

# EQUITY RESEARCH

January 13, 2022

Industry Update

# **Regulating Unicorns – Bits & Bytes Weekly**

SEC Starts Push For Increased Private Disclosures

#### **Our Conclusion**

While 2021 was in many ways defined by the large number of IPOs, the trend of companies remaining private and raising mega rounds of venture capital was also pronounced. The growing number of unicorns has raised concern at the SEC, which is now working on a plan to require more private companies to disclose financial and operational data. Lawmakers are concerned about the lack of regulatory oversight for large private companies, especially given the widespread impact and reach that many of the private companies with the richest valuations have. Plans for additional private disclosures remain in their early stages and appear certain to attract significant pushback given the administrative burden that would result from the disclosure requirements. While new private company disclosure rules may not be on the immediate horizon, the topic being broached by the SEC highlights an interesting development that has resulted from the shift towards companies remaining private for longer.

#### **Key Points**

2021 was a record year for the U.S. venture capital industry, with Pitchbook noting that investors deployed more than US\$71 billion across 340 unicorn deals (valuations of +\$1 billion). The number of unicorns in 2021 surpassed the combined total of each of the past five years. Globally, VC financing reached a record US\$621 billion in 2021 as non-traditional investors (mutual funds, hedge funds, sovereign wealth funds) made up an increasing piece of VC financing and increased competition for deals.

The growing number of unicorns and large late-stage funding rounds has led to concerns about waning interest in the IPO process for well funded companies. This certainly didn't lead to a slowdown in the number of companies looking to IPO in 2021, but it has likely contributed to the performance of some of those newly public companies. In 2021, 50% of the companies that went public in North America are currently trading below their IPO prices.

A push for additional private company disclosure is not entirely unprecedented, as the SEC does currently have disclosure requirements for private companies that have more than 2,000 shareholders. However, those rules are rarely triggered as many shareholders that invest collectively through an entity (VC fund, etc.) are counted as a single shareholder. Given the early stage nature of these discussions, it is unclear whether legislators would seek to lower the 2,000 shareholder threshold, or look to better identify the actual number of individual shareholders invested as LPs in venture capital and private equity investment stakes. The proposed disclosure requirements may also include an ESG component, as SEC commission Gensler has been clear in his desire to improve public company disclosure around climate risk.

All figures in Canadian dollars unless otherwise stated.

# CIBC CAPITAL MARKETS

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Sector: Information Technology

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

## Valuations Continue To Climb For Private Tech Companies

2021 saw valuations continue to climb for the largest private companies. According to our calculations, the top 46 decacorns saw an average 2.8x valuation expansion during the year.

#### Exhibit 1: CB Insights - Largest Tech Unicorn Valuations, 2020 - 2021

Company	Valuation (US\$B) - 2021	Valuation (US\$B) - 2020	Country	Industry	Select Investors
ByteDance	\$140	\$140	China	Artificial intelligence	Sequoia Capital China, SIG Asia Investments, Sina Weibo, Softbank Group
SpaceX	\$100.3	\$46	U.S.	Other	Founders Fund, Draper Fisher Jurvetson, Rothenberg Ventures
Stripe	\$95	\$36	U.S.	Fintech	Khosla Ventures, LowercaseCapital, capitalG
Klarna	\$45.6	\$10.6	Sweden	Fintech	Institutional Venture Partners, Sequoia Capital, General Atlantic
Epic Games	\$42	\$17	U.S.	Other	Tencent Holdings, KKR, Smash Ventures
Canva	\$40	\$6	AUS	Internet software & services	Sequoia Capital China, Blackbird Ventures, Matrix Partners
Instacart	\$39	\$14	U.S.	Logistics, & delivery	Khosla Ventures, Kleiner Perkins Caufield & Byers, Collaborative Fund
Databricks	\$38	\$6	U.S.	Data analytics	Andreessen Horowitz, New Enterprise Associates, Battery Ventures
Revolut	\$33	\$5.5	U.K.	Fintech	index Ventures, DST Global, Ribbit Capital
Chime	\$25	\$15	U.S.	Fintech	Forerunner Ventures, Crosslink Capital, Homebrew

Source: CB Insights and CIBC World Markets Inc.

