

EQUITY RESEARCH

November 3, 2022

Industry Update

Q3/22 U.S. Earnings Recap – Bits & Bytes Weekly

Mixed Results With Outsized Share Price Movements

Our Conclusion

Results from the U.S. tech giants have been slightly positive, with overall revenue coming in 1% above consensus and EBITDA 2.5% above expectations among the names that we track. The focus in the quarter has been on regulatory pressures on Big Tech, the global demand environment, and forward guidance/commentary. Despite a solid Q3 print, some U.S. tech names have started to feel an impact from the uncertain macro environment, with several firms noting a softer advertising market and Microsoft and Amazon also announcing softer cloud revenue than expected. Inflation remains a focus, with many tech companies trimming headcount and focusing on expense management.

Similar to Q2, we have seen an outsized market reaction on earnings misses and beats. Both SNAP and Meta were down 30% given Q3 misses and weak forward commentary. By contrast, Netflix was up 12% on better-than-expected results.

Key Points

Snapchat (SNAP): SNAP announced a mixed earnings print and disappointing Q4 guidance, which pointed to a softening demand environment. The company noted a tough macro backdrop moving into F2023, given its high dependency on advertising revenue and increased competition by TikTok, which is impacting user engagement.

Netflix (NFLX): Netflix stock traded +12.3% after the company's Q3 earnings, which included a revenue beat of 1.1% and net adds above consensus. The company noted it has seen an overwhelming amount of interest and has nearly sold out its newly launched ad inventory and also shared more details on its plan to reduce password sharing.

Alphabet (GOOG): Alphabet reported revenue that was 3% below consensus, and EBITDA that was 7% below expectations. The company noted that demand for digital advertising has fallen amid the current macro uncertainty, with inflationary pressures impacting profitability.

Meta (META): Meta's Q3 included a miss on EBITDA and EPS. While revenue came in above expectations, the general consensus remains that metaverse investments will continue being a drag on earnings until Meta reaches monetization scale.

IBM: Shares of IBM were trading 3% higher after the company reported a Q3 earnings beat on revenue and EPS and reiterated guidance. Revenue of US\$14.1B was down 20% Y/Y, but beat consensus by 4%, while EBITDA of US\$3.2B also came in ahead of expectations.

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Sector:
Information Technology

All figures in Canadian dollars unless otherwise stated.

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

Exhibit 1: Software & Services – U.S. Earnings Actual Vs. Expectations, Q3/22

Software

Company	Calendar Q3/22			Y/Y Change			Consensus					Surprise (%)			
	Revenue (\$MM)	EBITDA (\$MM)	EPS (\$)	Revenues (%)	EBITDA (%)	EPS (%)	Revenues (\$MM)	EBITDA (\$MM)	EPS (\$)	Revenue	EBITDA	EPS			
Microsoft	50,122	24,308	2.35	11%	4%	4%	49,628	↑	24,881	↓	2.3	↑	1%	-2%	2%
Google	69,092	26,157	1.06	6%	-7%	-24%	71,001	↓	28,212	↓	1.28	↓	-3%	-7%	-17%
Meta	27,714	10,973	1.64	-4%	-26%	-49%	27,440	↑	11,107	↓	1.9	↓	1%	-1%	-14%
Netflix	7,926	1,770	3.44	6%	-8%	1%	7,838	↑	1,441	↑	2.24	↑	1%	23%	54%
Snap	1,128	73	0.08	6%	-58%	-53%	1,143	↓	26	↑	-0.01	↑	-1%	181%	700%
SAP SE (€)	7,808	2,409	1.12	-2.1%	-13.1%	-44.8%	7,510	↑	2,396	↑	1.24	↓	4%	1%	-10%
				3.3%	-10.1%	-22.7%							0.9%	2.5%	3.0%

IT Services

Company	Calendar Q3/21			Y/Y Change			Consensus					Surprise (%)			
	Revenue (\$MM)	EBITDA (\$MM)	EPS (\$)	Revenues (%)	EBITDA (%)	EPS (%)	Revenues (\$MM)	EBITDA (\$MM)	EPS (\$)	Revenue	EBITDA	EPS			
IBM	14,107	3,234	1.81	-20%	-26%	-25%	13,517	↑	3,148	↑	1.79	↑	4%	3%	1%
Infosys Limited (Rs)	375,167	89,020	14.83	25%	14%	16%	366,030	↑	85,591	↑	14.22	↑	2%	4%	4%
Tata Consultancy Services (Rs)	553,090	145,160	28.6	18%	11%	10%	550,751	↑	143,362	↑	28.19	↑	0%	1%	1%
Wipro (Rs)	225,397	40,456	4.87	15%	-5%	-9%	226,899	↓	41,161	↓	5.16	↓	-1%	-2%	-6%
Average				9.3%	-1.7%	-2.0%							1.7%	1.6%	0.3%

Source: Company reports, FactSet and CIBC World Markets Inc

*Averages exclude SNAP.

