

EQUITY RESEARCH

February 10, 2022

Industry Update

Q4/21 U.S. Earnings Recap – Bits & Bytes Weekly

Earnings, Beats & Raises, And Some Selloffs

Our Conclusion

Q4 earnings season is well underway, with large-cap U.S. technology companies reporting over the last two weeks. Results to date have been largely in line as pandemic-driven tailwinds begin to subside. With a few exceptions, both large-cap tech companies and business services names we monitor met top-line and bottom-line estimates, with positive (AMZN) and negative (FB) updates seeing outsized stock reactions in a volatile tech market.

On average, the software companies we follow reported sales that came in 1% above consensus estimates, while EBITDA beat estimates by 1% and EPS beat estimates by 11%. Of the nine major companies that have reported, seven met/beat Street estimates on profitability metrics, with Meta and PayPal the exceptions. The benefits from operating leverage are beginning to ease as median EBITDA margins declined by 80bps Y/Y, with Meta, Netflix, and SAP SE the largest negative contributors. Largely, these results suggest the underlying digital transformation theme continues and fundamentals remain healthy for the tech ecosystem, barring company-specific headwinds. Notable takeaways from some of the individual names are noted below.

Key Points

Microsoft (MSFT): Microsoft reported a strong quarter that saw revenue of US\$51.7 billion top consensus by 2%, underpinned by continued strong growth in the cloud. Cloud division revenues of US\$18.3 billion met consensus. Azure revenue was up 46% Y/Y, in line with consensus. Despite a slowdown in industry PC shipments, Personal Computing revenue of US\$17.5 billion beat consensus of US\$16.6 billion. As gaming becomes more integral to MSFT's strategy, the company announced the large acquisition of Activision Blizzard for US\$68.7B. The Productivity and Business Products segment registered US\$15.9B in sales and posted a 19% Y/Y growth. Microsoft Teams finished the quarter with more than 270MM monthly active users.

Amazon (AMZN): Amazon reported US\$137.4B of revenue, up 9% Y/Y and in line with consensus. Reported EPS of US\$27.75 almost doubled Y/Y and were substantially higher than the consensus estimate of US\$3.61 due in part to its stake in Rivian Automotive. The investment in the EV maker netted Amazon a pre-tax gain of US\$11.8B as the company IPO'd in November. The company disclosed advertising revenue separately for the first time with advertising revenue of US\$9.7B in the quarter, up 33% Y/Y on a constant-currency basis and accounting for 7% of total corporate revenue. This compares with US\$32.6B of advertising revenue reported by Meta.

All figures in Canadian dollars unless otherwise stated.

For required regulatory disclosures please refer to "Important Disclosures" beginning on page 11.

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Sector:
Information Technology

Google (GOOG): Alphabet reported revenue of US\$75.3 billion, up 32% Y/Y and 4% above consensus, while EPS of US\$30.69 were 11% above consensus and up 38% Y/Y. Despite traffic acquisition cost increasing 28%, the company continued to deliver strong top-line growth driven by search, cloud, and advertising. Google Cloud, currently the third largest cloud provider, registered an annualized revenue run rate of US\$22B, up from US\$20B in Q3/21. The unit's operating losses dropped to US\$890M, down from US\$1.2B in Q4/20. The only segment that missed expectations was YouTube Advertising, as the company plans to go head to head with TikTok using the new Shorts format. Backlog grew 70% to US\$51B, primarily driven by the cloud business. Its other revenue segment including hardware, PlayStore, and non-advertising YouTube revenue reached US\$8.16B in sales and was up 22% Y/Y as the company saw record sales for its Pixel smartphones despite a challenging supply chain backdrop.

Netflix (NFLX): Netflix reported revenue of US\$7.7B, in line with consensus. Reported EPS of US\$1.33 were much higher than the consensus expectation of US\$0.83. During the quarter Netflix added 8.3M subscribers, raising its worldwide subscriber base to 222M. However, management's expectations of slowing subscriber growth led to a notable selloff, which wiped out much of the stock's pandemic-driven share price gains. The guided 2.5M subscriber adds in Q1/22 are lower than 4M in Q1/21. With the company having benefited from COVID-19 lockdowns, reopening and return-to-office are expected to pose challenges to growth in the coming quarters. Competition is also intensifying, as Warner Media announced that HBO Max beat its subscriber estimates and grew its customer base to 73.8M as of year-end 2021. The company recently raised prices for 2022 for both its standard plan and the premium package, which should help offset slowing subscriber growth.

Meta (FB): Meta reported Q4 results that were below consensus and its first daily active user (DAUs) decline in its 18-year history, leading to over US\$230B of market cap being wiped out. The company reported revenue of US\$33.7B, a touch above consensus revenue expectations but was negatively impacted by roughly US\$10B given changes to Apple's operating system. The company's guidance of US\$27B-\$29B of revenue for Q1/22 also missed analyst expectations, stoking investor concerns around Meta's ability to run targeted advertising (and track sales) as Apple rolls out the App Tracking Transparency feature. Competition with TikTok has increased, and advertising on Facebook Reels is less lucrative than its traditional channels. In addition, its virtual reality business appears to have a long path to profitability. Despite doubling its revenue in the segment to US\$2.2B in 2021, operating losses amounted to US\$10.2B for the full year.

