

## EQUITY RESEARCH

November 4, 2021

Industry Update

### Put The E In ESG – Bits & Bytes Weekly

COP26 Puts The Focus On Environmental Stewardship

#### Our Conclusion

As world leaders convene at the UN Climate Change Conference (COP26), environmental stewardship is being highlighted, with numerous firms announcing environmental targets, including Big Tech. The technology sector has generally scored well on the environment aspects of ESG given technology firms generally have a smaller carbon footprint than companies in many other sectors with emissions (primarily data centre and office/employee travel) that are potentially easier to reduce.

Big Tech is focusing on 2030 environmental targets, with Google committing to be carbon-free by 2030, Microsoft planning to be carbon negative by 2030, and Apple stating that it will be carbon neutral across its entire business, manufacturing supply chain and product life cycle by 2030. Big Tech is also focused on combating misinformation, with Facebook, Google and Twitter announcing stepped-up measures to combat climate misinformation. Within our coverage, Kinaxis, CGI, Open Text and LifeWorks are the standouts from an environmental disclosure point of view.

#### Key Points

Environmental data remain somewhat difficult to obtain for our coverage, with 43% of our coverage providing no environmental disclosures. Few in our coverage disclose environmental targets, with only three firms (KXS, OTEX and GIB.a) disclosing explicit emission-reduction targets.

Kinaxis achieved carbon neutrality in 2020 and reduced its scope 3 greenhouse gas emissions by 51% Y/Y. We attribute the scope 3 reduction and carbon neutrality, in part, to its co-location data centre provider Equinix, which purchases renewal energy credits for Kinaxis across all its colocation facilities.

CGI is looking to produce net-zero carbon emissions by 2030 and has reduced its GHG emissions by 50% since 2014. In 2020, 41% of its facilities were powered by low-carbon energy sources. Open Text does not have a target date for carbon neutrality, but has committed to reducing energy emissions and scope 1 & 2 greenhouse gas emissions by 5% by 2023.

Kinaxis, Lifeworks and CGI have also signed on to the UN Global Compact in support of strengthening corporate sustainability practices. The UN Global Compact is the world's largest corporate sustainability initiative, with the voluntary pact focused on ten sustainability principles in the areas of human rights, labour, the environment and anti-corruption. Almost 15,000 companies have signed the pact across 162 countries.

For further details on how our coverage ranks from an ESG perspective, please refer to our [ESG In Tech note](#).

*Bits & Bytes will be on hiatus next week given the focus on Q3 earnings and will return November 18th.*

*All figures in Canadian dollars unless otherwise stated.*

For required regulatory disclosures please refer to "Important Disclosures" beginning on page 10.

Stephanie Price, CFA  
+1 416-594-7047  
Stephanie.Price@cibc.com

Scott Fletcher, CPA, CA  
+1 416-956-3229  
Scott.Fletcher@cibc.com

Natalie Zhang, CFA  
+1 416-581-2120  
Natalie.Zhang@cibc.com

**Sector:**  
Information Technology

**Exhibit 1: Tech Companies We Cover - CIBC Environmental And Sustainability Ranking, 2021**

Ticker	Mention Of ESG On Website	Annual Sustainability Report	SASB Disclosure	Global Reporting Initiative (GRI)	Task Force on Climate-related Financial Disclosures (TCFD)	UN Sustainable Development Goals (SDGs)	Any Discussion on (Data Centre) Carbon Footprint?	Energy Reduction Y/Y	Green Programs	Any Qualitative Environmental Targets?	Total Score
KXS	1	1	1	0	0	1	1	1	1	Carbon neutrality achieved in 2020	8
OTEX	1	1	1	1	0	1	0	1	1	Reduce energy consumption & scope 1&2 greenhouse gas emission per dollar by 5% by 2023	8
GIB.A	1	1	0	1	0	1	1	1	1	Net-zero carbon emissions by 2030	8
LWRK	1	1	0	1	0	1	1	1	1	No	7
AIF	1	1	1	0	0	0	1	0	0	No	4
DSGX	1	0	0	0	0	0	1	0	0	No	2
SFTC	1	0	0	0	0	0	0	0	1	No	2
ISV	1	0	0	0	0	0	0	0	0	No	1

Source: Company reports, Bloomberg and CIBC World Markets Inc.

The Exhibit 1 table is our analysis of ESG efforts within our coverage universe based on current disclosures, ranked from highest to lowest. The level of detail in disclosures varies widely, with larger-cap companies typically providing more disclosure.

KXS, OTEX, CGI, and LWRK are the standouts within our coverage based on their disclosed sustainability efforts. All have aligned their corporate strategies with the UN Sustainable Development Goals (SDGs), which provide a solid framework for companies to weave objectives into their corporate strategy while allowing for standardized review by investors. All four also publish an annual sustainability report.

