

Scoreboard

IT & IT-ENABLED OUTSOURCED SERVICES	Margin %		Growth %		Multiples		
	GM	EBITDA	Revenue	5 Yr EPS	EV/Revenue	EV/EBITDA	P/E
Commercial IT Professional Services - North America	28.9%	16.6%	6.4%	14.2%	2.04x	12.2x	17.1x
Governmental IT Professional Services - North America	26.3	9.8	11.2	10.7	1.36	15.5	22.4
IT Professional Services - Europe	16.6	11.5	2.7	12.7	1.00	7.9	15.5
IT Professional Services - India	26.2	17.8	7.0	11.8	1.96	9.8	15.8
IT Professional Services - China	22.9	4.0	4.8	NA	0.80	19.8	24.5
IT Staff Augmentation	26.8	6.2	0.5	9.1	0.54	8.4	13.3
IT SUPPLY CHAIN SERVICES							
IT Solution Providers - North America	15.8%	5.2%	3.4%	7.7%	0.50x	8.3x	12.9x
IT Solution Providers - Europe	14.0	3.4	9.0	14.1	0.78	13.7	21.3
IT Products Distributors	11.2	4.3	0.5	8.0	0.31	7.2	8.5
BUSINESS PROCESS OUTSOURCING							
Business Process Outsourcing - North America	41.7%	21.3%	6.2%	10.8%	4.13x	11.5x	24.9x
Business Process Outsourcing - India	29.8	15.4	10.9	11.5	1.63	10.3	13.9
SOFTWARE							
SaaS	72.1%	- 2.6%	28.3%	23.5%	9.01x	46.1x	70.1x
Enterprise Applications	83.3	28.6	8.9	13.4	6.09	16.9	24.7

Commercial IT Professional Services - North America

As of September 3, 2019

\$ in millions except per share data

Company	Current Price	% of 52 Wk. High	Market Value		Revenue		EBITDA		'18 - '19E			Valuation Multiples						EPS		
					Equity	Enterprise	LTM	2019E	LTM	2019E	Growth Rate	Gross Margin LTM	EBITDA Margin LTM	EV/Rev		EV/EBITDA		P/E		Growth Rate
														LTM	2019E	LTM	2019E	LTM	2019E	
Accenture Plc Class A	\$195.75	97.5%	\$124,720	\$123,244	\$42,802	\$44,201	\$7,111	\$7,395	8.3%	30.7%	16.6%	2.88x	2.79x	17.3x	16.7x	27.2x	25.9x	8.1%		
CGI Inc. Class A	78.20	97.2	18,807	23,454	9,003	9,256	1,659	1,707	4.4	13.6	16.8	2.61x	2.53x	14.1	13.7	23.2	21.5	9.0		
EPAM Systems, Inc.	188.27	93.7	10,327	10,134	2,046	2,270	350	422	23.2	33.6	17.0	4.95x	4.46x	28.9	24.0	43.9	35.6	20.0		
DXC Technology Co.	31.54	32.6	8,262	16,290	20,361	20,369	4,091	4,547	-6.1	18.1	20.1	0.80x	0.80x	4.0	3.6	7.5	4.2	4.7		
Globant SA	91.58	81.5	3,352	3,412	522	654	91	130	25.1	35.8	17.4	6.53x	5.22x	37.4	26.3	65.0	40.7	16.8		
Perficient, Inc.	37.10	95.6	1,218	1,276	531	563	67	89	13.0	32.8	12.6	2.40x	2.27x	19.0	14.4	41.1	18.6	12.0		
Virtusa Corporation	36.10	61.6	1,092	1,393	1,268	1,315	103	130	10.3	28.9	8.1	1.10x	1.06x	13.6	10.7	48.5	14.9	18.0		
Hackett Group, Inc.	16.19	70.9	483	514	281	284	39	49	-0.8	NA	NA	1.83x	1.81x	13.3	10.6	27.5	15.7	16.3		
Unisys Corporation	6.45	30.8	402	702	2,899	2,926	438	435	3.6	23.8	15.4	0.24x	0.24x	1.6	1.6	11.3	3.2	NA		
RCM Technologies, Inc.	3.40	68.1	44	75	200	201	8	9	0.6	24.4	3.4	0.37x	0.37x	9.1	8.0	10.9	9.2	NA		
Median									6.4%	28.9%	16.6%	2.11x	2.04x	13.9x	12.2x	27.3x	17.1x	14.2%		
Mean									8.2%	26.9%	14.2%	2.37x	2.16x	15.8x	13.0x	30.6x	19.0x	13.1%		

Source: FactSet; based on consensus estimates.

