

EQUITY RESEARCH

March 10, 2022

Industry Update

Elevated Cyber Threats – Bits & Bytes Weekly

Cybersecurity Becoming A Key Business Risk

Our Conclusion

While Russia's invasion of Ukraine has yet to include a major cyber attack on Ukraine or other nations, the risk of a global cyberwar has certainly been elevated. Nation states are not the only ones on high alert for a cyber attack, with companies also rushing to strengthen their cyber defences during a period of heightened uncertainty. What may have been viewed as an IT-department problem in the past has been elevated to a full-scale business risk.

Key Points

Even prior to the Russian invasion, Ukraine was seeing elevated cybersecurity incidents, with Politico noting that hackers had defaced and disabled more than 70 Ukrainian government websites in January 2022, while Microsoft found malware planted in Ukrainian government systems. Russia has sophisticated cyber capabilities and its foreign intelligence and military intelligence services have been linked to a number of cyber events, from the SolarWinds IT management breach in 2020 to NotPetya ransomware attacks that have cost billions globally. Outside of state-sponsored organizations, Russia is also believed to work with a network of proxy hackers, either within or outside of Russia.

With increasing economic sanctions against Russia, we believe that the risk of global cyber events is increasing. *Harvard Business Review* noted that corporations with links to Ukrainian national banks and critical infrastructures should anticipate an increase in cyber attacks. Even before the current global unrest, the pace of cyber attacks has been growing, with the risk of attack up 50% Y/Y in 2021, with both the expected frequency and severity rising. Shaz Merwat and CIBC's ESG team noted in a recent report ([link to research](#)) that there is a cyber attack every 49 seconds.

In the face of an increasing threat, we believe that governments and corporations will look to improve and expand cybersecurity practices, with PwC's 2022 *Global Digital Trust Insights* report noting that 69% of organizations surveyed are predicting a rise in cyber spending for 2022, with 26% of respondents expecting an increase of over 10%. Research firm Gartner forecasts that spending on information security and risk management will reach \$172 billion in 2022, up from \$150 billion in 2021 and \$134 billion in 2020.

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

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

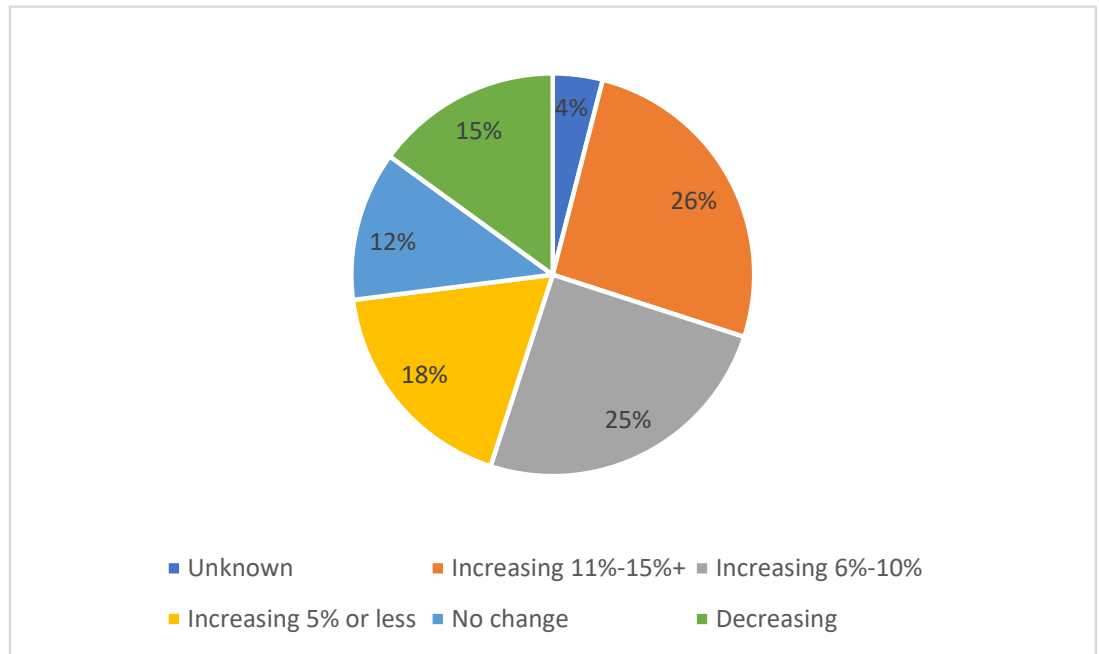
Natalie Zhang, CFA
+1 416-581-2120
Natalie.Zhang@cibc.com

Sector:
Information Technology

Cybersecurity Spending On The Rise

PwC's 2022 *Global Digital Trust Insights* surveyed 2,502 business, technology and security executives globally. The survey found that 26% of respondents expected double-digit growth in their cyber budgets in 2022, up from 8% in the prior year.