Those four companies also disclose Y/Y energy consumption and reduction. As of 2020, 41% of CGI's facilities are powered by low-carbon energy sources and CGI has reduced its GHG emissions by 50% since 2014, and its scope 2 emissions declined by 22% in 2020 alone. Open Text's FY21 energy intensity (MWh per revenue/million USD of revenue) was 22.38, up from 21.07 from prior year period. The GHG emissions increased Y/Y due to reclassification of co-location emissions. The company is committed to reducing its energy consumption per dollar revenue by 5% by June 2023.

Waste management is also a focus for environmentally aware companies, with LifeWorks disclosing details on its paper consumption reduction program, which has reduced consumption by 32 million sheets in 2020. The company has reduced its consumption by 65 million sheets of paper since 2017, representing 7,800 trees and 26 million liters of water.

We believe strong oversight in addition to green programs will be crucial to continued progress. For example, Lifeworks implemented a "Green Team," which aims to increase employee involvement on managing Lifeworks' corporate environmental impact. Altus has an Environmental Sustainability Council (ESC), which involves senior employees from multiple business units and jurisdictions to regularly review corporate progress on environmental issues. The council reports directly to the CEO.

## News Impacting Our Coverage

### Highlight From ISV Q3 Results

ISV reported mixed Q3 results, with revenue 8% below consensus but adjusted EBITDA 3% above. The adjusted EBITDA beat was driven by Registry margins of 64%, well above our 50% expectation. The MD&A does not call out any one-time items in the Registry margins, noting only lower share-based compensation expense. We will be looking for further details on the sustainability of these margins on the call. The revenue miss against our forecast was driven primarily by the Services division, which came in 11% below our expectation. [Link to note](#)

### Highlight From Topicus Q3 Results

Constellation and Topicus announced Q3 results for Topicus. Our key takeaway was lower-than-expected M&A spending (EUR 13 million) on the heels of a slow Q2 (EUR 5 million). Topicus did complete the larger \$95 million acquisition of GeoSoftware with Constellation subsidiary Vela (60/40 split) immediately following the quarter. Topicus continues to see strong organic growth (5%), although we view Q3 as a relatively easy Y/Y comparison, and organic growth was down sequentially from 8%. Margins at Topicus were down 520 bps Y/Y, but roughly 50 bps ahead of our expectation for Constellation's consolidated margin. [Link to note](#)

### Ecobee Sells To U.S. Generator Maker Generac Holdings Inc. For US\$770M

Ecobee, a smart thermostat maker with 25% market share in North America, has been acquired by Generac Holdings Inc for up to US\$770M, made up of US\$200M in cash and US\$450M of Generac stock as well as US\$120M in contingent payments if performance targets are met by mid-2023. The deal values Ecobee at 4.5x LTM revenue. This transaction came after Amazon, Ecobee's investor, partner, and one-time suitor announced the launch of its own competing smart thermostat last year.

### San Diego Selects CGI For Citywide Application Development, Maintenance And IT Support Services

CGI announced it was selected by the City of San Diego for an \$84M, four-year contract with an option for a 10-year contract. CGI will provide long-term IT support by managing key business applications operated by the city. CGI has been a partner of the City of San Diego since 2012, supporting 300 citywide applications. Going forward, CGI will support new digital services such as San Diego's online permitting system and a paperless real-time vaccine management solution for vaccination sites.