IT Professional Services - Europe										'18 - '19E		Valuation Multiples						EPS	
As of September 3, 2019										Revenue	Gross	EBITDA	EV/Rev		EV/EBITDA		P/E		Growth
\$ in millions except per share data										Growth	Margin	Margin	LTM	2019E	LTM	2019E	LTM	2019E	Rate
Company	Current Price	% of 52 Wk. High	Market Value		Revenue		EBITDA		Rate	LTM	LTM	LTM	2019E	LTM	2019E	LTM	2019E	Rate	
Capgemini SE	\$118.67	90.1%	\$19,853	\$21,610	\$15,282	\$15,628	\$2,029	\$2,364	5.0%	20.1%	13.8%	1.41x	1.38x	10.6x	9.1x	22.1x	16.7x	12.7%	
Sage Group plc	8.60	82.8	9,363	9,934	2,315	2,399	712	609	1.2	89.2	30.8	4.29x	4.14x	13.9	16.3	24.4	23.5	1.9	
Atos SE	74.19	57.9	8,102	12,654	13,347	12,734	1,956	1,773	-8.5	24.5	14.7	0.95x	0.99x	6.5	7.1	11.1	8.1	5.2	
Altran Technologies SA	15.86	96.1	4,076	5,094	3,245	3,577	458	542	7.7	15.3	14.1	1.57x	1.42x	11.1	9.4	40.7	16.0	19.1	
Alten SA	119.16	94.4	4,040	4,039	2,525	2,868	260	307	11.3	16.5	10.3	1.60x	1.41x	15.6	13.2	22.6	19.7	15.2	
Sopra Steria Group SA	126.40	71.3	2,596	3,653	4,771	4,870	486	505	4.9	17.4	10.1	0.77x	0.75x	7.5	7.2	15.6	12.0	21.4	
Reply S.p.A.	58.38	79.9	2,184	2,165	1,236	1,297	163	191	10.8	45.0	13.2	1.75x	1.67x	13.3	11.3	19.0	19.2	NA	
Tieto Oyj	24.58	73.8	1,821	2,227	1,781	1,785	252	278	-1.9	30.1	13.2	1.25x	1.25x	8.8	8.0	14.3	12.1	NA	
Indra Sistemas, S.A. Class A	8.13	67.2	1,437	2,278	3,545	3,546	355	392	0.1	22.3	9.9	0.64x	0.64x	6.4	5.8	11.0	9.8	11.2	
EVRY ASA	3.51	84.1	1,301	2,085	1,441	1,441	215	226	-3.7	15.9	10.6	1.45x	1.45x	9.7	9.2	17.2	11.5	NA	
Devoteam SA	102.06	73.5	850	805	726	856	84	102	16.1	16.6	11.5	1.11x	0.94x	9.6	7.9	19.3	16.1	NA	
Endava Plc Sponsored ADR Class A	36.34	82.7	641	1,894	358	383	49	70	20.1	33.5	15.8	5.30x	4.95x	38.7	27.2	72.4	37.9	24.2	
Neurones SA	24.12	84.2	586	419	545	564	52	61	2.0	9.5	9.6	0.77x	0.74x	8.0	6.9	20.3	17.4	NA	
Aubay SA	35.74	73.9	471	472	446	471	47	51	3.4	11.2	10.6	1.06x	1.00x	10.0	9.2	15.4	15.0	5.4	
Allgeier SE	22.69	55.3	253	450	824	877	44	63	14.2	13.5	5.7	0.55x	0.51x	10.2	7.1	73.0	20.7	57.7	
NNIT A/S	10.06	30.4	251	351	455	451	79	73	-2.1	16.1	17.3	0.77x	0.78x	4.5	4.8	7.9	9.1	NA	
Columbus A/S	1.46	50.1	182	213	280	282	26	35	-0.8	18.6	9.2	0.76x	0.76x	8.2	6.2	11.6	12.5	NA	
Prodware SA	6.30	44.3	49	155	196	196	35	39	-1.1	11.2	18.1	0.79x	0.79x	4.4	4.0	4.8	3.3	6.3	
ITS Group SA	4.89	57.1	39	43	149	-	8	-	NA	4.8	5.5	0.29x	NA	5.2	NA	5.1	NA	NA	
Median									2.7%	16.6%	11.5%	1.06x	1.00x	9.6x	7.9x	17.2x	15.5x	12.7%	
Mean									4.4%	22.7%	12.8%	1.42x	1.42x	10.6x	9.4x	22.5x	15.6x	16.4%	

Source: FactSet; based on consensus estimates.

