

## EQUITY RESEARCH

September 15, 2022

Industry Update

### Tech Monopolies – Bits & Bytes Weekly

#### EU Crackdown On Anti-competitive Practices Continues

##### Our Conclusion

EU regulators scored a major legal victory against Google this week, with a record €4B fine levied against the company for anti-competitive behavior. This is the second recent EU court defeat for Google, which lost its challenge to a €2.42B fine last year. This most recent fine could offer a precedent for other regulators to ratchet up the pressure on Big Tech amid a slew of anti-trust enquiries and suits.

##### Key Points

It's been a busy week for EU prosecutors as they served Google with a record €4B fine, leaving the company with one last option to appeal to the EU Court of Justice, Europe's highest court. The lawsuit claimed that Google imposed unlawful restrictions on Android manufacturers and network operators to pre-install Google search and Chrome apps in order to consolidate the dominant position of its search engine. Microsoft has been subject to similar complaints, alleging that its cloud-based products favour its own platform (Azure) and are priced anti-competitively if used on non-Azure cloud platforms, a clear violation of the Digital Markets Act. Microsoft is attempting to avert legal proceedings by recently announcing changes to its software licensing terms as the EU gathers information to launch a formal investigation. The new licensing deals will allow customers to use Microsoft products on any cloud provider, including purchases of licenses for just the virtual environment.

Recent crackdowns have led to a slew of anti-trust inquiries and suits, both in the EU and the U.S. The recently passed Digital Markets Act in the EU governs gatekeepers (aka Big Tech), requiring these companies to have platform interoperability, while giving users the ability to un-install any pre-installed software and barring companies from self-preferencing through the bundling of services. The new act does not appear to have put a stop to these practices, with Slack recently filing a complaint against Microsoft for tying Teams to its dominant Office Suite to force install, and blocking its removal by customers.

Big Tech has been racking up anti-trust fines, with the most recent Google fine bringing the company's cumulative total to over €8.2B, stretching back more than a decade. Apple has been issued five consecutive fines for repeatedly failing to comply with the Dutch court ruling on third-party payments in the App store. The former head of security at Twitter, Peiter Zatko, stated during recent U.S. Senate Judiciary hearings that fines for violating regulations were built into Twitter's operating budget, suggesting that Big Tech might view them as simply a cost of doing business.

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

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

Javeria Gaya, CPA  
+1 416-594-7261  
Javeria.Gaya@cibc.com

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

**Sector:**  
Information Technology

All figures in Canadian dollars unless otherwise stated.

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

In The U.S.

The American Innovation and Choice Online Act, S. 2992, polls low with the voters it’s supposed to protect. If enacted, the bill would give federal anti-trust agencies the authority to issue civil penalties and injunctions against Big Tech companies for self-preferencing and other anti-competitive tactics, use of non-public user data and more. In recent polls, 68% of Americans said inflation was the most pressing national issue, while only 3% considered anti-trust tech regulation a priority. Of voters, 70% said they oppose Congress’ proposed new anti-trust regulation for tech companies.

Exhibit 1: U.S. Polling Results – Big Tech Regulations

Poll	Survey Results
The U.S. Chamber of Commerce and AXIS Research	After learning S. 2992 would negatively impact the free and inexpensive products Americans love, 79% of Republicans, 59% of Democrats, and 72% of Independents are either strongly or somewhat opposed. 61% of Republicans, 42% of Democrats, and 53% of Independents said they were more likely to oppose candidates who support S. 2992.
Consumer Technology Association	68% of Americans view inflation as the most important issue at the moment, while only 3% view regulation of large businesses as a priority.
Progressive Policy Institute	5% of voters say Congress should be helping U.S. businesses compete with foreign corporations in countries like China, while just 35% of Americans believe Congress should focus on regulation.
Chamber of Progress	52% of Americans think anti-trust legislation targeting larger companies won’t actually help consumers and 58% of Americans believe such laws could end up hurting consumers.

Source: Computer and Communications Industry Association and CIBC World Markets Inc.

