

INDUSTRY INSIGHTS

Global Software Sector Update

Summer 2021

Executive Summary

The summer of 2021 has proven to be one of the most active periods on record for software M&A. Following a strong start of the year, the record high level of M&A deal values in Q1 has been surpassed in Q2, and public equity markets have rebounded following a slump towards the end of Q1, which had left many high growth software public companies in the red in March.

Despite regulatory clamp-down, and a reduction in their overall contribution to quarterly deal value, SPACs continued to drive record spending and multiples raising the bar for “traditional” software acquirers who needed to stretch to double-digit revenue multiples to close some deals particularly in the \$1B+ range where median multiples reached 9.9x. PE firms which have established themselves as the dominant force in software M&A benefited from a broader universe of exit options at meaningful premiums driven by both listed vendors who are capitalizing on rich valuations and blank-check acquirers. This helped keep median disclosed PE multiples above those paid by strategics (ex-SPACs) creating the most competitive landscape for software M&A on record.

Meanwhile, the impacts of COVID-19 continue to accelerate key digital transformation trends as IT budgets adjust to accommodate hybrid operating models. Unsurprisingly, 55% of organizations will increase spending in 2021 to support remote/work-from-home staff and 53% indicate an increase in security spending. Digital customer engagement and analytics is also high on the priority list with 42% of organizations indicating planned increases.

Based on our activity and ongoing engagements, we continue to observe a record pace of deal-making and a growing pipeline of opportunities coming to market. With a significant number of top quartile targets based on financial KPIs we note a crowding out effect driving further bifurcation of the market as investors have become more disciplined in choosing where to focus their resources. We anticipate a natural slow down in activity towards the end of the summer as the market pauses for a short break before resuming at pace again through the fall.

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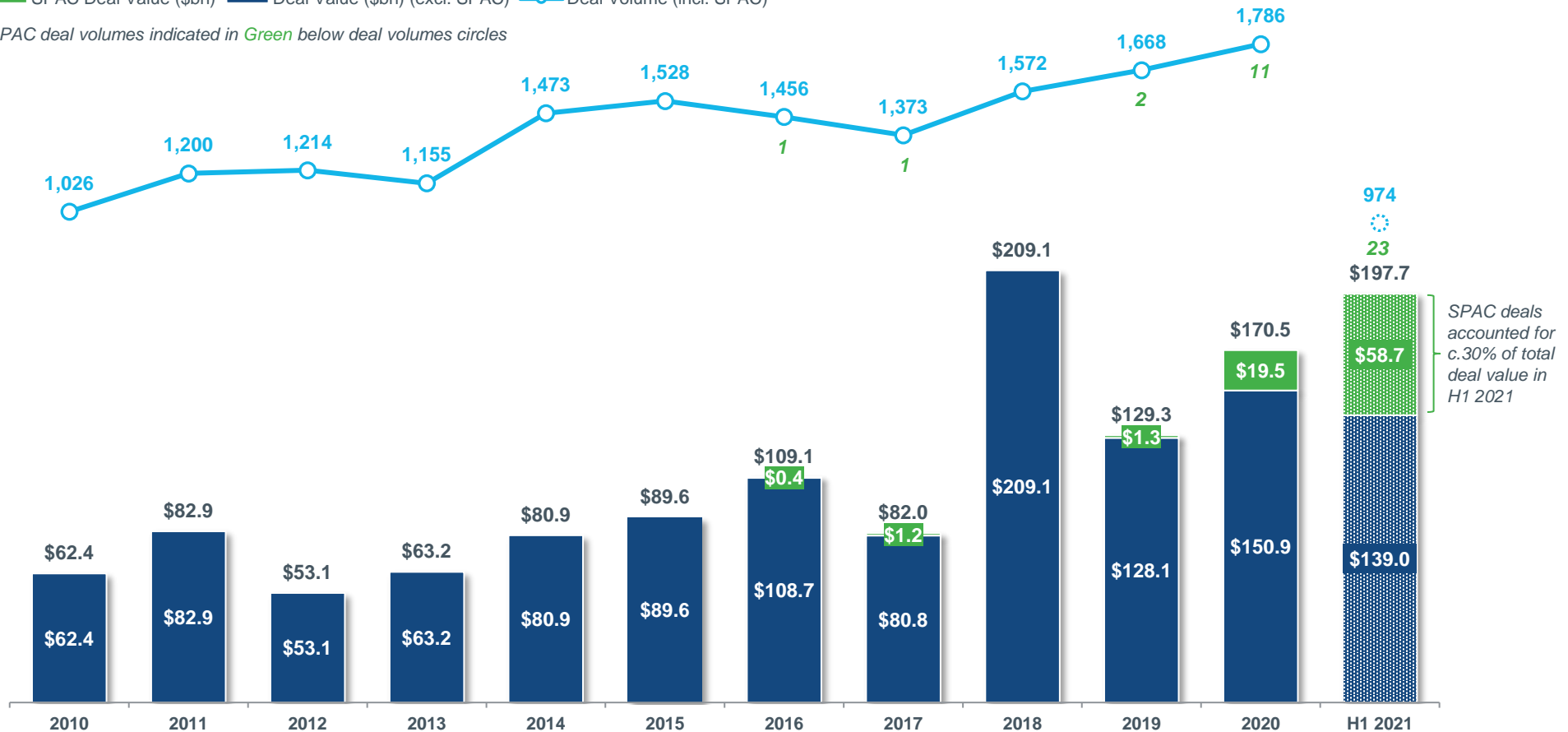
Robust Momentum Continues in Q2 2021