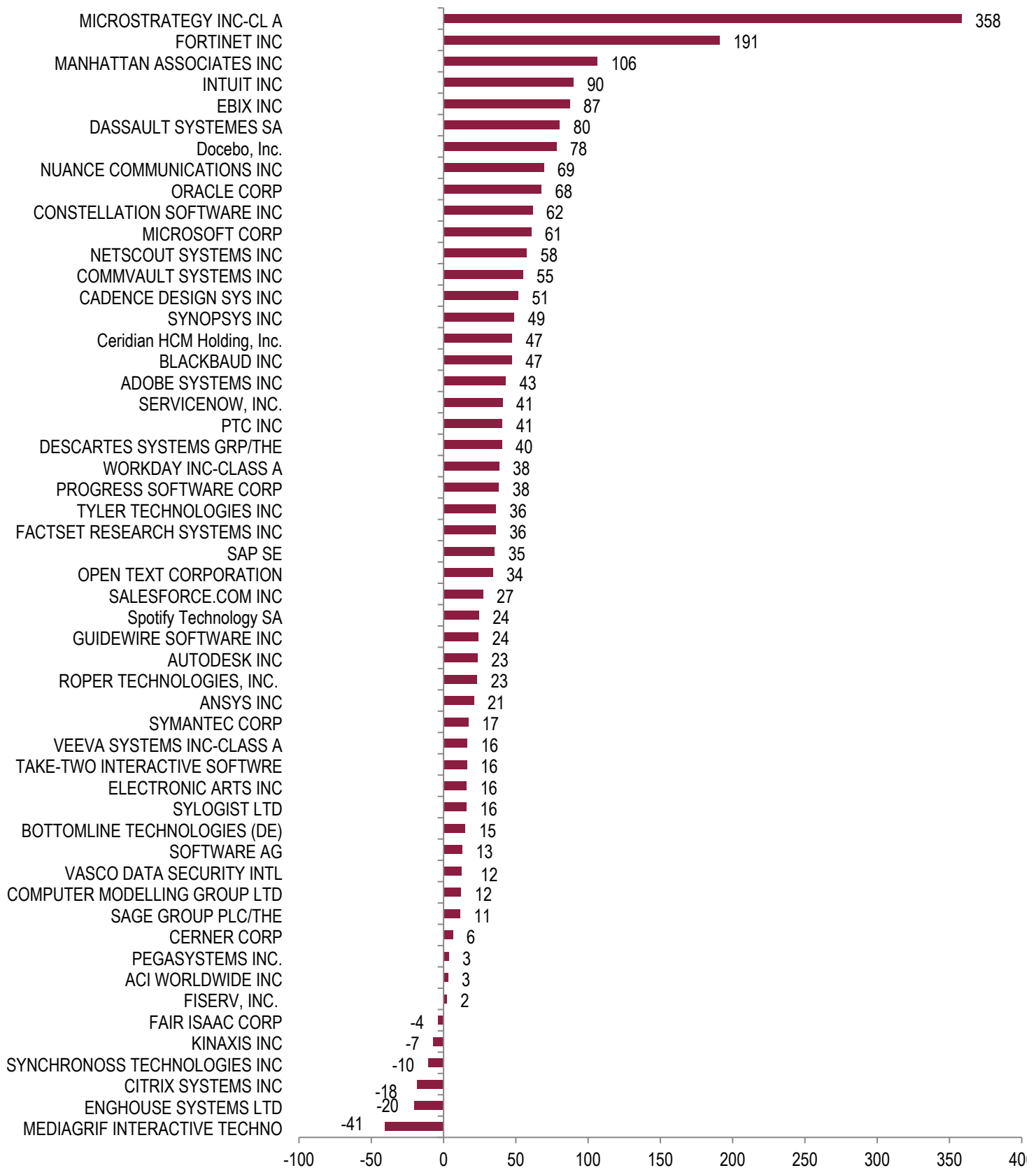
### EPAM Q3 Results

EPAM reported in line Q3 results with revenue beating consensus by 2% and EBITDA by 1%. Reported revenue of US\$988.5 million was up 50.7% Y/Y on constant currency basis. Given a strong demand environment, the company increased its full-year guidance, and is now expecting revenue growth of at least 40% Y/Y, up from previous guidance of 37% and above consensus at 37.8%. As of quarter-end, EPAM had 47,050 delivery professionals, up 39.4% Y/Y.