On average, the software names we follow delivered -4.3% average return post-earnings and the services names were down 2.9%. Notable positive share reactions include Amazon (+14%), ServiceNow (+9%), Google (+8%), and Apple (+7%). Shares were down for Meta (-26%), PayPal (-25%), and Netflix (-22%).

Exhibit 1: Software & Services – Earnings Results Versus Consensus Expectations – CQ4/21**Software**

Company	Calendar Q4/21			Y/Y Change			Consensus				Surprise (%)		
	Revenue (\$M)	EBITDA (\$M)	EPS (\$)	Revenues (%)	EBITDA (%)	EPS (%)	Revenues (\$M)	EBITDA (\$M)	EPS (\$)		Revenue	EBITDA	EPS
Microsoft	51,728	25,743	2.48	20%	25%	22%	50,746	↑ 25,338	↑ 2.32	↑	2%	2%	7%
Google	75,325	29,278	30.69	32%	30%	38%	72,271	↑ 28,916	↑ 27.68	↑	4%	1%	11%
Apple	123,945	44,185	2.10	11%	22%	25%	119,002	↑ 40,602	↑ 1.9	↑	4%	9%	11%
Amazon	137,412	16,966	27.75	9%	2%	97%	137,682	↓ 16,966	- 3.61	↑	0%	0%	NA
Meta	33,671	17,005	3.67	20%	4%	-5%	33,370	↑ 17,590	↓ 3.84	↓	1%	-3%	-4%
Netflix	7,709	795	1.33	16%	-27%	12%	7,709	- 705	↑ 0.83	↑	0%	13%	60%
PayPal	6,918	1,717	1.11	13%	-2%	3%	6,889	↑ 1,826	↓ 1.12	↓	0%	-6%	-1%
ServiceNow	1,614	493	1.46	29%	33%	25%	1,604	↑ 469	↑ 1.43	↑	1%	5%	2%
SAP SE (€)	8,898	3,089	2.07	-2.9%	-19.0%	1.0%	8,855	↑ 3,371	↓ 1.95	↑	0%	-8%	6%
				16.5%	7.4%	24.1%					1.4%	1.3%	11.4%

IT Services

Company	Calendar Q4/21			Y/Y Change			Consensus				Surprise (%)		
	Revenue (\$M)	EBITDA (\$M)	EPS (\$)	Revenues (%)	EBITDA (%)	EPS (%)	Revenues (\$M)	EBITDA (\$M)	EPS (\$)		Revenue	EBITDA	EPS
Booz Allen Hamilton	2,031	222	1.02	7%	8%	-2%	2,125	↓ 220	↑ 0.98	↑	-4%	1%	4%
CACI International	1,486	158	4.39	1%	-10%	5%	1,528	↓ 166	↓ 4.5	↓	-3%	-5%	-2%
IBM	16,695	7,253	3.35	-18%	51%	69%	16,045	↑ 5,483	↑ 3.29	↑	4%	-	2%
Infosys Limited (Rs)	314,017	83,830	13.30	19%	15%	11%	308,852	↑ 80,452	↑ 13.52	↓	2%	4%	-2%
Tata Consultancy Services (Rs)	488,850	134,330	26.4	9%	10%	6%	484,824	↑ 134,597	↓ 26.79	↓	1%	0%	-1%
Wipro (Rs)	203,136	42,979	5.42	30%	4%	5%	202,673	↑ 42,980	↓ 5.55	↓	0%	0%	-2%
Average				7.9%		15.7%					-0.1%		-0.3%

Source: FactSet and CIBC World Markets Inc.

News Impacting Our Coverage

Research Highlight – TELUS International – Q4/21 First Look: Solid Q4 Results And 2022 Guide

TELUS International reported a relatively in-line Q4 and released its 2022 guidance, with the midpoint of the 2022 revenue guide 2% above consensus, but adjusted EBITDA margins 100 bps below. In Q4, TI recorded 15% organic growth, with its overall revenue mix tilted slightly more towards e-commerce and fintech than expected, with the company generating 12% of revenue (vs. our 10% expectation) from the vertical. TI saw 21% revenue growth from recent acquisitions (Lionbridge/Playment). ([Link to note](#))

Research Highlight – Converge Technology Solutions – Takeaways From Virtual Marketing

