

## EQUITY RESEARCH

December 15, 2022

Industry Update

**M&A Outlook In 2023 – Bits & Bytes Weekly**

Tech M&amp;A Continues Despite Market Malaise

**Our Conclusion**

In times of economic uncertainty and market softness, M&A typically slows initially but picks up steam as valuations are reset. With significant dry powder, an attractive valuation environment, and a renewed focus on value-surfacing activities among management teams and investors alike, 2023 is set up to be a busy year for dealmaking. With buyers that rely on leveraged financing likely taking a more cautious stance, we believe strategic acquirers with cash reserves are well positioned. While smaller deals are making up an increasing amount of the total pie, megadeals continue, with Thoma Brava announcing its intention to acquire Coupa for US\$8 billion this week. We also expect M&A amongst late-stage and mature private companies to remain elevated as prospects for public listing remain muted.

**Key Points**

**The Public-to-private Theme Continues:** The public equity valuation reset in 2022 has been a welcome reprieve for dealmakers. Private equity is scooping up businesses with strong growth and cash flow generation at more reasonable multiples, paving the way for solid returns in post-COVID funds. Commentary from many management teams under our coverage has been that there is still a significant gap in expectations between buyers and sellers in the private markets, helping explain PE's willingness to acquire at a premium in the public sphere.

**Strategic Acquirers On The Hunt:** With the IPO window effectively closed, private companies are relying on acquisitions as exits. Year-to-date in 2022, less than 2% of total U.S. exit value was created through public listings versus the one-third of value they created over the prior two years. With more businesses up for sale, well capitalized corporations are increasingly weighing the relative merit of build versus buy. Recent examples include MSFT acquiring Activision and Adobe acquiring Figma. M&A is not limited to large-cap serial acquirers. Organic growers like Kinaxis are also leveraging M&A to strengthen the product suite. Given 70% of our coverage have <2x leverage (see our [outlook](#)), we expect M&A to remain robust in 2023.

**Trim And Focus; Carve-outs/Divestitures On The Rise:** Given a renewed focus on capital discipline, companies with multiple business lines are assessing their portfolios for options to raise cash for the core business. A focus on capital recycling extends to all operators regardless of their capital positions. Within our coverage, TRI recently executed four small dispositions while CSU made its largest acquisition to date, acquiring Allscripts's Hospitals & Large Physician Practices (AHLPP) segment for \$700M.

*Note: The Bits & Bytes Weekly will be taking a holiday hiatus until January 5. See you in 2023!*

*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

## M&A Rationale

**Consolidation For Efficiency & Long-term Growth:** The trend of consolidation has been ongoing and we expect it to accelerate during an uncertain time period where valuation becomes more reasonable. Cybersecurity, supply chain, and fintech industries are primed for consolidation. In a downmarket where end customers are looking to manage tech spending, customers favor vendors with full stack solutions. This suggests that large platforms are well positioned to acquire smaller competitors to add to product depth in an accretive manner. Spiceworks Ziff Davis's 2023 Statement of IT report pointed out that three-quarters of surveyed businesses plan to reduce the number of security vendors they use, up notably from two years ago when only 29% focused on vendor count reduction.

**Searching For Quality & Value:** If the relative outperformance of the profitable SaaS group against the unprofitable SaaS group YTD is of any indication, investors are placing increasing emphasis on profitable growth, replacing the former "growth at all cost" mantra. There is also a rise in correlation between share price performance and Rule-of-40 valuation rather than ARR growth alone (see our previous [weekly on valuation](#)). Such a change in posturing permeates across both the public and private sphere. Buyers are pursuing quality assets with strong long-term strategic growth potential such as new production/ technological innovation.

**Exhibit 1: TMT Sector - Top Ten M&A Deals Announced By Deal Size – As Of December 8, 2022**

Deal Announcement Date	Acquirer	Target	Target Business Description	Total Deal Amount (US\$B)	Acquirer Type	EV/TTM Revenue
1/18/2022	Microsoft Corp.	Activision Blizzard Inc.	PC, console and mobile video games	74.01	Strategic	7.6x
5/26/2022	Broadcom Inc.	VMware Inc.	Virtualization SaaS	61.00	Strategic	5.3x
4/25/2022	Elon Musk	Twitter Inc.	Microblogging destination and social network	44.00	Strategic	9.9x
9/15/2022	Adobe Inc.	Figma Inc.	Collaborative interface designing SaaS	20.00	Strategic	NA
1/31/2022	Evergreen Coast Capital Corp./Vista Equity Partners Management LLC	Citrix System Inc.	Virtualization SaaS	13.17	PE	5.2x
5/4/2022	Intercontinental Exchange Inc.	Black Knight Inc.	Mortgage lifecycle management SaaS	13.11	Strategic	11.2x
10/31/2022	Blackstone Inc.	Emerson Electric Co. (Climate Technologies business)	Climate control systems	11.75	PE	NA
1/10/2022	Take-Two Interactive Software Inc.	Zynga Inc.	Social network and mobile video game developer	11.15	Strategic	4.7x
3/20/2022	Thoma Bravo LP	Anaplan Inc.	Business modeling and planning SaaS	10.70	PE	17.6x
3/29/2022	Brookfield Asset Management Inc./Evergreen Coast Capital Corp.	Nielson Holdings PLC	Consumer analytics and marketing services	10.07	PE	2.5x

Source: 451 Research, S&P Global, and CIBC World Markets Inc.