## News Impacting Our Coverage

### Research Highlight – ENGH: Race To Migrate On-premise To Cloud Continues

Enghouse reported a quarterly revenue miss that highlights a challenging macro environment. Declining demand for on-premise contact centre solutions continues to pressure the top line, with Enghouse prioritizing profitability over growth in a tough competitive environment. Euro-related FX headwinds are compounding the top-line weakness. Accelerated M&A could be upside, with \$230MM in cash on Enghouse's balance sheet and an increasingly attractive valuation environment. [Link To Note](#)

### Research Highlight – CTS: To Acquire Newcomp Analytics For \$20MM

Converge announced the \$20.3MM acquisition of Newcomp Analytics for ~6x TTM EBITDA. Headquartered in Toronto, Newcomp Analytics is an IT consulting provider that enables organizations to gain data-driven insights through its advanced analytics solutions. The 6x EV/EBITDA multiple is slightly above Converge's typical 5x, although we view the multiple as reasonable given Newcomp's business mix, which is skewed towards data analytics and artificial intelligence. Post the transaction, we calculate that CTS will have net debt of ~\$28MM or 0.2x leverage, and we view the company as being on track to meet its \$1B in acquired gross revenue target for 2022. [Link to Note](#)

### Research Highlight – DND: U.K. Financial Conduct Authority Withholds Link Group Approval; Seeking \$465MM Commitment From DND

The U.K. Financial Conduct Authority (FCA) has informed Dye & Durham that it will not approve the pending acquisition of Link Group unless DND agrees to cover any shortfall in the value of the assets of Link's Fund Solutions business – up to a maximum of £306MM (\$465 million) – in relation to restitution or redress payments the FCA may levy in relation to Link's management of the Woodford Equity & Income Fund. The maximum liability of \$465MM would represent a 16% increase to the total deal price of \$2,920MM, a material amount that puts completion of the deal further in doubt. While the FCA's conditions do provide a path to the deal closing, it remains to be seen whether DND would be willing to agree to cover the material difference. DND is in negotiations with Link management to find a resolution to the situation. [Link to Note](#)

### OpenText Launches The ESG Zero-In Initiatives

OpenText released its latest corporate citizen report highlighting recent ESG efforts, including an internship program for Indigenous students. It also announced its Zero-In ESG target with key pillars, committing to reduce emissions by 50% by 2030 and net zero by 2040 for Scope 1,2,3 emissions from a F2022 baseline and zero-waste to landfill from operations by 2030. It is also targeting a 50/50 gender parity within key roles by 2030 with 40% female composition in leadership posts by 2030.

### CGI Enables Unified Communications Through Integration Of CGI OpenMedia & Microsoft Teams

CGI has integrated OpenMedia, an end-to-end newsroom solution suite, with Microsoft Teams for a unified communications platform for journalists and producers, addressing workflow challenges against a backdrop of increased broadcasting channels and remote news gathering and production. The integration includes Teams' chat and video conference functions.

### **CGI Introduces Sunflower Work Management Solutions**

CGI Federal, a subsidiary of CGI, introduced Sunflower Work Management, a software solution focused on providing federal civilian professionals with complete visibility of projects and assets. The product is cloud-based and accessible through mobile applications, and is fully integrated with CGI Momentum.

### **Descartes Releases Retailers Survey**

Descartes' retailer survey comprised 8,000 consumers. Of those consumers, 38% felt retailers were doing a good job in employing sustainable delivery practices. Over half of survey participants expressed interest in environmentally friendly delivery methods, with 54% willing to accept longer lead times in exchange for these sustainable delivery practices.