We recently had the pleasure of hosting Converge CEO Shaun Maine for a series of virtual meetings. Converge remains very confident in its acquisition strategy, noting that it could acquire up to \$1 billion in revenue in the near term. In addition to M&A, discussions focused on expansion plans in Europe, near-term supply chain disruptions, cross-selling managed services, and targets for organic growth. We retain our Neutral rating and \$11 price target, valuing the company in line with ITSP peers at 11x EBITDA. We are factoring in \$300 million in M&A spending in 2022 and foresee upside to ~\$20/share if Converge can execute on additional acquisitions. ([Link to note](#))

Converge Acquires Visucom GmbH

Converge announced the acquisition of German-based Visucom GmbH and its subsidiary, School Supplies 4.0 GmbH for €5.7M. Visucom is a hardware supplier for the education and public sectors. The company also provides on-site installations and training. The acquisition is expected to be immediately accretive to CTS, and is valued at 3x EV/Adjusted EBITDA in trailing twelve-month period. Visucom generated €7.2M in sales with an adjusted EBITDA of €1.8M in 2021. This is the 27th acquisition CTS has completed since late 2017.

Descartes Acquires NetCHB

Descartes announced the acquisition of NetCHB, a U.S.-based customs filing solutions provider with more than 700 customs brokers on its network. The company has automated the declaration process for e-commerce shipments under Section 321 Type 86, helping to streamline border crossing. Descartes is acquiring the company for US\$40M in cash with a maximum payable all-cash performance-focused earn-out of US\$60M two years post-close.

CGI Released Its 2021 CSR Report And Adds New Targets Across Strategic Priorities

CGI released its 2021 Corporate Social Responsibility (CSR) [report](#). The company has reduced total CO₂ emissions by 70% since 2014, and CGI continue to target net-zero carbon emissions by 2030. 69% of data centers are currently powered by renewable sources with CGI targeting for 100% renewal electricity procurement for all data centers by 2023. 51% of significant suppliers have been assessed against environmental and social criteria and CGI targets for 70% to be assessed by 2025.

Atlantic Tire Distributors Selects Descartes Routing Solution

Descartes announced that North Carolina-based Atlantic Tire Distributors selected Descartes' cloud-based route planning solutions for its delivery operations to wholesale customers in North Carolina, South Carolina, and Virginia. Descartes' solution will improve deliver route optimization through a real-time mobile application for drivers.

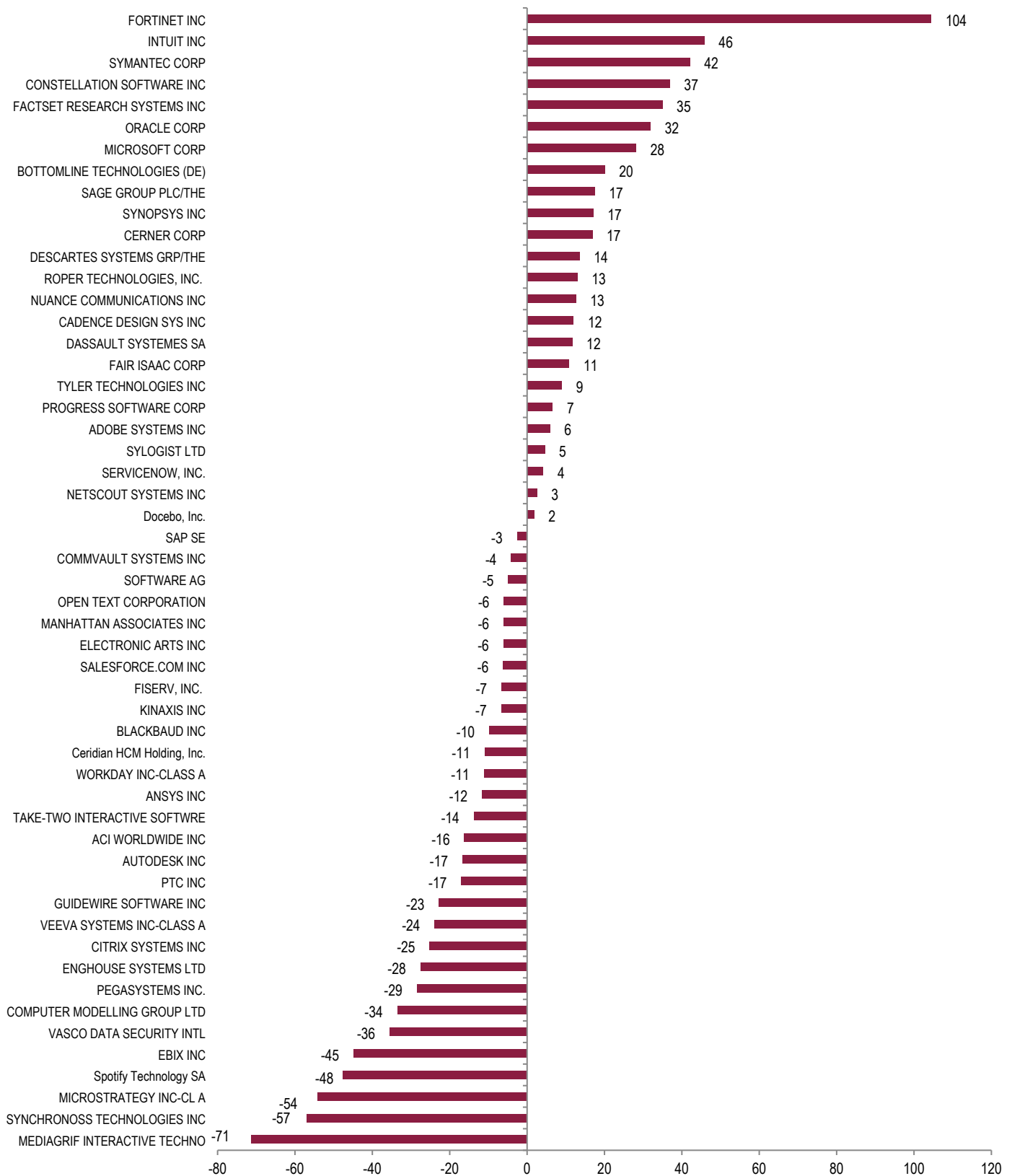
Exhibit 2: CIBC Software/Services – Coverage Performance, 1/2/2022 - 2/9/2022