Venture capital also saw record fund raises in 2021, with annual U.S. venture funding more than doubling to hit a record high of US\$311 billion, according to CB Insights. Global financing hit US\$621 billion, more than double the 2020's record of US\$294 billion.

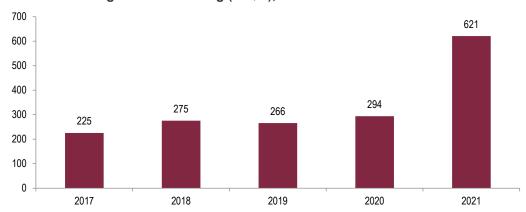


Exhibit 2: CB Insights - VC Funding (US\$B), 2017 - 2021

Source: CB Insights and CIBC World Markets Inc.

# **News Impacting Our Coverage**

#### Research Highlight – Converge Acquires Paragon Development Systems

Converge announced the acquisition of Paragon Development Systems (PDS), an IT & Cloud solutions provider based in Milwaukee, WI. The PDS acquisition is in line with CTS' strategy and builds out its digital transformation, virtualization, and managed services solutions. CTS is acquiring PDS for US\$52 million or 5.8x TTM EBITDA, a slight premium to historical acquisition multiples (~5x), which we view as reasonable given PDS' mix of business. We make no changes to our model, given an expected 2022 M&A spend of \$200 million. (Link)

#### **Docebo Appoints New Chief Product Officer**

Docebo announced the appointment of Enis Konuk as its new Chief Product Officer, effective February 26, 2022. Mr. Konuk brings more than 35 years of experience as a product leader in the tech industry, with experience including founding and selling Quiklabs Learning Management Systems to Google, managing the learning technologies at Google Cloud.

### **Enghouse Announces Leadership Transition For VP Finance Role**

Enghouse announced that Doug Bryson will be retiring from his position as VP Finance and Corporate Secretary, effective March 31, 2022. He will remain in an advisory capacity to aid transition. During his 23 year tenure at Enghouse, Mr. Bryson led the finance team in overseeing more than 50 acquisitions. The company is appointing Robert Medved, the current Corporate Controller, to succeed Mr. Bryson. Mr. Medved joined Enghouse in 2017, and previously held senior finance and operational roles at Reliance Home Comfort and Pitney Bowes.

#### **TELUS International Announces Collaboration With Automation Anywhere**

TELUS International is collaborating with Automation Anywhere, which specializes in process automation (RPA), to accelerate automation adoption on Google Cloud. TELUS International, now a Platinum Preferred Partner and Managed Services Provider of Automation Anywhere, continues to help the end-to-end development of RPA solutions on Google Cloud. As part of the collaboration, TIXT intends to provide on-demand RPA-as-a-Service solutions to customers with need to transform their automation life cycle using Automation Anywhere's cloud-native, AI-powered Automation 360 platform.

### CGI To Develop Data Management Environment At Department Of The Interior

CGI announced it has won a new task order from the Department of the Interior's (DOI) Office of Natural Revenue (ONRR) to develop a new data management environment to improve the collection and disbursement royalties. The new Data Management Environment (DME) will help ONRR's management of oil, gas, and other natural resources. The cloudbased, platform-as-a-service DME will integrate with AWS native tools and Snowflake's platform-as-a-service solution for data consolidation and dissemination. The task force includes a three-year period with initial funding of US\$3.3M and a total task order value of US\$12.9M.

#### **Descartes Wins Contract With Fishing Tackle & Bait**

Descartes announced that the U.K.-based sports retailer Fishing Tackle & Bait has improved its international fulfilment capabilities with Descartes' cloud-based e-commerce warehouse management solution (WMS). The retailer saw its order processing capacity improve by 250% without additional labor and has reduced customer service queries by more than 70%.