Exhibit 1: Cyber Security – Expected Change In 2022 Cyber Budgets



Source: PwC's 2022 *Global Digital Trust Insights*.

News Impacting Our Coverage

Research Highlight: Software Valuation Monthly – February 2022

February 2022 has not been kind to growth sectors. Tech stock share prices and valuations continue to slip in response to ongoing concerns around rising rates and the Russia-Ukraine conflict. Both our coverage and overall software markets underperformed the S&P 500 and the TSX as investors remain more interested in value, particularly commodities, as inflation worsens. Within our coverage universe, February stock price returns deteriorated sequentially, with an average return of -10% versus a -8% return in January. All of our coverage saw negative returns; notable outperformers included DSGX (-1%) and CSU (-2%), while the underperformers included QFOR (-20%), DND (-20%) and AIF (-19%). Performance was not dictated by sub-sector, with strength and weakness spread across business models. [Link to note](#)

Research Highlight: ENGH – Q1/22 A Disappointment, But Valuation Is Attractive

Enghouse reported a quarterly revenue miss that highlights a challenging environment for organic growth as demand for cloud products accelerates. We expect Enghouse to continue to prioritize margins over growth and to direct excess cash to M&A and dividends, with the quarterly dividend raised 16% with Q1. Accelerated M&A appears likely in 2022, with ample cash on Enghouse's balance sheet, an attractive valuation environment and more motivated sellers. [Link to note](#)

Research Highlight: SFTC – Benefiting From Solid Demand + Project Monarch

Softchoice is seeing solid demand for its software, cloud and services offerings, coupled with the realization of Project Monarch benefits. Gross profit was up 31% Y/Y and the company

increased its 2022 gross profit outlook with Q4 results. We see Softchoice as well positioned to benefit from accelerating demand for cloud and digital solutions and see upside as the company expands its relationship with AWS and Google. [Link to note](#)

Research Highlight: DCBO – In-line Q1

Docebo reported an in-line Q4, with revenue that was 1% above consensus and ARR growth of 59% Y/Y. The company announced 169 net customer adds in the quarter, including Align Technology, Dine Brands and the NCAA. Average contract value continues to rise, finishing the quarter up 24% Y/Y at \$42k. Net Dollar Retention improved from 108% to 113% as the company continues to expand ARR within its existing customer base. Cash burn remains minimal and Docebo finished the quarter with over \$215 million in cash, leaving the company well positioned to continue to execute on its growth strategy.

Research Highlight: MAGT – Strong Q4 And Solid 2022 Guidance

Magnet reported solid Q4 results, with net revenue that was 12% above consensus and EBITDA margins that were 840 bps above expectations. Magnet also announced 2022 guidance, with the midpoint of revenue 5% above consensus and the midpoint of EBITDA margin guidance 80 bps below as the company continues to invest for growth. Magnet has been seeing returns from recent investments, with ARR up 48% Y/Y in Q4, and average recurring revenue per account was up 44% to \$13,500 as Magnet continues to cross-sell/upsell into its existing base. With cash of \$118 million, we see Magnet as well positioned to continue to execute on its growth strategy.

Q4/F21 First Look: In-line Quarter As Margin Pressure Persist

LifeWorks posted an in-line Q4, with revenue and adjusted EBITDA within 1% of Street expectations. Revenue was in line with our expectations in all segments save for Health & Productivity as iCBT revenue declined Y/Y. Adjusted EBITDA margins were up 30 bps from the prior quarter, but down 190 bps Y/Y as supply-side counselling issues continue. The press release also referenced a recent EAP win that is one of the company's largest EAP mandates to date. Constant currency organic growth of 3.5% was down 20 bps sequentially and generally in line with management's mid-single-digit target.

CGI And Fingrid Go Live With Datahub

Fingrid Datahub Oy has partnered with CGI and launched Datahub, Finland's new centralized information exchange system for the retail electricity market. This marks an important step in Finland's plan towards a smarter, cleaner and more flexible energy system. Datahub centralizes 3.8 million energy data points to accelerate information exchange. Datahub is powered by CGI's Central Market Solutions (CMS), providing a foundation for smart grids and smart meters, enabling the ability to monitor energy efficiency, demand-side energy management, and distribute electricity generation.