News Impacting Our Coverage

FCC Commissioner Carr Says Government Should Ban TikTok

TikTok's ownership by a Chinese parent company has made it the target of growing national security concerns given its more than 200MM downloads in the U.S. and the fact it is gaining user engagement from rivals Snap and Meta. FCC Commissioner Carr highlighted concerns about U.S. data flowing back to China and the risk of political interference in the United States through the app's influence. Meanwhile, TikTok is in negotiations with CFIUS, an interagency committee that conducts national security reviews of foreign companies' deals, to determine whether it can be divested by Chinese parent company ByteDance to an American company and remain operational in the United States.

Telus International Acquires WillowTree

We view the \$1.225B acquisition of WillowTree as in line with TELUS International's (TI) strategy. The acquisition adds a high-growth (~50% Y/Y) business that expands TI's digital solution set and brings a blue-chip customer base. While TI paid a rich multiple, it has a strong track record of recognizing acquisition synergies. We see cross-selling as the biggest synergy opportunity, with WillowTree adding high-value front-end design solutions to TI's product mix. With little customer overlap, WillowTree also diversifies TI's customer base, which has historically been concentrated within tech and games. [Link To Full Note](#)

Software Valuation Monthly

Despite a shifting sentiment towards a dovish pivot to rate hikes in the upcoming Fed meeting, our coverage continued to underperform the broader market in October, with flat returns in the month versus the TSX Index (+5%) and the broader S&P Software Index (+4%). Corporate earnings so far have shown mixed results, and the reaction on earning prints has been volatile. [Link To Full Note](#)

Converge: M&A Integration Progressing Slowly – Reducing Q3/22 Estimates

Converge will report Q3/22 results on November 8 after market close and we expect this quarter to reflect higher operating expenses from the company's latest acquisitions given a slower pace of integration with the larger deals. We will be looking for further colour on the M&A integration plans, particularly for TIG and the most recently announced Stone Group acquisition. [Link To Full Note](#)

Kinaxis Named A Leader in Three IDC Supply Chain Planning Reports

Kinaxis' RapidResponse platform provides end-to-end supply chain visibility, while balancing demand and supply plans continuously. The company was named a Leader in Worldwide Supply Chain Demand Planning, Supply Chain Supply Planning, and Holistic Supply Chain Planning, by IDC MarketScape.

Constellation's Perseus Group Acquires Mortgage Solutions Group

Constellation's Perseus Group has acquired certain assets related to the Axacore business from Scrypt, Inc. and Axacore, Inc. Axacore is in the business of streamlining paper-intensive processes and automates document workflows at scale. This acquisition includes Axacore's award-winning document management system, XDOC, and cloud fax solution, FaxAgent. It amplifies CSU's Mortgage Solutions Group's offerings, allowing for a seamless digital mortgage experience with loan document automation and digital fax solutions across regulated industries. Terms of the deal were not disclosed.