## News Impacting Our Coverage

### Research Highlight: 2023 Software & Services Outlook

After several years of pandemic-fuelled growth, the software sector had a difficult 2022. Rising rates coupled with inflation and an uncertain macro environment led the stocks under our coverage to decline 31% Y/Y. At this point, we see signs of a bottom for tech stocks, with SaaS names now trading at an average EV/Sales multiple that is roughly in line with mature software names. That being said, the timing of a recovery remains uncertain and hinges on greater certainty on the timing and extent of a shift to a more dovish rate posture. As a result, we are taking a barbell approach to our top picks, with lower-risk options GIB.A and CSU at one end of the spectrum and higher-growth (but profitable) options KXS and MAGT at the other. ([Link](#))

### Research Highlight: CSU - Acquiring WideOrbit; Spin-out Of Lumine Group

Constellation and Lumine Group announced an agreement to acquire media software firm WideOrbit Inc. and filed a prospectus on a potential spin-out of the combined entity. The spin-out appears similar to Topicus, although Lumine focuses on media and communications technology firms and the structure appears slightly less complicated (just two parties). Constellation expects the spin-out to be tax efficient, with the company issuing a special dividend of 3.0003833 spin-out shares for every CSU share. Following the spin-out, Constellation will retain majority ownership in Lumine (61%), and we expect it to continue to manage the entity as an operating group. The transaction is expected to close by Q1/23. ([Link](#))

### TIXT Introduces SPACE, New Virtual Recruitment Platform

TIXT announced the launch of SPACE, a new virtual recruitment platform which provides job seekers with a fully immersive experience in an interactive digital environment with game-like experience. Users are able to learn about company culture, team member benefits, interviews and sign complete employment contracts on the platform.

### CSU's Lumine Group Acquires Wiztivi For US\$36M

Lumine Group, an indirect subsidiary of CSU, announced the carve-out acquisition of Wiztivi from SFR. Wiztivi works with communication service providers such as broadcasters and media companies to provide multi-screen user experiences on any connected devices. The company has 300+ services and services multiple geographies. Its cloud gaming product Streamava enables rapid deployment of console and PC games to connected devices.

### KXS Announces Contract Win From Jamieson Wellness

KXS announced that Jamieson Wellness is using its RapidResponse platform for concurrent supply chain planning. Jamieson Wellness is leveraging KXS's software for end-to-end visibility and real-time adjustments considering material constraints, production capacity and market volatility.

## Exhibit 2: CIBC Software/Services – Coverage Performance, 12/15/2021 - 12/15/2022

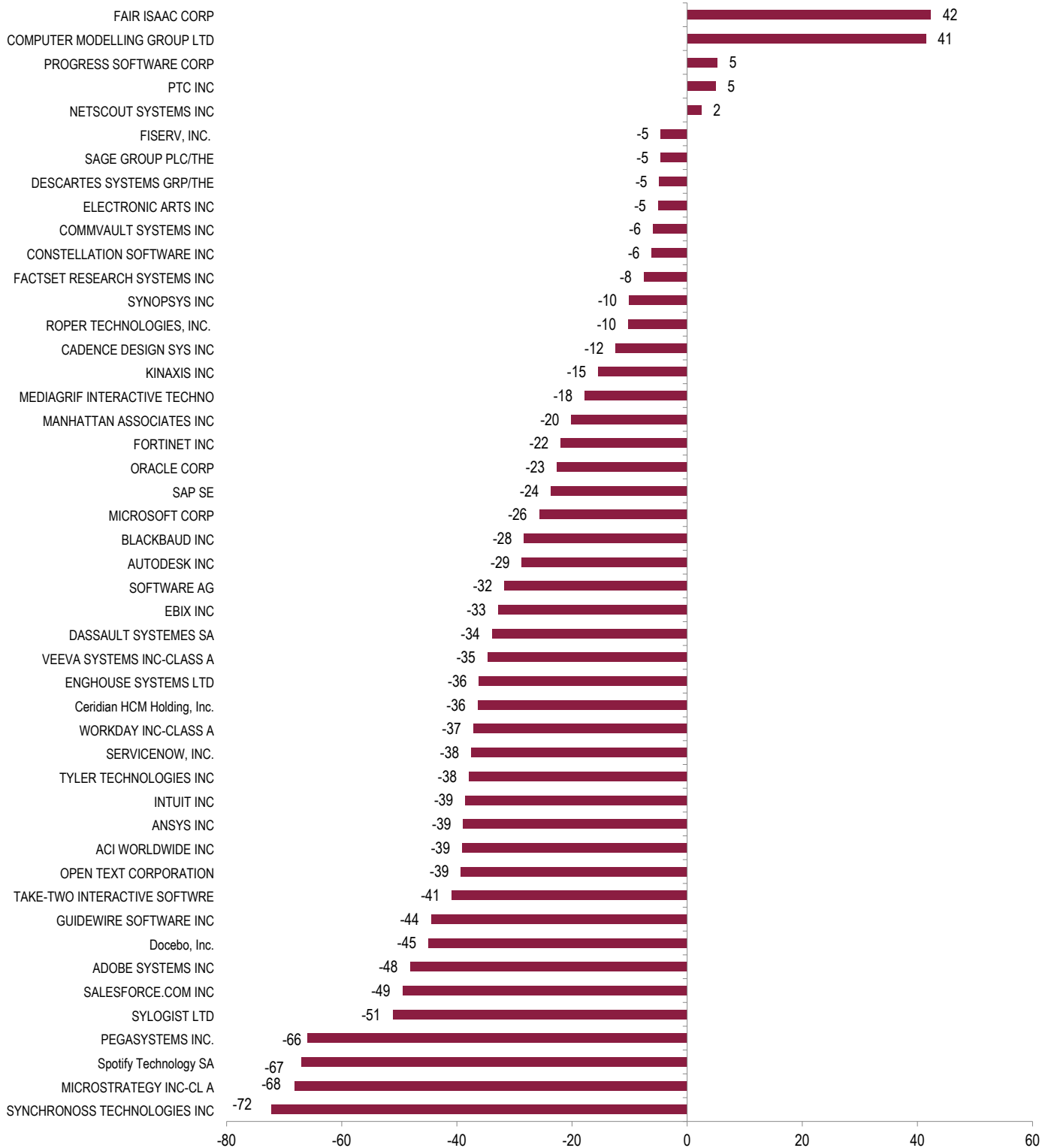
Software & Systems	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD	52W High	52W Low
Constellation Software Inc	2,114.29	2.3	5.7	8.0	14.0	(6.1)	(9.9)	2385.80	1783.98
Descartes Systems	69.07	4.6	(5.6)	0.2	13.8	(10.6)	(16.5)	83.65	56.19
Enghouse Systems Limited	31.60	1.4	5.5	5.5	25.1	(36.2)	(34.8)	50.00	23.96
Open Text Corp	28.58	6.4	(3.0)	(2.2)	(24.7)	(39.3)	(39.8)	48.46	24.91
Kinaxis	149.41	4.7	(5.8)	4.6	18.2	(15.5)	(15.7)	182.79	119.48
Docebo, Inc.	46.11	6.7	11.9	14.9	29.6	(45.0)	(45.7)	89.80	31.66
Magnet Forensics	40.83	0.5	23.5	78.1	152.0	32.1	24.2	44.11	14.89
Q4 Inc.	2.15	0.9	(27.4)	(52.2)	(53.1)	NA	(74.7)	8.82	1.88
<b>Average</b>		<b>3.5</b>	<b>0.6</b>	<b>7.1</b>	<b>21.9</b>	<b>(17.2)</b>	<b>(26.6)</b>		