Exhibit 2: CIBC Software/Services – Coverage Performance, 3/10/2021 - 3/10/2022

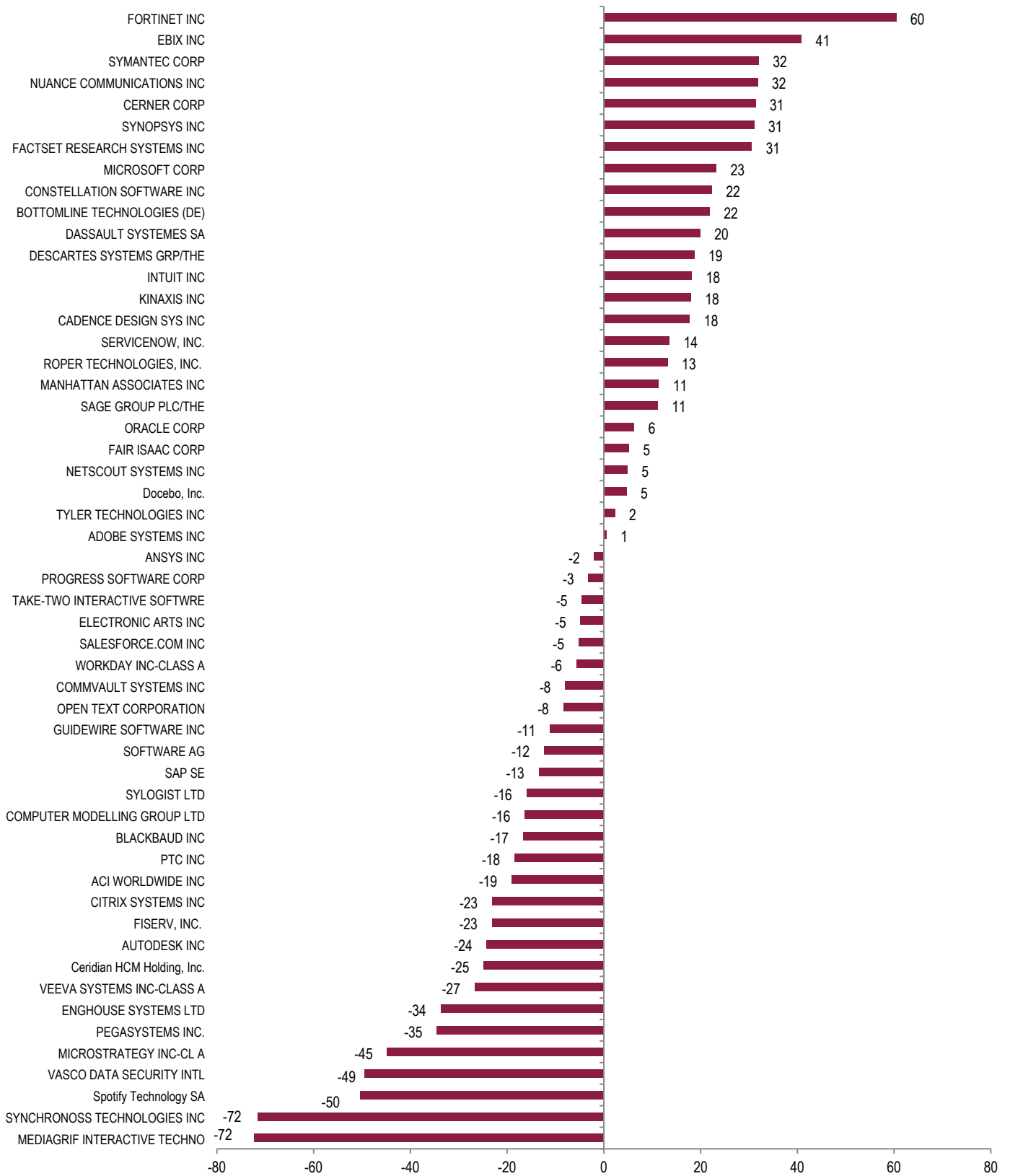
Software & Systems	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD	52W High	52W Low
Constellation Software Inc	2,086.22	(3.8)	(4.2)	(4.4)	(6.0)	22.3	(11.1)	2385.80	1672.03
Descartes Systems	73.17	2.5	1.6	(5.7)	(14.0)	17.6	(11.5)	91.39	56.78
Dye & Durham	27.52	(2.8)	(7.9)	(40.2)	(40.1)	NA	(38.7)	50.49	26.62
Enghouse Systems Limited	39.28	(5.5)	(7.1)	(22.7)	(35.3)	(33.7)	(18.9)	64.42	34.21
Open Text Corp	42.68	(0.8)	(5.4)	(10.6)	(19.8)	(8.4)	(10.1)	55.25	40.96
Kinaxis	156.23	3.8	(2.6)	(14.7)	(23.8)	18.0	(11.9)	229.98	130.68
Docebo, Inc.	55.49	(7.5)	(21.5)	(35.6)	(48.1)	4.7	(34.6)	117.55	47.61
Magnet Forensics	27.86	(5.9)	1.9	(8.1)	(48.0)	NA	(15.2)	65.80	20.92
Q4 Inc.	5.41	(11.5)	8.2	NA	NA	NA	NA	12.05	4.40
Average		(3.5)	(4.1)	(17.7)	(29.4)	3.4	(19.0)		