### Exhibit 3: CIBC Software/Services – Coverage Performance, 1/13/2021 - 1/13/2022

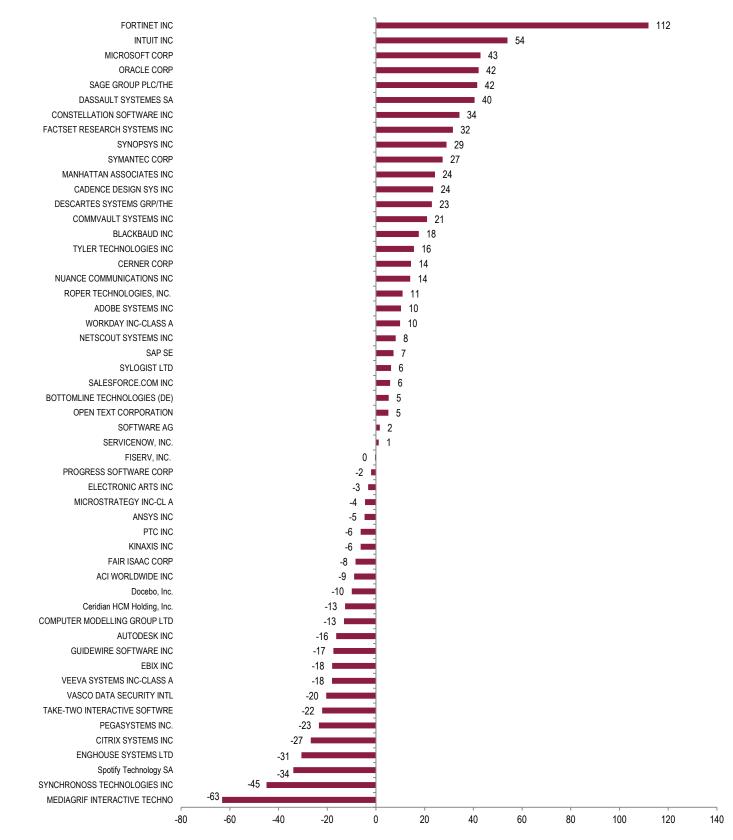
Software & Systems	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD	52W High	52W Low
Constellation Software Inc	2,163.59	0.0	(0.5)	1.5	13.1	34.3	(7.8)	2385.80	1530.35
Descartes Systems	71.72	(3.6)	(6.9)	(14.0)	2.6	25.5	(13.3)	91.39	56.78
Dye & Durham	41.95	1.2	(8.0)	16.2	(10.1)	NA	(6.5)	53.13	35.51
Enghouse Systems Limited	45.44	(2.5)	(10.0)	(18.2)	(19.4)	(30.6)	(6.2)	65.99	42.30
Open Text Corp	47.53	2.4	1.5	(3.8)	(6.1)	5.1	0.1	55.25	44.03
Kinaxis	159.89	(3.6)	(10.6)	(15.3)	(1.2)	(6.3)	(9.8)	229.98	124.05
Docebo, Inc.	68.57	(0.2)	(18.9)	(27.1)	(10.0)	(9.9)	(19.2)	117.55	47.22
Q4 Inc.	8.10	(4.2)	(7.3)	NA	NA	NA	NA	12.05	7.90
Average		(1.3)	(7.6)	(8.7)	(4.5)	3.0	(9.0)		

Business Services	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD	52W High	52W Low
Altus Group Ltd	67.49	(3.2)	(4.3)	6.7	15.0	37.6	(4.9)	72.33	47.81
CGI Group Inc	107.07	(1.4)	(3.2)	(3.2)	(6.3)	6.1	(4.3)	116.88	93.88
Converge Technologies	9.78	(5.2)	(15.9)	2.5	(12.6)	54.5	(10.0)	13.09	4.58
Information Services Corp	26.30	1.5	7.1	(0.8)	(10.9)	24.2	0.2	33.87	20.26
LifeWorks Inc	26.31	2.4	2.9	(18.0)	(23.5)	(16.9)	3.1	37.56	24.20
Softchoice Corporation	21.05	3.4	(0.9)	(27.9)	NA	NA	NA	45.74	18.63
Telus International	36.94	(4.1)	(10.0)	(16.3)	(0.9)	NA	NA	49.43	34.00
Average		(0.9)	(3.5)	(8.1)	(6.5)	21.1	(3.2)		