Business Services	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD	52W High	52W Low
CGI Group Inc	116.65	(0.2)	3.8	13.2	19.0	6.4	4.3	120.82	95.45
Converge Technologies	4.66	2.5	10.6	(25.2)	(23.2)	(58.5)	(57.2)	11.59	3.60
Softchoice Corporation	17.25	13.4	1.1	(13.1)	(11.2)	(18.9)	(19.2)	28.66	13.57
Telus International	24.16	(9.0)	(10.7)	(37.9)	(20.2)	(41.1)	(42.2)	43.78	25.21
<b>Average</b>		<b>1.7</b>	<b>1.2</b>	<b>(15.7)</b>	<b>(8.9)</b>	<b>(28.0)</b>	<b>(28.6)</b>		

Indices	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD
S&P/TSX Composite Index	19,556.75	(2.1)	(2.2)	(0.0)	(0.3)	(5.8)	(7.9)
S&P 500 Index	3,896.72	(1.7)	(2.4)	(0.1)	2.8	(17.3)	(18.2)
S&P/TSX Software Index	138.41	(0.2)	(0.4)	5.6	8.9	(33.6)	(34.8)
S&P500 Software Index	4,203.30	0.2	(0.6)	0.7	(1.5)	(28.8)	(28.1)

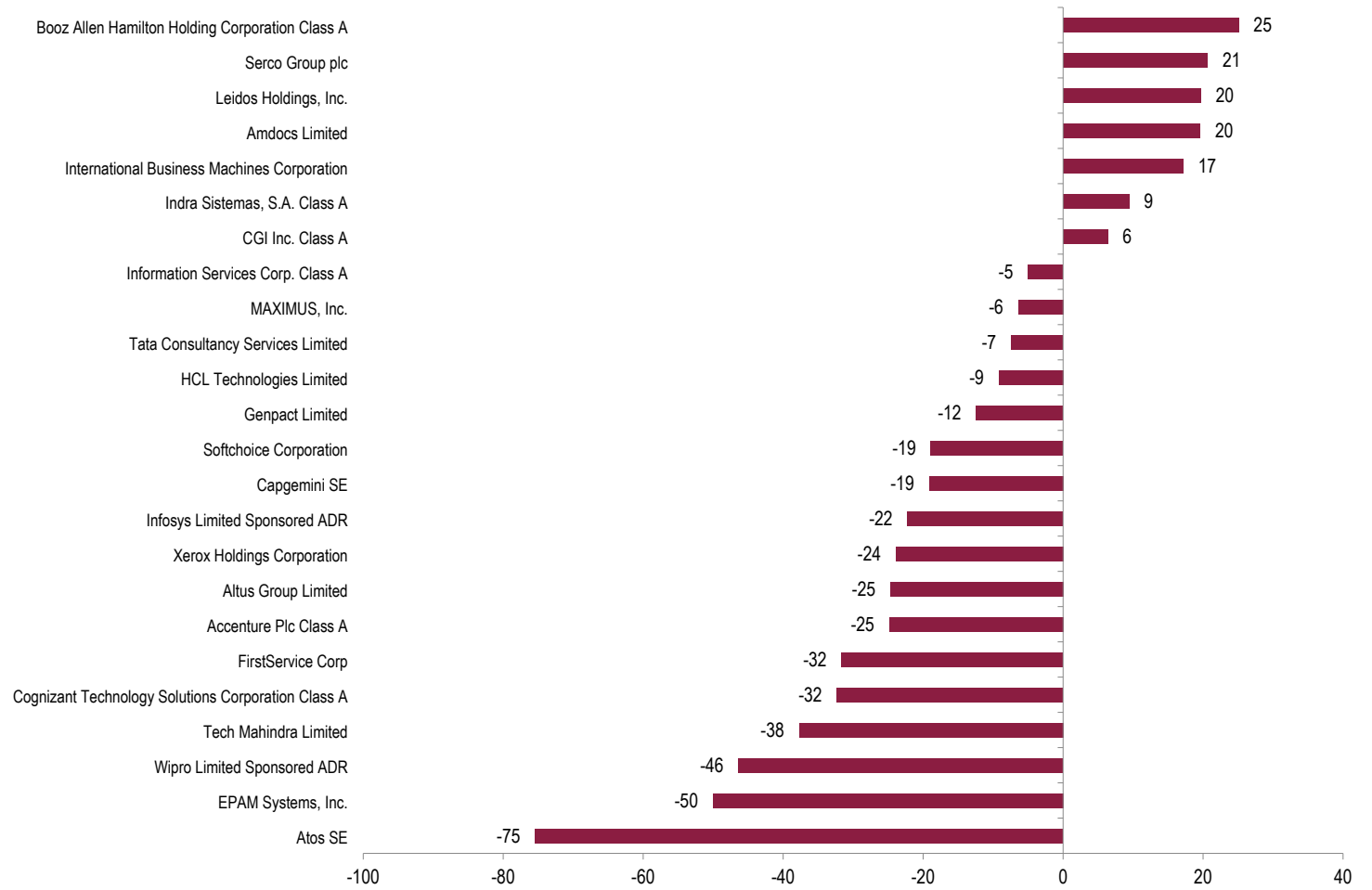
Source: FactSet and CIBC World Markets Inc.