Software & Systems	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD	52W High	52W Low
Constellation Software Inc	2,208.69	4.8	2.0	1.8	9.0	36.9	(5.9)	2385.80	1573.51
Descartes Systems	72.70	1.6	0.1	(15.1)	0.0	14.1	(12.1)	91.39	56.78
Dye & Durham	29.70	(4.8)	(28.6)	(26.1)	(35.6)	NA	(33.8)	53.13	27.74
Enghouse Systems Limited	43.77	0.2	1.1	(18.7)	(24.8)	(27.6)	(9.6)	64.42	41.39
Open Text Corp	46.02	(3.7)	(0.2)	(9.6)	(12.3)	(6.0)	(3.1)	55.25	43.37
Kinaxis	166.82	2.1	6.2	(19.0)	(5.7)	(6.7)	(5.9)	229.98	124.05
Docebo, Inc.	69.93	3.6	6.4	(24.1)	(15.5)	1.8	(17.6)	117.55	47.22
Magnet Forensics	27.65	9.0	1.0	(25.3)	(30.1)	NA	(15.9)	65.80	20.92
Q4 Inc.	5.35	1.1	(37.6)	NA	NA	NA	NA	12.05	4.40
Average		1.5	(5.5)	(17.0)	(14.4)	2.1	(13.0)		

Business Services	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD	52W High	52W Low
Altus Group Ltd	53.54	(6.1)	(20.6)	(16.9)	(10.8)	8.1	(24.6)	72.33	48.95
CGI Group Inc	111.08	1.5	5.3	1.2	(1.8)	10.4	(0.7)	116.88	93.88
Converge Technologies	11.41	17.6	13.9	6.3	(2.2)	76.9	5.0	13.09	4.58
Information Services Corp	24.61	5.4	(5.3)	(9.0)	(16.4)	12.6	(6.2)	33.87	21.56
LifeWorks Inc	28.02	3.4	9.2	(9.5)	(24.7)	(11.7)	9.8	37.56	24.20
Softchoice Corporation	21.98	(6.2)	12.4	(13.8)	NA	NA	NA	45.74	18.63
Telus International	35.70	5.9	(5.4)	(17.9)	(8.2)	NA	NA	49.43	33.16
Average		3.1	1.3	(8.5)	(10.7)	19.3	(3.4)		