Business Services	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD	52W High	52W Low
Altus Group Ltd	48.34	(0.5)	(7.6)	(32.8)	(28.2)	(22.5)	(31.9)	72.33	46.27
CGI Group Inc	103.28	(1.5)	(5.8)	(5.1)	(10.5)	4.4	(7.7)	116.88	98.96
Converge Technologies	9.36	(1.4)	(15.4)	(20.9)	(23.8)	52.7	(13.9)	13.09	4.91
Information Services Corp	22.20	0.6	(10.9)	(11.9)	(22.8)	2.6	(15.4)	33.87	20.67
LifeWorks Inc	19.84	(17.0)	(28.6)	(24.0)	(44.5)	(40.1)	(22.3)	37.56	22.30
Softchoice Corporation	25.01	15.8	8.8	18.0	NA	NA	NA	45.74	18.63
Telus International	30.34	(1.2)	(15.4)	(27.1)	(33.0)	NA	NA	49.43	29.00
Average		(0.7)	(10.7)	(14.8)	(27.1)	(0.6)	(18.2)		

Indices	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD
S&P/TSX Composite Index	21,550.02	1.4	0.1	3.2	4.4	15.3	1.5
S&P 500 Index	4,252.10	(2.6)	(5.6)	(9.8)	(4.6)	9.1	(10.8)
S&P/TSX Software Index	158.30	(3.8)	(13.2)	(25.1)	(34.8)	(13.1)	(25.4)
S&P500 Software Index	4,852.82	(3.7)	(7.3)	(19.4)	(10.5)	14.8	(17.0)

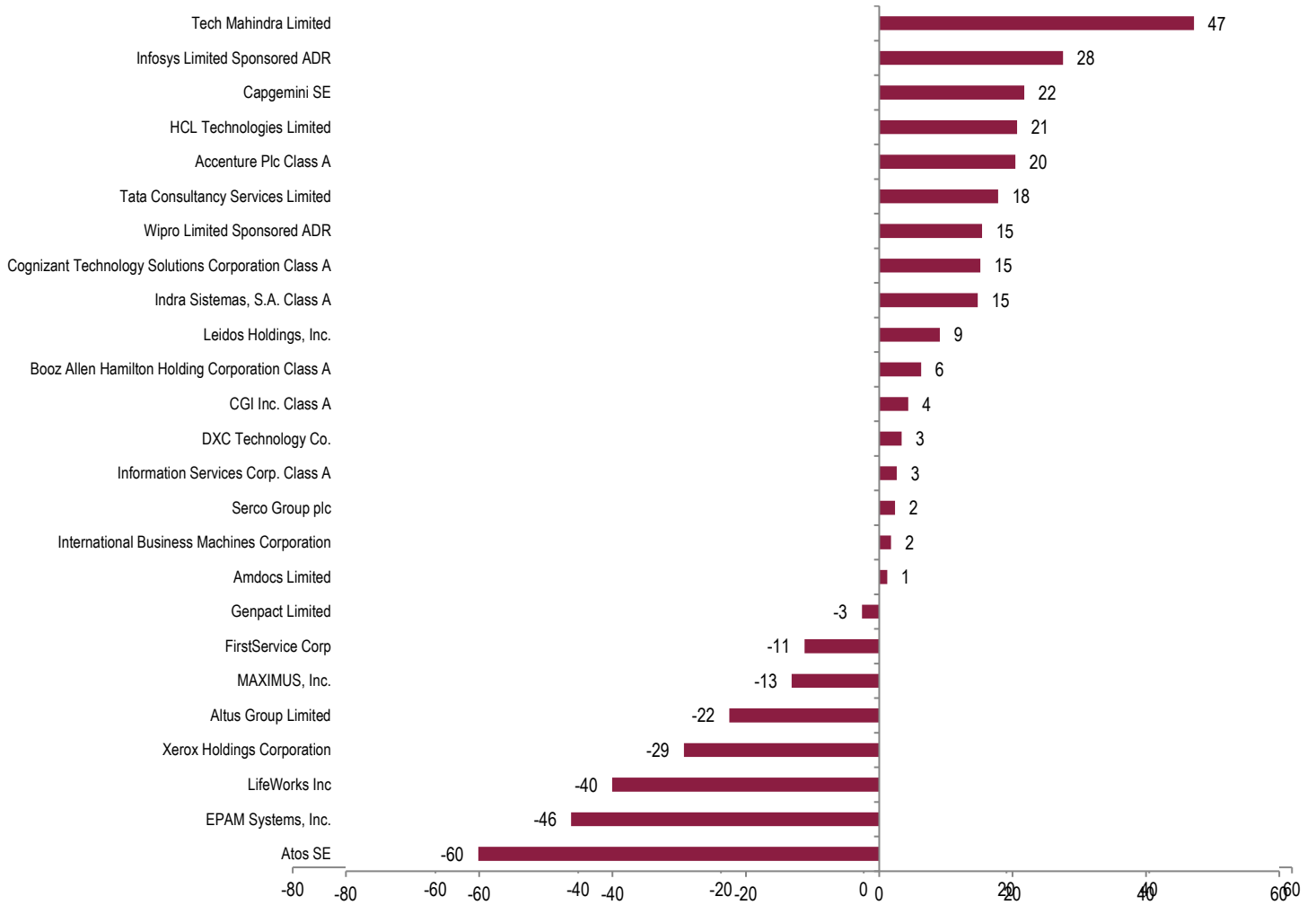
Source: Company reports, FactSet and CIBC World Markets Inc.