**Exhibit 2: CIBC Software/Services – Coverage Performance, 11/3/2020 - 11/3/2021**

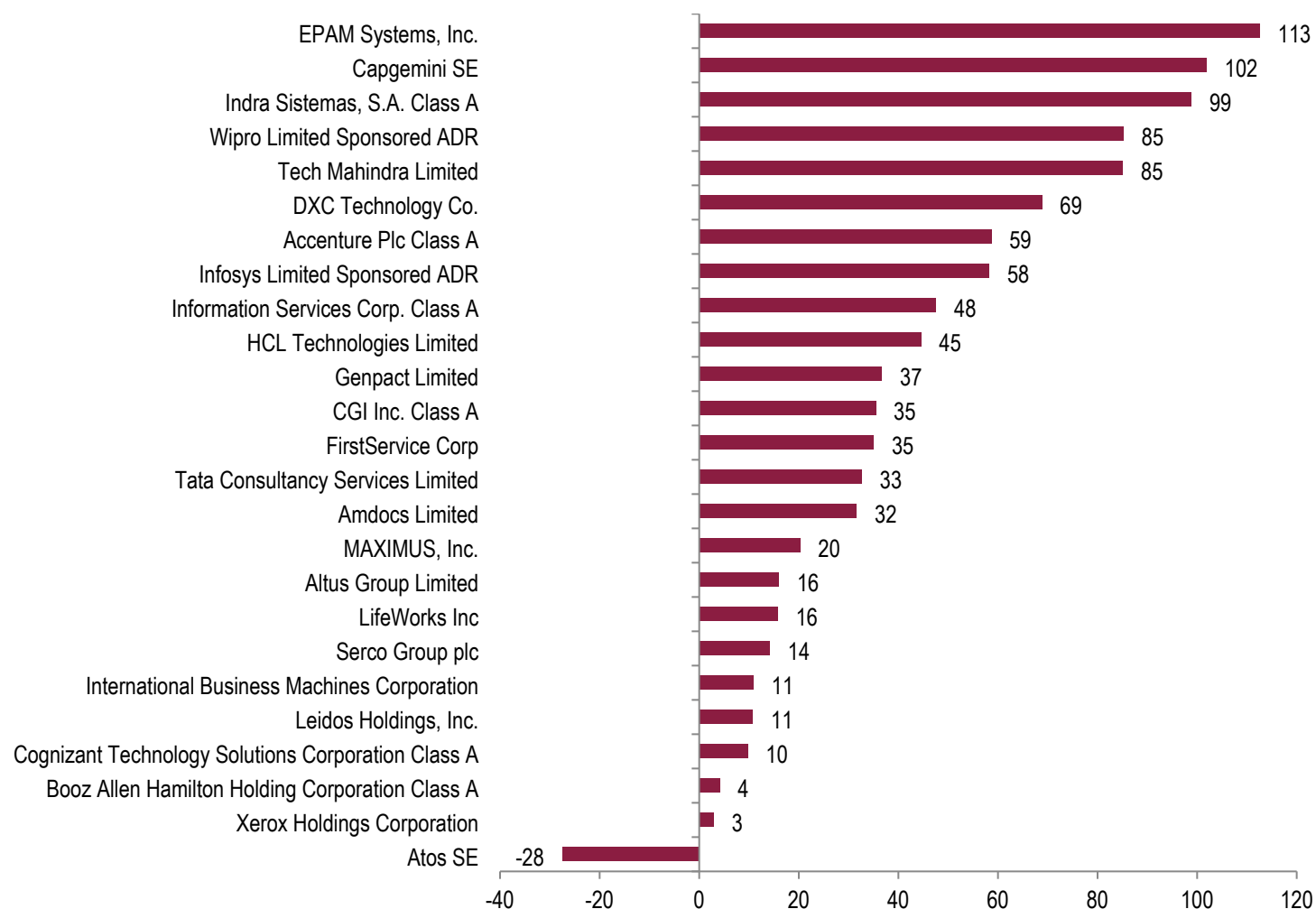
Company	Price	1 Week	1 Month	3 Month	6 Month	1 Year	Year To Date	52 Week High	52 Week Low
<b>Software &amp; Systems</b>									
Constellation Software Inc	2177.15	0.2	4.1	8.9	19.1	61.5	31.7	2270.07	1331.04
Descartes Systems	82.50	3.0	2.2	13.2	29.5	49.0	41.1	87.46	52.24
Dye & Durham Enghouse Systems Limited	38.03	1.7	(9.3)	(19.3)	(7.7)	NA	(24.7)	53.68	19.42
Open Text Corp	52.83	(1.4)	(4.8)	(6.7)	(10.1)	(20.0)	(14.3)	71.00	48.87
Kinaxis	50.36	0.9	2.6	(2.9)	6.1	33.9	10.8	55.25	36.95
Kinaxis	194.97	6.5	6.8	18.0	24.2	(7.0)	8.1	223.00	124.05
Docebo, Inc.	93.67	(4.4)	(0.1)	7.3	41.9	77.9	13.2	117.55	47.22
<b>Average</b>		0.9	0.2	2.6	14.7	32.6	9.4		
<b>Business Services</b>									
Altus Group Ltd	64.13	(2.5)	3.5	7.8	3.0	16.0	30.5	68.17	47.10
CGI Group Inc	111.49	1.1	3.3	(2.2)	2.2	35.5	10.4	116.88	81.00
Information Services Corp	27.51	4.0	1.3	1.7	5.8	47.6	38.2	33.87	18.49
LifeWorks Inc	31.38	(1.0)	(2.1)	(11.2)	0.4	15.8	1.1	37.56	26.91
Softchoice Corporation	26.40	(9.1)	(9.4)	(9.2)	NA	NA	NA	45.74	19.71
Telus International	46.89	(0.5)	6.4	22.4	27.0	NA	NA	49.43	34.00
<b>Average</b>		(1.3)	0.5	1.5	7.7	28.7	20.1		
<b>Indices</b>									
S&P/TSX Composite Index	21190.94	1.1	5.2	4.1	10.3	32.9	21.6		
S&P 500 Index	4627.25	1.7	6.2	4.6	10.4	37.3	23.2		
S&P/TSX Software Index	230.25	3.5	4.0	4.0	22.8	47.8	26.3		
S&P500 Software Index	5955.57	2.3	12.7	13.8	30.4	54.8	41.7		

Source: Company reports, FactSet and CIBC World Markets Inc.