IT Professional Services - India										'18 - '19E		Valuation Multiples						EPS	
As of September 3, 2019										Revenue	Gross	EBITDA	EV/Rev		EV/EBITDA		P/E		Growth
\$ in millions except per share data										Rate	Margin	Margin	LTM	2019E	LTM	2019E	LTM	2019E	Rate
Company	Current Price	% of 52 Wk. High	Market Value		Revenue		EBITDA												
			Equity	Enterprise	LTM	2019E	LTM	2019E		LTM	LTM	LTM	2019E	LTM	2019E	LTM	2019E		
Tata Consultancy Services Limited	\$31.11	94.5%	\$116,747	\$111,636	\$21,139	\$21,902	\$5,689	\$5,949	7.0%	36.3%	27.1%	5.28x	5.10x	19.6x	18.8x	25.9x	24.9x	8.9%	
Infosys Limited	11.25	96.4	48,314	46,042	11,998	12,387	2,998	3,079	6.9	34.0	25.0	3.84x	3.72x	15.4	15.0	22.3	21.4	8.7	
Cognizant Technology Solutions Corp	61.48	79.0	33,955	32,243	16,458	16,689	3,145	3,257	3.5	34.8	19.2	1.96x	1.93x	10.3	9.9	17.0	15.6	7.5	
Wipro Limited	3.50	81.1	21,152	16,768	8,339	8,443	1,779	1,705	1.1	29.8	20.5	2.01x	1.99x	9.4	9.8	16.2	15.6	8.9	
HCL Technologies Limited	15.31	89.5	20,771	20,788	8,853	9,527	2,004	2,164	12.2	26.0	22.9	2.35x	2.18x	10.4	9.6	15.1	14.5	12.3	
Tech Mahindra Limited	9.73	79.8	9,385	7,862	4,937	5,058	885	876	3.8	26.4	18.2	1.59x	1.55x	8.9	9.0	14.0	14.4	5.4	
Oracle Financial Services Software Lir	42.16	65.6	3,618	3,223	687	728	301	324	4.0	50.4	43.1	4.69x	4.43x	10.7	9.9	18.9	17.2	NA	
Mphasis Limited	13.51	76.0	2,517	2,431	1,121	1,186	194	215	10.0	27.7	17.5	2.17x	2.05x	12.5	11.3	16.9	16.0	16.3	
L&T Technology Services Ltd.	22.48	86.3	2,339	2,347	741	783	140	149	14.4	24.1	19.0	3.17x	3.00x	16.8	15.8	21.5	21.4	12.5	
Mindtree Limited	9.45	57.8	1,556	1,485	1,014	1,056	144	153	9.4	29.5	14.2	1.46x	1.41x	10.3	9.7	16.0	16.1	12.6	
NIIT Technologies Limited	20.36	94.8	1,259	1,165	536	570	92	102	11.9	35.7	17.2	2.17x	2.04x	12.6	11.5	22.0	19.4	15.7	
Sonda S.A.	1.15	64.9	1,001	1,256	1,175	1,208	135	143	-1.6	17.6	11.5	1.07x	1.04x	9.3	8.8	33.4	20.2	21.6	
Zensar Technologies Limited	3.00	61.1	676	681	581	612	74	83	12.2	20.7	12.4	1.17x	1.11x	9.2	8.2	15.7	13.1	18.9	
Cyient Limited	5.82	50.9	640	611	650	652	91	96	1.3	21.3	14.1	0.94x	0.94x	6.7	6.3	9.5	9.7	8.7	
Persistent Systems Limited	7.64	60.5	584	464	472	487	86	79	2.5	22.7	18.1	0.98x	0.95x	5.4	5.9	12.4	11.8	11.2	
Sonata Software Limited	4.33	73.2	455	402	442	461	49	53	13.0	19.0	11.3	0.91x	0.87x	8.1	7.6	12.4	11.9	NA	
Birlasoft Limited	0.92	20.9	254	180	451	-	49	-	NA	11.9	11.9	0.40x	NA	3.6	NA	5.7	NA	NA	
Rohta India Limited	0.08	16.7	14	551	265	-	NA	-	NA	0.2	-201.7	2.08x	NA	NA	NA	NA	NA	NA	
Median									7.0%	26.2%	17.8%	1.98x	1.96x	10.3x	9.8x	16.2x	15.8x	11.8%	
Mean									7.0%	26.0%	6.7%	2.12x	2.14x	10.6x	10.4x	17.3x	16.5x	12.1%	

Source: FactSet; based on consensus estimates.