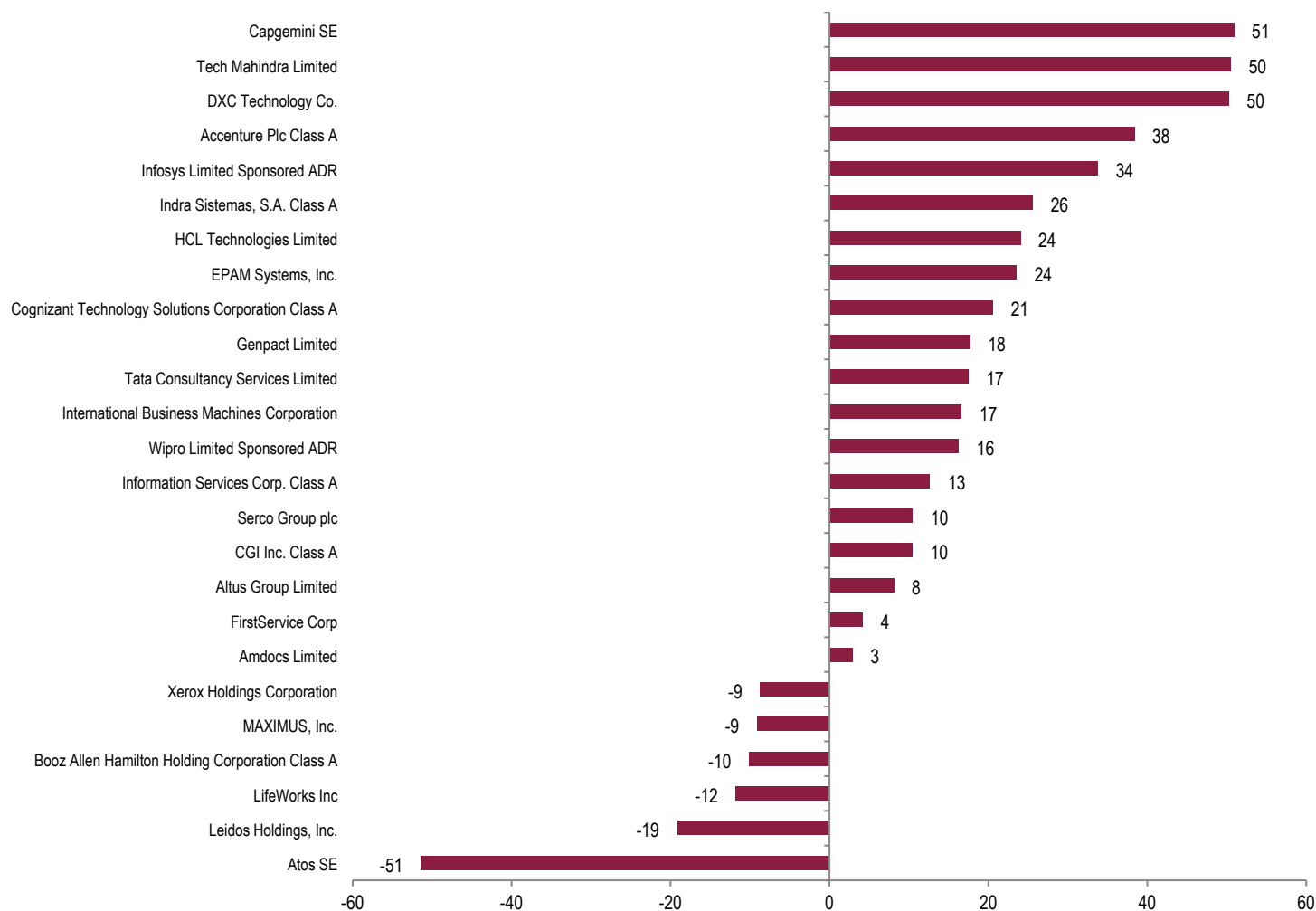
Indices	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD
S&P/TSX Composite Index	21,604.19	2.4	2.5	0.7	5.4	17.0	1.8
S&P 500 Index	4,587.18	2.5	(1.8)	(1.3)	3.4	17.3	(3.8)
S&P/TSX Software Index	185.22	5.4	(3.5)	(17.3)	(17.7)	(9.1)	(12.7)
S&P500 Software Index	5,387.16	4.1	(1.0)	(9.1)	3.0	20.0	(7.9)

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

Exhibit 3: Software Stocks – Return Performance (%), 2/9/2021 - 2/9/2022

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

Exhibit 4: Business Services Stocks – Return Performance (%), 2/9/2021 - 2/9/2022