**Exhibit 3: Software Stocks – Return Performance (%), 10/21/2020 - 10/21/2021**

Source: Company reports, FactSet and CIBC World Markets Inc.

**Exhibit 4: Business Services Stocks – Return Performance (%), 10/21/2020 - 10/21/2021**



Source: Company reports, FactSet and CIBC World Markets Inc.

**Exhibit 5: Software Stocks – Comp Table, 2020 - 2022E**

	Enterprise Value	EV/S			EV/EBITDA			P/E		
		C20	C21E	C22E	C20	C21E	C22E	C20	C21E	C22E
Enterprise Application Software										
Constellation Software Inc.*	37,101	9.3x	7.3x	6.5x	30.2x	25.0x	22.1x	44.5x	>50	33.2x
BlackBerry Limited*	6,782	7.0x	7.0x	6.3x	33.9x	>50	NEG	49.1x	>50	NEG
Sage Group plc	7,484	4.0x	4.0x	3.8x	16.1x	17.9x	16.5x	27.3x	30.3x	27.4x
Tyler Technologies, Inc.	21,380	19.1x	13.5x	11.5x	>50	>50	42.7x	>50	>50	>50
Roper Technologies, Inc.	59,310	10.7x	10.0x	9.6x	29.8x	26.4x	24.9x	37.1x	32.9x	30.6x
Enghouse Systems Limited	2,723	5.3x	5.7x	5.5x	14.5x	16.3x	15.9x	26.4x	33.4x	31.5x
Oracle Corporation	300,839	7.5x	7.2x	7.0x	15.3x	14.6x	14.2x	22.0x	20.3x	19.2x
SAP SE	165,939	6.1x	6.0x	5.8x	17.7x	18.7x	18.0x	23.7x	20.2x	23.9x
Enterprise Application Software Average		8.6x	7.6x	7.0x	22.5x	19.8x	22.1x	32.8x	27.4x	27.6x
Extended ERP										
Adobe Inc.	307,448	23.4x	19.3x	16.7x	47.9x	38.6x	33.8x	>50	>50	44.9x
Open Text Corporation	15,950	4.8x	4.7x	4.5x	12.5x	12.6x	11.8x	15.5x	16.3x	14.6x
Manhattan Associates, Inc.	11,520	19.6x	17.6x	16.3x	>50	>50	>50	>50	>50	>50
Pegasystems Inc.	9,937	9.8x	8.0x	6.7x	>50	>50	>50	NEG	>50	>50
Software AG	2,428	2.9x	2.9x	2.7x	12.6x	14.8x	12.1x	21.1x	25.9x	20.5x
Fiserv, Inc.	87,137	6.3x	5.7x	5.3x	16.0x	13.5x	12.3x	22.9x	18.1x	15.6x
Extended ERP Average		11.1x	9.7x	8.7x	22.3x	19.9x	17.5x	19.8x	20.1x	23.9x
Software As A Service										
Descartes Systems Group Inc.	6,861	19.7x	16.3x	14.9x	48.4x	37.5x	33.8x	>50	>50	>50
Kinaxis, Inc.*	4,083	18.2x	16.6x	13.1x	>50	>50	>50	>50	>50	>50
Docebo, Inc.*	2,252	35.8x	22.0x	15.7x	NEG	NEG	NEG	NEG	NEG	NEG
Lightspeed Commerce Inc*	13,695	>50	30.3x	20.5x	NEG	NEG	NEG	NEG	NEG	NEG
Veeva Systems Inc Class A	46,782	32.6x	25.9x	21.7x	>50	>50	>50	>50	>50	>50
Shopify, Inc. Class A	176,855	>50	38.6x	29.0x	>50	>50	>50	>50	>50	>50
Ceridian HCM Holding, Inc.	19,772	23.5x	19.5x	16.6x	>50	>50	>50	>50	>50	>50
ServiceNow, Inc.	133,507	29.5x	22.7x	18.1x	>50	>50	>50	>50	>50	>50
Workday, Inc. Class A	69,943	16.4x	13.9x	11.7x	>50	>50	49.4x	>50	>50	>50
Software As A Service Average		25.1x	22.9x	17.9x	48.4x	37.5x	41.6x	>50	>50	>50
Infrastructure Vendors										
Citrix Systems, Inc.	12,852	4.0x	4.0x	3.7x	11.2x	12.4x	11.5x	15.5x	19.5x	16.6x
Microsoft Corporation	2,439,703	15.7x	13.4x	11.6x	32.8x	27.0x	23.1x	48.1x	38.7x	33.7x
Infrastructure Vendors Average		9.8x	8.7x	7.6x	22.0x	19.7x	17.3x	31.8x	29.1x	25.1x
Software Average										
		14.4x	13.7x	11.4x	24.2x	21.2x	22.8x	29.4x	25.6x	26.0x

\*Share Price Converted to USD

Source: Company reports, FactSet and CIBC World Markets Inc.