IT Professional Services - China										'18 - '19E		Valuation Multiples						EPS	
As of September 3, 2019										Revenue	Gross	EBITDA	EV/Rev		EV/EBITDA		P/E		Growth
\$ in millions except per share data										Growth	Margin	Margin	LTM	2019E	LTM	2019E	LTM	2019E	Rate
Company	Current Price	% of 52 Wk. High	Market Value		Revenue		EBITDA		Rate	LTM	LTM	LTM	2019E	LTM	2019E	LTM	2019E	Rate	
Inspur Electronic Information Industry (\$3.72	81.2%	\$4,799	\$4,842	\$6,975	\$8,061	\$186	\$245	15.4%	11.7%	3.2%	0.69x	0.60x	26.0x	19.8x	46.1x	38.0x	NA	
Neusoft Corporation Class A	1.60	62.4	1,994	2,070	1,026	1,056	23	55	-1.0	30.3	4.0	2.02x	1.96x	NA	37.5	NA	NA	NA	
Beijing Teamsun Technology Co., Ltd.	1.65	79.1	1,818	2,007	761	-	4	-	NA	16.2	2.7	2.64x	NA	NA	NA	NA	NA	NA	
Chinasoft International Ltd.	0.43	62.5	1,106	1,332	1,657	1,659	270	156	4.8	30.3	9.8	0.80x	0.80x	4.9	8.6	10.1	10.9	NA	
Beyondsoft Corporation Class A	1.27	73.2	667	534	439	-	32	-	NA	22.9	8.0	1.22x	NA	16.5	NA	20.9	NA	NA	
Median									4.8%	22.9%	4.0%	1.22x	0.80x	16.5x	19.8x	20.9x	24.5x	NA	
Mean									6.4%	22.3%	5.5%	1.47x	1.12x	15.8x	21.9x	25.7x	24.5x	NA	

Source: FactSet; based on consensus estimates.

Gvt. IT Professional Services - North America										'18 - '19E		Valuation Multiples						EPS	
As of September 3, 2019										Revenue	Gross	EBITDA	EV/Rev		EV/EBITDA		P/E		Growth
\$ in millions except per share data										Growth	Margin	Margin	LTM	2019E	LTM	2019E	LTM	2019E	Rate
Company	Current Price	% of 52 Wk. High	Market Value		Revenue		EBITDA		Rate	LTM	LTM	LTM	2019E	LTM	2019E	LTM	2019E	Rate	
Booz Allen Hamilton Holding Corporat	\$75.41	99.3%	\$10,574	\$12,135	\$6,882	\$7,123	\$692	\$728	8.4%	22.9%	10.2%	1.76x	1.70x	17.5x	16.7x	25.0x	25.1x	13.0%	
CACI International Inc Class A	220.99	98.9	5,499	7,204	4,986	5,300	479	522	12.1	32.0	9.3	1.44x	1.36x	15.0	13.8	21.1	19.6	10.0	
Kratos Defense & Security Solutions, I	19.49	77.7	2,068	2,329	672	730	66	76	18.2	26.3	9.8	3.47x	3.19x	35.3	30.6	NA	NA	NA	
ManTech International Corporation Cl	69.47	96.6	1,862	2,833	2,033	2,164	171	183	10.5	14.3	8.5	1.39x	1.31x	16.5	15.5	31.8	30.0	8.0	
ICF International, Inc.	81.34	94.2	1,528	1,859	1,419	1,487	136	140	11.2	33.6	10.1	1.31x	1.25x	13.6	13.2	24.0	19.2	11.3	
Median									11.2%	26.3%	9.8%	1.44x	1.36x	16.5x	15.5x	24.5x	22.4x	10.7%	
Mean									12.1%	25.8%	9.6%	1.88x	1.76x	19.6x	18.0x	25.5x	23.5x	10.6%	

Source: FactSet; based on consensus estimates.

IT Staff Augmentation										'18 - '19E									
As of September 3, 2019										Revenue Growth	Gross Margin	EBITDA Margin	Valuation Multiples						EPS Growth
\$ in millions except per share data													EV/Rev	EV/EBITDA		P/E			
Company	Current Price	% of 52 Wk. High	Market Value		Revenue		EBITDA		Rate	LTM	LTM	LTM	2019E	LTM	2019E	LTM	2019E	Rate	
Robert Half International Inc.	\$52.13	65.9%	\$6,128	\$5,812	\$5,933	\$6,086	\$674	\$692	4.9%	40.6%	11.4%	0.98x	0.95x	8.6x	8.4x	13.7x	13.3x	7.8%	
ManpowerGroup Inc.	79.73	81.4	4,771	5,181	21,230	21,156	858	807	-3.8	16.2	4.0	0.24x	0.24x	6.0	6.4	10.0	10.6	2.0	
Insperty, Inc.	97.35	67.2	4,009	3,723	4,088	4,315	231	281	12.7	9.3	5.6	0.91x	0.86x	16.1	13.3	24.4	21.0	18.0	
ASGN Inc	60.57	64.6	3,204	4,238	3,732	3,901	397	450	14.7	26.8	10.6	1.14x	1.09x	10.7	9.4	18.6	13.3	8.2	
Kelly Services, Inc. Class A	23.73	82.1	930	913	5,507	5,541	140	135	0.5	17.9	2.5	0.17x	0.16x	6.5	6.8	8.2	10.1	NA	
Kforce Inc.	32.29	75.5	783	768	1,379	1,344	86	85	-5.2	28.9	6.2	0.56x	0.57x	9.0	9.0	15.2	13.7	NA	
Heidrick & Struggles International, Inc.	25.75	57.7	493	356	738	711	85	86	-0.7	27.5	11.5	0.48x	0.50x	4.2	4.1	9.3	10.0	10.0	
Mastech Digital, Inc.	5.70	49.6	63	93	183	-	13	-	NA	22.8	6.9	0.51x	NA	7.4	NA	6.8	NA	NA	
Hudson Global, Inc.	11.75	67.5	35	8	76	101	NA	NA	NA	55.2	-5.3	0.10x	0.07x	NA	NA	NA	NA	35.0	
Median									0.5%	26.8%	6.2%	0.51x	0.54x	8.0x	8.4x	11.9x	13.3x	9.1%	
Mean									3.3%	27.3%	5.9%	0.56x	0.56x	8.6x	8.2x	13.3x	13.1x	13.5%	