**Exhibit 2: CIBC Software/Services – Coverage Performance, 9/15/2021 - 9/15/2022**

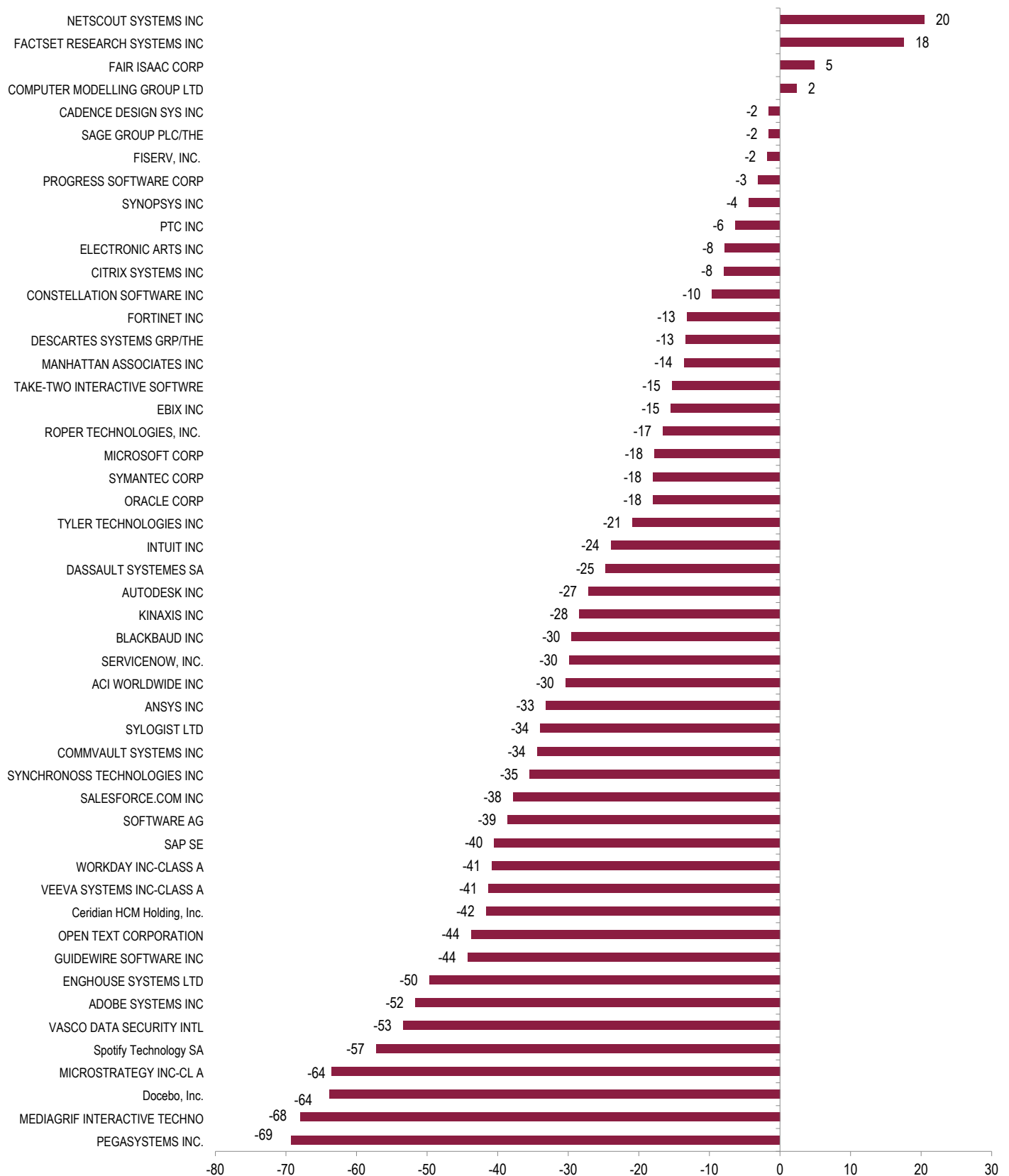
Software & Systems	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD	52W High	52W Low
Constellation Software Inc	1,985.01	(0.1)	(9.3)	7.1	(2.8)	(9.6)	(15.4)	2385.80	1793.93
Descartes Systems	69.16	0.6	(3.2)	14.0	(2.7)	(17.2)	(16.4)	91.39	56.19
Enghouse Systems Limited	30.27	(5.7)	(8.2)	19.8	(20.5)	(49.7)	(37.5)	61.45	23.96
Open Text Corp	29.70	0.4	(25.4)	(21.7)	(27.4)	(43.8)	(37.4)	52.91	28.94
Kinaxis	143.08	(0.5)	(14.7)	13.2	(11.0)	(28.4)	(19.3)	229.98	119.48
Docebo, Inc.	41.12	2.6	(12.6)	15.6	(22.6)	(63.9)	(51.5)	117.55	32.35
Magnet Forensics	23.99	(0.4)	(2.0)	48.1	(4.6)	(50.7)	(27.0)	51.28	14.89
Q4 Inc.	4.55	1.1	1.1	(0.7)	(13.3)	NA	(46.5)	12.05	4.01
<b>Average</b>		<b>(0.3)</b>	<b>(9.3)</b>	<b>11.9</b>	<b>(13.1)</b>	<b>(37.6)</b>	<b>(31.4)</b>		

Business Services	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD	52W High	52W Low
CGI Group Inc	103.81	0.6	(6.8)	5.9	2.2	(8.5)	(7.2)	116.46	95.45
Converge Technologies	6.31	7.7	(14.8)	4.1	(30.8)	(48.1)	(42.0)	12.80	4.85
Softchoice Corporation	19.58	9.4	(14.2)	0.8	(21.4)	(36.9)	(8.3)	33.44	17.48
Telus International	39.60	2.2	(1.0)	30.9	34.2	(12.1)	(5.3)	49.43	26.75
<b>Average</b>		<b>5.0</b>	<b>(9.2)</b>	<b>10.4</b>	<b>(3.9)</b>	<b>(26.4)</b>	<b>(15.7)</b>		