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.*	36,869	9.3x	7.3x	6.2x	30.0x	24.7x	21.1x	44.2x	>50	31.5x
BlackBerry Limited*	4,334	4.5x	4.4x	4.4x	21.7x	>50	NEG	30.7x	>50	NEG
Sage Group plc	7,295	3.9x	3.9x	3.7x	15.6x	17.1x	15.8x	26.4x	29.3x	25.9x
Tyler Technologies, Inc.	19,469	17.4x	12.2x	10.5x	>50	45.0x	38.7x	>50	>50	>50
Roper Technologies, Inc.	55,468	10.0x	9.6x	9.0x	27.9x	24.5x	23.3x	35.6x	32.0x	29.4x
Enghouse Systems Limited	2,258	4.5x	4.9x	4.6x	12.0x	13.7x	13.1x	21.9x	26.1x	26.2x
Oracle Corporation	263,304	6.6x	6.3x	6.1x	13.4x	12.9x	12.4x	19.2x	17.5x	16.4x
SAP SE	138,779	5.1x	5.0x	4.7x	14.8x	16.4x	15.6x	20.3x	16.3x	20.6x
Enterprise Application Software Average		7.7x	6.7x	6.1x	19.3x	22.0x	20.0x	28.3x	24.2x	25.0x
Extended ERP										
Adobe Inc.	244,984	18.7x	15.3x	13.5x	38.2x	30.8x	27.8x	>50	41.4x	37.3x
Open Text Corporation	14,744	4.5x	4.3x	4.0x	11.5x	11.5x	11.1x	14.2x	14.5x	13.9x
Manhattan Associates, Inc.	8,207	14.0x	12.4x	11.5x	>50	44.6x	47.2x	>50	>50	>50
Pegasystems Inc.	8,454	8.3x	6.8x	5.7x	>50	>50	>50	NEG	>50	>50
Software AG	2,205	2.6x	2.6x	2.5x	11.5x	13.2x	10.8x	19.8x	21.8x	20.0x
Fiserv, Inc.	87,864	6.3x	5.7x	5.3x	16.1x	13.7x	12.4x	23.1x	18.3x	15.8x
Extended ERP Average		9.1x	7.9x	7.1x	19.3x	22.8x	21.9x	19.0x	24.0x	21.8x
Software As A Service										
Descartes Systems Group Inc.	6,034	17.3x	14.2x	12.8x	42.6x	32.6x	29.7x	>50	>50	>50
Kinaxis, Inc.*	3,399	15.2x	13.7x	11.0x	>50	>50	>50	>50	>50	>50
Docebo, Inc.*	1,596	25.4x	15.3x	10.5x	NEG	NEG	NEG	NEG	NEG	NEG
Lightspeed Commerce Inc*	4,024	20.4x	8.7x	5.9x	NEG	NEG	NEG	NEG	NEG	NEG
Veeva Systems Inc Class A	34,789	24.2x	19.2x	16.2x	>50	45.7x	41.3x	>50	>50	>50
Shopify, Inc. Class A	110,999	37.9x	24.3x	18.2x	>50	>50	>50	>50	>50	>50
Q4 Inc*	112	2.8x	2.0x	1.6x	NEG	NEG	NEG	NEG	NEG	NEG
Magnet Forensics, Inc.*	761	11.3x	8.6x	6.5x	47.9x	>50	42.8x	>50	>50	>50
Ceridian HCM Holding, Inc.	12,783	15.2x	12.5x	10.6x	>50	>50	>50	>50	>50	>50
ServiceNow, Inc.	121,700	26.9x	20.6x	16.4x	>50	>50	>50	>50	>50	>50
Workday, Inc. Class A	59,561	14.0x	11.8x	9.9x	>50	40.9x	40.6x	>50	>50	>50
Software As A Service Average		19.1x	13.7x	10.9x	45.3x	39.8x	38.6x	>50	>50	>50
Infrastructure Vendors										
Citrix Systems, Inc.	15,741	4.9x	4.9x	4.7x	13.7x	13.4x	14.9x	16.8x	19.2x	19.3x
Microsoft Corporation	2,285,044	14.7x	12.4x	10.7x	30.7x	25.1x	21.3x	45.2x	35.8x	30.8x
Infrastructure Vendors Average		9.8x	8.7x	7.7x	22.2x	19.2x	18.1x	31.0x	27.5x	25.1x
Software Average										
		12.8x	10.0x	8.4x	23.2x	25.0x	24.4x	26.5x	24.8x	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	EV/EBITDA			P/E			EV/S		
		C20	C21E	C22E	C20	C21E	C22E	C20	C21E	C22E
Business & IT Services										
CGI Inc. Class A	28,926	11.8x	11.7x	11.3x	22.2x	19.8x	18.1x	2.4x	2.4x	2.3x
TELUS International (CDA), Inc.	8,464	21.4x	15.6x	13.4x	39.8x	28.8x	23.4x	5.1x	3.9x	3.4x
Accenture Plc Class A	229,391	26.4x	22.7x	19.8x	44.9x	37.9x	32.5x	4.9x	4.3x	3.7x
Booz Allen Hamilton	11,694	14.3x	13.0x	12.2x	20.1x	18.2x	16.8x	1.5x	1.4x	1.3x
CACI International Inc Class A	8,069	13.0x	12.0x	11.6x	16.6x	14.1x	13.4x	1.4x	1.3x	1.2x
DXC Technology Co.	13,444	4.9x	5.0x	4.8x	12.0x	11.5x	9.2x	0.7x	0.8x	0.8x
Genpact Limited	10,661	15.7x	14.3x	13.1x	23.5x	20.5x	18.5x	2.9x	2.7x	2.4x