Exhibit 2: CIBC Software/Services – Coverage Performance, 11/2/2021 - 11/2/2022

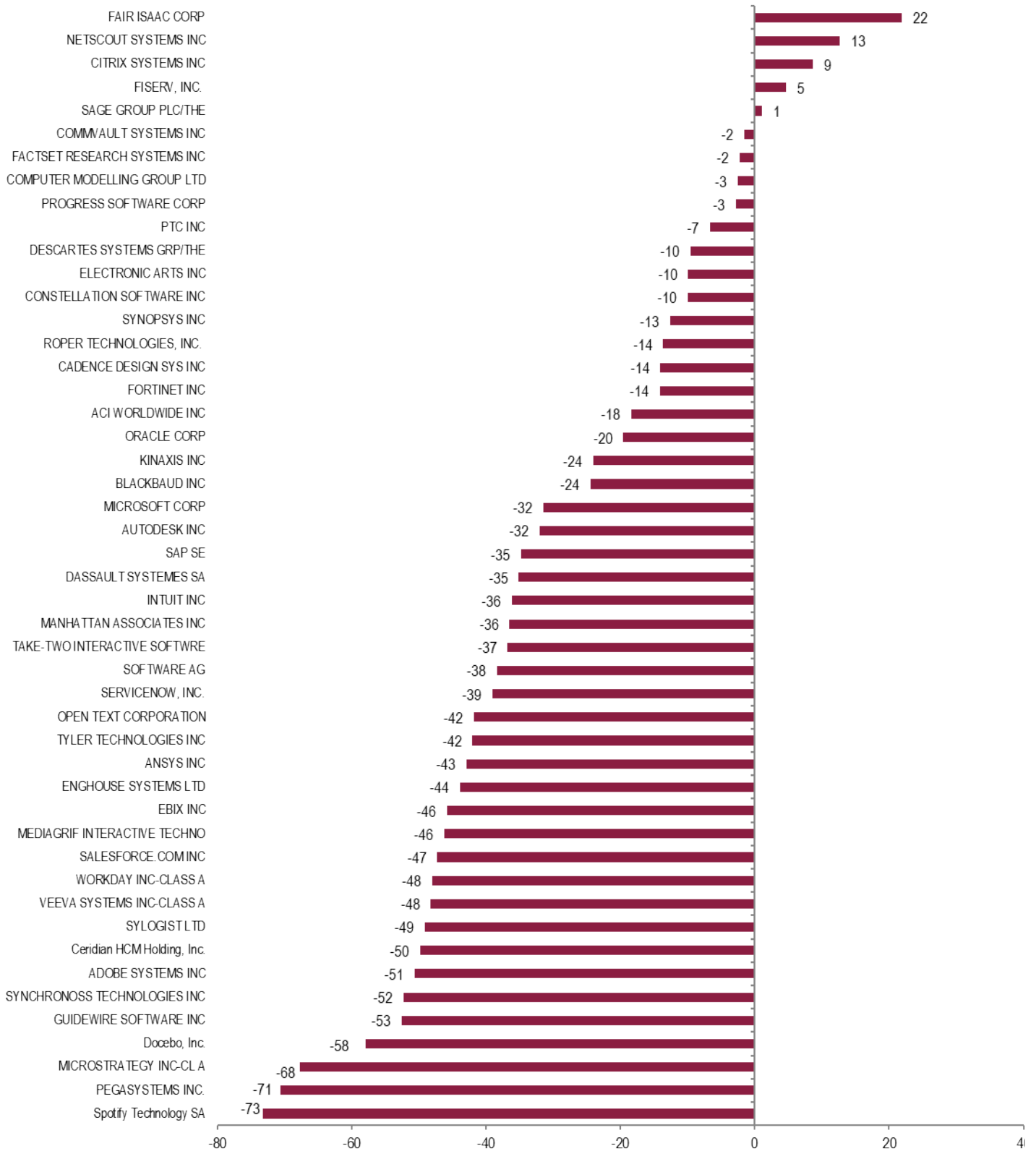
Software & Systems	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD	52 Week High	52 Week Low
Constellation Software Inc	1,972.58	0.4	0.0	(9.0)	(0.3)	(9.9)	(16.0)	2385.80	1783.98
Descartes Systems	68.53	1.0	4.1	(4.3)	18.5	(17.8)	(17.1)	91.39	56.19
Enghouse Systems Limited	29.99	0.3	2.5	(9.6)	(8.9)	(43.9)	(38.1)	61.45	23.96
Open Text Corp	29.40	1.4	8.4	(29.4)	(23.3)	(41.8)	(38.1)	52.70	24.91
Kinaxis	149.70	6.9	7.9	(7.6)	8.2	(24.0)	(15.6)	229.98	119.48
Docebo, Inc.	40.05	0.2	6.0	(11.3)	(23.1)	(57.9)	(52.8)	102.57	32.35
Magnet Forensics	25.19	(2.7)	10.2	9.9	15.3	(35.7)	(23.4)	42.37	14.89
Q4 Inc.	3.33	4.7	(16.8)	(29.3)	(26.5)	NA	(60.8)	12.00	2.88
Software & Systems Average		1.5	2.8	(11.3)	(5.0)	(33.0)	(32.7)		