Indices	Price	1 Week	1 Month	3 Month	6 Month	1 Year	YTD
S&P/TSX Composite Index	19,771.66	1.8	(2.0)	0.8	(6.7)	(4.5)	(6.8)
S&P 500 Index	3,953.57	(1.3)	(8.0)	4.3	(7.2)	(11.8)	(17.0)
S&P/TSX Software Index	132.51	2.6	(10.7)	4.2	(14.5)	(44.7)	(37.6)
S&P500 Software Index	4,265.21	(3.5)	(14.8)	(0.0)	(11.9)	(22.7)	(27.1)

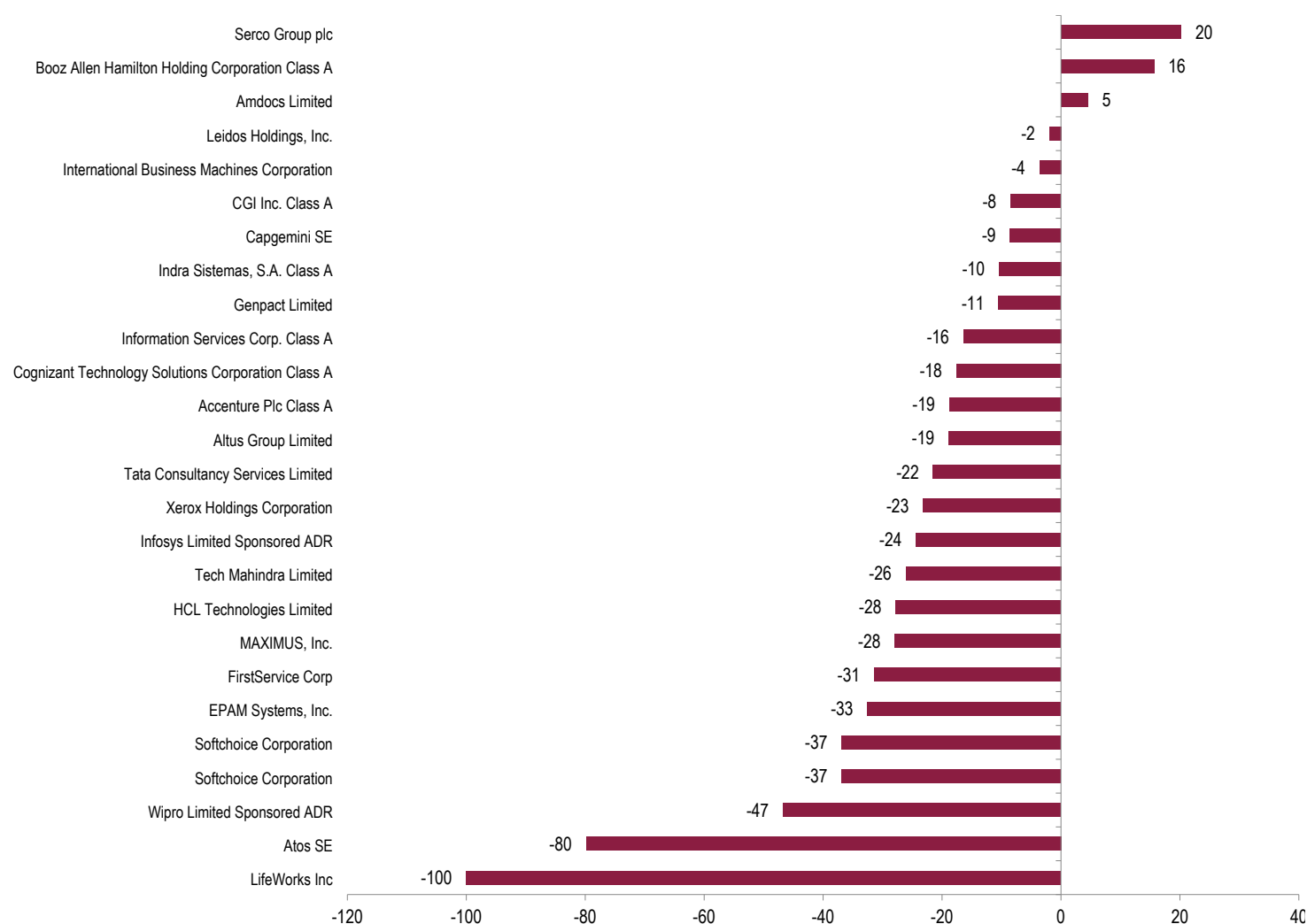
Source: FactSet and CIBC World Markets Inc.