H1 2021 Deal Value Has Already Exceeded Annual Deal Values in 9 of the Last 10 Years and Deal Volumes Suggest Another Record Year Could Be in the Making

Annual Deal Volume and Deal Value

SPAC Deal Value (\$bn) Deal Value (\$bn) (excl. SPAC) Deal Volume (incl. SPAC)

SPAC deal volumes indicated in Green below deal volumes circles

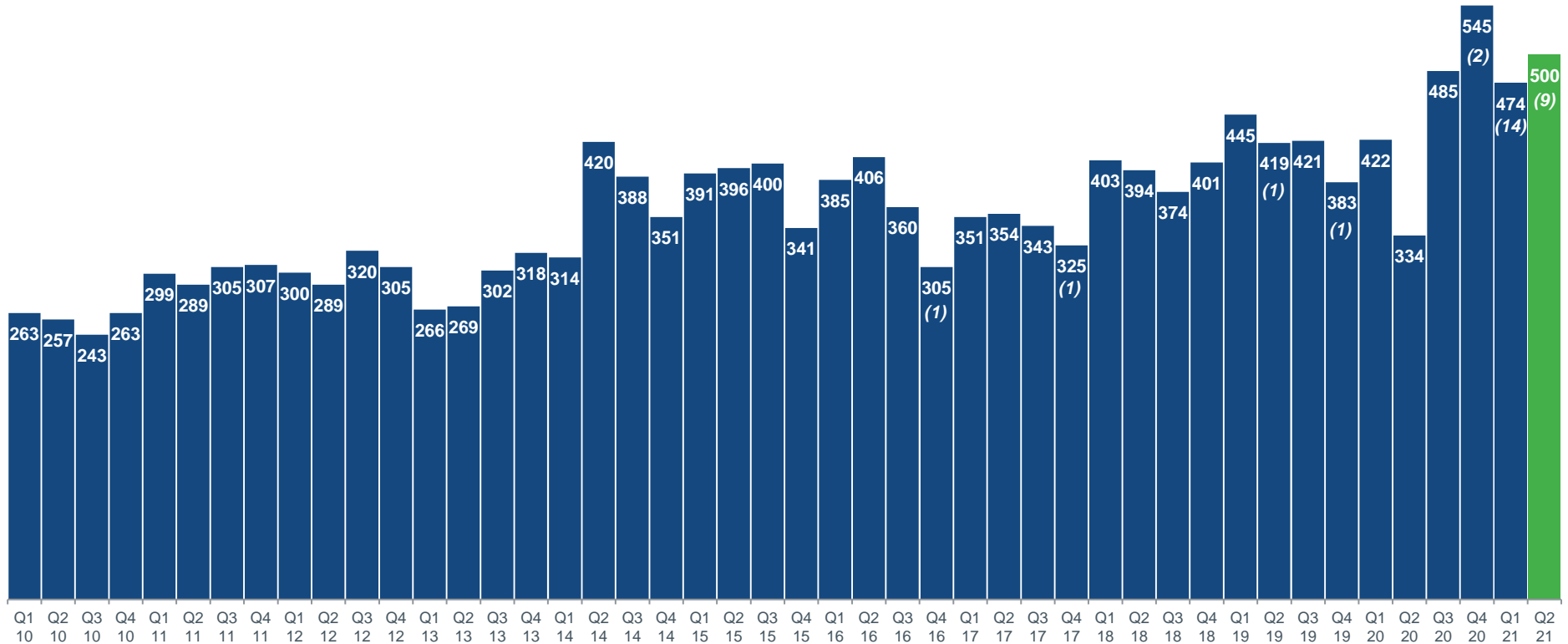


Software Deal Activity Continues Above Historical Average

