.69x	22.0x	20.9x	39.8x	30.0x	14.6%
Fidelity National Information Services,	107.87	98.1	35,470	44,218	8,699	8,525	3,097	3,166	-6.6	33.2	35.6	5.08x	5.19x	14.3	14.0	25.1	20.6	13.1
Paychex, Inc.	73.08	99.6	26,236	25,900	3,381	3,510	1,458	1,476	6.8	69.9	43.1	7.66x	7.38x	17.8	17.5	28.3	26.8	9.0
Iron Mountain, Inc.	36.35	87.5	10,401	18,391	4,060	4,215	1,362	1,461	9.6	42.8	33.6	4.53x	4.36x	13.5	12.6	54.6	32.5	10.1
Acxiom Corporation	46.05	99.3	3,568	3,677	932	943	126	182	3.8	49.7	12.7	3.95x	3.90x	29.3	20.2	NA	49.3	12.5
Syntel, Inc	40.70	99.5	3,378	3,537	966	974	265	247	5.4	37.6	27.2	3.66x	3.63x	13.4	14.3	19.1	20.3	10.0
Convergys Corporation	24.62	92.1	2,244	2,525	2,701	2,653	329	329	-5.0	33.1	11.7	0.93x	0.95x	7.7	7.7	28.0	14.5	7.5
CBIZ, Inc.	24.05	99.4	1,331	1,498	902	922	105	110	7.9	13.0	11.7	1.66x	1.62x	14.2	13.6	21.3	22.4	13.0
Sykes Enterprises, Incorporated	29.74	92.5	1,273	1,169	1,638	1,636	161	173	3.1	29.2	9.8	0.71x	0.71x	7.3	6.8	55.1	14.4	10.0
CSG Systems International, Inc.	37.44	76.7	1,255	1,407	819	854	153	194	8.2	48.1	18.9	1.72x	1.65x	9.2	7.2	21.2	13.1	NA
TTEC Holdings, Inc.	25.90	59.2	1,196	1,427	1,532	1,498	200	190	1.4	20.7	13.0	0.93x	0.95x	7.1	7.5	NA	16.0	14.0

Median									5.4%	37.6%	18.9%	3.66x	3.63x	13.5x	13.6x	28.0x	20.6x	11.3%
Mean									3.8%	38.4%	21.7%	3.24x	3.19x	14.2x	12.9x	32.5x	23.6x	11.4%

Source: FactSet; based on consensus estimates.

Business Process Outsourcing - India

As of September 4, 2018

\$ in millions except per share data

Company	Current Price	% of 52 Wk. High	Market Value		Revenue		EBITDA		'17E - '18E			Valuation Multiples						EPS Growth Rate
									Revenue Growth Rate	Gross Margin LTM	EBITDA Margin LTM	EV/Rev		EV/EBITDA		P/E		
												LTM	2018E	LTM	2018E	LTM	2018E	
Genpact Limited	\$30.62	88.0%	\$5,816	\$6,812	\$2,864	\$2,981	\$388	\$504	8.9%	34.4%	13.4%	2.38x	2.28x	17.6x	13.5x	22.2x	17.5x	10.4%
WNS (Holdings) Limited Sponsored AI	51.04	93.9	2,599	2,657	775	792	119	142	12.9	32.2	16.0	3.43x	3.36x	22.3	18.7	28.1	21.8	11.8
ExlService Holdings, Inc.	64.28	99.6	2,206	2,087	807	887	98	123	16.3	29.1	13.6	2.59x	2.35x	21.3	17.0	45.9	23.3	13.0
Firstsource Solutions Limited	1.02	82.2	703	756	514	535	70	69	1.2	21.7	11.4	1.47x	1.41x	10.8	10.9	13.9	13.0	13.8
eClerx Services Limited	14.67	58.0	567	561	199	204	49	53	1.6	37.1	24.9	2.83x	2.75x	11.4	10.6	14.8	14.1	NA
Hinduja Global Solutions Limited	12.17	75.0	253	272	578	632	57	56	10.7	0.9	9.3	0.47x	0.43x	4.8	4.8	9.2	9.2	NA
Datamatics Global Services Limited	1.96	81.7	115	115	138	137	14	16	NA	21.3	9.9	0.83x	0.84x	8.4	7.0	11.9	12.1	NA
R Systems International Limited	0.57	69.7	71	59	89	-	6	-	NA	21.8	4.9	0.66x	NA	10.1	NA	17.8	NA	NA
HOV Services Limited	3.06	49.5	38	38	2	-	0	-	NA	NA	NA	19.69x	NA	NA	NA	NA	NA	NA
Median									9.8%	25.5%	12.4%	2.38x	2.28x	11.1x	10.9x	16.3x	14.1x	12.4%
Mean									8.6%	24.8%	13.0%	3.82x	1.92x	13.3x	11.8x	20.5x	15.9x	12.2%