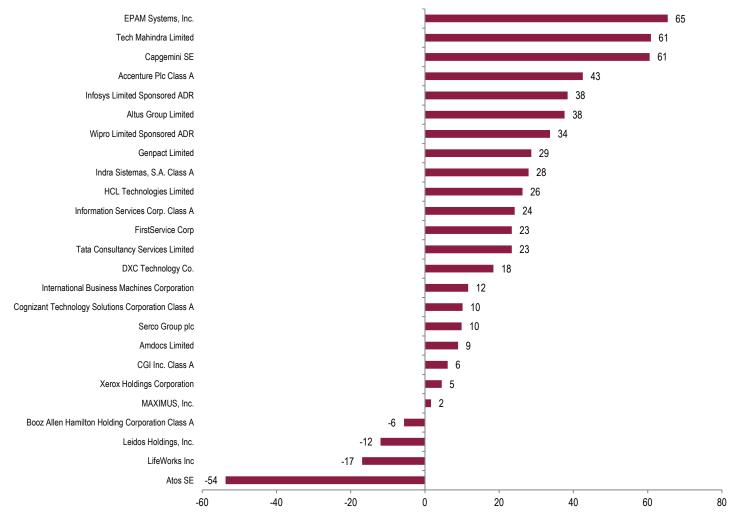
Indices	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD
S&P/TSX Composite Index	21,360.55	1.4	3.0	3.6	5.4	19.1	0.6
S&P 500 Index	4,688.31	(0.2)	0.4	7.4	7.3	23.1	(1.6)
S&P/TSX Software Index	190.69	(2.4)	(8.6)	(14.3)	(12.2)	3.1	(10.2)
S&P500 Software Index	5,347.76	(1.6)	(10.7)	(1.1)	4.8	30.8	(8.5)



#### Exhibit 4: Software Stocks – Return Performance (%), 1/13/2021 - 1/13/2022



#### Exhibit 5: Business Services Stocks – Return Performance (%), 1/13/2021 - 1/13/2022



### Exhibit 6: Software Stocks – Comp Table, 2020 - 2022E

	Enterprise		EV/S			EV/EBITD/	A		P/E	
	Value	C20	C21E	C22E	C20	C21E	C22E	C20	C21E	C22E
Enterprise Application Software										
Constellation Software Inc.*	36,614	9.2x	7.2x	6.1x	29.8x	24.6x	20.9x	43.9x	>50	31.3x
BlackBerry Limited*	5,296	5.5x	5.4x	5.2x	26.5x	>50	NEG	37.7x	>50	NEG
Sage Group plc	8,428	4.5x	4.5x	4.3x	18.0x	19.8x	18.5x	30.6x	34.0x	30.2x
Tyler Technologies, Inc.	19,334	17.3x	12.1x	10.4x	>50	44.7x	38.3x	>50	>50	>50
Roper Technologies, Inc.	57,879	10.4x	9.9x	9.5x	29.1x	26.0x	24.6x	36.0x	32.4x	30.0x
Enghouse Systems Limited	2,351	4.6x	5.1x	4.7x	12.5x	14.2x	13.7x	22.7x	27.1x	27.2x
Oracle Corporation	276,122	6.9x	6.6x	6.4x	14.0x	13.5x	13.0x	20.3x	18.6x	17.3x
SAP SE	156,553	5.7x	5.7x	5.4x	16.7x	17.7x	16.9x	22.3x	18.8x	22.5x
Enterprise Application Software A	verage	8.0x	7.1x	6.5x	20.9x	22.9x	20.9x	30.5x	26.2x	26.4x