Q2 2021 Recorded the Second Largest Deal Volumes by Quarter Since Q1 2010, Which Also Included 9 SPAC Deals, Exceeding the Previous Quarter

Quarterly Deal Volume (Q1 2010 to Q2 2021)

Top number in each bar indicates total deal volumes in quarter (incl. SPAC deals)
SPAC deal volumes indicated in brackets



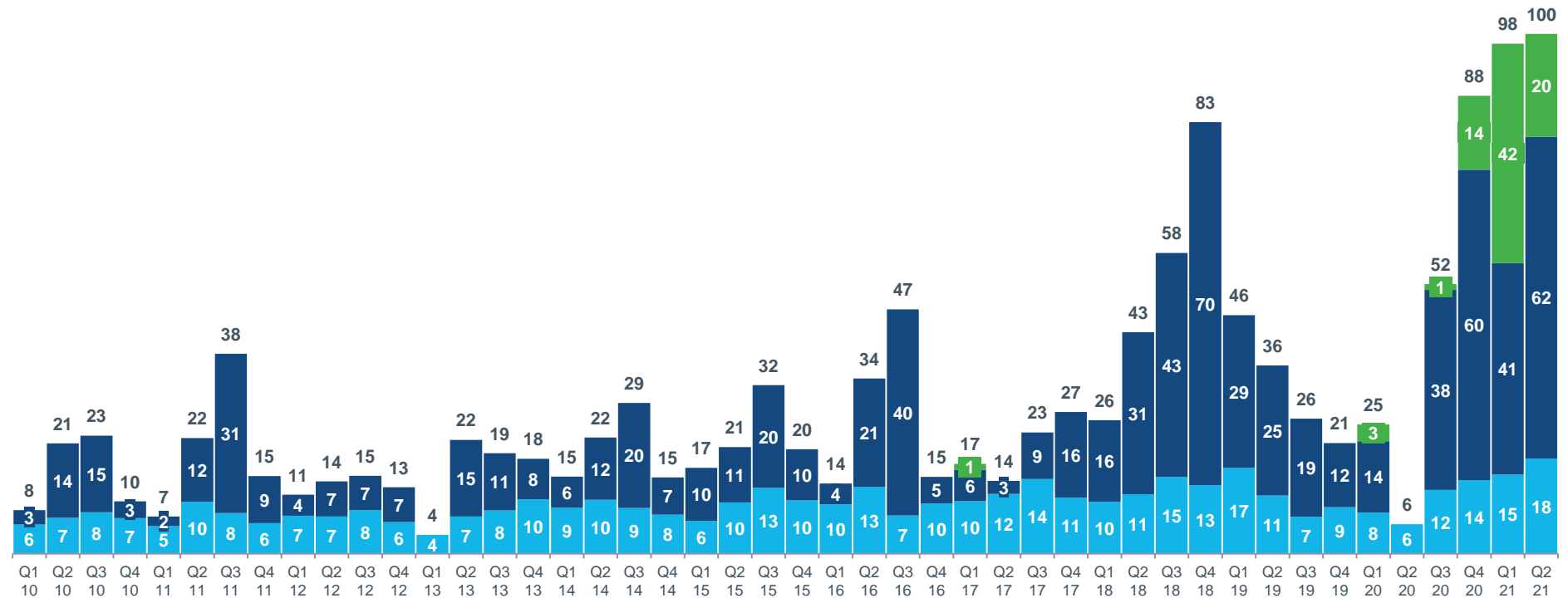
¹Between January 01, 2010 and June 30, 2021