Source: FactSet; based on consensus estimates.

IT Solution Provider - North America										'18 - '19E		Valuation Multiples						EPS	
As of September 3, 2019										Revenue	Gross	EBITDA	EV/Rev		EV/EBITDA		P/E		Growth
\$ in millions except per share data										Growth	Margin	Margin	LTM	2019E	LTM	2019E	LTM	2019E	Rate
Company	Current Price	% of 52 Wk. High	Market Value		Revenue		EBITDA		Rate	LTM	LTM	LTM	2019E	LTM	2019E	LTM	2019E	Rate	
CDW Corp.	\$116.02	96.0%	\$16,790	\$20,756	\$17,036	\$17,599	\$1,309	\$1,401	8.4%	16.7%	7.7%	1.22x	1.18x	15.9x	14.8x	25.3x	19.8x	13.4%	
Insight Enterprises, Inc.	46.81	77.9	1,675	1,887	7,018	7,256	281	301	2.5	14.2	4.0	0.27x	0.26x	6.7	6.3	10.0	9.6	NA	
Presidio, Inc.	15.93	89.4	1,325	2,117	3,026	3,025	209	237	2.8	17.9	7.3	0.70x	0.70x	10.1	8.9	39.8	10.1	6.0	
ePlus inc.	78.97	75.6	1,067	1,111	1,390	1,441	95	105	4.3	23.2	6.4	0.80x	0.77x	11.7	10.6	16.7	15.3	7.4	
PC Connection, Inc.	35.35	82.1	930	867	2,742	2,808	111	114	4.0	14.9	4.1	0.32x	0.31x	7.8	7.6	13.2	12.9	8.0	
Pivot Technology Solutions, Inc.	1.10	82.8	44	165	1,261	1,268	22	26	-7.7	12.0	1.7	0.13x	0.13x	7.5	6.4	NA	NA	NA	
Median									3.4%	15.8%	5.2%	0.51x	0.50x	9.0x	8.3x	16.7x	12.9x	7.7%	
Mean									2.4%	16.5%	5.2%	0.57x	0.56x	10.0x	9.1x	21.0x	13.5x	8.7%	

Source: FactSet; based on consensus estimates.

IT Solution Provider - Europe										'18 - '19E		Valuation Multiples						EPS	
As of September 3, 2019										Revenue	Gross	EBITDA	EV/Rev		EV/EBITDA		P/E		Growth
\$ in millions except per share data										Growth	Margin	Margin	LTM	2019E	LTM	2019E	LTM	2019E	Rate
Company	Current Price	% of 52 Wk. High	Market Value		Revenue		EBITDA		Rate	LTM	LTM	LTM	2019E	LTM	2019E	LTM	2019E	Rate	
Bechtle AG	\$98.66	79.7%	\$4,144	\$4,457	\$5,455	\$5,729	\$283	\$326	17.0%	14.0%	5.2%	0.82x	0.78x	15.8x	13.7x	24.4x	23.0x	14.1%	
Softcat Plc	12.41	96.7	2,460	2,397	1,268	1,322	97	105	-2.6	18.7	7.7	1.89x	1.81x	24.8	22.8	32.0	29.5	NA	
CANCOM SE	58.05	94.2	2,034	2,017	1,738	1,809	125	140	16.7	7.4	7.0	1.16x	1.12x	16.1	14.4	38.6	30.0	NA	
Computacenter Plc	16.56	87.6	1,890	2,030	5,799	6,212	188	207	9.0	12.5	3.4	0.35x	0.33x	10.8	9.8	18.7	16.4	NA	
Atea ASA	12.61	76.5	1,380	1,551	4,002	4,103	131	162	1.3	4.4	3.2	0.39x	0.38x	11.9	9.5	26.1	19.6	NA	
Datatec Limited	2.30	87.0	494	718	3,869	-	86	-	NA	15.0	2.2	0.19x	NA	8.4	NA	46.7	15.3	NA	
Plaisio Computers SA	4.46	89.7	98	65	344	-	10	-	NA	20.4	2.8	0.19x	NA	6.8	NA	23.0	NA	NA	
Median									9.0%	14.0%	3.4%	0.39x	0.78x	11.9x	13.7x	26.1x	21.3x	14.1%	
Mean									8.3%	13.2%	4.5%	0.71x	0.88x	13.5x	14.0x	29.9x	22.3x	14.1%	