Extended ERP										
Adobe Inc.	246,624	18.8x	15.4x	13.6x	38.4x	31.0x	27.9x	>50	41.3x	37.2x
Open Text Corporation	15,229	4.6x	4.4x	4.3x	11.9x	12.0x	11.4x	14.6x	15.1x	13.8x
Manhattan Associates, Inc.	8,723	14.9x	13.3x	12.3x	>50	49.3x	>50	>50	>50	>50
Pegasystems Inc.	8,377	8.2x	6.7x	5.6x	>50	>50	>50	NEG	>50	>50
Software AG	2,223	2.7x	2.7x	2.5x	11.6x	13.0x	11.0x	19.5x	23.8x	19.6x
Fiserv, Inc.	92,881	6.7x	6.0x	5.6x	17.1x	14.4x	13.2x	24.8x	19.7x	17.0x
Extended ERP Average		9.3x	8.1x	7.3x	19.7x	23.9x	15.9x	19.7x	25.0x	21.9x

Software As A Service										
Descartes Systems Group Inc.	5,951	17.1x	14.0x	12.6x	42.0x	32.2x	29.3x	>50	>50	>50
Kinaxis, Inc.*	3,297	14.7x	13.3x	10.6x	>50	>50	>50	>50	>50	>50
Docebo, Inc.*	1,581	25.1x	15.1x	10.4x	NEG	NEG	NEG	NEG	NEG	NEG
Lightspeed Commerce Inc*	4,928	25.0x	10.8x	7.4x	NEG	NEG	NEG	NEG	NEG	NEG
Veeva Systems Inc Class A	33,939	23.7x	18.7x	15.8x	>50	44.7x	40.3x	>50	>50	>50
Shopify, Inc. Class A	130,013	44.4x	28.4x	21.3x	>50	>50	>50	>50	>50	>50
Q4 Inc*	206	5.1x	3.8x	2.9x	NEG	NEG	NEG	NEG	NEG	NEG
Ceridian HCM Holding, Inc.	13,656	16.2x	13.4x	11.5x	>50	>50	>50	>50	>50	>50
ServiceNow, Inc.	104,026	23.0x	17.7x	14.1x	>50	>50	44.3x	>50	>50	>50
Workday, Inc. Class A	61,636	14.5x	12.2x	10.2x	>50	42.3x	42.0x	>50	>50	>50
Software As A Service Average		20.9x	14.7x	11.7x	42.0x	39.7x	39.0x	>50	>50	>50
Infrastructure Vendors										
Citrix Systems, Inc.	13,102	4.0x	4.1x	3.9x	11.4x	12.1x	12.6x	15.8x	19.5x	18.3x
Microsoft Corporation	2 272 407	14 Gv	10 Ev	10.00	20.64	25 2v	21 7v	11 Ov	26 Ov	21.24

Microsoft Corporation	2,273,487	14.6x	12.5x	10.8x	30.6x	25.2x	21.7x	44.9x	36.0x	31.3x
Infrastructure Vendors Average		9.3x	8.3x	7.4x	21.0x	18.7x	17.1x	30.4x	27.7x	24.8x
Software Average		13.4x	10.4x	8.8x	22.1x	25.7x	23.5x	27.8x	26.0x	24.6x
*Share Price Converted to USD										

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

	Enterprise	E	V/EBITDA			P/E			EV/S	
	Value	C20	C21E	C22E	C20	C21E	C22E	C20	C21E	C22E
Business & IT Services										
CGI Inc. Class A	27,777	11.3x	11.3x	11.0x	21.4x	19.4x	17.9x	2.3x	2.3x	2.2x
TELUS International (CDA), Inc.	8,846	22.4x	16.3x	14.0x	41.8x	30.2x	24.6x	5.3x	4.0x	3.5x
Accenture Plc Class A	236,554	27.3x	23.4x	20.3x	46.3x	39.1x	33.5x	5.1x	4.4x	3.8x
Booz Allen Hamilton	13,220	16.1x	14.5x	13.6x	23.1x	20.7x	18.9x	1.7x	1.6x	1.5x
CACI International Inc Class A	8,544	13.7x	12.6x	12.1x	17.9x	15.0x	14.4x	1.5x	1.4x	1.3x
DXC Technology Co.	12,677	4.6x	4.7x	4.5x	10.7x	10.2x	8.3x	0.7x	0.8x	0.8x
Genpact Limited	11,195	16.5x	15.1x	13.8x	24.8x	21.7x	19.6x	3.0x	2.8x	2.6x
International Business Machines	173,585	11.4x	9.6x	9.3x	16.3x	13.6x	12.4x	2.4x	2.5x	2.6x
Atos SE	5,290	3.6x	5.2x	4.5x	4.7x	9.8x	10.2x	0.5x	0.5x	0.5x
Capgemini SE	40,643	16.4x	13.7x	12.4x	27.9x	24.1x	20.8x	2.6x	2.2x	2.1x
Sopra Steria Group SA	4,612	10.1x	8.8x	7.9x	21.3x	15.2x	12.8x	1.1x	1.0x	0.9x
Business & IT Services Average		14.0x	12.3x	11.2x	23.3x	19.9x	17.6x	2.4x	2.1x	2.0x