Quarterly Deal Values Continue to Reach Record Highs

Q2 2021 Deal Values Surpassed Q1 2021's Record Despite a Drop in High-Value SPAC Deals

Quarterly Deal Value (\$bn) (Q1 2010 to Q2 2021)

■ <\$1bn Deal Values (\$bn) (incl. SPACs)
 ■ >\$1bn Deal Values (\$bn) (excl. SPACs)
 ■ >\$1bn Deal Values (\$bn) (SPACs only)



¹Between January 01, 2010 and June 30, 2021

Source: 451 Research as of June 30, 2021

Software Multiples Remain Above Long-Term Levels

Strategic Valuations Rise to the Challenge and Soar to All-Time Highs

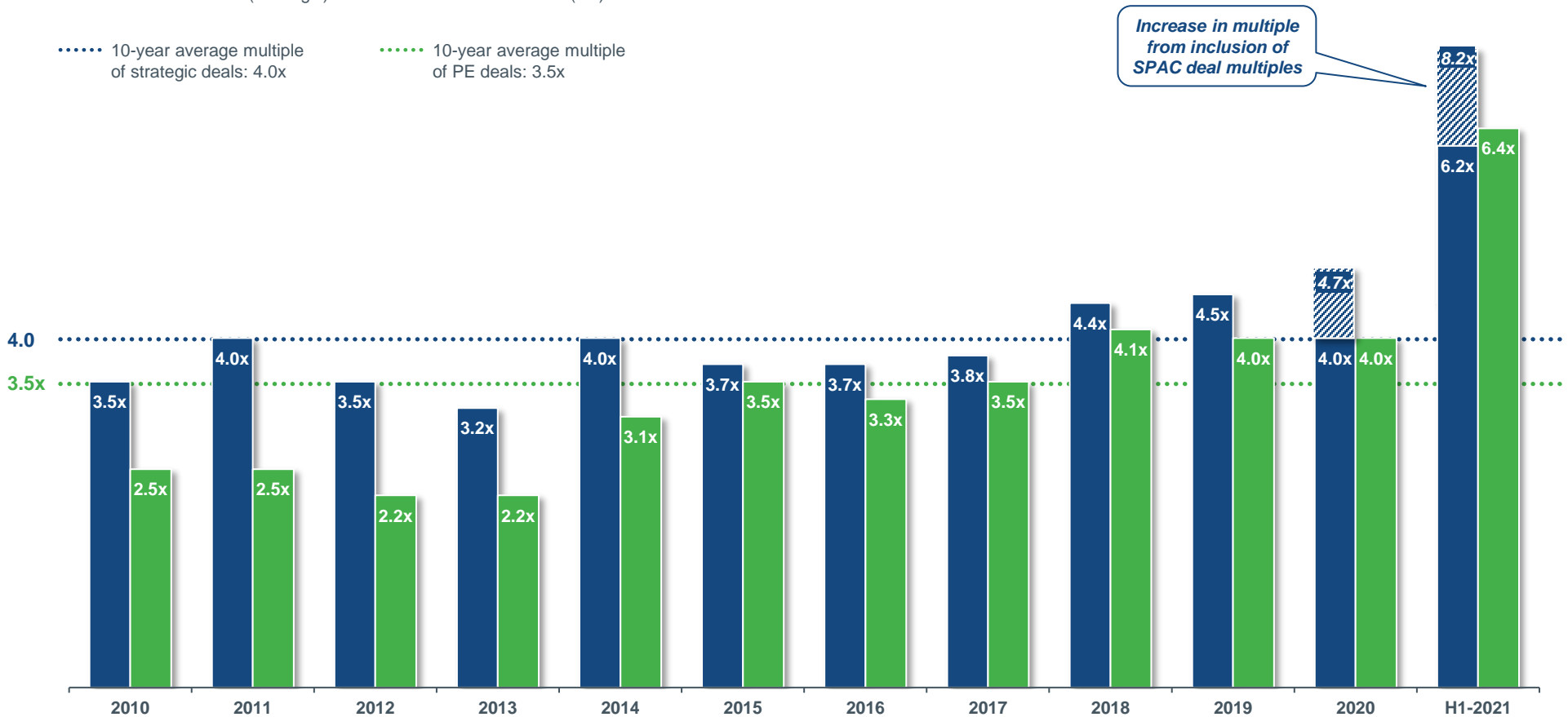
Annual Median Deal Multiples

■ EV/LTM Revenue (Strategic)