Business Services	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD	52 Week High	52 Week Low
CGI Group Inc	109.42	(0.6)	2.9	(2.3)	6.8	(2.1)	(2.2)	115.23	95.45
Converge Technologies	5.49	(18.7)	(19.3)	(10.1)	(32.3)	(54.4)	(49.5)	12.65	4.85
Softchoice Corporation	17.73	(5.8)	(13.0)	(28.6)	(19.3)	(32.5)	(17.0)	29.48	17.26
Telus International	24.62	(5.0)	(7.4)	(12.6)	12.7	(35.4)	(25.5)	38.63	20.73
Business Services Average		(7.5)	(9.2)	(13.4)	(8.0)	(31.1)	(23.5)		

Indices	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD
S&P/TSX Composite Index	19,517.71	1.2	3.4	(0.3)	(5.4)	(7.8)	(8.0)
S&P 500 Index	3,856.10	0.7	4.8	(7.1)	(6.5)	(16.7)	(19.1)
S&P/TSX Software Index	134.43	5.2	7.6	(9.4)	(0.6)	(41.8)	(36.7)
S&P500 Software Index	3,994.75	(0.6)	(1.3)	(17.6)	(12.4)	(33.1)	(31.7)

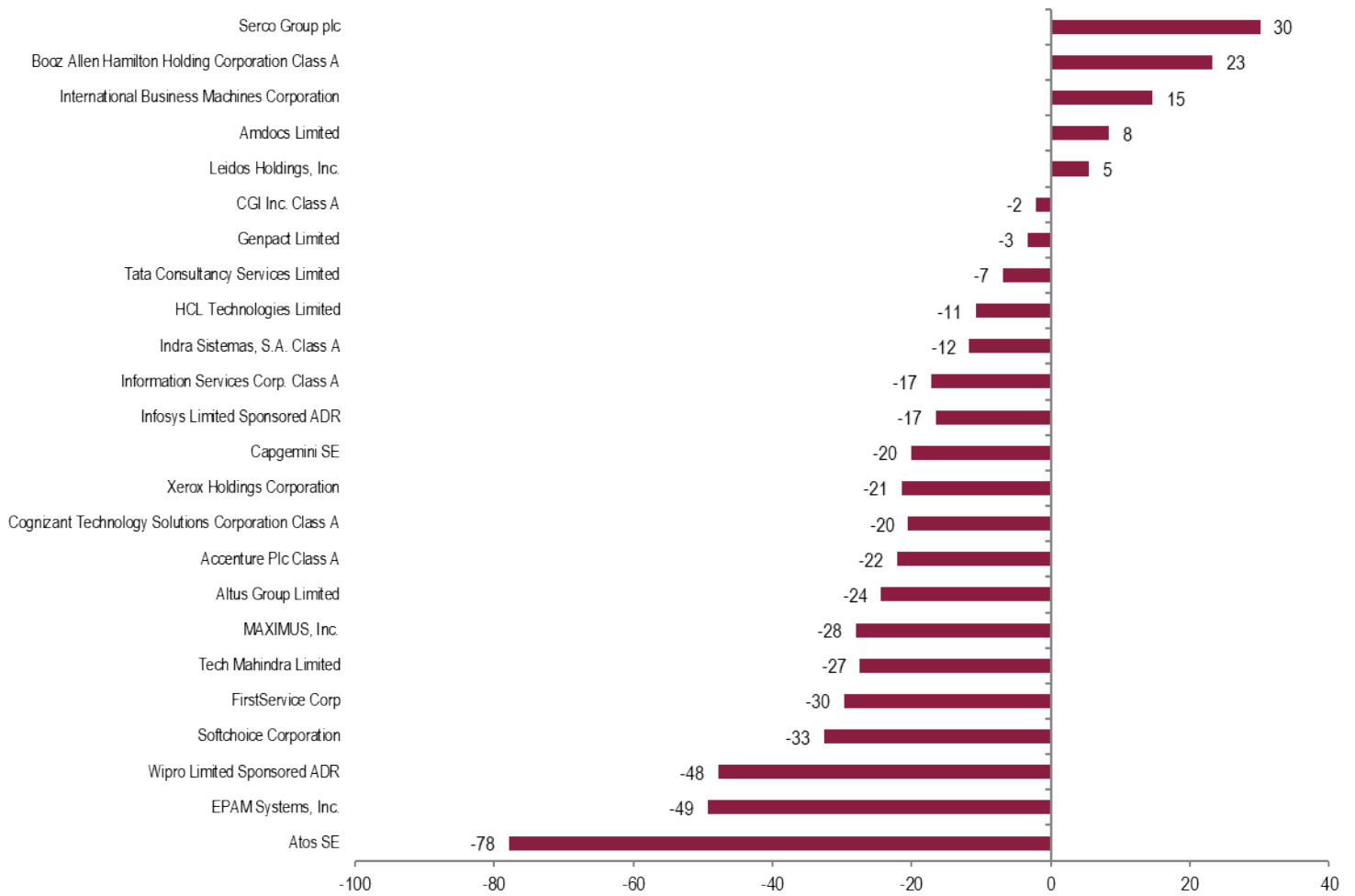
Source: FactSet and CIBC World Markets Inc.