**Exhibit 3: Software Stocks – Return Performance (%),12/15/2021 - 12/15/2022**



Source: FactSet and CIBC World Markets Inc.

**Exhibit 4: Business Services Stocks – Return Performance (%), 12/15/2021 - 12/15/2022**



Source: FactSet and CIBC World Markets Inc.

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

	Enterprise Value (\$mlns.)	EV/S			EV/EBITDA			P/E		
		C21	C22E	C23E	C21	C22E	C23E	C21	C22E	C23E
<b>Enterprise Application Software</b>										
Constellation Software Inc.*	34,398	6.7x	5.3x	4.7x	22.8x	20.9x	18.1x	>50	28.3x	26.7x
BlackBerry Limited*	2,358	2.6x	3.4x	2.4x	48.1x	NEG	NEG	NEG	NEG	NEG
Sage Group plc	8,695	4.7x	4.3x	4.0x	21.0x	19.0x	16.7x	29.9x	29.3x	25.0x
Tyler Technologies, Inc.	14,461	9.1x	7.8x	7.2x	41.1x	30.4x	29.0x	>50	42.5x	41.6x
Roper Technologies, Inc.	53,452	9.3x	9.9x	9.0x	24.1x	24.2x	22.0x	41.8x	30.5x	27.0x
<b>Enghouse Systems Limited</b>	<b>1,537</b>	<b>3.3x</b>	<b>3.7x</b>	<b>3.71x</b>	<b>9.5x</b>	<b>11.4x</b>	<b>11.2x</b>	<b>18.9x</b>	<b>24.0x</b>	<b>23.8x</b>
Oracle Corporation	273,911	6.8x	5.9x	5.3x	14.6x	11.7x	10.5x	17.6x	16.4x	15.2x
SAP SE	125,532	4.5x	4.0x	3.8x	17.5x	14.6x	13.1x	22.3x	22.3x	18.4x
<b>Enterprise Application Software Average</b>		<b>5.9x</b>	<b>5.5x</b>	<b>5.0x</b>	<b>24.8x</b>	<b>18.9x</b>	<b>17.2x</b>	<b>26.1x</b>	<b>27.6x</b>	<b>25.4x</b>
<b>Extended ERP</b>										
Adobe Incorporated	150,893	9.5x	8.5x	7.7x	22.6x	17.3x	15.9x	32.6x	23.7x	21.1x
<b>Open Text Corporation</b>	<b>10,494</b>	<b>3.1x</b>	<b>3.0x</b>	<b>2.9x</b>	<b>8.2x</b>	<b>8.6x</b>	<b>7.7x</b>	<b>9.0x</b>	<b>9.4x</b>	<b>8.3x</b>
Manhattan Associates, Inc.	7,326	11.0x	9.7x	9.0x	>50	37.2x	33.9x	>50	49.5x	46.5x
Pegasystems Inc.	3,362	2.8x	2.7x	2.4x	NEG	>50	42.2x	NEG	>50	>50
Software AG	1,419	1.7x	1.5x	1.4x	9.2x	7.0x	6.2x	20.5x	15.8x	13.5x
Fiserv, Inc.	83,953	5.2x	5.0x	4.7x	15.1x	11.6x	10.7x	49.8x	15.2x	13.5x
<b>Extended ERP Average</b>		<b>5.5x</b>	<b>5.1x</b>	<b>4.7x</b>	<b>13.8x</b>	<b>16.4x</b>	<b>19.5x</b>	<b>28.0x</b>	<b>22.8x</b>	<b>20.6x</b>
<b>Software As A Service</b>										
Descartes Systems Group Inc.	5,627	13.2x	11.6x	10.5x	30.4x	26.2x	23.7x	>50	>50	>50
Kinaxis, Inc.*	2,894	11.5x	7.8x	7.1x	>50	39.2x	38.6x	>50	>50	>50
Docebo, Inc.*	907	8.7x	6.3x	4.7x	NEG	NEG	>50	NEG	>50	>50
Lightspeed Commerce Inc*	1,383	3.0x	2.0x	1.6x	NEG	NEG	NEG	NEG	NEG	NEG
Veeva Systems Inc Class A	24,513	16.7x	11.6x	10.2x	>50	29.2x	26.5x	>50	41.6x	38.2x
<b>Shopify, Inc. Class A</b>	<b>35,882</b>	<b>7.8x</b>	<b>6.5x</b>	<b>5.4x</b>	<b>&gt;50</b>	<b>NEG</b>	<b>&gt;50</b>	<b>16.0x</b>	<b>NEG</b>	<b>&gt;50</b>
Q4 Inc*	27	0.5x	0.5x	0.5x	NEG	NEG	NEG	NEG	NEG	NEG
<b>Magnet Forensics, Inc.*</b>	<b>1,114</b>	<b>15.8x</b>	<b>11.5x</b>	<b>8.6x</b>	<b>&gt;50</b>	<b>&gt;50</b>	<b>37.9x</b>	<b>&gt;50</b>	<b>&gt;50</b>	<b>&gt;50</b>
Ceridian HCM Holding, Inc.	10,920	10.7x	8.8x	7.6x	>50	46.5x	37.1x	NEG	>50	>50
ServiceNow, Inc.	80,777	13.7x	11.1x	9.1x	>50	36.3x	29.1x	>50	>50	44.4x
Workday, Inc. Class A	43,549	10.1x	7.1x	6.1x	>50	27.9x	23.0x	NEG	49.2x	38.6x
<b>Software As A Service Average</b>		<b>10.2x</b>	<b>7.7x</b>	<b>6.5x</b>	<b>30.4x</b>	<b>34.2x</b>	<b>30.8x</b>	<b>16.0x</b>	<b>45.4x</b>	<b>40.4x</b>
<b>Infrastructure Vendors</b>										
Microsoft Corporation	1,827,980	10.9x	8.9x	8.1x	22.6x	18.2x	16.5x	30.9x	26.6x	24.1x
<b>Infrastructure Vendors Average</b>		<b>10.9x</b>	<b>8.9x</b>	<b>8.1x</b>	<b>22.6x</b>	<b>18.2x</b>	<b>16.5x</b>	<b>30.9x</b>	<b>26.6x</b>	<b>24.1x</b>
<b>Software Average</b>		<b>7.8x</b>	<b>6.5x</b>	<b>5.7x</b>	<b>21.9x</b>	<b>23.0x</b>	<b>22.4x</b>	<b>26.3x</b>	<b>28.3x</b>	<b>26.6x</b>