■ EV/LTM Revenue (PE)

..... 10-year average multiple of strategic deals: 4.0x

..... 10-year average multiple of PE deals: 3.5x



EV = Enterprise Value = Market Capitalization + Total Debt – Cash, LTM = Last Twelve Months, YTD = Year to Date
PE deals include acquisitions made by PE-backed strategics.

SaaS Deal Multiples by Quartile and Target Revenue

3rd Quartile Multiples Command Average Premiums of 50 - 110% vs. Median

Deal Multiples Quartiles by Target LTM Revenue

1st Quartile Median 3rd Quartile




Transactions selected based on the following parameters: (i) target company with SaaS business model ; (ii) transaction announced between January 1, 2018 and June 30, 2021; (iii) disclosed EV/LTM revenue multiple; and (iv) excluding outliers and SPAC transactions.


Source: 451 Research and Mergermarket as of June 30, 2021

Top 6 Software Acquisitions over Q2 2021 by Deal Value

April 2021




acquired by




\$19.9 bn **13.6x**

Nuance provides AI-enabled desktop and mobile interactive voice response (IVR), voice automation and authentication, and speech recognition SaaS for businesses and consumers globally. It also provides document management and conversion and optical character recognition (OCR) software. This pairing, which builds on an existing partnership that was announced in 2019, reaffirms Microsoft's focus on the healthcare segment as a key growth opportunity. The acquisition helps Microsoft to add momentum to its Cloud for Healthcare business and expand its current healthcare portfolio considerably.

April 2021




acquired by




\$12.3 bn **11.3x**

Proofpoint provides email security, threat detection and data loss prevention SaaS for businesses. The software provides features for email archiving, anti-spam, anti-malware, anti-phishing, governance management, encryption and compliance. Proofpoint is also the first SaaS-based cybersecurity and compliance company that reached \$1bn in annual revenue. The transaction will enable Proofpoint to accelerate its expansion by increasing its footprint in the global markets. It will also allow the company to strengthen the business growth with the help of Thoma Bravo's deep expertise in the software and technology-enabled segment and financial resources.

April 2021




acquired by




\$7.0 bn **N/A**

CIOX Health provides AI-based healthcare information management and sharing SaaS for businesses in the healthcare and insurance sectors in the U.S. Software provides data acquisition, the release of information, clinical coding, data abstraction, and analytics services. The merger helps to create a ubiquitous, trusted, and neutral data ecosystem where parties across the healthcare system can seamlessly and securely exchange data—unlocking better outcomes, faster research, and healthcare at a lower cost. The combined company is positioned to transform America's health infrastructure and power the health data economy.

June 2021




acquired by




\$5.6 bn **8.5x**

Blue Yonder provides AI-enabled warehouse, inventory and logistics management SaaS and software for businesses globally. Software also enables other business process operations, including ERP HR, CRM, and merchandising capabilities as well as real-time insights. The acquisition strengthens Panasonic's portfolio and accelerates the companies' shared Autonomous Supply Chain mission, by combining Panasonic's industrial engineering, IoT and edge technologies with Blue Yonder's AI/ML-driven supply chain and commerce solutions, empowering customers to optimize their supply chains.

May 2021




acquired by




\$5.3 bn **6.4x**

Cloudera provides open source and proprietary Hadoop-based data processing, and related analytics and data management software for enterprises. Also offers support, training and professional services. Partnering with CD&R and KKR will support Cloudera's long-term transformation strategy. The increased resources and higher flexibility will also allow Cloudera to drive product-led growth and expand its addressable market, thereby accelerating expansion into new products and markets.