International Business Machines	169,682	11.1x	9.7x	10.3x	16.4x	17.2x	13.7x	2.3x	3.0x	2.8x
Atos SE	5,307	3.6x	5.4x	4.6x	4.8x	11.0x	10.1x	0.5x	0.5x	0.5x
Capgemini SE	40,523	16.3x	13.6x	12.4x	27.8x	24.0x	20.6x	2.6x	2.2x	2.1x
Sopra Steria Group SA	4,505	9.9x	8.5x	7.7x	20.6x	14.4x	12.1x	1.1x	1.0x	0.9x
Business & IT Services Average		13.5x	11.9x	11.0x	22.6x	19.7x	17.1x	2.3x	2.1x	1.9x
HR Outsourcing		EV/EBITDA			P/E			EV/S		
LifeWorks Inc	2,486	12.4x	12.2x	11.3x	35.2x	NEG	33.2x	2.5x	2.4x	2.3x
Ceridian HCM Holding, Inc.	12,783	>50	>50	>50	>50	>50	>50	15.2x	12.5x	10.6x
Willis Towers Watson	29,272	11.9x	12.2x	11.9x	19.5x	19.7x	16.8x	3.1x	3.3x	3.1x
Aon Plc Class A	74,055	22.6x	19.1x	18.3x	29.9x	24.5x	22.3x	6.7x	6.1x	5.7x
Automatic Data Processing, Inc.	89,558	24.5x	22.5x	20.5x	35.3x	32.9x	29.3x	6.0x	5.7x	5.3x
Paychex, Inc.	44,620	26.5x	24.0x	21.8x	41.0x	36.6x	32.8x	11.0x	10.3x	9.5x
HR Outsourcing Average		19.6x	18.0x	16.7x	32.2x	28.4x	26.9x	7.4x	6.7x	6.1x
Information Services		EV/EBITDA			P/E			EV/S		
Broadridge Financial Solutions, Inc.	21,532	20.3x	18.4x	16.3x	28.2x	25.0x	22.4x	4.5x	4.0x	3.7x
Dye & Durham Ltd.	2,223	NEG	14.0x	10.5x	NEG	>50	47.6x	25.5x	5.9x	3.9x
Deluxe Corporation	2,981	8.2x	7.3x	6.7x	5.9x	6.2x	6.1x	1.7x	1.5x	1.4x
Information Services Corp	482	10.1x	7.3x	7.2x	16.9x	13.0x	12.3x	3.5x	2.9x	2.9x
Information Services Average		12.9x	11.8x	10.2x	17.0x	14.7x	22.1x	8.8x	3.6x	2.9x
Financial Services Technology		EV/EBITDA			P/E			EV/S		
Fidelity National Information Services	88,683	16.9x	14.4x	13.2x	21.1x	17.6x	15.8x	7.1x	6.4x	5.9x
Fiserv, Inc.	87,864	16.1x	13.7x	12.4x	23.1x	18.3x	15.8x	6.3x	5.7x	5.3x
Jack Henry & Associates, Inc.	13,070	23.4x	22.2x	20.4x	43.8x	39.2x	35.0x	7.6x	7.1x	6.5x
ACI Worldwide, Inc.	5,120	14.3x	13.4x	12.6x	>50	30.7x	26.6x	4.0x	3.8x	3.6x
Temenos AG	9,272	22.9x	21.3x	18.9x	32.8x	28.9x	26.0x	10.3x	9.4x	8.6x
Global Payments Inc.	50,728	16.9x	14.0x	12.6x	22.9x	17.9x	15.3x	7.5x	6.6x	6.0x
Bottomline Technologies	2,568	26.3x	25.0x	22.8x	48.6x	49.6x	46.4x	5.6x	5.2x	4.7x
Financial Services Technology Average		19.5x	17.7x	16.1x	32.0x	28.9x	25.9x	6.9x	6.3x	5.8x
Diversified Real Estate Services		EV/EBITDA			P/E			EV/S		
Colliers International Group Inc.	7,918	21.9x	15.2x	13.6x	37.3x	25.2x	25.1x	2.8x	1.9x	1.9x
Altus Group Limited	2,516	25.4x	23.7x	20.0x	32.3x	32.6x	38.3x	4.5x	4.0x	3.6x
CBRE Group, Inc. Class A	37,650	20.3x	13.5x	12.6x	32.4x	19.6x	18.2x	1.6x	1.4x	1.2x
Jones Lang LaSalle Incorporated	15,681	18.2x	11.3x	10.9x	27.7x	14.8x	14.2x	1.8x	1.4x	1.3x
Diversified Real Estate Services Average		21.5x	15.9x	14.2x	32.4x	23.1x	24.0x	2.7x	2.2x	2.0x
Software Focused IT Solutions/VARS		EV/EBITDA			P/E			EV/GP		
Softchoice Corporation*	1,536	23.5x	23.1x	15.4x	34.3x	39.0x	26.9x	6.4x	5.6x	4.9x
Softcat Plc*	3,084	24.7x	17.9x	17.4x	33.3x	24.1x	23.7x	10.4x	8.0x	7.4x
Crayon Group Holding ASA*	14,307	>50	>50	>50	>50	>50	>50	>50	41.7x	31.3x
Bytes Technology Group Plc*	1,070	25.9x	18.2x	16.7x	35.2x	23.1x	21.9x	10.9x	7.5x	6.8x
SoftwareONE Holding Ltd.*	2,334	12.1x	9.1x	7.8x	14.8x	19.6x	16.2x	10.5x	2.5x	2.3x
Bytes Technology Group Plc* Average		21.5x	17.1x	14.3x	29.4x	26.4x	22.2x	9.6x	13.1x	10.5x
Business Services Average		17.5x	15.0x	13.5x	27.3x	23.5x	22.2x	5.6x	5.3x	4.6x