Exhibit 3: Software Stocks – Return Performance (%), 3/10/2021 - 3/10/2022



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

Exhibit 4: Business Services Stocks – Return Performance (%), 3/3/2021 - 3/3/2022



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

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

	Enterprise Value (\$mlns.)	EV/S			EV/EBITDA			P/E		
		C20	C21E	C22E	C20	C21E	C22E	C20	C21E	C22E
Enterprise Application Software										
Constellation Software Inc.*	35,089	8.8x	6.9x	5.9x	28.6x	23.2x	20.0x	41.3x	>50	29.6x
BlackBerry Limited*	3,846	4.0x	3.9x	3.9x	19.2x	49.3x	NEG	27.2x	>50	NEG
Sage Group plc	6,912	3.7x	3.7x	3.5x	14.8x	16.2x	15.0x	25.0x	27.7x	24.5x
Tyler Technologies, Inc.	17,974	16.1x	11.3x	9.7x	>50	41.4x	37.2x	>50	>50	>50
Roper Technologies, Inc.	53,937	9.7x	9.3x	8.8x	27.1x	23.8x	22.7x	34.3x	30.8x	28.2x
Enghouse Systems Limited	2,011	4.0x	4.4x	4.2x	10.7x	12.4x	12.1x	19.6x	23.5x	23.9x
Oracle Corporation	245,171	6.1x	5.9x	5.7x	12.5x	12.0x	11.5x	17.7x	16.1x	15.1x
SAP SE	123,910	4.5x	4.5x	4.2x	13.2x	14.6x	13.9x	18.1x	14.5x	18.4x
Enterprise Application Software Average		7.1x	6.2x	5.7x	18.0x	24.1x	18.9x	26.2x	22.5x	23.3x
Extended ERP										
Adobe Inc.	206,248	15.7x	12.9x	11.4x	32.1x	25.9x	23.4x	42.7x	34.9x	31.4x
Open Text Corporation	13,839	4.2x	4.0x	3.8x	10.8x	10.8x	10.4x	13.1x	13.5x	12.9x
Manhattan Associates, Inc.	8,145	13.9x	12.3x	11.5x	>50	44.3x	46.8x	>50	>50	>50
Pegasystems Inc.	6,741	6.6x	5.6x	4.6x	>50	>50	>50	NEG	>50	>50
Software AG	1,941	2.3x	2.3x	2.1x	10.1x	11.6x	9.5x	17.7x	19.5x	18.1x
Fiserv, Inc.	83,218	6.0x	5.4x	5.0x	15.3x	13.0x	11.8x	21.5x	17.1x	14.8x
Extended ERP Average		8.1x	7.1x	6.4x	17.1x	21.1x	20.4x	23.7x	21.2x	19.3x
Software As A Service										
Descartes Systems Group Inc.	6,000	17.2x	14.1x	12.7x	42.3x	32.4x	29.4x	>50	>50	>50
Kinaxis, Inc.*	3,154	14.1x	12.7x	10.2x	>50	>50	>50	>50	>50	>50
Docebo, Inc.*	1,207	19.2x	11.6x	8.3x	NEG	NEG	NEG	NEG	NEG	NEG
Lightspeed Commerce Inc*	2,601	13.2x	5.6x	3.8x	NEG	NEG	NEG	NEG	NEG	NEG
Veeva Systems Inc Class A	25,941	18.1x	14.3x	12.1x	43.9x	34.0x	30.8x	>50	>50	46.1x
Shopify, Inc. Class A	64,901	22.2x	14.1x	10.7x	>50	>50	>50	>50	>50	>50
Q4 Inc*	73	1.8x	1.3x	1.0x	NEG	NEG	NEG	NEG	NEG	NEG
Magnet Forensics, Inc.*	757	10.8x	8.1x	6.3x	40.6x	>50	39.0x	>50	>50	>50
Ceridian HCM Holding, Inc.	10,573	12.6x	10.3x	8.8x	>50	>50	>50	>50	>50	>50
ServiceNow, Inc.	106,536	23.6x	18.1x	14.4x	>50	>50	45.0x	>50	>50	>50
Workday, Inc. Class A	55,929	13.1x	11.0x	9.2x	49.6x	38.2x	36.9x	>50	>50	>50
Software As A Service Average		15.1x	11.0x	8.9x	44.1x	34.9x	36.2x	>50	>50	46.1x
Infrastructure Vendors										
Citrix Systems, Inc.	15,749	4.9x	4.9x	4.7x	13.8x	13.4x	14.9x	16.6x	19.0x	19.0x
Microsoft Corporation	2,098,972	13.5x	11.4x	9.8x	28.2x	23.0x	19.5x	41.6x	33.0x	28.4x
Infrastructure Vendors Average		9.2x	8.2x	7.3x	21.0x	18.2x	17.2x	29.1x	26.0x	23.7x
Software Average		10.7x	8.5x	7.3x	24.3x	24.4x	23.7x	25.9x	22.7x	23.9x