Source: FactSet; based on consensus estimates.

SaaS										'17E - '18E		Valuation Multiples						EPS	
As of September 4, 2018										Revenue	Gross	EBITDA	EV/Rev		EV/EBITDA		P/E		Growth
\$ in millions except per share data										Growth	Margin	Margin	LTM	2018E	LTM	2018E	LTM	2018E	Rate
Company	Current Price	% of 52 Wk. High	Market Value		Revenue		EBITDA		Rate	LTM	LTM	LTM	2018E	LTM	2018E	LTM	2018E	Rate	
salesforce.com, inc.	\$153.21	98.9%	\$113,752	\$118,003	\$11,818	\$12,951	\$1,332	\$3,101	25.7%	72.7%	11.1%	9.99x	9.11x	NA	38.1x	NA	64.0x	24.2%	
ServiceNow, Inc.	200.26	99.6	35,626	34,616	2,265	2,603	59	662	34.7	75.3	2.6	15.28x	13.30x	NA	NA	NA	86.1	46.8	
Workday, Inc. Class A	156.69	99.7	22,907	32,026	2,282	2,652	NA	490	26.7	70.6	-7.5	14.04x	12.07x	NA	NA	NA	NA	35.9	
Splunk Inc.	128.64	99.0	18,653	17,765	1,448	1,650	NA	243	32.7	79.3	-17.3	12.27x	10.77x	NA	NA	NA	NA	38.1	
Ultimate Software Group, Inc.	312.42	99.5	9,748	9,545	1,035	1,138	113	276	20.9	62.6	10.9	9.22x	8.39x	NA	34.6	NA	57.1	26.7	
Tableau Software, Inc. Class A	114.05	99.7	7,989	8,468	993	980	NA	NA	11.8	87.1	-12.5	8.53x	8.64x	NA	NA	NA	NA	29.4	
Zendesk, Inc.	69.68	99.6	7,383	7,078	508	585	NA	40	36.0	70.1	-17.5	13.94x	12.09x	NA	NA	NA	NA	28.5	
Twilio, Inc. Class A	87.11	99.1	6,695	7,769	493	589	NA	21	47.5	52.2	-13.9	15.77x	13.20x	NA	NA	NA	NA	71.5	
New Relic, Inc.	105.50	91.9	5,962	5,525	383	436	NA	49	31.1	83.1	-1.1	14.42x	12.67x	NA	NA	NA	NA	14.0	
HubSpot, Inc.	145.60	99.7	5,648	5,337	441	498	NA	47	32.7	80.2	-6.3	12.09x	10.71x	NA	NA	NA	NA	50.0	
LogMeIn, Inc.	84.90	63.0	4,404	4,453	1,130	1,191	340	437	16.3	64.2	30.1	3.94x	3.74x	13.1	10.2	32.5	16.3	15.0	
Cornerstone OnDemand, Inc.	56.89	99.8	3,343	3,164	519	524	16	84	8.7	71.7	3.3	6.09x	6.04x	NA	37.5	NA	81.8	14.0	
Median									28.9%	72.2%	-3.7%	12.18x	10.74x	13.1x	36.0x	32.5x	64.0x	28.9%	
Mean									27.1%	72.4%	-1.5%	11.30x	10.06x	13.1x	30.1x	32.5x	61.1x	32.8%	

Source: FactSet; based on consensus estimates.

