

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	29.6%	15.6%	6.2%	15.3%	1.96x	12.9x	18.8x
Governmental IT Professional Services - North America	24.0	8.5	7.2	10.0	1.19	13.1	18.9
IT Professional Services - Europe	16.3	12.2	-2.1	11.1	1.17	9.6	16.1
IT Professional Services - India	26.1	17.6	8.8	13.4	2.07	11.7	18.6
IT Professional Services - China	24.8	5.3	6.9	25.7	1.00	17.0	32.8
IT Staff Augmentation	27.4	6.1	10.1	10.1	0.65	10.7	14.4
IT SUPPLY CHAIN SERVICES							
IT Solution Providers - North America	15.7%	3.7%	- 0.4%	12.7%	0.29x	8.7x	13.0x
IT Solution Providers - Europe	14.6	3.9	6.2	9.0	0.58	12.2	23.8
IT Products Distributors	10.4	3.8	6.0	11.0	0.33	7.8	9.0
BUSINESS PROCESS OUTSOURCING							
Business Process Outsourcing - North America	42.7%	18.3%	7.3%	12.9%	4.40x	12.1x	21.0x
Business Process Outsourcing - India	24.9	12.6	8.6	11.9	2.28	12.1	16.4
SOFTWARE							
SaaS	72.4%	- 3.1%	32.1%	29.5%	11.04x	33.4x	62.3x
Enterprise Applications	83.6	29.6	8.0	10.4	6.23	15.4	24.8

Commercial IT Professional Services - North America

As of February 1, 2019

\$ in millions except per share data

Company	Current Price	% of 52 Wk. High	Market Value		Revenue		EBITDA		'17 - '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	\$154.74	88.1%	\$98,639	\$96,948	\$42,154	\$40,695	\$6,953	\$6,916	11.7%	30.2%	16.5%	2.30x	2.38x	13.9x	14.0x	23.8x	22.4x	8.7%
DXC Technology Co.	65.10	60.4	18,235	23,188	22,775	21,761	5,072	4,735	6.8	19.9	22.5	1.02x	1.07x	4.6	4.9	10.1	8.0	7.5
CGI Inc Class A	66.35	99.4	16,283	19,926	8,763	8,869	1,433	1,618	3.4	13.2	16.6	2.27x	2.25x	13.9	12.3	21.3	20.2	11.8
EPAM Systems, Inc.	144.13	99.8	7,784	7,550	1,737	1,838	260	337	26.7	33.6	14.6	4.35x	4.11x	29.1	22.4	55.3	33.4	21.5
Globant SA	67.52	96.6	2,424	2,405	498	521	56	97	26.1	33.5	19.0	4.83x	4.61x	43.3	24.9	47.2	39.0	20.0
Virtusa Corporation	48.93	83.5	1,464	1,724	1,147	1,194	83	96	21.8	29.0	7.2	1.50x	1.44x	20.8	18.0	NA	23.2	20.0
Perficient, Inc.	25.61	82.4	850	936	500	495	57	69	2.0	30.4	11.4	1.87x	1.89x	16.5	13.5	36.8	16.7	14.0
Unisys Corporation	12.91	61.6	659	834	2,811	2,815	460	406	2.6	25.2	16.6	0.30x	0.30x	1.8	2.1	8.5	8.1	NA
Hackett Group, Inc.	18.08	79.2	534	588	292	290	39	50	1.3	32.8	13.5	2.01x	2.03x	15.1	11.9	17.4	17.4	16.7
RCM Technologies, Inc.	3.90	59.5	50	72	196	197	9	9	5.7	24.5	3.8	0.37x	0.36x	8.1	8.0	20.3	10.8	NA
Median									6.2%	29.6%	15.6%	1.94x	1.96x	14.5x	12.9x	21.3x	18.8x	15.3%
Mean									10.8%	27.2%	14.2%	2.08x	2.04x	16.7x	13.2x	26.8x	19.9x	15.0%

Source: FactSet; based on consensus estimates.