*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 (\$mlns.)	EV/EBITDA			P/E			EV/S			
	C20	C21E	C22E	C20	C21E	C22E	C20	C21E	C22E	
Business & IT Services										
CGI Inc. Class A	27,028	11.0x	10.9x	10.6x	20.7x	18.4x	16.8x	2.2x	2.2x	2.1x
TELUS International (CDA), Inc.	7,302	18.5x	13.5x	11.7x	33.6x	23.6x	19.8x	4.4x	3.3x	2.8x
Accenture Plc Class A	199,101	22.9x	19.7x	17.2x	39.1x	33.0x	28.3x	4.3x	3.7x	3.2x
Booz Allen Hamilton	12,789	15.6x	14.2x	13.4x	22.3x	20.2x	18.6x	1.6x	1.6x	1.5x
CACI International Inc Class A	8,944	14.4x	13.3x	12.8x	19.0x	16.1x	15.4x	1.5x	1.4x	1.4x
DXC Technology Co.	11,378	4.2x	4.2x	4.1x	9.4x	9.0x	7.2x	0.6x	0.7x	0.7x
Genpact Limited	8,767	12.9x	11.5x	10.8x	19.5x	16.9x	15.7x	2.4x	2.2x	2.0x
International Business Machines	159,376	10.5x	9.1x	9.6x	15.0x	15.7x	12.7x	2.2x	2.8x	2.6x
Atos SE	4,619	3.2x	4.8x	4.5x	3.9x	NEG	10.8x	0.4x	0.4x	0.4x
Capgemini SE	35,478	14.3x	12.2x	10.9x	24.2x	19.0x	17.8x	2.2x	2.0x	1.8x
Sopra Steria Group SA	4,273	9.3x	7.9x	7.1x	19.1x	14.1x	11.0x	1.0x	0.9x	0.9x
Business & IT Services Average		12.4x	11.0x	10.2x	20.5x	18.6x	15.8x	2.1x	1.9x	1.8x
HR Outsourcing										
LifeWorks Inc	1,920	9.6x	9.4x	8.7x	24.9x	NEG	23.5x	2.0x	1.9x	1.8x
Ceridian HCM Holding, Inc.	10,573	>50	>50	>50	>50	>50	>50	12.6x	10.3x	8.8x
Willis Towers Watson	27,186	11.0x	11.4x	11.1x	19.2x	19.3x	16.6x	2.9x	3.0x	2.9x
Aon Plc Class A	72,664	22.1x	18.8x	17.9x	30.1x	24.6x	22.3x	6.6x	6.0x	5.6x
Automatic Data Processing, Inc.	88,877	24.3x	22.3x	20.3x	35.0x	32.6x	29.1x	6.0x	5.7x	5.3x
Paychex, Inc.	43,862	26.0x	23.6x	21.5x	40.3x	36.0x	32.3x	10.8x	10.2x	9.4x
HR Outsourcing Average		18.6x	17.1x	15.9x	29.9x	28.1x	24.8x	6.8x	6.2x	5.6x
Information Services										
Broadridge Financial Solutions, Inc.	20,922	19.7x	17.9x	15.8x	27.2x	24.2x	21.7x	4.4x	3.9x	3.6x
Dye & Durham Ltd.	2,072	NEG	13.1x	9.8x	NEG	>50	44.0x	23.8x	5.5x	3.6x
Deluxe Corporation	2,754	7.6x	6.8x	6.2x	6.0x	6.2x	6.2x	1.5x	1.4x	1.3x