## Exhibit 3: Software Stocks – Return Performance (%), 9/15/2021 - 9/15/2022



Source: FactSet and CIBC World Markets Inc.

**Exhibit 4: Business Services Stocks – Return Performance (%), 9/15/2021 - 9/15/2022**



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
Enterprise Application Software										
Constellation Software Inc.*	33,421	6.5x	5.1x	4.5x	22.1x	19.6x	16.8x	48.5x	27.2x	24.5x
BlackBerry Limited*	3,402	3.8x	5.0x	3.6x	>50	NEG	NEG	NEG	NEG	NEG
Sage Group plc	7,599	4.1x	3.9x	3.6x	18.4x	16.2x	14.8x	27.5x	26.4x	23.6x
Tyler Technologies, Inc.	16,369	10.3x	8.8x	8.0x	46.5x	34.6x	31.8x	>50	49.4x	45.4x
Roper Technologies, Inc.	49,782	8.6x	9.5x	8.9x	22.5x	23.2x	21.4x	38.5x	29.1x	26.6x
Enghouse Systems Limited	1,464	3.2x	3.5x	3.51x	9.0x	10.8x	10.6x	18.1x	22.8x	22.6x
Oracle Corporation	251,321	6.2x	5.4x	4.9x	13.4x	10.7x	9.8x	15.8x	14.4x	13.3x
SAP SE	108,935	3.9x	3.5x	3.3x	15.2x	12.9x	11.5x	19.3x	17.7x	15.6x
Enterprise Application Software Average		5.8x	5.6x	5.0x	21.0x	18.3x	16.7x	27.9x	26.7x	24.5x
Extended ERP										
Adobe Incorporated	148,546	9.4x	8.3x	7.3x	22.2x	17.0x	14.9x	31.9x	23.3x	19.8x
Open Text Corporation	10,797	3.1x	3.0x	2.9x	8.4x	8.6x	8.0x	9.4x	9.4x	8.8x
Manhattan Associates, Inc.	8,607	13.0x	11.7x	10.5x	>50	44.2x	38.3x	>50	>50	>50
Pegasystems Inc.	3,659	3.0x	2.8x	2.5x	NEG	>50	29.4x	NEG	>50	45.8x
Software AG	1,573	1.9x	1.6x	1.5x	10.2x	7.9x	6.9x	22.3x	16.0x	13.3x
Fiserv, Inc.	89,261	5.5x	5.3x	5.0x	16.1x	12.5x	11.4x	>50	16.4x	14.4x
Extended ERP Average		6.0x	5.5x	5.0x	14.2x	18.0x	18.2x	21.2x	16.3x	20.4x
Software As A Service										
Descartes Systems Group Inc.	5,684	13.4x	11.6x	10.4x	30.7x	26.3x	23.4x	>50	>50	>50
Kinaxis, Inc.*	2,822	11.3x	7.8x	6.9x	>50	43.4x	38.6x	>50	>50	>50
Docebo, Inc.*	818	7.8x	5.6x	4.2x	NEG	NEG	>50	NEG	NEG	NEG
Lightspeed Commerce Inc*	2,127	4.5x	3.0x	2.3x	NEG	NEG	NEG	NEG	NEG	NEG
Veeva Systems Inc Class A	24,971	17.0x	11.8x	10.2x	>50	29.7x	25.7x	>50	42.6x	37.9x
Shopify, Inc. Class A	38,261	8.3x	7.0x	5.6x	>50	NEG	>50	15.2x	NEG	>50
Q4 Inc*	95	1.7x	1.7x	1.6x	NEG	NEG	NEG	NEG	NEG	NEG
Magnet Forensics, Inc.*	636	9.1x	6.8x	5.2x	34.1x	41.4x	23.3x	>50	>50	>50
Ceridian HCM Holding, Inc.	10,424	10.2x	8.5x	7.3x	>50	47.6x	38.3x	NEG	>50	>50
ServiceNow, Inc.	91,250	15.5x	12.5x	10.1x	>50	39.9x	31.9x	>50	>50	49.5x
Workday, Inc. Class A	39,407	9.2x	6.4x	5.4x	>50	25.3x	20.6x	NEG	46.6x	36.8x
Software As A Service Average		9.8x	7.5x	6.3x	32.4x	36.2x	28.8x	15.2x	44.6x	41.4x
Infrastructure Vendors										
Citrix Systems, Inc.	16,159	5.0x	4.9x	4.8x	23.0x	13.2x	13.0x	42.5x	>50	32.5x
Microsoft Corporation	1,842,069	11.0x	8.8x	7.8x	22.8x	17.7x	15.7x	31.1x	25.9x	22.7x
Infrastructure Vendors Average		8.0x	6.9x	6.3x	22.9x	15.4x	14.4x	36.8x	25.9x	27.6x
Software Average		7.6x	6.4x	5.6x	21.0x	23.9x	20.7x	26.7x	26.2x	26.6x