\*Share Price Converted to USD

Source: FactSet and CIBC World Markets Inc.

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

	Enterprise Value (\$mlns.)	EV/EBITDA			P/E			EV/S		
		C21	C22E	C23E	C21	C22E	C23E	C21	C22E	C23E
<b>Business &amp; IT Services</b>										
<b>CGI Inc. Class A</b>	<b>30,746</b>	<b>12.4x</b>	<b>11.9x</b>	<b>11.3x</b>	<b>20.8x</b>	<b>18.7x</b>	<b>17.3x</b>	<b>2.5x</b>	<b>2.3x</b>	<b>2.3x</b>
<b>TELUS International (CDA), Inc.</b>	<b>5,555</b>	<b>10.3x</b>	<b>9.2x</b>	<b>8.1x</b>	<b>17.5x</b>	<b>15.0x</b>	<b>12.5x</b>	<b>2.5x</b>	<b>2.3x</b>	<b>2.0x</b>
Accenture Plc Class A	183,024	19.0x	15.8x	15.0x	30.8x	25.8x	23.9x	3.6x	2.9x	2.8x
Booz Allen Hamilton	16,142	18.1x	16.3x	15.3x	23.8x	23.6x	21.7x	2.1x	1.8x	1.7x
CACI International Inc Class A	9,020	12.2x	13.4x	12.4x	16.3x	16.6x	15.7x	1.5x	1.4x	1.3x
DXC Technology Co.	9,643	4.8x	4.0x	3.9x	NEG	7.6x	6.2x	0.5x	0.6x	0.7x
Genpact Limited	9,219	14.3x	11.9x	10.7x	23.1x	16.2x	14.8x	2.3x	2.1x	2.0x
International Business Machines	178,112	13.3x	11.6x	11.7x	22.7x	15.9x	15.0x	3.1x	3.0x	2.9x
Atos SE	2,735	2.6x	2.9x	2.6x	NEG	>50	5.9x	0.3x	0.2x	0.2x
Capgemini SE	33,823	11.7x	9.6x	9.0x	24.8x	15.3x	14.2x	1.9x	1.6x	1.5x
Sopra Steria Group SA	4,145	7.8x	6.9x	6.4x	15.4x	10.3x	9.4x	0.9x	0.8x	0.8x
<b>Converge Technology Solutions Corp</b>	<b>1,174</b>	<b>12.5x</b>	<b>8.7x</b>	<b>6.5x</b>	<b>&gt;50</b>	<b>32.0x</b>	<b>25.4x</b>	<b>0.8x</b>	<b>0.5x</b>	<b>0.4x</b>
<b>Business &amp; IT Services Average</b>		<b>11.5x</b>	<b>10.3x</b>	<b>9.7x</b>	<b>21.7x</b>	<b>16.5x</b>	<b>14.2x</b>	<b>1.9x</b>	<b>1.7x</b>	<b>1.6x</b>
<b>HR Outsourcing</b>										
Ceridian HCM Holding, Inc.	10,920	>50	46.5x	37.1x	NEG	>50	>50	10.7x	8.8x	7.6x
Willis Towers Watson	27,218	12.2x	11.8x	11.0x	7.5x	18.2x	16.1x	3.0x	3.1x	3.0x
Aon Plc Class A	71,941	18.8x	17.9x	16.7x	>50	22.9x	20.7x	5.9x	5.8x	5.5x
Automatic Data Processing, Inc.	106,125	27.7x	23.1x	20.7x	41.3x	33.2x	29.3x	7.1x	6.2x	5.7x
Paychex, Inc.	42,448	25.7x	19.7x	18.4x	39.2x	29.6x	27.3x	10.5x	8.8x	8.2x
<b>HR Outsourcing Average</b>		<b>21.1x</b>	<b>23.8x</b>	<b>20.8x</b>	<b>29.3x</b>	<b>26.0x</b>	<b>23.4x</b>	<b>7.4x</b>	<b>6.5x</b>	<b>6.0x</b>
<b>Information Services</b>										
Broadridge Financial Solutions, Inc.	19,696	16.9x	15.0x	14.0x	29.0x	20.1x	18.7x	3.8x	3.3x	3.1x
<b>Dye &amp; Durham Ltd.</b>	<b>1,859</b>	<b>11.7x</b>	<b>11.7x</b>	<b>8.2x</b>	<b>&gt;50</b>	<b>&gt;50</b>	<b>21.4x</b>	<b>5.0x</b>	<b>3.3x</b>	<b>2.8x</b>
Deluxe Corporation	2,198	6.0x	5.3x	5.4x	11.8x	4.2x	4.3x	1.1x	1.0x	1.0x