Source: FactSet; based on consensus estimates.

IT Distributor - North America										'18 - '19E		Valuation Multiples						EPS	
As of September 3, 2019										Revenue	Gross	EBITDA	EV/Rev		EV/EBITDA		P/E		Growth
\$ in millions except per share data										Growth	Margin	Margin	LTM	2019E	LTM	2019E	LTM	2019E	Rate
Company	Current Price	% of 52 Wk. High	Market Value		Revenue		EBITDA		Rate	LTM	LTM	LTM	2019E	LTM	2019E	LTM	2019E	Rate	
Arrow Electronics, Inc.	\$68.09	78.6%	\$5,661	\$8,984	\$29,909	\$28,921	\$1,250	\$1,216	-2.5%	11.3%	4.2%	0.30x	0.31x	7.2x	7.4x	NA	9.4x	0.5%	
SYNNEX Corporation	82.50	75.3	4,214	7,448	21,501	22,613	1,037	1,175	11.6	11.2	4.8	0.35x	0.33x	7.2	6.3	10.2	6.8	12.5	
Tech Data Corporation	93.59	84.3	3,415	4,119	37,303	37,370	781	814	0.5	6.0	2.1	0.11x	0.11x	5.3	5.1	9.6	7.5	7.9	
Anixter International Inc.	58.63	79.7	1,977	3,256	8,669	8,874	429	454	5.6	19.5	4.9	0.38x	0.37x	7.6	7.2	10.4	8.7	8.0	
ScanSource, Inc.	26.92	60.8	679	1,029	3,873	3,857	143	143	-0.7	10.8	3.6	0.27x	0.27x	7.2	7.2	12.0	8.5	NA	
Wayside Technology Group, Inc.	14.30	99.3	64	54	193	-	8	-	NA	14.6	4.3	0.28x	NA	6.5	NA	10.1	NA	NA	
Median									0.5%	11.2%	4.3%	0.29x	0.31x	7.2x	7.2x	10.2x	8.5x	8.0%	
Mean									2.9%	12.2%	4.0%	0.28x	0.28x	6.8x	6.6x	10.5x	8.2x	7.2%	

Source: FactSet; based on consensus estimates.

Business Process Outsourcing - North America										'18 - '19E		Valuation Multiples						EPS	
As of September 3, 2019										Revenue	Gross	EBITDA	EV/Rev		EV/EBITDA		P/E		Growth
\$ in millions except per share data										Growth	Margin	Margin	LTM	2019E	LTM	2019E	LTM	2019E	Rate
Company	Current Price	% of 52 Wk. High	Market Value		Revenue		EBITDA		Rate	LTM	LTM	LTM	2019E	LTM	2019E	LTM	2019E	Rate	
Automatic Data Processing, Inc.	\$167.21	97.2%	\$72,560	\$73,410	\$14,175	\$14,610	\$3,414	\$3,582	6.2%	46.7%	24.1%	5.18x	5.02x	21.5x	20.5x	31.9x	28.8x	15.1%	
Fidelity National Information Services,	136.57	97.0	83,778	53,081	8,420	11,285	3,193	4,585	33.9	34.4	37.9	6.30x	4.70x	16.6	11.6	59.4	24.3	10.8	
Paychex, Inc.	81.00	91.6	29,107	29,372	3,773	3,992	1,558	1,645	10.6	68.8	41.3	7.79x	7.36x	18.9	17.9	28.3	27.2	7.6	
Iron Mountain, Inc.	32.37	86.7	9,294	17,677	4,243	4,279	1,394	1,438	1.3	41.7	32.9	4.17x	4.13x	12.7	12.3	31.8	31.3	3.8	
LiveRamp Holdings, Inc.	40.61	64.2	2,747	1,793	306	349	NA	NA	-20.8	71.8	-143.3	5.87x	5.13x	NA	NA	3.2	NA	25.0	
TTEC Holdings, Inc.	46.48	93.3	2,161	2,364	1,582	1,630	197	210	8.6	20.3	12.7	1.49x	1.45x	12.0	11.2	38.3	25.4	14.0	
CSG Systems International, Inc.	53.09	92.8	1,752	1,956	951	940	185	214	9.4	41.8	21.3	2.06x	2.08x	10.5	9.1	22.9	16.1	NA	
CBIZ, Inc.	22.69	93.1	1,243	1,380	929	948	116	120	2.8	14.5	12.5	1.49x	1.46x	11.9	11.5	19.1	18.6	NA	
Sykes Enterprises, Incorporated	28.98	92.1	1,205	1,158	1,607	1,628	159	166	0.1	30.6	9.9	0.72x	0.71x	7.3	7.0	22.8	13.8	10.0	
Median									6.2%	41.7%	21.3%	4.17x	4.13x	12.3x	11.5x	28.3x	24.9x	10.8%	
Mean									5.8%	41.2%	5.5%	3.90x	3.56x	13.9x	12.6x	28.6x	23.2x	12.3%	