**Exhibit 6: Business Services Stocks – Comp Table, 2020 - 2022E**

	Enterprise Value	EV/EBITDA			P/E			EV/S		
		C20	C21E	C22E	C20	C21E	C22E	C20	C21E	C22E
Business & IT Services										
CGI Inc. Class A	30,118	12.3x	12.4x	12.0x	22.3x	20.3x	18.9x	2.5x	2.5x	2.4x
TELUS International (CDA), Inc.	11,122	28.2x	20.6x	17.3x	>50	39.0x	29.9x	6.7x	5.1x	4.3x
Accenture Plc Class A	221,563	25.5x	22.3x	20.2x	45.3x	38.8x	34.2x	4.8x	4.2x	3.8x
Booz Allen Hamilton	13,354	16.3x	14.7x	13.8x	23.4x	20.9x	19.1x	1.7x	1.6x	1.5x
CACI International Inc Class A	8,730	14.0x	12.9x	12.3x	18.4x	15.5x	14.8x	1.5x	1.4x	1.4x
DXC Technology Co.	12,310	4.5x	4.6x	4.4x	10.3x	10.0x	8.0x	0.7x	0.7x	0.7x
Genpact Limited	10,643	15.7x	14.2x	13.1x	23.5x	20.8x	18.5x	2.9x	2.7x	2.4x
International Business Machines	165,708	10.9x	9.1x	8.7x	14.6x	12.3x	11.2x	2.3x	2.3x	2.3x
Atos SE	6,668	4.6x	5.8x	5.1x	6.6x	11.6x	9.1x	0.6x	0.6x	0.6x
Capgemini SE	41,232	16.9x	13.9x	13.3x	29.0x	25.2x	21.8x	2.6x	2.3x	2.1x
Sopra Steria Group SA	4,698	10.3x	9.0x	8.1x	21.8x	15.6x	13.2x	1.1x	1.0x	1.0x
Business & IT Services Average		14.5x	12.7x	11.7x	21.5x	20.9x	18.1x	2.5x	2.2x	2.0x
HR Outsourcing										
LifeWorks Inc	2,705	13.5x	13.2x	12.3x	39.4x	NEG	37.2x	2.8x	2.6x	2.5x
Ceridian HCM Holding, Inc.	19,772	>50	>50	>50	>50	>50	>50	23.5x	19.5x	16.6x
Willis Towers Watson	33,830	13.7x	12.8x	13.9x	20.1x	18.0x	17.0x	3.6x	3.5x	3.6x
Aon Plc Class A	72,962	22.2x	18.9x	17.7x	30.2x	25.4x	22.6x	6.6x	5.9x	5.6x
Automatic Data Processing, Inc.	95,053	26.0x	24.0x	22.1x	37.4x	35.0x	31.6x	6.4x	6.1x	5.7x
Paychex, Inc.	44,062	26.1x	24.4x	22.6x	40.5x	37.3x	34.1x	10.9x	10.4x	9.7x
HR Outsourcing Average		20.3x	18.7x	17.7x	33.5x	28.9x	28.5x	9.0x	8.0x	7.3x
Information Services										
Broadridge Financial Solutions, Inc.	23,632	22.3x	20.1x	17.9x	31.7x	28.1x	25.3x	5.0x	4.5x	4.2x
Dye & Durham Ltd.	2,781	NEG	19.6x	15.7x	NEG	>50	35.6x	32.0x	8.2x	7.0x
Deluxe Corporation	2,238	6.1x	5.5x	5.0x	7.4x	7.6x	7.3x	1.2x	1.1x	1.0x