<b>Information Services Corp</b>	<b>414</b>	<b>6.1x</b>	<b>6.4x</b>	<b>6.6x</b>	<b>11.1x</b>	<b>10.8x</b>	<b>11.3x</b>	<b>2.4x</b>	<b>2.2x</b>	<b>2.0x</b>
<b>Information Services Average</b>		<b>10.2x</b>	<b>9.6x</b>	<b>8.6x</b>	<b>17.3x</b>	<b>11.7x</b>	<b>13.9x</b>	<b>3.1x</b>	<b>2.4x</b>	<b>2.2x</b>
<b>Financial Services Technology</b>										
Fidelity National Information Services	60,463	9.9x	9.7x	9.2x	>50	10.5x	10.4x	4.4x	4.2x	4.0x
Fiserv, Inc.	83,953	15.1x	11.6x	10.7x	49.8x	15.2x	13.5x	5.2x	5.0x	4.7x
Jack Henry & Associates, Inc.	13,115	18.8x	20.6x	18.8x	43.1x	35.9x	34.0x	7.5x	6.5x	6.0x
ACI Worldwide, Inc.	3,305	9.0x	8.9x	8.2x	18.9x	15.1x	16.0x	2.4x	2.4x	2.3x
Temenos AG	4,762	8.7x	13.1x	12.1x	22.0x	18.7x	17.1x	4.9x	5.0x	4.7x
Global Payments Inc.	36,240	9.9x	9.3x	8.7x	28.9x	10.2x	9.1x	4.3x	4.5x	4.2x
<b>Financial Services Technology Average</b>		<b>11.9x</b>	<b>12.2x</b>	<b>11.3x</b>	<b>32.5x</b>	<b>17.6x</b>	<b>16.7x</b>	<b>4.8x</b>	<b>4.6x</b>	<b>4.3x</b>
<b>Diversified Real Estate Services</b>										
<b>Colliers International Group Inc.</b>	<b>4,678</b>	<b>8.5x</b>	<b>7.4x</b>	<b>6.8x</b>	<b>-9.8x</b>	<b>12.6x</b>	<b>12.2x</b>	<b>1.1x</b>	<b>1.0x</b>	<b>1.0x</b>
<b>Altus Group Limited</b>	<b>2,483</b>	<b>24.0x</b>	<b>22.6x</b>	<b>18.8x</b>	<b>27.3x</b>	<b>27.3x</b>	<b>29.9x</b>	<b>4.0x</b>	<b>4.0x</b>	<b>3.3x</b>
CBRE Group, Inc. Class A	26,346	12.3x	9.1x	9.6x	14.4x	13.9x	14.4x	0.9x	0.9x	0.8x
Jones Lang LaSalle Incorporated	9,607	6.6x	7.3x	7.7x	8.8x	10.0x	10.2x	0.5x	0.5x	0.5x
<b>Diversified Real Estate Services Average</b>		<b>12.9x</b>	<b>11.6x</b>	<b>10.8x</b>	<b>10.2x</b>	<b>15.9x</b>	<b>16.7x</b>	<b>1.6x</b>	<b>1.6x</b>	<b>1.4x</b>
<b>Software Focused IT Solutions/VARs</b>										
<b>Softchoice Corporation* USD</b>	<b>831</b>	<b>34.0x</b>	<b>10.2x</b>	<b>8.9x</b>	<b>NEG</b>	<b>20.1x</b>	<b>15.4x</b>	<b>3.1x</b>	<b>2.6x</b>	<b>2.4x</b>
Softcat Plc*	2,404	14.3x	14.3x	13.1x	19.1x	19.3x	18.4x	6.4x	6.0x	5.3x
Crayon Group Holding ASA*	10,728	>50	>50	>50	>50	>50	>50	>50	24.6x	21.1x
Bytes Technology Group Plc*	873	18.0x	13.0x	11.5x	35.8x	17.8x	16.8x	NA	NA	NA
SoftwareONE Holding Ltd.*	1,532	9.3x	6.2x	5.3x	15.3x	14.2x	12.5x	7.3x	1.5x	1.3x
<b>Bytes Technology Group Plc* Average</b>		<b>18.9x</b>	<b>10.9x</b>	<b>9.7x</b>	<b>23.4x</b>	<b>17.8x</b>	<b>15.8x</b>	<b>5.6x</b>	<b>8.7x</b>	<b>7.5x</b>
<b>Business Services Average</b>		<b>13.6x</b>	<b>12.8x</b>	<b>11.6x</b>	<b>22.6x</b>	<b>17.6x</b>	<b>16.2x</b>	<b>3.7x</b>	<b>3.8x</b>	<b>3.5x</b>