*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	100%	43%	15%	33%	143%	48%	40,391	16.3x	10.2x	8.6x
CrowdStrike Holdings, Inc.	69%	33%	44%	27%	102%	70%	41,732	49.6x	30.1x	21.3x
Shopify, Inc.	71%	11%	33%	15%	82%	47%	110,999	37.9x	24.3x	18.2x
Zscaler, Inc.	58%	27%	43%	22%	86%	65%	38,804	72.8x	47.6x	33.5x
Lightspeed POS, Inc.	142%	-29%	59%	-5%	113%	54%	4,024	20.4x	8.7x	5.9x
DocuSign, Inc.	51%	23%	27%	20%	74%	47%	25,502	18.1x	12.5x	9.9x
Veeva Systems Inc	28%	44%	18%	38%	72%	56%	34,789	24.2x	19.2x	16.2x
Atlassian Corp. Plc	35%	35%	21%	25%	70%	46%	84,197	45.4x	35.2x	27.9x
Twilio, Inc.	65%	-2%	34%	-2%	63%	32%	33,598	19.1x	11.8x	8.9x
ServiceNow, Inc.	30%	31%	26%	31%	61%	57%	121,700	26.9x	20.6x	16.4x
HubSpot, Inc.	45%	18%	32%	12%	63%	45%	24,243	27.5x	18.8x	14.6x
Tier 1 SaaS (Rule of 40 > 60) Average								32.6x	21.7x	16.5x
	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%	44%	1,596	25.4x	15.3x	10.5x
Qualys, Inc.	13%	43%	13%	37%	56%	50%	4,994	13.8x	12.2x	10.7x
Descartes Systems	20%	41%	14%	38%	60%	52%	6,034	18.5x	17.3x	14.2x
Avalara Inc	40%	7%	24%	1%	47%	24%	9,121	18.2x	13.3x	10.8x
Five9, Inc.	41%	0%	25%	4%	41%	29%	9,089	20.9x	15.1x	12.1x
Dropbox, Inc.	13%	34%	10%	32%	47%	42%	9,952	5.2x	4.6x	4.2x
Mimecast Limited	20%	28%	14%	22%	47%	36%	5,301	11.0x	9.3x	8.0x
Wix.com Ltd.	34%	6%	18%	4%	40%	22%	6,946	7.0x	5.5x	4.5x
Workday, Inc.	18%	28%	19%	23%	46%	42%	59,561	14.0x	11.8x	9.9x
VMware, Inc.	9%	33%	7%	27%	43%	35%	58,386	5.0x	4.6x	4.3x
Tier 2 SaaS (Rule of 40 b/w 40-60) Average								13.9x	10.9x	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 3 SaaS (Rule of 40 b/w 28-40)										
BlackLine, Inc.	21%	17%	20%	11%	38%	31%	5,278	15.0x	12.4x	10.3x
Zendesk, Inc.	28%	12%	28%	9%	40%	37%	12,742	12.4x	9.6x	7.5x
MongoDB, Inc.	43%	-4%	37%	-2%	39%	35%	29,568	51.3x	35.7x	26.4x
LivePerson, Inc.	30%	-3%	24%	-15%	27%	9%	1,981	5.4x	4.2x	3.3x
Rapid7 Inc.	27%	8%	24%	2%	35%	27%	5,888	14.3x	11.0x	8.7x
Paylocity Holding Corp.	19%	16%	26%	14%	36%	40%	11,951	19.9x	16.3x	12.9x
Q2 Holdings, Inc.	25%	-3%	17%	2%	22%	20%	3,877	9.5x	7.7x	6.7x
Akamai Technologies, Inc.	9%	21%	8%	23%	30%	31%	20,427	6.4x	5.9x	5.5x
Tier 3 SaaS (Rule of 40 b/w 28-40) Average								16.8x	12.9x	10.2x
	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 4 SaaS (Rule of 40 <28)										
RingCentral, Inc.	34%	3%	26%	5%	38%	32%	16,771	14.2x	10.6x	8.5x
Teradata Corporation	5%	20%	0%	20%	26%	20%	5,512	3.0x	2.9x	2.8x
Anaplan, Inc.	30%	0%	24%	1%	30%	25%	6,695	15.2x	11.7x	9.3x
Zuora, Inc.	13%	5%	15%	0%	18%	15%	2,011	6.6x	5.9x	5.1x
New Relic, Inc.	12%	-3%	18%	5%	8%	22%	4,878	7.5x	6.5x	5.5x
Kinaxis, Inc.	-1%	10%	25%	13%	9%	38%	3,399	15.2x	13.7x	11.0x
Yext, Inc.	11%	-2%	12%	-1%	9%	11%	1,002	2.9x	2.6x	2.3x
Splunk Inc.	11%	-2%	13%	5%	9%	19%	20,318	9.1x	8.1x	6.9x
Tier 4 SaaS (Rule of 40 <28) Average								9.2x	7.7x	6.4x
SaaS Average								19.1x	13.9x	10.9x

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

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