IT Professional Services - Europe										'17 - '18E		Valuation Multiples						EPS	
As of February 1, 2019										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	\$109.38	78.2%	\$18,299	\$21,345	\$14,669	\$15,083	\$2,003	\$2,155	-5.5%	26.1%	13.7%	1.46x	1.42x	10.7x	9.9x	21.1x	16.1x	8.0%	
Atos SE	91.45	58.0	9,754	9,917	14,142	14,005	1,897	1,932	-10.4	26.0	13.4	0.70x	0.71x	5.2	5.1	13.6	9.8	6.5	
Sage Group plc	8.21	77.1	8,910	9,783	2,381	2,418	678	669	5.0	89.3	28.5	4.11x	4.05x	14.4	14.6	23.4	20.1	3.8	
Alten SA	97.88	87.9	3,311	3,377	2,388	2,603	245	269	7.0	14.5	10.3	1.41x	1.30x	13.8	12.5	19.2	17.9	12.4	
Altran Technologies SA	9.54	56.8	2,452	3,886	2,858	3,330	362	437	19.6	14.1	12.7	1.36x	1.17x	10.7	8.9	17.2	11.9	13.5	
Tieto Oyj	28.37	75.6	2,103	2,333	1,812	1,842	244	242	-3.3	25.0	13.7	1.29x	1.27x	9.6	9.6	14.7	13.9	2.1	
Sopra Steria Group SA	99.60	45.5	2,045	2,828	4,517	4,666	376	387	-2.1	17.5	8.1	0.63x	0.61x	7.5	7.3	12.3	9.9	9.9	
Reply S.p.A.	54.45	77.0	2,037	1,978	1,074	1,152	127	158	6.6	46.6	11.8	1.84x	1.72x	15.6	12.5	20.1	19.9	NA	
Indra Sistemas, S.A. Class A	10.21	67.5	1,803	2,907	3,438	3,485	345	349	-5.2	NA	NA	0.85x	0.83x	8.4	8.3	12.1	13.2	15.3	
EVRY ASA	3.65	87.7	1,354	1,936	1,511	1,534	214	197	-4.5	21.4	16.4	1.28x	1.26x	9.1	9.8	20.7	10.8	NA	
Devoteam SA	116.29	83.7	969	924	674	743	73	87	11.5	15.1	10.8	1.37x	1.24x	12.7	10.6	28.8	22.3	NA	
NNIT A/S	29.92	90.4	748	819	460	460	85	85	-5.3	18.0	18.5	1.78x	1.78x	9.6	9.6	20.4	20.5	NA	
Neurones SA	22.76	64.2	553	410	552	562	50	60	-7.0	9.0	9.2	0.74x	0.73x	8.1	6.8	18.3	17.9	NA	
Aubay SA	35.21	65.8	464	478	434	460	43	49	5.5	10.5	9.9	1.10x	1.04x	11.0	9.7	16.3	14.3	11.1	
Allgeier SE	31.65	76.6	319	470	773	808	26	46	14.7	13.9	6.2	0.61x	0.58x	18.2	10.3	39.2	18.4	101.1	
Endava Plc Sponsored ADR Class A	23.63	75.0	283	1,218	293	326	49	57	NA	33.2	16.7	4.16x	3.74x	24.9	21.3	49.1	30.2	22.0	
Columbus A/S	2.00	68.6	243	261	186	295	21	29	46.5	8.2	11.4	1.40x	0.88x	12.2	9.1	16.3	17.2	NA	
Proware SA	11.74	69.5	91	195	195	196	35	36	-5.4	13.6	17.9	1.00x	1.00x	5.6	5.4	6.3	6.7	NA	
ITS Group SA	5.67	62.4	45	61	204	180	9	9	NA	3.9	4.1	0.30x	0.34x	7.0	6.7	14.3	13.4	NA	
Median									-2.1%	16.3%	12.2%	1.29x	1.17x	10.7x	9.6x	18.3x	16.1x	11.1%	
Mean									4.0%	22.5%	12.9%	1.44x	1.35x	11.3x	9.9x	20.2x	16.0x	18.7%	

Source: FactSet; based on consensus estimates.