HR Outsourcing		EV/EBITDA				P/E		EV/S		
LifeWorks Inc	2,367	11.8x	11.6x	10.7x	33.0x	NEG	31.2x	2.4x	2.3x	2.2x
Ceridian HCM Holding, Inc.	13,656	>50	>50	>50	>50	>50	>50	16.2x	13.4x	11.5x
Willis Towers Watson	33,557	13.6x	13.1x	13.8x	19.9x	18.2x	16.9x	3.6x	3.6x	3.5x
Aon Plc Class A	69,948	21.3x	18.1x	16.9x	28.8x	24.3x	21.6x	6.3x	5.7x	5.4x
Automatic Data Processing, Inc.	99,111	27.1x	25.0x	22.8x	39.0x	36.4x	32.7x	6.7x	6.4x	5.9x
Paychex, Inc.	45,816	27.2x	24.7x	22.5x	42.1x	37.6x	33.7x	11.3x	10.6x	9.8x
HR Outsourcing Average		20.2x	18.5x	17.4x	32.6x	29.1x	27.2x	7.8x	7.0x	6.4x

Information Services		EV/EBITDA				P/E			EV/S	EV/S		
Broadridge Financial Solutions, Inc.	23,239	21.9x	19.8x	17.5x	31.0x	27.4x	24.6x	4.9x	4.4x	4.1x		
Dye & Durham Ltd.	3,051	NEG	19.4x	13.9x	NEG	>50	>50	35.1x	8.0x	5.1x		
Deluxe Corporation	2,038	5.6x	5.1x	4.5x	6.5x	6.7x	6.5x	1.1x	1.0x	0.9x		
Information Services Corp	511	10.7x	7.8x	7.7x	18.1x	13.9x	13.1x	3.7x	3.1x	3.0x		
Information Services Average		12.7x	13.0x	10.9x	18.5x	16.0x	14.7x	11.2x	4.1x	3.3x		

Financial Services Technology		EV/EBITDA				P/E		EV/S		
Fidelity National Information Services	90,887	17.3x	14.8x	13.5x	21.7x	18.1x	16.1x	7.2x	6.5x	6.1x
Fiserv, Inc.	92,881	17.1x	14.4x	13.2x	24.8x	19.7x	17.0x	6.7x	6.0x	5.6x
Jack Henry & Associates, Inc.	12,718	22.8x	21.3x	19.6x	42.6x	38.5x	34.5x	7.4x	6.9x	6.4x
ACI Worldwide, Inc.	5,183	14.4x	13.5x	12.8x	>50	31.1x	27.1x	4.0x	3.8x	3.6x
Temenos AG	9,859	24.3x	22.6x	20.1x	35.1x	30.9x	27.5x	11.0x	10.0x	9.1x
Global Payments Inc.	52,010	17.3x	14.4x	12.9x	23.6x	18.5x	15.8x	7.7x	6.7x	6.1x
Bottomline Technologies	2,558	26.2x	24.9x	22.7x	48.4x	49.5x	46.3x	5.6x	5.2x	4.6x
Financial Services Technology Average	•	19.9x	18.0x	16.4x	32.7x	29.5x	26.3x	7.1x	6.5x	6.0x