Information Services Corp	533	11.2x	8.5x	8.3x	18.9x	17.1x	14.8x	3.9x	3.2x	3.0x
Information Services Average		13.2x	13.4x	11.7x	19.3x	17.6x	20.8x	10.5x	4.3x	3.8x
Financial Services Technology										
Fidelity National Information Services	86,341	16.4x	14.0x	12.6x	20.1x	16.7x	14.5x	6.9x	6.2x	5.7x
Fiserv, Inc.	87,137	16.0x	13.5x	12.3x	22.9x	18.1x	15.6x	6.3x	5.7x	5.3x
Jack Henry & Associates, Inc.	11,609	20.8x	19.4x	17.7x	38.9x	35.7x	32.0x	6.7x	6.3x	5.9x
ACI Worldwide, Inc.	4,692	13.1x	12.4x	11.6x	49.8x	28.0x	24.4x	3.6x	3.5x	3.3x
Temenos AG	10,867	26.8x	25.3x	22.4x	39.0x	34.4x	30.6x	12.1x	11.1x	10.0x
Global Payments Inc.	47,391	15.8x	13.1x	11.6x	21.1x	16.5x	14.0x	7.0x	6.1x	5.6x
Bottomline Technologies	2,213	22.7x	21.5x	19.4x	41.3x	42.0x	39.1x	4.8x	4.5x	4.0x
Financial Services Technology Average		18.8x	17.0x	15.4x	33.3x	27.3x	24.3x	6.8x	6.2x	5.7x
Diversified Real Estate Services										
Colliers International Group Inc.	7,371	20.4x	14.1x	12.8x	34.3x	24.8x	23.3x	2.6x	1.9x	1.8x
Altus Group Limited	2,755	27.9x	25.9x	22.4x	38.7x	33.8x	40.0x	4.9x	4.5x	4.2x
CBRE Group, Inc. Class A	37,016	19.9x	13.6x	12.7x	31.8x	20.0x	18.7x	1.6x	1.4x	1.2x
Jones Lang LaSalle Incorporated	15,726	18.3x	12.1x	11.7x	27.7x	16.3x	15.6x	1.8x	1.5x	1.4x
Diversified Real Estate Services Average		21.6x	16.4x	14.9x	33.1x	23.8x	24.4x	2.7x	2.3x	2.1x
Software Focused IT Solutions/VARs										
Softchoice Corporation*	1,799	27.5x	26.0x	18.0x	41.2x	47.3x	32.2x	7.6x	6.5x	5.7x
Softcat Plc*	3,794	30.4x	22.0x	21.3x	40.8x	29.5x	28.9x	12.8x	9.9x	9.1x
Crayon Group Holding ASA*	15,331	>50	>50	>50	>50	>50	>50	>50	43.5x	33.2x
Bytes Technology Group Plc*	1,300	31.4x	20.9x	19.3x	42.7x	28.7x	27.1x	13.3x	9.5x	8.6x
SoftwareONE Holding Ltd.*	2,764	14.3x	10.4x	8.8x	17.0x	21.9x	17.4x	12.4x	3.0x	2.6x
Bytes Technology Group Plc* Average		25.9x	19.8x	16.9x	35.4x	31.9x	26.4x	11.5x	14.5x	11.8x
Business Services Average										
		18.3x	15.7x	14.2x	28.7x	24.6x	22.8x	6.3x	5.8x	5.1x