IT Professional Services - India										'17 - '18E		Valuation Multiples						EPS	
As of February 1, 2019										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	\$28.49	91.3%	\$106,893	\$101,607	\$19,851	\$20,177	\$5,380	\$5,410	7.8%	32.2%	27.1%	5.12x	5.04x	18.9x	18.8x	25.3x	25.1x	14.7%	
Infosys Limited	10.61	99.3	46,363	42,380	11,191	11,447	2,972	2,963	6.4	35.4	26.4	3.79x	3.70x	14.3	14.3	21.7	20.4	10.7	
Cognizant Technology Solutions Corp	70.14	82.4	40,613	36,642	15,824	16,111	3,154	3,423	8.8	35.6	19.9	2.32x	2.27x	11.6	10.7	28.6	15.6	13.4	
Wipro Limited	5.21	99.7	23,572	19,884	8,101	8,228	1,560	1,624	0.0	29.0	19.3	2.45x	2.42x	12.7	12.2	20.0	19.1	9.2	
HCL Technologies Limited	14.64	87.9	20,395	19,652	8,139	8,259	1,886	1,911	9.9	27.6	23.3	2.41x	2.38x	10.4	10.3	14.7	14.5	10.4	
Tech Mahindra Limited	10.49	95.6	10,294	8,759	4,624	4,819	798	845	6.3	25.7	17.5	1.89x	1.82x	11.0	10.4	15.9	16.0	11.6	
Oracle Financial Services Software Lir	53.12	79.7	4,556	4,256	663	705	268	300	4.1	46.7	40.7	6.42x	6.03x	15.9	14.2	25.1	21.9	NA	
Mphasis Limited	14.15	77.8	2,633	2,601	1,052	1,060	183	179	9.9	11.9	17.5	2.47x	2.45x	14.2	14.5	18.5	18.6	13.3	
L&T Technology Services Ltd.	22.43	89.2	2,333	2,307	677	673	118	117	24.1	20.4	17.6	3.41x	3.43x	19.5	19.8	22.3	24.6	21.1	
Mindtree Limited	12.62	76.3	2,072	1,935	939	946	145	142	14.4	31.4	15.4	2.06x	2.05x	13.4	13.7	19.9	20.7	26.4	
Sonda S.A.	1.75	82.3	1,528	1,724	1,187	1,217	135	138	-14.1	17.5	12.2	1.45x	1.42x	12.7	12.5	96.4	54.8	7.1	
NIIT Technologies Limited	18.48	92.9	1,139	1,036	493	501	88	88	13.1	34.3	18.1	2.10x	2.07x	11.8	11.7	21.0	20.7	27.4	
Cyient Limited	8.54	64.8	965	852	638	642	86	90	9.4	24.2	13.6	1.33x	1.33x	9.9	9.5	16.2	15.4	14.5	
Zensar Technologies Limited	3.17	64.5	714	732	526	533	63	65	13.2	20.8	12.1	1.39x	1.37x	11.6	11.2	16.6	16.6	NA	
Persistent Systems Limited	8.67	64.1	693	542	463	473	80	82	4.0	24.4	17.0	1.17x	1.15x	6.7	6.6	14.4	13.6	12.9	
Sonata Software Limited	4.58	77.5	482	439	378	377	39	41	2.5	18.5	9.4	1.16x	1.17x	11.3	10.8	15.0	15.0	18.8	
KPIT Technologies Limited	1.61	35.3	440	271	512	597	63	72	10.3	1.4	13.1	0.53x	0.45x	4.3	3.7	7.2	11.3	23.7	
Roit India Limited	0.07	05.5	11	354	375	-	103	-	NA	26.5	27.3	0.94x	NA	3.4	NA	NA	NA	NA	
Median									8.8%	26.1%	17.6%	2.08x	2.07x	11.7x	11.7x	19.9x	18.6x	13.4%	
Mean									7.6%	25.8%	19.3%	2.36x	2.38x	11.9x	12.0x	23.5x	20.2x	15.7%	

Source: FactSet; based on consensus estimates.

IT Professional Services - China										'17 - '18E		Valuation Multiples						EPS	
As of February 1, 2019										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 (\$2.66	61.6%	\$3,432	\$4,816	\$6,257	\$6,613	\$145	\$205	63.2%	10.8%	2.9%	0.77x	0.73x	33.2x	23.5x	42.4x	36.6x	25.8%	
Neusoft Corporation Class A	1.52	56.3	1,890	1,884	1,048	1,123	56	-	-0.9	31.5	5.3	1.80x	1.68x	33.7	NA	12.6	32.8	NA	
Chinasoft International Ltd.	0.50	51.2	1,242	1,576	1,520	1,572	250	150	6.9	30.6	10.8	1.04x	1.00x	6.3	10.5	11.6	12.6	25.5	
Beijing Teamsun Technology Co., Ltd.	0.83	39.5	915	1,259	770	-	31	-	NA	17.5	4.4	1.63x	NA	41.0	NA	65.9	NA	NA	
Beyondsoft Corporation Class A	1.10	54.9	580	488	386	-	38	-	NA	24.8	10.5	1.26x	NA	12.8	NA	15.4	NA	NA	
Median									6.9%	24.8%	5.3%	1.26x	1.00x	33.2x	17.0x	15.4x	32.8x	25.7%	
Mean									23.1%	23.0%	6.8%	1.30x	1.14x	25.4x	17.0x	29.6x	27.3x	25.7%	