Diversified Real Estate Services		E	V/EBITDA			P/E			EV/S	
Colliers International Group Inc.	7,250	20.1x	13.9x	12.6x	33.6x	24.4x	22.8x	2.6x	1.9x	1.7x
Altus Group Limited	3,133	31.7x	29.6x	24.8x	40.7x	41.1x	48.3x	5.6x	5.0x	4.4x
CBRE Group, Inc. Class A	37,800	20.3x	13.6x	12.7x	32.6x	19.9x	18.5x	1.6x	1.4x	1.2x
Jones Lang LaSalle Incorporated	15,797	18.4x	11.5x	11.1x	28.0x	15.1x	14.4x	1.8x	1.5x	1.4x
<b>Diversified Real Estate Services Averag</b>	e	22.6x	17.2x	15.3x	33.7x	25.1x	26.0x	2.9x	2.4x	2.2x

Software Focused IT Solutions/VARs		E	V/EBITDA			P/E			EV/GP		
Softchoice Corporation*	1,481	22.6x	22.3x	14.8x	32.8x	37.4x	25.8x	6.2x	5.4x	4.7x	
Softcat Plc*	3,264	26.2x	18.9x	18.3x	35.2x	25.4x	24.9x	11.0x	8.5x	7.8x	
Crayon Group Holding ASA*	13,509	>50	>50	>50	>50	>50	>50	>50	39.2x	29.9x	
Bytes Technology Group Plc*	1,230	29.7x	20.2x	18.6x	40.4x	26.6x	25.0x	12.6x	8.7x	7.9x	
SoftwareONE Holding Ltd.*	2,451	12.7x	9.4x	8.0x	15.4x	19.8x	16.0x	11.0x	2.7x	2.4x	
Bytes Technology Group Plc* Average		22.8x	17.7x	14.9x	30.9x	27.3x	22.9x	10.2x	12.9x	10.5x	

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

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

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### Exhibit 8: SaaS Stocks – Comp Table, 2020 - 2022E

	LTM Revenue	LTM FCF	NTM Revenue	NTM FCF	LTM Rule	NTM Rule	Enterprise		EV/S	
	Growth	Margin	Growth	Margin	Of 40	Of 40	Value (\$MM)	C20	C21E	C22E
Tier 1 SaaS (Rule of 40 > 60)										
Zoom Video Communications	100%	43%	15%	33%	143%	48%	46,664	18.8x	11.8x	9.9x
CrowdStrike Holdings, Inc.	69%	33%	43%	27%	102%	70%	41,978	49.9x	30.3x	21.5x
Shopify, Inc.	71%	11%	33%	15%	82%	48%	141,322	48.2x	30.9x	23.1x
Zscaler, Inc.	58%	27%	43%	22%	86%	66%	37,842	71.0x	46.5x	32.9x
Lightspeed POS, Inc.	142%	-29%	58%	-5%	113%	54%	5,074	25.8x	11.1x	7.6x
DocuSign, Inc.	51%	23%	27%	20%	74%	47%	27,697	19.6x	13.6x	10.8x
Veeva Systems Inc	28%	44%	18%	38%	72%	56%	35,257	24.6x	19.4x	16.5x
Atlassian Corp. Plc	31%	37%	21%	27%	68%	48%	80,403	43.3x	34.2x	27.5x
Twilio, Inc.	65%	-2%	34%	-2%	63%	32%	38,075	21.6x	13.7x	10.4x
ServiceNow, Inc.	31%	29%	26%	31%	60%	57%	113,145	25.0x	19.2x	15.3x
HubSpot, Inc.	45%	18%	32%	12%	63%	45%	23,549	26.7x	18.3x	14.2x
Tier 1 SaaS (Rule of 40 > 60)	Average							34.0x	22.7x	17.3x