\*Software Focused IT Solutions/VARs uses EV/GP metric.

Source: Company reports, FactSet and CIBC World Markets Inc.



## Exhibit 7: SaaS Stocks – Comp Table, 2020 - 2022E

	LTM Revenue Growth	LTM FCF Margin	NTM Revenue Growth	NTM FCF Margin	LTM Rule Of 40	NTM Rule Of 40	Enterprise Value (\$MM)	EV/S		
								C20	C21E	C22E
Tier 1 SaaS (Rule of 40 > 60)										
Zoom Video Communications	170%	46%	18%	38%	217%	56%	79,093	31.9x	20.3x	17.0x
CrowdStrike Holdings, Inc.	74%	33%	46%	23%	107%	69%	60,059	71.4x	44.2x	31.8x
Shopify, Inc.	71%	11%	33%	15%	82%	48%	179,351	61.2x	39.2x	29.4x
Zscaler, Inc.	56%	25%	41%	23%	81%	64%	44,672	83.8x	56.7x	41.7x
Lightspeed POS, Inc.	114%	-35%	94%	-5%	79%	90%	13,608	69.1x	30.1x	20.3x
DocuSign, Inc.	54%	22%	33%	19%	76%	52%	55,589	39.3x	27.3x	20.9x
Veeva Systems Inc	30%	46%	20%	38%	75%	59%	46,885	32.7x	26.0x	21.8x
Atlassian Corp. Plc	31%	37%	21%	27%	68%	48%	114,791	61.9x	48.9x	39.3x
Twilio, Inc.	65%	-2%	33%	-2%	63%	32%	51,088	29.0x	18.5x	14.0x
ServiceNow, Inc.	31%	29%	26%	31%	60%	57%	135,672	30.0x	23.1x	18.4x
HubSpot, Inc.	41%	20%	35%	12%	60%	47%	36,546	41.4x	28.7x	22.5x
Tier 1 SaaS (Rule of 40 > 60) Average								50.2x	33.0x	25.2x
	LTM Revenue Growth	LTM FCF Margin	NTM Revenue Growth	NTM FCF Margin	LTM Rule Of 40	NTM Rule Of 40	Enterprise Value (\$MM)	EV/S		
								C20	C21E	C22E
Tier 2 SaaS (Rule of 40 b/w 40-60)										
Docebo, Inc.	53%	6%	50%	-1%	59%	48%	2,291	36.4x	22.4x	15.9x
Qualys, Inc.	12%	47%	12%	38%	59%	49%	4,568	12.6x	11.2x	10.0x
Descartes Systems	15%	41%	16%	38%	56%	54%	6,931	21.3x	19.9x	16.4x
Avalara Inc	37%	11%	25%	2%	48%	27%	15,354	30.7x	22.7x	18.4x
Five9, Inc.	41%	6%	24%	7%	47%	31%	10,696	24.6x	18.2x	14.8x
Dropbox, Inc.	13%	33%	10%	33%	46%	43%	11,610	6.1x	5.4x	5.0x
Mimecast Limited	19%	27%	17%	21%	46%	38%	4,920	10.2x	8.6x	7.5x
Wix.com Ltd.	36%	8%	19%	3%	44%	22%	10,410	10.5x	8.2x	6.8x
Workday, Inc.	17%	26%	19%	24%	43%	43%	70,354	16.5x	14.0x	11.7x
VMware, Inc.	8%	34%	8%	28%	42%	36%	57,748	4.9x	4.5x	4.2x
Tier 2 SaaS (Rule of 40 b/w 40-60) Average								17.4x	13.5x	11.1x
	LTM Revenue Growth	LTM FCF Margin	NTM Revenue Growth	NTM FCF Margin	LTM Rule Of 40	NTM Rule Of 40	Enterprise Value (\$MM)	EV/S		
								C20	C21E	C22E
Tier 3 SaaS (Rule of 40 b/w 28-40)										
BlackLine, Inc.	20%	20%	20%	7%	40%	27%	7,288	20.7x	17.3x	14.3x
Zendesk, Inc.	28%	12%	27%	9%	40%	36%	12,883	12.5x	9.7x	7.7x
MongoDB, Inc.	40%	-5%	32%	-6%	35%	26%	34,389	59.7x	43.3x	33.0x
LivePerson, Inc.	31%	2%	22%	-8%	33%	15%	3,484	9.5x	7.4x	5.9x
Rapid7 Inc.	26%	6%	25%	4%	32%	29%	7,015	17.0x	13.4x	11.0x
Paylocity Holding Corp.	13%	18%	26%	14%	31%	39%	16,539	27.6x	23.1x	18.8x
Q2 Holdings, Inc.	27%	2%	19%	0%	29%	19%	4,363	10.7x	8.8x	7.4x
Akamai Technologies, Inc.	10%	18%	7%	24%	28%	31%	18,797	5.9x	5.4x	5.0x
Tier 3 SaaS (Rule of 40 b/w 28-40) Average								20.5x	16.0x	12.9x
	LTM Revenue Growth	LTM FCF Margin	NTM Revenue Growth	NTM FCF Margin	LTM Rule Of 40	NTM Rule Of 40	Enterprise Value (\$MM)	EV/S		
								C20	C21E	C22E
Tier 4 SaaS (Rule of 40 <28)										
RingCentral, Inc.	33%	-6%	25%	5%	27%	31%	23,528	19.9x	15.2x	12.2x
Teradata Corporation	5%	22%	-1%	18%	27%	17%	6,231	3.4x	3.3x	3.2x
Anaplan, Inc.	29%	-2%	25%	0%	27%	25%	9,130	20.8x	16.2x	13.0x
Zuora, Inc.	11%	5%	12%	0%	16%	12%	2,624	8.7x	7.8x	6.8x
New Relic, Inc.	10%	3%	9%	1%	14%	10%	5,111	7.8x	7.1x	6.4x
Kinaxis, Inc.	0%	9%	21%	12%	8%	33%	4,129	18.4x	16.8x	13.2x
Yext, Inc.	12%	-4%	11%	-1%	8%	10%	1,535	4.4x	4.0x	3.5x
Splunk Inc.	3%	-3%	16%	7%	0%	23%	27,493	12.3x	10.8x	9.0x
Tier 4 SaaS (Rule of 40 <28) Average								12.0x	10.1x	8.4x
SaaS Average								26.6x	19.1x	15.1x

Source: Company reports, FactSet and CIBC World Markets Inc.

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