Source: FactSet; based on consensus estimates.

Gvt. IT Professional Services - North America

As of February 1, 2019

\$ in millions except per share data

Company	Current Price	% of 52 Wk. High	Market Value		Revenue		EBITDA		'17 - '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	\$51.59	97.3%	\$7,227	\$8,942	\$6,560	\$6,542	\$670	\$653	7.6%	22.6%	9.8%	1.36x	1.37x	13.3x	13.7x	18.1x	20.3x	14.4%
CACI International Inc Class A	168.44	83.9	4,188	5,252	4,642	4,699	461	440	6.5	31.9	9.8	1.13x	1.12x	11.4	11.9	16.2	15.2	10.0
Kratos Defense & Security Solutions, I	15.40	95.7	1,598	1,745	656	642	53	59	-14.6	25.3	8.1	2.66x	2.72x	32.7	29.5	NA	NA	NA
ManTech International Corporation Cl	56.84	83.5	1,509	2,255	1,924	1,955	160	168	13.9	14.5	8.3	1.17x	1.15x	14.1	13.4	17.3	27.3	8.0
ICF International, Inc.	66.00	80.2	1,244	1,501	1,281	1,314	110	123	6.9	34.3	8.6	1.17x	1.14x	13.7	12.2	18.2	17.5	10.0
KEYW Holding Corporation	7.13	70.9	355	620	507	509	44	48	15.2	22.7	8.3	1.22x	1.22x	14.1	12.8	NA	NA	NA
Median									7.2%	24.0%	8.5%	1.20x	1.19x	13.9x	13.1x	17.7x	18.9x	10.0%
Mean									5.9%	25.2%	8.8%	1.45x	1.45x	16.6x	15.6x	17.4x	20.1x	10.6%

Source: FactSet; based on consensus estimates.

IT Staff Augmentation										'17 - '18E		Valuation Multiples						EPS	
<i>As of February 1, 2019</i>										Revenue	Gross	EBITDA	EV/Rev		EV/EBITDA		P/E		Growth
<i>\$ in millions except per share data</i>										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.	\$63.50	79.5%	\$7,714	\$7,722	\$5,800	\$5,800	\$653	\$654	10.1%	41.5%	11.3%	1.33x	1.33x	11.8x	11.8x	17.8x	17.8x	8.4%	
ManpowerGroup Inc.	78.24	60.0	4,838	5,651	21,991	21,991	883	891	4.5	16.3	4.2	0.26x	0.26x	6.4	6.3	9.1	8.7	3.1	
Insperty, Inc.	107.01	88.3	4,474	4,142	3,688	3,821	113	236	15.8	9.7	5.2	1.12x	1.08x	36.7	17.5	35.9	28.9	16.5	
ASGN Inc	63.17	67.0	3,315	4,463	3,149	3,408	349	404	29.8	28.1	11.1	1.42x	1.31x	12.8	11.1	18.7	14.4	11.8	
Kelly Services, Inc. Class A	22.60	69.9	878	866	5,522	5,519	108	-	2.7	17.7	2.0	0.16x	0.16x	8.0	NA	13.9	10.2	NA	
Kforce Inc.	32.97	75.8	859	917	1,403	1,412	86	89	4.0	29.0	6.1	0.65x	0.65x	10.7	10.3	17.4	15.0	NA	
Heidrick & Struggles International, Inc.	32.49	71.7	616	466	719	711	75	80	11.1	27.4	10.4	0.65x	0.65x	6.2	5.8	NA	14.0	NA	
Mastech Digital, Inc.	7.47	65.0	82	124	173	-	14	-	NA	22.3	7.9	0.72x	NA	9.1	NA	12.4	NA	NA	
Hudson Global, Inc.	1.44	64.0	46	9	172	-	NA	-	NA	46.4	-1.8	0.05x	NA	NA	NA	NA	NA	NA	
Median									10.1%	27.4%	6.1%	0.65x	0.65x	9.9x	10.7x	17.4x	14.4x	10.1%	
Mean									11.1%	26.5%	6.3%	0.71x	0.78x	12.7x	10.5x	17.9x	15.6x	10.0%	

Source: FactSet; based on consensus estimates.