Exhibit 3: Software Stocks – Return Performance (%), 11/2/2021 - 11/2/2022



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

Exhibit 4: Business Services Stocks – Return Performance (%), 11/2/2021 - 11/2/2022



Source: FactSet and CIBC World Markets Inc.

Exhibit 5: Software Stocks – Comp Table, 2021 - 2023E

	Enterprise Value	EV/S			EV/EBITDA			P/E		
		C21	C22E	C23E	C21	C22E	C23E	C21	C22E	C23E
Enterprise Application Software										
Constellation Software Inc.*	32,072	6.3x	4.9x	4.3x	21.2x	18.9x	16.2x	46.5x	26.1x	23.6x
BlackBerry Limited*	2,582	2.9x	3.8x	2.6x	>50	NEG	NEG	NEG	NEG	NEG
Sage Group plc	7,613	4.1x	3.8x	3.5x	18.4x	16.2x	14.7x	27.6x	26.2x	23.2x
Tyler Technologies, Inc.	14,112	8.9x	7.6x	7.0x	40.1x	29.7x	28.2x	>50	41.4x	40.4x
Roper Technologies, Inc.	51,660	8.9x	9.7x	8.8x	23.3x	23.6x	21.6x	40.2x	29.6x	26.4x
Enghouse Systems Limited	1,448	3.2x	3.5x	3.50x	8.9x	10.7x	10.6x	17.9x	22.8x	22.6x
Oracle Corporation	265,446	6.6x	5.7x	5.2x	14.2x	11.4x	10.5x	17.0x	15.7x	14.6x
SAP SE	123,345	4.4x	4.0x	3.7x	17.2x	14.5x	12.9x	21.9x	21.6x	18.0x
Enterprise Application Software Average		5.7x	5.4x	4.8x	20.5x	17.9x	16.4x	28.5x	26.2x	24.1x
Extended ERP										
Adobe Incorporated	145,793	9.2x	8.2x	7.4x	21.8x	16.7x	15.3x	31.5x	22.9x	20.3x
Open Text Corporation	10,714	3.1x	3.0x	2.9x	8.4x	8.5x	8.0x	9.3x	9.4x	8.7x
Manhattan Associates, Inc.	7,103	10.7x	9.5x	8.7x	49.9x	36.1x	32.9x	>50	48.1x	45.1x
Pegasystems Inc.	3,291	2.7x	2.6x	2.3x	NEG	>50	41.3x	NEG	>50	>50
Software AG	1,344	1.6x	1.4x	1.3x	8.7x	6.8x	5.9x	19.6x	14.6x	12.3x
Fiserv, Inc.	87,195	5.4x	5.2x	4.9x	15.7x	12.1x	11.1x	>50	16.0x	14.2x
Extended ERP Average		5.5x	5.0x	4.6x	20.9x	16.0x	19.1x	20.1x	22.2x	20.1x
Software As A Service										
Descartes Systems Group Inc.	5,630	13.3x	11.5x	10.3x	30.4x	26.2x	23.2x	>50	>50	>50
Kinaxis, Inc.*	2,862	11.4x	7.9x	7.1x	>50	44.0x	39.2x	>50	>50	>50
Docebo, Inc.*	755	7.2x	5.2x	3.9x	NEG	NEG	>50	NEG	NEG	NEG
Lightspeed Commerce Inc*	1,985	4.2x	2.8x	2.1x	NEG	NEG	NEG	NEG	NEG	NEG
Veeva Systems Inc Class A	23,106	15.8x	10.9x	9.5x	>50	27.5x	23.8x	>50	39.8x	35.4x
Shopify, Inc. Class A	33,909	7.4x	6.2x	5.1x	>50	NEG	>50	15.2x	NEG	>50
Q4 Inc*	54	1.0x	1.0x	0.9x	NEG	NEG	NEG	NEG	NEG	NEG
Magnet Forensics, Inc.*	645	9.2x	6.9x	5.3x	34.6x	42.0x	23.6x	>50	>50	>50
Ceridian HCM Holding, Inc.	10,825	10.6x	8.8x	7.5x	>50	49.5x	39.6x	NEG	>50	>50
ServiceNow, Inc.	83,623	14.2x	11.5x	9.5x	>50	37.1x	30.2x	>50	>50	45.9x
Workday, Inc. Class A	37,262	8.7x	6.1x	5.1x	>50	23.9x	19.6x	NEG	44.1x	34.9x
Software As A Service Average		9.4x	7.2x	6.0x	32.5x	35.7x	28.5x	15.2x	42.0x	38.8x
Infrastructure Vendors										
Microsoft Corporation	1,674,530	10.0x	8.2x	7.4x	20.7x	16.6x	15.0x	28.3x	24.3x	22.0x
Infrastructure Vendors Average		10.0x	8.2x	7.4x	20.7x	16.6x	15.0x	28.3x	24.3x	22.0x
Software Average										
		7.3x	6.1x	5.4x	22.2x	23.6x	21.1x	25.0x	26.8x	25.5x