\*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
Business & IT Services										
CGI Inc. Class A	27,839	11.3x	10.8x	10.3x	18.5x	16.8x	15.8x	2.3x	2.1x	2.1x
TELUS International (CDA), Inc.	8,963	16.6x	14.4x	12.3x	29.9x	25.1x	19.9x	4.1x	3.5x	3.0x
Accenture Plc Class A	172,245	17.9x	14.7x	13.7x	30.5x	25.2x	22.6x	3.4x	2.7x	2.5x
Booz Allen Hamilton	14,737	16.5x	15.2x	14.4x	21.4x	21.5x	19.7x	1.9x	1.7x	1.6x
CACI International Inc Class A	8,429	11.4x	12.6x	11.7x	15.0x	15.2x	14.3x	1.4x	1.3x	1.3x
DXC Technology Co.	10,114	5.0x	4.2x	4.1x	NEG	8.2x	6.6x	0.6x	0.7x	0.7x
Genpact Limited	9,372	14.5x	12.0x	10.6x	23.5x	16.6x	14.7x	2.3x	2.1x	2.0x
International Business Machines	161,591	12.0x	10.3x	9.8x	19.9x	13.6x	12.7x	2.8x	2.7x	2.6x
Atos SE	2,770	2.6x	2.8x	2.6x	NEG	8.0x	4.6x	0.3x	0.3x	0.3x
Capgemini SE	35,272	12.2x	10.1x	9.3x	26.1x	16.5x	14.8x	1.9x	1.6x	1.5x
Sopra Steria Group SA	4,246	8.0x	7.0x	6.5x	15.9x	10.6x	9.8x	0.9x	0.8x	0.8x
Converge Technology Solutions Corp	1,360	14.5x	9.1x	7.3x	>50	38.4x	21.0x	0.9x	0.6x	0.5x
Business & IT Services Average		11.6x	10.4x	9.6x	22.3x	16.1x	14.1x	2.0x	1.8x	1.7x
HR Outsourcing										
		EV/EBITDA			P/E			EV/S		
Ceridian HCM Holding, Inc.	10,424	>50	47.6x	38.3x	NEG	>50	>50	10.2x	8.5x	7.3x
Willis Towers Watson	23,592	10.6x	10.0x	9.2x	6.3x	15.3x	13.4x	2.6x	2.6x	2.5x
Aon Plc Class A	69,256	18.1x	17.2x	16.1x	>50	21.4x	19.4x	5.7x	5.5x	5.2x
Automatic Data Processing, Inc.	99,588	26.0x	21.8x	19.7x	38.7x	31.2x	27.7x	6.6x	5.8x	5.4x
Paychex, Inc.	43,163	26.1x	20.1x	18.8x	39.9x	30.4x	28.2x	10.6x	9.0x	8.4x
HR Outsourcing Average		20.2x	23.4x	20.4x	28.3x	24.6x	22.2x	7.1x	6.3x	5.7x
Information Services										
		EV/EBITDA			P/E			EV/S		
Broadridge Financial Solutions, Inc.	23,483	20.2x	18.0x	16.8x	36.0x	24.8x	22.8x	4.6x	4.0x	3.8x
Dye & Durham Ltd.	1,909	12.0x	12.0x	8.4x	>50	>50	21.4x	5.1x	3.3x	2.9x
Deluxe Corporation	2,222	6.0x	5.3x	5.2x	12.2x	4.4x	4.1x	1.1x	1.0x	1.0x