IT Solution Provider - North America

As of February 1, 2019

\$ in millions except per share data

Company	Current Price	% of 52 Wk. High	Market Value		Revenue		EBITDA		'17 - '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	
CDW Corp.	\$83.55	86.4%	\$12,531	\$16,214	\$16,004	\$16,200	\$1,231	\$1,283	6.6%	16.4%	7.7%	1.01x	1.00x	13.2x	12.6x	19.0x	16.5x	15.0%
Insight Enterprises, Inc.	45.95	80.8	1,630	2,047	7,132	7,107	264	277	6.0	13.7	3.7	0.29x	0.29x	7.8	7.4	12.7	10.4	NA
Presidio, Inc.	15.92	86.7	1,311	2,491	2,843	2,865	209	227	1.0	17.7	7.3	0.88x	0.87x	11.9	11.0	11.8	11.3	8.0
ePlus inc.	78.35	73.1	1,074	1,050	1,369	1,385	84	104	-0.4	22.5	5.7	0.77x	0.76x	12.5	10.1	18.6	16.1	12.7
PC Connection, Inc.	32.92	76.5	880	783	2,752	2,683	95	97	-7.8	14.2	3.4	0.28x	0.29x	8.3	8.1	13.8	14.7	8.0
PCM, Inc.	21.56	85.5	262	435	2,163	2,111	44	59	-3.7	15.7	2.0	0.20x	0.21x	9.9	7.4	19.3	9.6	20.0
Pivot Technology Solutions, Inc.	0.75	39.0	30	143	1,419	1,384	21	16	-8.4	10.8	1.5	0.10x	0.10x	6.8	8.7	NA	NA	NA
Median									-0.4%	15.7%	3.7%	0.29x	0.29x	9.9x	8.7x	16.2x	13.0x	12.7%
Mean									-1.0%	15.8%	4.5%	0.50x	0.50x	10.1x	9.3x	15.9x	13.1x	12.7%

Source: FactSet; based on consensus estimates.

IT Solution Provider - Europe										'17 - '18E		Valuation Multiples						EPS		
As of February 1, 2019										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
Company	Current Price	% of 52 Wk. High	Market Value		Revenue		EBITDA		Rate	LTM	LTM	LTM	2018E	LTM	2018E	LTM	2018E	LTM	2018E	Rate
Bechtle AG	\$78.67	74.4%	\$3,304	\$3,546	\$4,614	\$4,868	\$244	\$264	11.2%	14.6%	5.3%	0.77x	0.73x	14.5x	13.4x	23.1x	21.3x	16.2%		
Softcat Plc	9.20	79.7	1,823	1,736	1,395	1,516	91	98	23.0	16.2	6.5	1.24x	1.15x	19.2	17.7	25.6	23.5	2.0		
Computacenter Plc	13.54	62.6	1,545	1,502	5,291	5,602	185	190	5.6	12.7	3.5	0.28x	0.27x	8.1	7.9	14.8	14.0	NA		
Atea ASA	13.99	81.3	1,521	1,769	4,042	4,118	136	132	-0.2	5.2	3.6	0.44x	0.43x	13.0	13.4	24.4	25.6	NA		
CANCOM SE	38.05	60.7	1,333	1,308	1,503	1,534	115	119	6.9	8.1	7.7	0.87x	0.85x	11.4	11.0	27.1	24.1	9.0		
Datatec Limited	2.19	86.6	495	664	3,831	3,909	78	61	-6.5	15.0	2.2	0.17x	0.17x	8.5	10.9	NA	61.4	NA		
Plaisio Computers SA	4.91	84.6	108	82	337	-	13	-	NA	21.3	3.9	0.24x	NA	6.3	NA	18.4	NA	NA		
Median									6.2%	14.6%	3.9%	0.44x	0.58x	11.4x	12.2x	23.8x	23.8x	9.0%		
Mean									6.7%	13.3%	4.7%	0.57x	0.60x	11.6x	12.4x	22.2x	28.3x	9.1%		

Source: FactSet; based on consensus estimates.