Source: FactSet; based on consensus estimates.

Business Process Outsourcing - India

As of September 3, 2019

\$ in millions except per share data

Company	Current Price	% of 52 Wk. High	Market Value		Revenue		EBITDA		'18 - '19E			Valuation Multiples						EPS
					LTM	2019E	LTM	2019E	Growth Rate	Gross Margin LTM	EBITDA Margin LTM	EV/Rev		EV/EBITDA		P/E		Growth Rate
												LTM	2019E	LTM	2019E	LTM	2019E	
Genpact Limited	\$40.78	91.5%	\$7,769	\$8,884	\$3,270	\$3,488	\$516	\$603	16.2%	34.4%	15.8%	2.72x	2.55x	17.2x	14.7x	27.5x	20.2x	11.5%
WNS (Holdings) Limited Sponsored AI	60.63	93.3	3,011	3,274	826	860	164	190	10.1	35.1	20.5	3.96x	3.81x	19.9	17.3	27.4	21.4	11.6
ExlService Holdings, Inc.	66.56	95.0	2,275	2,326	949	986	136	133	11.7	28.2	15.5	2.45x	2.36x	17.1	17.5	50.3	22.7	11.5
Firstsource Solutions Limited	0.66	61.2	457	513	546	563	81	88	3.6	25.4	15.3	0.94x	0.91x	6.4	5.8	8.5	6.7	NA
eClerx Services Limited	6.28	36.8	232	133	201	206	42	42	1.2	31.4	19.5	0.66x	0.65x	3.2	3.2	8.1	7.7	2.4
Hinduja Global Solutions Limited	7.67	60.1	160	192	704	740	72	78	12.3	5.6	10.3	0.27x	0.26x	2.6	2.5	6.4	5.9	NA
R Systems International Limited	0.56	68.6	67	48	109	-	10	-	NA	25.7	9.2	0.44x	NA	4.9	NA	7.8	NA	NA
Datamatics Global Services Limited	0.99	47.6	58	52	163	-	19	-	NA	35.9	11.8	0.32x	NA	2.7	NA	5.5	NA	NA
Median									10.9%	29.8%	15.4%	0.80x	1.63x	5.6x	10.3x	8.3x	13.9x	11.5%
Mean									9.2%	27.7%	14.7%	1.47x	1.75x	9.3x	10.2x	17.7x	14.1x	9.3%

Source: FactSet; based on consensus estimates.