*Share Price Converted to USD

Source: FactSet and CIBC World Markets Inc.

Exhibit 6: Business Services Stocks – Comp Table, 2021 - 2023E

	Enterprise Value (\$mns.)	EV/EBITDA			P/E			EV/S		
		C21	C22E	C23E	C21	C22E	C23E	C21	C22E	C23E
Business & IT Services										
CGI Inc. Class A	29,178	11.8x	11.4x	10.9x	19.5x	17.7x	16.7x	2.4x	2.3x	2.2x
TELUS International (CDA), Inc.	7,478	13.8x	12.1x	10.2x	24.4x	20.5x	16.3x	3.4x	2.9x	2.5x
Accenture Plc Class A	182,548	19.0x	15.8x	14.9x	30.7x	25.7x	23.9x	3.6x	2.9x	2.8x
Booz Allen Hamilton	16,704	18.7x	17.0x	16.0x	24.8x	24.7x	22.7x	2.1x	1.9x	1.7x
CACI International Inc Class A	9,118	12.3x	13.6x	12.6x	16.6x	16.9x	16.0x	1.5x	1.4x	1.4x
DXC Technology Co.	10,121	5.0x	4.2x	4.1x	NEG	8.2x	6.7x	0.6x	0.7x	0.7x
Genpact Limited	10,036	15.6x	12.8x	11.4x	25.4x	17.9x	15.9x	2.5x	2.3x	2.1x
International Business Machines	172,533	12.8x	11.1x	11.1x	21.8x	15.2x	14.4x	3.0x	2.9x	2.9x
Atos SE	2,856	2.7x	3.0x	2.7x	NEG	45.8x	6.7x	0.3x	0.3x	0.3x
Capgemini SE	33,901	11.7x	9.6x	8.9x	24.9x	15.3x	14.2x	1.9x	1.6x	1.5x
Sopra Steria Group SA	3,977	7.5x	6.6x	6.1x	14.5x	9.8x	8.9x	0.8x	0.8x	0.8x
Converge Technology Solutions C	1,184	12.6x	8.7x	6.4x	>50	45.8x	18.3x	0.8x	0.5x	0.4x
Business & IT Services Average		11.9x	10.6x	9.9x	22.5x	19.8x	14.8x	2.0x	1.8x	1.7x
HR Outsourcing										
		EV/EBITDA			P/E			EV/S		
Ceridian HCM Holding, Inc.	10,825	>50	49.5x	39.6x	NEG	>50	>50	10.6x	8.8x	7.5x
Willis Towers Watson	24,711	11.1x	10.7x	9.9x	6.8x	16.5x	14.6x	2.7x	2.8x	2.7x
Aon Plc Class A	68,435	17.9x	17.2x	16.1x	>50	21.6x	19.6x	5.6x	5.5x	5.2x
Automatic Data Processing, Inc.	103,267	26.9x	22.4x	20.1x	40.1x	32.2x	28.5x	6.9x	6.0x	5.6x
Paychex, Inc.	42,181	25.5x	19.6x	18.3x	39.0x	29.4x	27.2x	10.4x	8.7x	8.2x
HR Outsourcing Average		20.3x	23.9x	20.8x	28.6x	24.9x	22.5x	7.2x	6.4x	5.8x
Information Services										
		EV/EBITDA			P/E			EV/S		
Broadridge Financial Solutions, Inc.	21,441	18.4x	16.4x	15.3x	32.2x	22.2x	20.6x	4.2x	3.6x	3.4x
Dye & Durham Ltd.	2,013	12.7x	12.7x	8.9x	>50	>50	24.7x	5.4x	3.5x	3.0x