Information Services Corp	440	9.2x	6.7x	6.6x	15.3x	11.7x	11.1x	3.2x	2.7x	2.6x
Information Services Average		12.2x	11.1x	9.6x	16.1x	14.0x	20.8x	8.2x	3.4x	2.8x
Financial Services Technology										
Fidelity National Information Services	74,011	14.1x	12.1x	11.1x	16.6x	13.8x	12.4x	5.9x	5.3x	5.0x
Fiserv, Inc.	83,218	15.3x	13.0x	11.8x	21.5x	17.1x	14.8x	6.0x	5.4x	5.0x
Jack Henry & Associates, Inc.	13,373	24.0x	22.7x	20.9x	45.6x	40.8x	36.4x	7.7x	7.2x	6.7x
ACI Worldwide, Inc.	4,707	13.1x	12.3x	11.5x	>50	29.7x	24.6x	3.6x	3.4x	3.3x
Temenos AG	7,148	17.6x	16.5x	15.2x	24.7x	22.3x	20.3x	7.9x	7.4x	6.7x
Global Payments Inc.	46,369	15.4x	12.8x	11.5x	19.9x	15.6x	13.3x	6.9x	6.0x	5.5x
Bottomline Technologies	2,562	26.2x	24.9x	22.7x	48.5x	49.6x	46.7x	5.6x	5.2x	4.6x
Financial Services Technology Average		18.0x	16.3x	15.0x	29.4x	27.0x	24.1x	6.2x	5.7x	5.3x
Diversified Real Estate Services										
Colliers International Group Inc.	6,373	17.6x	11.7x	10.4x	29.9x	20.2x	17.8x	2.3x	1.6x	1.4x
Altus Group Limited	2,300	23.2x	21.7x	18.2x	29.2x	32.8x	34.6x	4.1x	3.7x	3.2x
CBRE Group, Inc. Class A	30,963	16.7x	10.3x	9.5x	26.9x	16.5x	14.5x	1.3x	1.1x	0.9x
Jones Lang LaSalle Incorporated	12,755	14.8x	8.5x	8.6x	23.1x	11.2x	11.3x	1.4x	1.2x	1.1x
Diversified Real Estate Services Average		18.1x	13.1x	11.7x	27.2x	20.2x	19.5x	2.3x	1.9x	1.7x
Software Focused IT Solutions/VARs										
Softchoice Corporation*	1,575	24.1x	22.8x	15.7x	39.0x	38.7x	33.8x	6.6x	5.5x	4.9x
Softcat Plc*	2,912	23.4x	17.1x	16.9x	31.5x	23.0x	23.0x	9.8x	7.6x	7.0x
Crayon Group Holding ASA*	16,435	>50	>50	>50	>50	>50	>50	>50	48.2x	35.5x
Bytes Technology Group Plc*	983	23.8x	17.0x	15.6x	32.4x	21.6x	20.1x	10.0x	NA	NA
SoftwareONE Holding Ltd.*	1,244	6.4x	5.7x	4.6x	9.1x	14.0x	11.8x	5.6x	1.3x	1.2x
Bytes Technology Group Plc* Average		19.4x	15.6x	13.2x	28.0x	24.3x	22.2x	8.0x	15.6x	12.1x
Business Services Average		15.9x	13.7x	12.4x	24.9x	22.1x	20.5x	5.0x	5.0x	4.3x