	LTM Revenue	LTM FCF	NTM Revenue	NTM FCF	LTM Rule	NTM Rule	Enterprise		EV/S	
	Growth	Margin	Growth	Margin	Of 40	Of 40	Value (\$MM)	C20	C21E	C22E
Tier 2 SaaS (Rule of 40 b	/w 40-60)									
Docebo, Inc.	55%	4%	46%	-3%	58%	44%	1,627	25.9x	15.6x	10.7x
Qualys, Inc.	13%	43%	13%	37%	56%	50%	4,653	12.8x	11.4x	10.0x
Descartes Systems	20%	41%	14%	38%	60%	52%	6,064	18.6x	17.4x	14.3x
Avalara Inc	40%	7%	24%	1%	47%	24%	9,537	19.1x	13.9x	11.3x
Five9, Inc.	41%	0%	25%	4%	41%	29%	9,108	20.9x	15.1x	12.2x
Dropbox, Inc.	13%	34%	10%	32%	47%	42%	9,614	5.0x	4.5x	4.1x
Mimecast Limited	20%	28%	14%	23%	47%	37%	5,234	10.8x	9.2x	7.9x
Wix.com Ltd.	34%	6%	18%	4%	40%	22%	8,507	8.6x	6.7x	5.6x
Workday, Inc.	18%	28%	19%	23%	46%	42%	63,189	14.8x	12.5x	10.5x
VMware, Inc.	9%	33%	7%	27%	43%	35%	52,934	4.5x	4.2x	3.8x
Tier 2 SaaS (Rule of 40 b	/w 40-60) Average							14.1x	11.0x	9.0x

	LTM Revenue	LTM FCF	NTM Revenue	NTM FCF	LTM Rule	NTM Rule	Enterprise		EV/S	
	Growth	Margin	Growth	Margin	Of 40	Of 40	Value (\$MM)	C20	C21E	C22E
Tier 3 SaaS (Rule of 40 b/w :	28-40)									
BlackLine, Inc.	21%	17%	20%	11%	38%	32%	5,500	15.6x	13.0x	10.7x
Zendesk, Inc.	28%	12%	28%	9%	40%	37%	12,601	12.2x	9.5x	7.5x
MongoDB, Inc.	43%	-4%	37%	-2%	39%	35%	28,955	50.3x	34.9x	25.9x
LivePerson, Inc.	30%	-3%	24%	-15%	27%	9%	2,318	6.3x	4.9x	3.9x
Rapid7 Inc.	27%	8%	24%	2%	35%	27%	5,973	14.5x	11.3x	9.2x
Paylocity Holding Corp.	19%	16%	26%	14%	36%	40%	11,610	19.4x	16.0x	12.8x
Q2 Holdings, Inc.	25%	-3%	18%	2%	22%	20%	4,264	10.5x	8.5x	7.3x
Akamai Technologies, Inc.	9%	21%	8%	23%	30%	31%	20,219	6.3x	5.9x	5.4x
Tier 3 SaaS (Rule of 40 b/w	28-40) Average							16.9x	13.0x	10.3x

	LTM Revenue	LTM FCF	NTM Revenue	NTM FCF	LTM Rule	NTM Rule	Enterprise		EV/S	
	Growth	Margin	Growth	Margin	Of 40	Of 40	Value (\$MM)	C20	C21E	C22E
Tier 4 SaaS (Rule of 40 <28)					-					
RingCentral, Inc.	34%	3%	26%	5%	38%	31%	18,167	15.3x	11.5x	9.2x
Teradata Corporation	5%	20%	0%	20%	26%	20%	4,972	2.7x	2.6x	2.6x
Anaplan, Inc.	30%	0%	24%	1%	30%	25%	6,633	15.1x	11.6x	9.3x
Zuora, Inc.	13%	5%	15%	0%	18%	15%	2,012	6.6x	5.9x	5.1x
New Relic, Inc.	12%	-3%	18%	4%	8%	22%	6,756	10.4x	9.0x	7.8x
Kinaxis, Inc.	-1%	10%	25%	13%	9%	38%	3,282	14.6x	13.2x	10.6x
Yext, Inc.	11%	-2%	12%	-1%	9%	11%	1,117	3.2x	2.9x	2.5x
Splunk Inc.	11%	-2%	13%	5%	9%	19%	20,127	9.0x	8.0x	6.8x
Tier 4 SaaS (Rule of 40 <28)	Average							9.6x	8.1x	6.7x
SaaS Average								19.7x	14.3x	11.3x

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Sector is expected to underperform the broader market averages.

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Marketweight

Underweight

Μ

U

## **CIBC World Markets Inc. Price Chart**

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