IT Distributor - North America										'17 - '18E		Valuation Multiples						EPS	
As of February 1, 2019										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.	\$75.87	90.6%	\$6,614	\$9,809	\$29,392	\$29,697	\$1,373	\$1,411	10.8%	11.8%	4.7%	0.33x	0.33x	7.1x	7.0x	12.5x	8.6x	9.2%	
SYNNEX Corporation	97.13	75.3	4,976	7,018	20,054	20,233	812	846	16.9	9.4	4.1	0.35x	0.35x	8.6	8.3	13.5	8.9	13.0	
Tech Data Corporation	96.43	88.8	3,599	4,480	37,867	37,380	715	800	4.2	5.9	1.9	0.12x	0.12x	6.3	5.6	16.5	9.0	12.9	
Anixter International Inc.	59.67	71.0	1,998	3,206	8,400	8,400	392	411	6.0	19.3	4.7	0.38x	0.38x	8.2	7.8	13.0	10.2	8.0	
ScanSource, Inc.	37.69	85.1	965	1,234	3,895	3,909	142	146	5.4	10.5	3.6	0.32x	0.32x	8.7	8.4	22.3	11.2	NA	
Wayside Technology Group, Inc.	10.73	70.6	48	41	259	-	5	-	NA	10.3	2.9	0.16x	NA	8.2	NA	16.4	NA	NA	
Median									6.0%	10.4%	3.8%	0.33x	0.33x	8.2x	7.8x	15.0x	9.0x	11.0%	
Mean									8.7%	11.2%	3.6%	0.28x	0.30x	7.8x	7.4x	15.7x	9.6x	10.8%	

Source: FactSet; based on consensus estimates.

Business Process Outsourcing - North America

As of February 1, 2019

\$ in millions except per share data

Company	Current Price	% of 52 Wk. High	Market Value		Revenue		EBITDA		'17 - '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.	\$141.62	92.3%	\$61,694	\$62,449	\$13,841	\$13,791	\$3,237	\$3,115	7.3%	46.5%	23.0%	4.51x	4.53x	19.3x	20.0x	34.4x	28.6x	15.5%
Fidelity National Information Services,	107.20	96.7	35,107	43,974	8,585	8,470	3,146	3,164	-7.2	33.7	36.6	5.12x	5.19x	14.0	13.9	23.4	21.0	12.8
Paychex, Inc.	71.88	94.6	25,811	25,283	3,459	3,569	1,415	1,489	8.6	69.1	40.9	7.31x	7.08x	17.9	17.0	26.9	26.3	8.7
Iron Mountain, Inc.	36.61	98.1	10,479	18,625	4,156	4,229	1,403	1,441	10.0	42.7	33.8	4.48x	4.40x	13.3	12.9	45.7	34.2	7.2
LiveRamp Holdings, Inc.	43.86	85.1	2,990	3,536	771	438	54	10	-51.8	53.1	2.2	4.58x	8.07x	NA	NA	77.5	NA	25.0
TTEC Holdings, Inc.	33.62	84.7	1,553	1,744	1,536	1,500	194	192	1.5	20.2	12.7	1.14x	1.16x	9.0	9.1	NA	20.9	14.0
CSG Systems International, Inc.	36.36	74.5	1,212	1,354	833	856	151	196	8.4	47.7	18.3	1.63x	1.58x	9.0	6.9	20.0	12.7	NA
Sykes Enterprises, Incorporated	27.74	88.0	1,187	1,082	1,629	1,628	153	167	2.6	29.5	9.4	0.66x	0.66x	7.1	6.5	80.4	13.2	10.0
CBIZ, Inc.	19.53	80.1	1,084	1,241	918	925	105	109	8.2	13.0	11.5	1.35x	1.34x	11.8	11.4	16.3	18.1	13.0
Median									7.3%	42.7%	18.3%	4.48x	4.40x	12.5x	12.1x	30.6x	21.0x	12.9%
Mean									-1.4%	39.5%	20.9%	3.42x	3.78x	12.6x	12.2x	40.6x	21.9x	13.3%

Source: FactSet; based on consensus estimates.