Information Services Corp	419	6.2x	6.5x	6.4x	11.3x	11.2x	11.8x	2.5x	2.2x	2.1x
Information Services Average		11.1x	10.4x	9.2x	19.9x	13.4x	15.0x	3.3x	2.6x	2.4x
Financial Services Technology										
		EV/EBITDA			P/E			EV/S		
Fidelity National Information Services	72,263	11.8x	11.1x	10.2x	>50	12.4x	11.1x	5.2x	4.9x	4.6x
Fiserv, Inc.	89,261	16.1x	12.5x	11.4x	>50	16.4x	14.4x	5.5x	5.3x	5.0x
Jack Henry & Associates, Inc.	14,246	20.5x	22.6x	20.7x	46.9x	38.4x	36.0x	8.1x	7.1x	6.6x
ACI Worldwide, Inc.	3,587	9.8x	8.9x	8.3x	21.0x	16.9x	14.4x	2.6x	2.5x	2.4x
Temenos AG	6,751	12.3x	14.1x	12.9x	33.1x	19.8x	17.7x	7.0x	6.5x	6.0x
Global Payments Inc.	48,310	13.2x	12.3x	11.2x	40.8x	14.2x	12.4x	5.7x	6.0x	5.5x
Financial Services Technology Average		13.9x	13.6x	12.5x	35.4x	19.7x	17.6x	5.7x	5.4x	5.0x
Diversified Real Estate Services										
		EV/EBITDA			P/E			EV/S		
Colliers International Group Inc.	5,811	10.6x	8.9x	7.8x	-12.6x	15.0x	13.7x	1.4x	1.3x	1.2x
Altus Group Limited	2,430	23.5x	22.9x	19.3x	34.4x	34.4x	36.3x	3.9x	3.9x	3.4x
CBRE Group, Inc. Class A	27,145	12.7x	9.0x	8.6x	14.6x	13.0x	12.7x	1.0x	0.9x	0.8x
Jones Lang LaSalle Incorporated	9,945	6.8x	6.8x	6.8x	9.1x	8.9x	8.6x	0.5x	0.5x	0.5x
Diversified Real Estate Services Average		13.4x	11.9x	10.6x	11.4x	17.8x	17.8x	1.7x	1.6x	1.5x
Software Focused IT Solutions/VARs										
		EV/EBITDA			P/E			EV/S*		
Softchoice Corporation* USD	961	39.4x	11.6x	9.5x	NEG	21.0x	16.0x	3.6x	3.0x	2.7x
Softcat Plc*	2,317	13.8x	14.2x	13.5x	18.5x	19.5x	19.3x	6.2x	6.1x	5.5x
Crayon Group Holding ASA*	9,380	>50	>50	>50	>50	>50	>50	>50	22.7x	19.3x
Bytes Technology Group Plc*	967	19.9x	16.1x	14.8x	39.4x	22.5x	21.9x	NA	NA	NA
SoftwareONE Holding Ltd.*	1,253	7.6x	5.2x	4.5x	13.2x	13.0x	11.8x	6.0x	1.2x	1.1x
Bytes Technology Group Plc* Average		20.2x	11.8x	10.6x	23.7x	19.0x	17.2x	5.3x	8.3x	7.2x
Business Services Average										
		14.3x	13.2x	11.9x	23.2x	18.2x	16.7x	3.9x	3.9x	3.6x