June 2021



acquired by



\$4.0 bn **N/A**

Boomi provides application and data integration SaaS for businesses. Software enables businesses to connect cloud computing, SaaS and on-premise applications. With the acquisition by Francisco Partners and TPG, Boomi has access to capital as the integration and process automation markets boom. The ability to integrate and connect data and workflows across any combination of applications or domains is a critical business capability, and Boomi is well positioned to help companies of all sizes turn data into their most valuable asset.

Deal Size EV/LTM Rev

SaaS = Software as a Service; IoT = Internet of Things.; ML = Machine Learning; AI = Artificial Intelligence; ERP = Enterprise Resource Planning; CMR = Customer Relationship Management;

Source: 451 Research as of June 30, 2021

All trademarks, trade names or logos referenced herein are the property of their respective owners.

Other Notable Software Deals During Q2 2021

Strategic Deals (Q2 2021)

Date	Target	Acquirer	Deal Value and Multiple ²	Target Abstract
May-21	Divvy	bill.com	\$2,500 mn N/A	Expense management SaaS
Jun-21	PLEX	Rockwell Automation	\$2,200 mn N/A	Enterprise manufacturing ERP SaaS
Jun-21	tink	VISA	\$2,144 mn 58.2x	Financial management SaaS & application
Apr-21	turbonomic	IBM	\$2,000 mn 11.4x	Workload automation software & SaaS
Jun-21	Message Media	sinch	\$1,300 mn N/A	SMS marketing SaaS
May-21	zipwhip	twilio	\$850 mn 7.7x	Text messaging SaaS
Mar-21	EKCTO	mastercard	\$850 mn N/A	Transaction identity verification SaaS
May-21	ZEGO	globalpayments	\$830 mn N/A	IoT property management SaaS
Apr-21	SPARKPOST	MessageBird	\$600 mn 6.0x	Email delivery SaaS
May-21	BillingTree	REPAY Realtime Electronic Payments	\$503 mn N/A	Payments & transaction processing SaaS
Apr-21	punchh.	PAR	\$500 mn N/A	CRM SaaS & mobile application

PE Deals¹ (Q2 2021)

Date	Target	Acquirer ¹	Deal Value and Multiple ²	Target Abstract
Apr-21	Numerator	KANTAR BainCapital	\$1,500 mn 7.5x	Market intelligence databases & SaaS
Jun-21	ExtraHop	BainCapital CROSSPOINT CAPITAL	\$900 mn 9.0x	Network security analytics SaaS
Apr-21	absorb	WCAS	\$500 mn 10.0x	Learning management SaaS
May-21	soprano	link mobility abry partners	\$436 mn N/A	Mobile messaging SaaS
May-21	INFOGIX	TA ASSOCIATES	\$325 mn 4.6x	Data integrity & governance SaaS
Jun-21	SharpSpring	Constant Contact SIRIS	\$240 mn 13.3x	Marketing automation SaaS
Apr-21	Loopio	SEP SUMERU EQUITY PARTNERS	\$200 mn 16.2	RFP response management SaaS
Apr-21	bugsnag	SMARTBEAR EP VISTA	\$200 mn N/A	Application error monitoring SaaS
May-21	AGARI	helpsystems TA ASSOCIATES	\$200 mn 5.0x	Email security SaaS
May-21	SiteLock	SECTIGO GI PARTNERS	\$135 mn 5.4x	Website security SaaS
Jun-21	CyFIR	ESENTIRE WARBURG PINCUS	\$125 mn 12.5x	E-discovery SaaS

Mgmt. = Management; SaaS = Software as a Service; API = Application Programming Interface; ERP = Enterprise Resource Planning; ¹PE deals include acquisitions made by PE-backed strategics, whose owners are indicated below the grey line; Excludes deals involving special purpose acquisition (SPAC) vehicles; ²Deal Multiple = Enterprise Value / LTM Revenue, unless otherwise specified