SaaS																				
<i>As of September 3, 2019</i>																				
<i>\$ in millions except per share data</i>																				
Company	Current Price	% of 52 Wk. High	Market Value		Revenue		EBITDA		'18 - '19E			Valuation Multiples						EPS		
			Equity	Enterprise	LTM	2019E	LTM	2019E	Growth Rate	Gross Margin LTM	EBITDA Margin LTM	EV/Rev		EV/EBITDA		P/E		Growth Rate		
												LTM	2019E	LTM	2019E	LTM	2019E	LTM	2019E	
salesforce.com, inc.	\$152.73	91.1%	\$133,944	\$118,771	\$14,729	\$16,536	\$2,691	\$4,158	26.8%	65.6%	18.7%	8.06x	7.18x	44.1x	28.6x	127.0x	54.1x	23.5%		
ServiceNow, Inc.	263.38	86.9	49,374	48,189	3,011	3,459	141	956	32.6	76.4	4.6	16.00x	13.93x	NM	50.4	NM	81.9	22.0		
Workday, Inc. Class A	174.98	77.1	28,347	38,921	3,249	3,524	NA	694	27.5	70.3	-8.7	11.98x	11.04x	NM	56.1	NM	105.3	31.6		
Splunk Inc.	108.22	75.3	16,252	15,364	2,044	2,269	NA	368	29.1	81.1	-11.4	7.51x	6.77x	NM	41.7	NM	58.4	31.9		
Twilio, Inc. Class A	129.70	85.9	15,764	15,354	881	1,118	NA	89	71.9	52.5	-18.2	17.42x	13.74x	NM	173.2	NM	NM	20.7		
Zendesk, Inc.	79.13	83.4	8,782	8,774	702	810	NA	55	35.3	70.0	-18.0	12.50x	10.83x	NM	159.7	NM	NM	44.0		
HubSpot, Inc.	197.84	95.1	8,408	7,703	591	665	NA	84	29.6	80.7	-3.5	13.04x	11.59x	NM	91.7	NM	140.9	68.0		
New Relic, Inc.	56.30	49.7	3,288	2,907	512	571	NA	81	27.3	83.6	-1.6	5.68x	5.09x	NM	36.1	NM	92.4	20.0		
LogMeIn, Inc.	65.81	67.9	3,253	3,374	1,240	1,260	357	412	4.3	62.0	28.9	2.72x	2.68x	9.5	8.2	154.9	12.9	5.0		
Cornerstone OnDemand, Inc.	51.31	81.9	3,114	2,952	554	570	41	124	6.0	73.9	7.3	5.33x	5.18x	72.7	23.7	NM	49.0	NA		
Median									28.3%	72.1%	-2.6%	10.02x	9.01x	44.1x	46.1x	141.0x	70.1x	23.5%		
Mean									29.0%	71.6%	-0.2%	10.02x	8.80x	42.1x	66.9x	141.0x	74.4x	29.6%		

Source: FactSet; based on consensus estimates.

Enterprise Applications									'18 - '19E			Valuation Multiples						EPS		
As of September 3, 2019									Revenue	Gross	EBITDA	EV/Rev				EV/EBITDA		P/E		Growth
\$ in millions except per share data									Growth	Margin	Margin	EV/Rev		EV/EBITDA		P/E		Growth		
Company	Current Price	% of 52 Wk. High	Market Value		Revenue		EBITDA		Rate	LTM	LTM	LTM	2019E	LTM	2019E	LTM	2019E	Rate		
Microsoft Corporation	\$136.04	96.0%	\$1,038,721	\$999,380	\$125,502	\$132,472	\$54,218	\$57,999	12.1%	65.8%	43.2%	7.96x	7.54x	18.4x	17.2x	26.9x	27.3x	13.7%		
Oracle Corporation	51.89	85.8	173,096	212,516	39,506	39,993	16,974	18,966	0.8	75.5	43.0	5.38x	5.31x	12.5	11.2	17.5	13.9	9.6		
SAP SE	118.72	84.2	145,853	154,397	29,114	30,178	7,789	9,279	6.9	69.2	26.8	5.30x	5.12x	19.8	16.6	40.9	22.1	13.1		
Adobe Inc.	282.45	90.2	137,112	139,650	10,036	11,356	3,303	5,032	23.3	84.0	32.9	13.91x	12.30x	42.3	27.8	52.7	35.4	16.8		
Intuit Inc.	284.20	96.1	73,677	72,329	6,784	7,080	2,079	2,610	11.6	83.4	31.8	10.66x	10.22x	34.8	27.7	48.2	40.1	16.1		
VMware, Inc. Class A	142.34	68.8	15,545	60,552	9,496	9,939	2,778	3,839	12.5	85.8	29.7	6.38x	6.09x	21.8	15.8	9.5	21.8	14.2		
Symantec Corporation	22.99	88.2	14,209	17,520	4,822	4,816	1,326	1,927	0.0	73.5	27.6	3.63x	3.64x	13.2	9.1	NA	13.5	NA		
Citrix Systems, Inc.	92.90	81.5	12,161	12,566	3,002	2,993	830	1,048	0.6	84.3	26.4	4.19x	4.20x	15.1	12.0	25.1	16.9	7.3		
Aspen Technology, Inc.	131.48	92.5	9,067	9,455	598	598	230	311	8.9	91.1	NA	15.80x	15.81x	41.1	30.4	35.4	33.7	3.2		
Manhattan Associates, Inc.	81.50	91.0	5,242	5,199	589	601	134	135	7.5	54.1	22.8	8.82x	8.65x	38.7	38.7	55.4	55.1	NA		
Tenable Holdings, Inc.	22.78	57.8	2,207	1,886	310	349	NA	NA	30.4	83.3	-25.6	6.08x	5.41x	NA	NA	NA	NA	NA		
Median									8.9%	83.3%	28.6%	6.38x	6.09x	20.8x	16.9x	35.4x	24.7x	13.4%		
Mean									10.4%	77.3%	25.8%	8.01x	7.66x	25.8x	20.6x	34.6x	28.0x	11.7%		

Source: FactSet; based on consensus estimates.