*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	55%	36%	10%	33%	91%	43%	26,771	10.8x	6.7x	5.9x
CrowdStrike Holdings, Inc.	69%	33%	44%	28%	102%	71%	37,725	44.8x	26.9x	18.2x
Shopify, Inc.	57%	10%	31%	5%	67%	36%	67,420	23.0x	14.6x	11.1x
Zscaler, Inc.	60%	26%	43%	23%	86%	65%	29,208	54.8x	35.2x	24.3x
Lightspeed POS, Inc.	159%	-22%	39%	-9%	137%	30%	2,710	13.8x	5.8x	4.0x
DocuSign, Inc.	51%	23%	27%	20%	74%	47%	19,544	13.8x	9.6x	7.6x
Veeva Systems Inc	26%	#N/A	17%	37%	#N/A	54%	26,686	18.6x	14.7x	12.5x
Atlassian Corp. Plc	35%	35%	21%	25%	70%	46%	65,683	35.4x	27.5x	21.7x
Twilio, Inc.	61%	-3%	36%	-2%	58%	34%	22,256	12.6x	7.8x	5.8x
ServiceNow, Inc.	30%	31%	26%	31%	61%	57%	110,822	24.5x	18.8x	14.9x
HubSpot, Inc.	47%	18%	33%	14%	66%	46%	20,596	23.3x	15.8x	11.9x
Tier 1 SaaS (Rule of 40 > 60) Average								25.0x	16.7x	12.5x
	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.	55%	4%	46%	-3%	58%	43%	1,274	20.2x	12.2x	8.7x
Qualys, Inc.	14%	43%	17%	34%	56%	51%	4,660	12.8x	11.3x	9.6x
Descartes Systems	22%	40%	13%	38%	62%	51%	6,033	17.3x	14.2x	12.7x
Avalara Inc	40%	6%	23%	0%	45%	23%	7,746	15.5x	11.1x	9.0x
Five9, Inc.	40%	-2%	24%	5%	38%	29%	6,885	15.8x	11.3x	9.1x
Dropbox, Inc.	13%	34%	8%	34%	47%	42%	8,627	4.5x	4.0x	3.7x
Mimecast Limited	19%	28%	14%	22%	48%	36%	5,285	10.9x	9.2x	8.0x
Wix.com Ltd.	28%	5%	15%	1%	33%	16%	4,283	4.3x	3.4x	2.9x
Workday, Inc.	20%	27%	20%	19%	47%	40%	57,068	13.4x	11.3x	9.3x
VMware, Inc.	9%	31%	7%	28%	40%	35%	58,057	5.0x	4.6x	4.2x
Tier 2 SaaS (Rule of 40 b/w 40-60) Average								12.0x	9.3x	7.7x
	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.	21%	18%	23%	2%	39%	25%	4,170	11.9x	9.8x	8.0x
Zendesk, Inc.	30%	12%	26%	11%	42%	37%	14,367	14.0x	10.7x	8.5x
MongoDB, Inc.	43%	-4%	37%	-2%	39%	35%	21,659	37.6x	25.5x	18.8x
LivePerson, Inc.	28%	-8%	18%	-12%	20%	6%	1,869	5.1x	4.0x	3.4x
Rapid7 Inc.	30%	8%	28%	7%	39%	35%	6,859	16.7x	12.8x	10.0x
Paylocity Holding Corp.	25%	16%	25%	15%	41%	40%	10,726	17.9x	14.6x	11.6x
Q2 Holdings, Inc.	24%	2%	16%	2%	26%	18%	3,585	8.8x	7.2x	6.2x
Akamai Technologies, Inc.	8%	25%	8%	24%	33%	32%	19,287	6.0x	5.6x	5.2x
Tier 3 SaaS (Rule of 40 b/w 28-40) Average								14.7x	11.3x	8.9x
	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.	35%	6%	26%	7%	41%	33%	12,141	10.3x	7.6x	6.0x
Teradata Corporation	4%	23%	1%	21%	27%	22%	4,804	2.6x	2.5x	2.5x
Anaplan, Inc.	32%	-5%	26%	0%	27%	26%	6,857	15.6x	11.8x	9.4x
Zuora, Inc.	14%	7%	16%	0%	20%	16%	1,570	5.2x	4.6x	3.9x
New Relic, Inc.	15%	-4%	17%	4%	11%	22%	3,818	5.9x	5.1x	4.3x
Kinaxis, Inc.	4%	7%	35%	10%	11%	45%	3,187	14.2x	12.8x	10.3x
Yext, Inc.	11%	-2%	12%	-1%	9%	11%	568	1.6x	1.5x	1.4x
Splunk Inc.	20%	4%	22%	12%	24%	34%	21,956	9.8x	8.3x	6.8x
Tier 4 SaaS (Rule of 40 <28) Average								8.1x	6.8x	5.6x
SaaS Average								15.6x	11.4x	9.0x

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

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