Deluxe Corporation	2,257	6.1x	5.5x	5.4x	12.8x	4.5x	4.4x	1.1x	1.0x	1.0x
Information Services Corp	412	6.1x	6.3x	6.3x	11.1x	11.0x	11.6x	2.4x	2.2x	2.0x
Information Services Average		10.8x	10.2x	9.0x	18.7x	12.6x	15.3x	3.3x	2.6x	2.4x
Financial Services Technology										
		EV/EBITDA			P/E			EV/S		
Fidelity National Information Services	69,354	11.3x	10.7x	9.9x	>50	11.8x	11.0x	5.0x	4.7x	4.5x
Fiserv, Inc.	87,195	15.7x	12.1x	11.1x	>50	16.0x	14.2x	5.4x	5.2x	4.9x
Jack Henry & Associates, Inc.	14,843	21.3x	23.5x	21.6x	48.9x	40.2x	37.6x	8.4x	7.4x	6.9x
ACI Worldwide, Inc.	3,819	10.4x	9.5x	8.9x	22.9x	18.5x	15.9x	2.8x	2.7x	2.6x
Temenos AG	5,173	9.4x	14.1x	12.6x	24.3x	20.2x	18.0x	5.3x	5.4x	5.0x
Global Payments Inc.	41,245	11.3x	10.6x	9.9x	34.6x	12.2x	10.9x	4.8x	5.1x	4.8x
Financial Services Technology Average		13.2x	13.4x	12.3x	32.6x	19.8x	17.9x	5.3x	5.1x	4.8x
Diversified Real Estate Services										
		EV/EBITDA			P/E			EV/S		
Colliers International Group Inc.	4,765	8.7x	7.6x	7.0x	-9.9x	12.7x	12.3x	1.2x	1.1x	1.0x
Altus Group Limited	2,334	22.5x	21.3x	17.7x	25.5x	25.5x	27.9x	3.7x	3.7x	3.1x
CBRE Group, Inc. Class A	24,764	11.6x	8.3x	8.5x	13.5x	12.8x	13.0x	0.9x	0.8x	0.8x
Jones Lang LaSalle Incorporated	9,631	6.6x	6.7x	6.8x	8.8x	8.6x	8.4x	0.5x	0.5x	0.4x
Diversified Real Estate Services Average		12.4x	11.0x	10.0x	9.4x	14.9x	15.4x	1.6x	1.5x	1.3x
Software Focused IT Solutions/VARs										
		EV/EBITDA			P/E			EV/S*		
Softchoice Corporation* USD	850	34.8x	10.2x	8.4x	NEG	18.3x	14.0x	3.2x	2.6x	2.4x
Softcat Plc*	2,232	13.3x	13.8x	13.1x	17.8x	18.5x	18.4x	6.0x	5.8x	5.3x
Crayon Group Holding ASA*	9,170	>50	>50	>50	>50	>50	>50	>50	22.4x	19.1x
Bytes Technology Group Plc*	845	17.4x	13.6x	12.1x	34.7x	18.7x	17.6x	NA	NA	NA
SoftwareONE Holding Ltd.*	1,255	7.6x	5.4x	4.7x	13.2x	13.6x	12.3x	6.0x	1.3x	1.2x
Bytes Technology Group Plc* Average		18.3x	10.7x	9.6x	21.9x	17.3x	15.6x	5.1x	8.0x	7.0x
Business Services Average		13.9x	13.1x	11.8x	22.3x	18.8x	16.5x	3.8x	3.8x	3.5x