Business Process Outsourcing - India

As of February 1, 2019

\$ in millions except per share data

Company	Current Price	% of 52 Wk. High	Market Value		Revenue		EBITDA		'17 - '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	
Genpact Limited	\$30.12	88.5%	\$5,725	\$6,753	\$2,902	\$2,976	\$396	\$478	8.8%	34.0%	13.6%	2.33x	2.27x	17.1x	14.1x	21.8x	17.1x	9.4%
WNS (Holdings) Limited Sponsored AI	49.16	90.4	2,456	2,382	774	781	128	150	11.5	36.3	17.3	3.08x	3.05x	18.6	15.9	25.5	19.3	11.9
ExlService Holdings, Inc.	58.76	87.6	2,013	2,121	846	882	104	122	15.7	28.1	13.4	2.51x	2.40x	20.5	17.4	47.9	21.4	12.0
eClerx Services Limited	14.53	62.1	562	458	199	201	47	46	-0.2	36.2	23.5	2.30x	2.29x	9.8	10.1	15.8	15.7	NA
Firstsource Solutions Limited	0.71	57.3	490	576	517	537	72	71	1.4	21.8	11.8	1.11x	1.07x	8.0	8.1	9.2	9.6	NA
Hinduja Global Solutions Limited	8.70	53.6	181	194	599	620	51	59	8.5	11.2	8.3	0.32x	0.31x	3.8	3.3	7.0	6.7	NA
R Systems International Limited	0.67	84.2	104	59	94	-	6	-	NA	21.2	5.2	0.63x	NA	9.4	NA	17.5	NA	NA
Datamatics Global Services Limited	1.40	65.8	83	81	143	-	15	-	NA	21.6	10.7	0.57x	NA	5.4	NA	8.7	NA	NA
HOV Services Limited	1.98	40.3	25	25	2	-	0	-	NA	NA	NA	12.91x	NA	NA	NA	73.7	NA	NA
Median									8.6%	24.9%	12.6%	2.30x	2.28x	9.6x	12.1x	17.5x	16.4x	11.9%
Mean									7.6%	26.3%	13.0%	2.86x	1.90x	11.6x	11.5x	25.2x	14.9x	11.1%

Source: FactSet; based on consensus estimates.

SaaS										'17 - '18E									
As of February 1, 2019																			
\$ in millions except per share data																			
Company	Current Price	% of 52 Wk. High	Market Value		Revenue		EBITDA		Revenue Growth Rate	Gross Margin LTM	EBITDA Margin LTM	Valuation Multiples						EPS Growth Rate	
			Equity	Enterprise	LTM	2018E	LTM	2018E				EV/Rev		EV/EBITDA		P/E			
												LTM	2018E	LTM	2018E	LTM	2018E		
salesforce.com, inc.	\$155.87	96.7%	\$119,241	\$123,299	\$12,530	\$13,004	\$1,379	\$2,921	26.2%	72.6%	11.0%	9.84x	9.48x	NA	42.2x	NA	62.3x	23.5%	
ServiceNow, Inc.	221.51	97.0	39,717	38,558	2,609	2,609	107	673	35.0	75.9	3.5	14.78x	14.78x	NA	NA	NA	89.0	30.3	
Workday, Inc. Class A	186.06	99.5	28,095	40,109	2,621	2,753	NA	456	31.5	70.5	-8.3	15.30x	14.57x	NA	NA	NA	NA	32.7	
Splunk Inc.	127.30	97.9	18,813	17,579	1,601	1,698	NA	217	36.6	79.7	-15.0	10.98x	10.35x	NA	NA	NA	NA	35.7	
Tableau Software, Inc. Class A	130.43	98.9	9,333	9,903	1,068	979	NA	2	11.7	86.9	-7.9	9.27x	10.11x	NA	NA	NA	NA	42.9	
Twilio, Inc. Class A	112.88	99.5	9,106	10,748	561	630	NA	16	57.8	52.9	-12.1	19.16x	17.07x	NA	NA	NA	NA	28.7	
Ultimate Software Group, Inc.	277.83	83.6	8,687	8,699	1,087	1,136	121	276	20.8	62.3	11.2	8.00x	7.66x	NA	31.5	NA	51.5	25.2	
Zendesk, Inc.	69.08	94.9	7,394	7,333	550	592	NA	34	37.5	70.0	-16.6	13.33x	12.39x	NA	NA	NA	NA	44.0	
HubSpot, Inc.	159.72	98.5	6,266	5,938	475	506	NA	53	34.8	80.2	-6.0	12.49x	11.73x	NA	NA	NA	NA	68.0	
New Relic, Inc.	104.64	91.2	5,960	5,602	413	441	5	54	32.7	83.7	-0.1	13.55x	12.70x	NA	NA	NA	NA	14.0	
LogMeIn, Inc.	93.75	69.5	4,796	4,914	1,170	1,204	361	443	17.5	63.3	30.8	4.20x	4.08x	13.6	11.1	35.2	17.6	15.0	
Cornerstone OnDemand, Inc.	57.41	97.0	3,365	3,267	532	530	28	93	9.9	72.3	5.7	6.15x	6.17x	NA	35.3	NA	79.1	11.0	
Median									32.1%	72.4%	-3.1%	11.74x	11.04x	13.6x	33.4x	35.2x	62.3x	29.5%	
Mean									29.3%	72.5%	-0.3%	11.42x	10.92x	13.6x	30.0x	35.2x	59.9x	30.9%	