\*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		
								C21	C22E	C23E
<b>Tier 1 SaaS (Rule of 40 &gt; 60)</b>										
Zoom Video Communications	18%	31%	6%	27%	49%	33%	18,366	6.9x	4.2x	4.2x
CrowdStrike Holdings, Inc.	61%	30%	43%	29%	91%	72%	41,746	47.7x	19.3x	19.3x
<b>Shopify, Inc.</b>	30%	<b>1%</b>	<b>21%</b>	-9%	<b>31%</b>	12%	<b>36,137</b>	<b>7.8x</b>	<b>6.6x</b>	<b>6.6x</b>
Zscaler, Inc.	61%	22%	41%	22%	83%	63%	25,272	37.5x	20.0x	20.0x
<b>Lightspeed POS, Inc.</b>	<b>101%</b>	<b>-19%</b>	<b>33%</b>	<b>-5%</b>	<b>82%</b>	<b>28%</b>	<b>1,973</b>	<b>8.9x</b>	<b>2.8x</b>	<b>2.8x</b>
DocuSign, Inc.	37%	24%	14%	16%	61%	30%	12,236	8.4x	5.0x	5.0x
Veeva Systems Inc	20%	38%	15%	37%	58%	53%	24,727	16.9x	11.7x	11.7x
Atlassian Corp. Plc	34%	27%	28%	22%	61%	50%	65,011	31.1x	20.3x	20.3x
Twilio, Inc.	51%	-6%	28%	-3%	45%	25%	10,206	3.6x	2.6x	2.6x
ServiceNow, Inc.	28%	31%	23%	30%	58%	53%	91,319	15.5x	12.5x	12.5x
HubSpot, Inc.	42%	16%	23%	12%	58%	35%	14,181	10.9x	8.4x	8.4x
<b>Tier 1 SaaS (Rule of 40 &gt; 60) Average</b>								<b>17.8x</b>	<b>10.3x</b>	<b>10.3x</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 2 SaaS (Rule of 40 b/w 40-60)</b>										
<b>Docebo, Inc.</b>	<b>50%</b>	<b>-2%</b>	<b>36%</b>	<b>-4%</b>	<b>48%</b>	<b>32%</b>	<b>810</b>	<b>7.8x</b>	<b>5.6x</b>	<b>4.1x</b>
Qualys, Inc.	17%	40%	18%	36%	56%	55%	5,629	13.6x	11.5x	11.5x
<b>Descartes Systems</b>	<b>22%</b>	<b>39%</b>	<b>10%</b>	<b>36%</b>	<b>61%</b>	<b>46%</b>	<b>5,724</b>	<b>13.5x</b>	<b>11.7x</b>	<b>10.5x</b>
Avalara Inc	33%	3%	21%	3%	36%	24%	7,648	10.9x	8.8x	8.8x
Five9, Inc.	34%	-4%	23%	7%	30%	30%	6,394	10.5x	8.2x	8.2x
Dropbox, Inc.	11%	33%	6%	34%	44%	40%	8,528	4.0x	3.7x	3.7x
Wix.com Ltd.	16%	-1%	8%	4%	15%	12%	3,905	3.1x	2.8x	2.8x
Workday, Inc.	22%	21%	19%	20%	43%	39%	39,445	9.2x	6.5x	6.5x
VMware, Inc.	7%	24%	7%	29%	31%	35%	59,237	5.0x	4.4x	4.4x
<b>Tier 2 SaaS (Rule of 40 b/w 40-60) Average</b>								<b>8.6x</b>	<b>7.0x</b>	<b>6.7x</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.	22%	8%	22%	6%	30%	28%	4,169	9.8x	7.9x	7.9x
Zendesk, Inc.	30%	12%	21%	14%	42%	35%	9,654	7.2x	5.7x	5.7x
MongoDB, Inc.	54%	-2%	25%	2%	52%	27%	16,397	27.8x	13.9x	13.9x
LivePerson, Inc.	19%	-27%	5%	-4%	-8%	1%	955	2.0x	1.9x	1.9x
Rapid7 Inc.	33%	5%	23%	11%	38%	35%	3,894	7.3x	5.7x	5.7x
Paylocity Holding Corp.	34%	16%	28%	15%	50%	43%	14,176	22.3x	14.6x	14.6x
Q2 Holdings, Inc.	18%	0%	18%	3%	18%	21%	2,470	5.0x	4.3x	4.3x
Akamai Technologies, Inc.	7%	24%	3%	21%	31%	24%	15,990	4.6x	4.5x	4.5x
<b>Tier 3 SaaS (Rule of 40 b/w 28-40) Average</b>								<b>10.7x</b>	<b>7.3x</b>	<b>7.3x</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 4 SaaS (Rule of 40 &lt;28)</b>										
RingCentral, Inc.	33%	8%	22%	9%	40%	30%	5,468	3.4x	2.7x	2.7x
Teradata Corporation	-3%	19%	-3%	23%	16%	20%	3,268	1.7x	1.8x	1.8x
Zuora, Inc.	15%	4%	13%	0%	19%	13%	926	3.0x	2.4x	2.4x
New Relic, Inc.	20%	3%	17%	1%	23%	18%	3,751	5.6x	4.2x	4.2x
<b>Kinaxis, Inc.</b>	<b>35%</b>	<b>7%</b>	<b>23%</b>	<b>9%</b>	<b>42%</b>	<b>32%</b>	<b>2,833</b>	<b>11.3x</b>	<b>7.8x</b>	<b>7.0x</b>
Yext, Inc.	10%	1%	2%	-1%	11%	1%	471	1.3x	1.2x	1.2x
Splunk Inc.	26%	7%	21%	14%	33%	35%	17,460	7.8x	5.2x	5.2x
<b>Tier 4 SaaS (Rule of 40 &lt;28) Average</b>								<b>4.9x</b>	<b>3.6x</b>	<b>3.5x</b>
<b>SaaS Average</b>								<b>11.2x</b>	<b>7.4x</b>	<b>7.3x</b>

Source: FactSet and CIBC World Markets Inc.

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