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

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

Exhibit 7: SaaS Stocks – Comp Table, 2021 - 2023E

	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		
								C21	C22E	C23E
Tier 1 SaaS (Rule of 40 > 60)										
Zoom Video Communications	18%	31%	5%	27%	49%	31%	19,348	7.3x	4.4x	4.4x
CrowdStrike Holdings, Inc.	61%	30%	44%	29%	91%	73%	36,243	41.4x	16.7x	16.7x
Shopify, Inc.	25%	-4%	21%	-9%	21%	12%	30,957	6.7x	5.6x	5.6x
Zscaler, Inc.	62%	24%	38%	22%	86%	60%	20,828	30.9x	16.5x	16.5x
Lightspeed POS, Inc.	101%	-19%	33%	-5%	82%	28%	1,949	8.8x	2.8x	2.8x
DocuSign, Inc.	30%	20%	11%	15%	51%	27%	9,694	6.7x	4.0x	4.0x
Veeva Systems Inc	20%	38%	15%	37%	58%	52%	23,106	15.8x	10.9x	10.9x
Atlassian Corp. Plc	34%	27%	29%	22%	61%	50%	48,738	23.3x	15.2x	15.2x
Twilio, Inc.	51%	-6%	28%	-2%	45%	26%	9,677	3.4x	2.5x	2.5x
ServiceNow, Inc.	25%	27%	21%	29%	53%	50%	83,623	14.2x	11.5x	11.5x
HubSpot, Inc.	42%	16%	22%	12%	58%	34%	13,449	10.3x	7.9x	7.9x
Tier 1 SaaS (Rule of 40 > 60) Average								15.4x	8.9x	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		
								C21E	C22E	C23E
Tier 2 SaaS (Rule of 40 b/w 40-60)										
Docebo, Inc.	50%	-2%	35%	-4%	48%	31%	758	7.3x	5.2x	3.9x
Qualys, Inc.	17%	40%	18%	37%	56%	55%	5,003	12.1x	10.2x	10.2x
Descartes Systems	20%	37%	10%	37%	57%	47%	5,630	13.3x	11.5x	10.3x
Five9, Inc.	34%	-4%	23%	7%	30%	30%	4,551	7.5x	5.8x	5.8x
Dropbox, Inc.	11%	33%	6%	34%	44%	40%	8,413	3.9x	3.6x	3.6x
Wix.com Ltd.	16%	-1%	8%	3%	15%	11%	4,508	3.6x	3.3x	3.3x
Workday, Inc.	22%	21%	19%	19%	43%	38%	37,262	8.7x	6.1x	6.1x
VMware, Inc.	7%	24%	6%	29%	31%	35%	57,919	4.9x	4.3x	4.3x
Tier 2 SaaS (Rule of 40 b/w 40-60) Average								7.6x	6.3x	5.9x
	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		
								C21E	C22E	C23E
Tier 3 SaaS (Rule of 40 b/w 28-40)										
BlackLine, Inc.	22%	8%	21%	6%	30%	27%	3,185	7.5x	6.1x	6.1x
Zendesk, Inc.	26%	12%	17%	12%	38%	28%	9,718	7.2x	5.9x	5.9x
MongoDB, Inc.	54%	-2%	25%	2%	52%	27%	11,878	20.1x	10.0x	10.0x
LivePerson, Inc.	19%	-27%	5%	-4%	-8%	1%	859	1.8x	1.7x	1.7x
Rapid7 Inc.	33%	5%	23%	11%	38%	34%	3,145	5.9x	4.6x	4.6x
Paylocity Holding Corp.	34%	16%	28%	15%	50%	43%	12,369	19.5x	12.7x	12.7x
Q2 Holdings, Inc.	18%	0%	18%	3%	18%	21%	1,981	4.0x	3.4x	3.4x
Akamai Technologies, Inc.	7%	24%	2%	21%	31%	24%	15,785	4.6x	4.4x	4.4x
Tier 3 SaaS (Rule of 40 b/w 28-40) Average								8.8x	6.1x	6.1x
	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		
								C21E	C22E	C23E
Tier 4 SaaS (Rule of 40 <28)										
RingCentral, Inc.	33%	8%	21%	9%	40%	30%	4,574	2.9x	2.3x	2.3x
Teradata Corporation	-3%	19%	-3%	23%	16%	20%	3,278	1.7x	1.8x	1.8x
Zuora, Inc.	15%	4%	14%	0%	19%	14%	855	2.8x	2.2x	2.2x
New Relic, Inc.	20%	3%	17%	1%	23%	18%	3,696	5.5x	4.2x	4.2x
Kinaxis, Inc.	35%	7%	22%	9%	42%	31%	2,862	11.4x	7.9x	7.1x
Yext, Inc.	8%	3%	3%	-1%	11%	2%	539	1.5x	1.3x	1.3x
Splunk Inc.	26%	7%	21%	14%	33%	35%	15,172	6.8x	4.6x	4.6x
Tier 4 SaaS (Rule of 40 <28) Average								4.7x	3.5x	3.3x
SaaS Average								9.8x	6.5x	6.4x

Source: FactSet and CIBC World Markets Inc.

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