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

Source: FactSet and CIBC World Markets Inc.

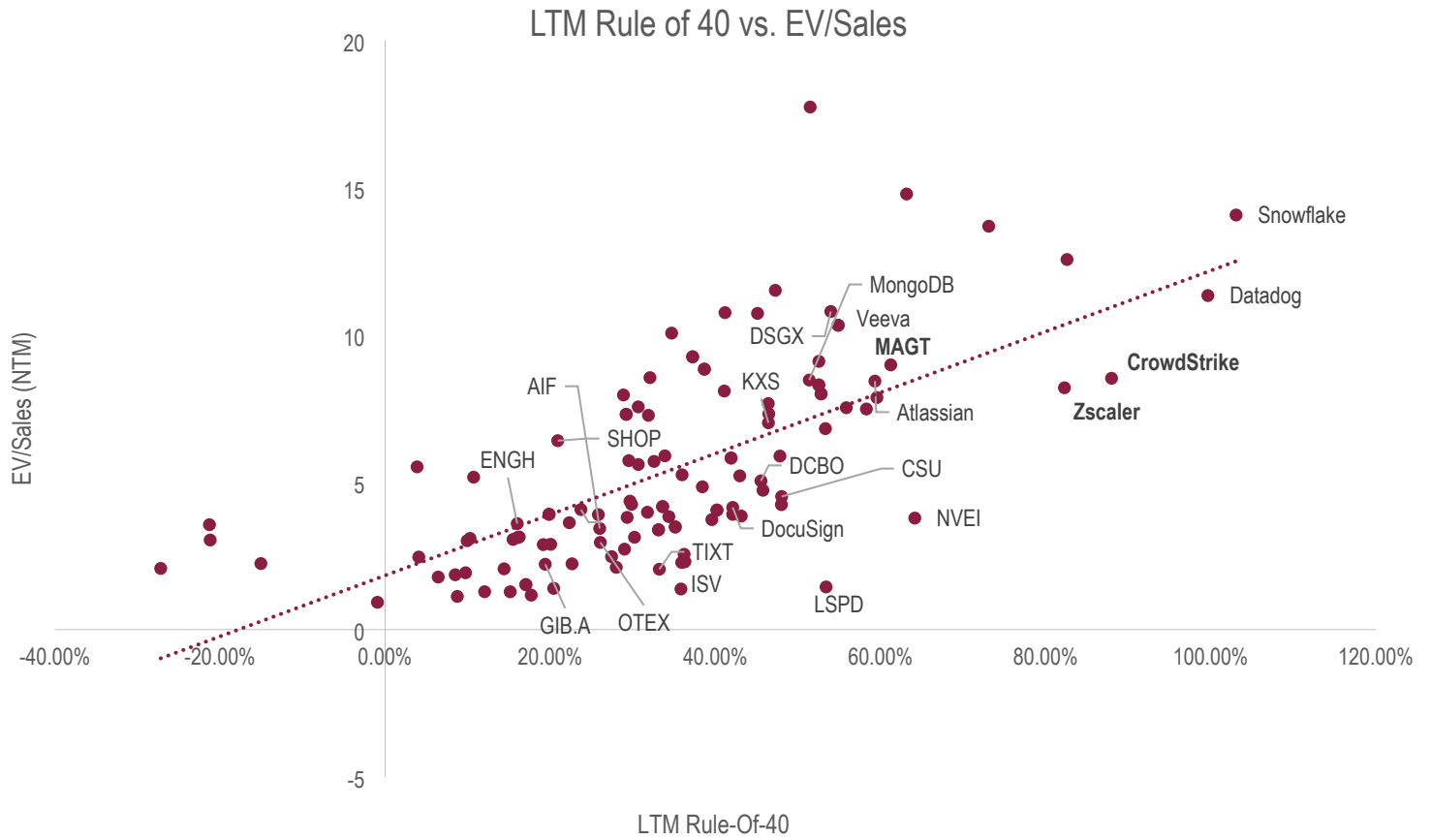


## Exhibit 7: SaaS Stocks – Comp Table, 2021 - 2023E

	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		
								C21E	C22E	C23E
<b>Tier 1 SaaS (Rule of 40 &gt; 60)</b>										
Zoom Video Communications	11%	28%	4%	27%	39%	30%	16,080	6.1x	3.7x	3.7x
CrowdStrike Holdings, Inc.	58%	30%	36%	29%	88%	65%	27,039	30.9x	12.5x	12.5x
<b>Shopify, Inc.</b>	25%	<b>-4%</b>	<b>21%</b>	<b>-10%</b>	<b>21%</b>	11%	<b>34,730</b>	<b>7.5x</b>	<b>6.3x</b>	<b>6.3x</b>
Zscaler, Inc.	60%	23%	34%	21%	82%	55%	17,073	25.4x	13.4x	13.4x
<b>Lightspeed POS, Inc.</b>	<b>72%</b>	<b>-18%</b>	<b>25%</b>	<b>-4%</b>	<b>53%</b>	<b>21%</b>	<b>1,423</b>	<b>6.4x</b>	<b>2.1x</b>	<b>2.1x</b>
DocuSign, Inc.	25%	18%	8%	18%	42%	26%	12,053	8.3x	4.9x	4.9x
Veeva Systems Inc	18%	38%	13%	36%	56%	48%	25,122	17.1x	11.9x	11.9x
Atlassian Corp. Plc	34%	26%	22%	21%	59%	43%	38,146	18.3x	12.1x	12.1x
Twilio, Inc.	43%	-7%	17%	-3%	36%	14%	5,334	1.9x	1.4x	1.4x
ServiceNow, Inc.	25%	27%	21%	30%	53%	50%	83,588	14.2x	11.5x	11.5x
HubSpot, Inc.	38%	16%	19%	11%	53%	31%	14,746	11.3x	8.6x	8.6x
<b>Tier 1 SaaS (Rule of 40 &gt; 60) Average</b>								<b>13.4x</b>	<b>8.0x</b>	<b>8.0x</b>
	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
<b>Tier 2 SaaS (Rule of 40 b/w 40-60)</b>										
<b>Docebo, Inc.</b>	<b>46%</b>	<b>0%</b>	<b>29%</b>	<b>-4%</b>	<b>46%</b>	<b>25%</b>	<b>892</b>	<b>8.6x</b>	<b>6.2x</b>	<b>4.7x</b>
Qualys, Inc.	18%	38%	17%	35%	56%	52%	4,121	10.0x	8.4x	8.4x
<b>Descartes Systems</b>	<b>17%</b>	<b>37%</b>	<b>8%</b>	<b>38%</b>	<b>54%</b>	<b>46%</b>	<b>5,739</b>	<b>13.5x</b>	<b>11.8x</b>	<b>10.7x</b>
Five9, Inc.	32%	1%	16%	7%	33%	22%	5,524	9.1x	7.1x	7.1x
Dropbox, Inc.	9%	34%	6%	34%	43%	39%	9,258	4.3x	4.0x	4.0x