Enterprise Applications										'17E - '18E			Valuation Multiples						EPS		
As of September 4, 2018										Revenue	Gross	EBITDA	EV/Rev		EV/EBITDA		P/E		Growth		
\$ in millions except per share data										Growth	Margin	Margin	LTM	2018E	LTM	2018E	LTM	2018E	LTM	2018E	Rate
Company	Current Price	% of 52 Wk. High	Market Value		Revenue		EBITDA		Rate	LTM	LTM	LTM	2018E	LTM	2018E	LTM	2018E	LTM	2018E	Rate	
Microsoft Corporation	\$111.71	99.1%	\$856,617	\$813,972	\$110,175	\$116,600	\$44,827	\$48,520	12.6%	64.6%	40.7%	7.39x	6.98x	18.2x	16.8x	52.4x	27.4x	12.8%			
Oracle Corporation	48.58	90.8	193,405	199,632	39,831	40,272	17,104	18,834	3.1	75.6	42.9	5.01x	4.96x	11.7	10.6	54.0	15.0	8.6			
SAP SE	118.33	96.2	145,367	144,979	27,320	28,593	7,605	9,152	-1.8	70.2	27.8	5.31x	5.07x	19.1	15.8	28.8	23.3	8.8			
Adobe Systems Incorporated	266.68	98.8	130,583	127,338	8,119	9,073	2,910	3,997	21.9	85.9	35.8	15.68x	14.04x	43.8	31.9	61.4	39.2	18.3			
Intuit Inc.	220.74	99.8	56,639	55,716	5,964	6,267	1,750	2,307	13.3	83.5	29.3	9.34x	8.89x	31.8	24.2	47.6	36.3	16.8			
Red Hat, Inc.	149.49	84.1	26,516	26,584	3,057	3,320	601	896	17.0	84.7	19.7	8.70x	8.01x	44.2	29.7	94.0	44.1	19.2			
VMware, Inc. Class A	152.77	92.6	16,487	54,076	8,467	8,698	2,489	3,376	19.1	86.0	29.3	6.39x	6.22x	21.7	16.0	39.9	25.3	12.3			
Citrix Systems, Inc.	113.42	97.1	15,386	17,135	2,908	2,946	909	1,065	4.3	84.7	30.7	5.89x	5.82x	18.9	16.1	NA	21.1	11.0			
Symantec Corporation	20.04	58.6	12,456	15,187	4,827	4,794	1,253	2,026	0.5	74.4	25.0	3.15x	3.17x	12.1	7.5	10.9	12.9	5.4			
Aspen Technology, Inc.	116.00	99.6	8,258	8,537	500	524	216	255	6.7	89.9	43.3	17.09x	16.28x	39.5	33.5	56.9	42.8	16.5			
Manhattan Associates, Inc.	57.85	98.8	3,804	3,766	569	554	167	147	-6.8	56.5	29.3	6.61x	6.80x	22.6	25.6	36.6	36.3	NA			
Tenable Holdings, Inc.	33.34	93.9	3,037	3,282	206	258	NA	NA	NA	NA	NA	15.90x	12.74x	NA	NA	NA	NA	18.1			
Median									6.7%	83.5%	29.3%	7.00x	6.89x	21.7x	16.8x	50.0x	27.4x	12.8%			
Mean									8.2%	77.8%	32.2%	8.87x	8.25x	25.8x	20.7x	48.2x	29.4x	13.4%			

Source: FactSet; based on consensus estimates.