Source: FactSet; based on consensus estimates.

Enterprise Applications										'17 - '18E		Valuation Multiples						EPS			
As of February 1, 2019										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	\$102.78	88.5%	\$788,550	\$749,112	\$118,224	\$117,336	\$49,707	\$49,132	13.3%	64.6%	41.3%	6.34x	6.38x	15.1x	15.2x	23.8x	24.8x	12.9%			
Oracle Corporation	50.81	95.0	182,353	203,072	39,777	39,686	17,005	18,384	1.6	75.4	42.7	5.11x	5.12x	11.9	11.0	49.8	15.5	8.6			
SAP SE	104.12	81.7	127,909	128,337	28,213	28,242	7,547	8,881	-3.0	69.8	27.4	4.55x	4.54x	17.0	14.5	26.7	21.0	10.4			
Adobe Inc.	247.38	89.1	120,654	124,052	8,981	9,209	3,138	3,994	23.6	85.7	34.9	13.81x	13.47x	39.5	31.1	47.6	36.1	16.9			
Intuit Inc.	214.45	92.5	55,657	55,708	6,094	6,278	1,789	2,310	13.5	83.0	29.4	9.14x	8.87x	31.1	24.1	44.5	35.3	15.5			
Red Hat, Inc.	178.38	99.4	31,530	31,779	3,255	3,299	622	888	16.2	84.8	19.1	9.76x	9.63x	NA	35.8	NA	52.1	16.7			
VMware, Inc. Class A	150.51	88.9	16,540	53,064	8,691	8,746	2,599	3,454	19.8	86.0	29.9	6.11x	6.07x	20.4	15.4	42.2	24.6	14.6			
Symantec Corporation	22.91	78.5	14,637	17,472	4,764	4,822	1,203	2,167	1.0	74.1	25.7	3.67x	3.62x	14.5	8.1	NA	14.2	5.2			
Citrix Systems, Inc.	103.79	88.8	13,987	15,849	2,974	2,974	914	1,150	5.3	84.9	30.7	5.33x	5.33x	17.3	13.8	26.3	18.4	8.9			
Aspen Technology, Inc.	97.36	81.9	6,781	7,093	506	530	210	261	8.0	89.4	41.4	14.01x	13.37x	33.8	27.2	40.4	33.3	3.5			
Manhattan Associates, Inc.	49.60	79.5	3,243	3,175	559	554	152	155	-6.8	56.1	27.2	5.68x	5.73x	20.9	20.5	32.2	29.1	NA			
Tenable Holdings, Inc.	28.39	72.1	2,642	1,844	246	265	NA	NA	NA	84.1	-22.5	7.49x	6.95x	NA	NA	NA	NA	9.8			
Median									8.0%	83.6%	29.6%	6.22x	6.23x	18.9x	15.4x	40.4x	24.8x	10.4%			
Mean									8.4%	78.2%	27.3%	7.58x	7.42x	22.2x	19.7x	37.1x	27.7x	11.2%			

Source: FactSet; based on consensus estimates.