Wix.com Ltd.	12%	-1%	8%	4%	10%	12%	4,562	3.6x	3.3x	3.3x
Workday, Inc.	21%	21%	17%	21%	42%	38%	44,530	10.4x	7.3x	7.3x
VMware, Inc.	4%	25%	5%	30%	30%	35%	63,102	5.4x	4.8x	4.8x
<b>Tier 2 SaaS (Rule of 40 b/w 40-60) Average</b>								<b>8.1x</b>	<b>6.6x</b>	<b>6.3x</b>
	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
<b>Tier 3 SaaS (Rule of 40 b/w 28-40)</b>										
BlackLine, Inc.	23%	9%	18%	4%	32%	22%	4,178	9.8x	8.0x	8.0x
MongoDB, Inc.	53%	-1%	26%	3%	51%	28%	14,006	23.7x	11.4x	11.4x
LivePerson, Inc.	15%	-30%	4%	-4%	-15%	0%	1,001	2.1x	1.9x	1.9x
Rapid7 Inc.	31%	4%	17%	10%	35%	27%	2,938	5.5x	4.3x	4.3x
Paylocity Holding Corp.	36%	17%	28%	16%	53%	44%	11,621	18.3x	11.7x	11.7x
Q2 Holdings, Inc.	16%	3%	13%	2%	19%	15%	1,787	3.6x	3.1x	3.1x
Akamai Technologies, Inc.	6%	24%	3%	22%	30%	25%	15,750	4.6x	4.4x	4.4x
<b>Tier 3 SaaS (Rule of 40 b/w 28-40) Average</b>								<b>9.7x</b>	<b>6.4x</b>	<b>6.4x</b>
	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
<b>Tier 4 SaaS (Rule of 40 &lt;28)</b>										
RingCentral, Inc.	29%	7%	17%	11%	36%	28%	5,193	3.3x	2.6x	2.6x
Teradata Corporation	-6%	20%	-1%	24%	14%	23%	3,520	1.8x	2.0x	2.0x
Zuora, Inc.	14%	3%	9%	0%	17%	9%	708	2.3x	1.8x	1.8x
New Relic, Inc.	19%	3%	15%	2%	22%	17%	4,004	6.0x	4.5x	4.5x
<b>Kinaxis, Inc.</b>	<b>44%</b>	<b>3%</b>	<b>19%</b>	<b>10%</b>	<b>46%</b>	<b>29%</b>	<b>2,974</b>	<b>11.9x</b>	<b>8.0x</b>	<b>7.3x</b>
Yext, Inc.	5%	4%	3%	-1%	8%	2%	678	1.9x	1.7x	1.7x
Splunk Inc.	31%	9%	17%	18%	40%	35%	16,687	7.5x	4.9x	4.9x
<b>Tier 4 SaaS (Rule of 40 &lt;28) Average</b>								<b>5.0x</b>	<b>3.7x</b>	<b>3.5x</b>
<b>SaaS Average</b>								<b>9.5x</b>	<b>6.4x</b>	<b>6.3x</b>

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

Exhibit 8: SaaS - LTM Rule Of 40, Current



Source: Company reports and CIBC World Markets Inc.

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