Pagemill Partners-Tracked Software Universe



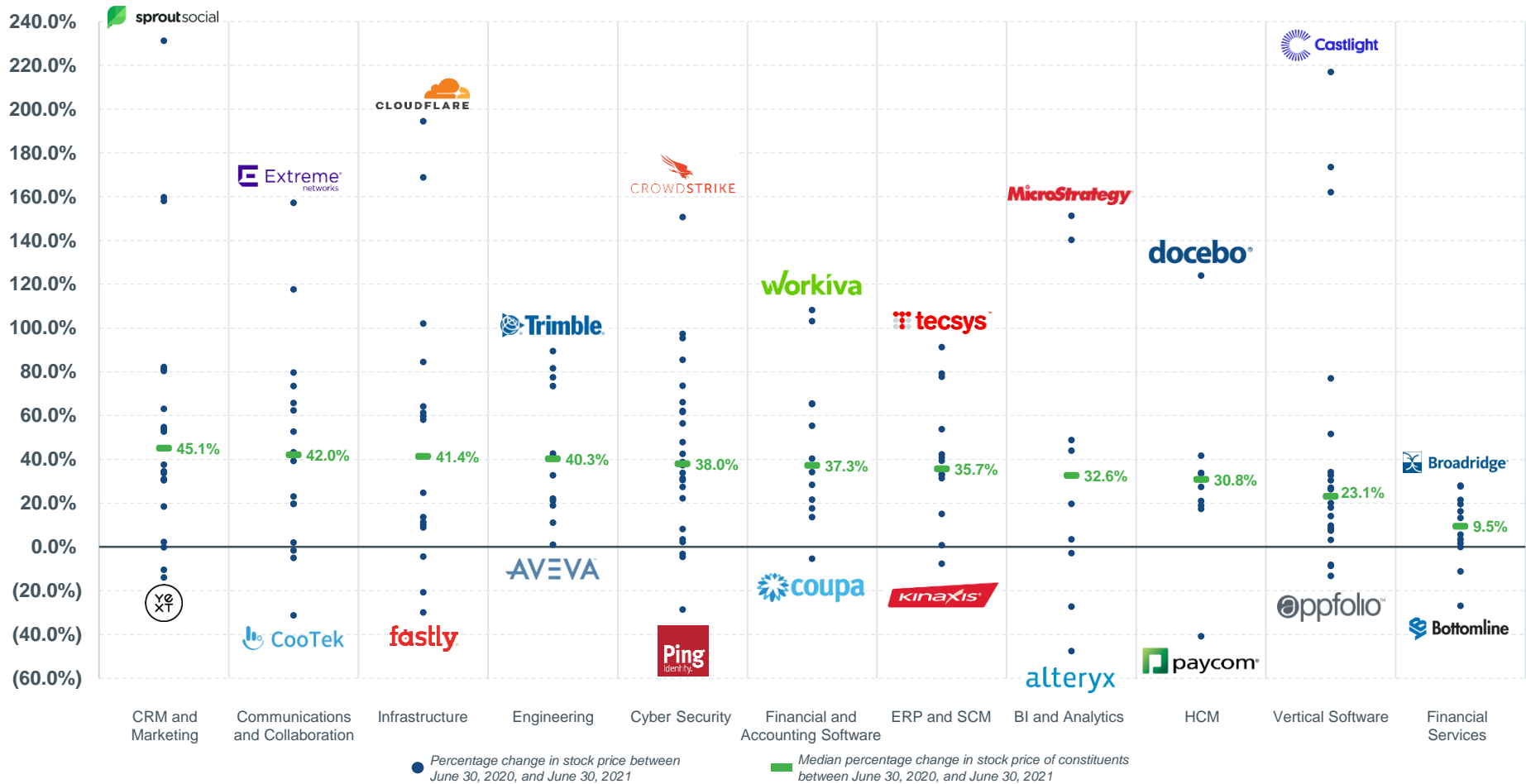
BI = Business Intelligence, CRM = Customer Relationship Management; ERP = Enterprise Resource Planning; SCM = Supply Chain Management; HCM = Human Capital Management

Source: S&P Global Market Intelligence as of June 30, 2021, and includes the most actively traded software companies for respective covered sectors, excluding most microcap companies. All trademarks, trade names or logos referenced herein are the property of their respective owners.

LTM Performance of Stock Prices

All Software Sectors Demonstrate Significant Gains During the Last 12 Months

Performance of Pagemill-Tracked Software Universe between June 30, 2020, and June 30, 2021



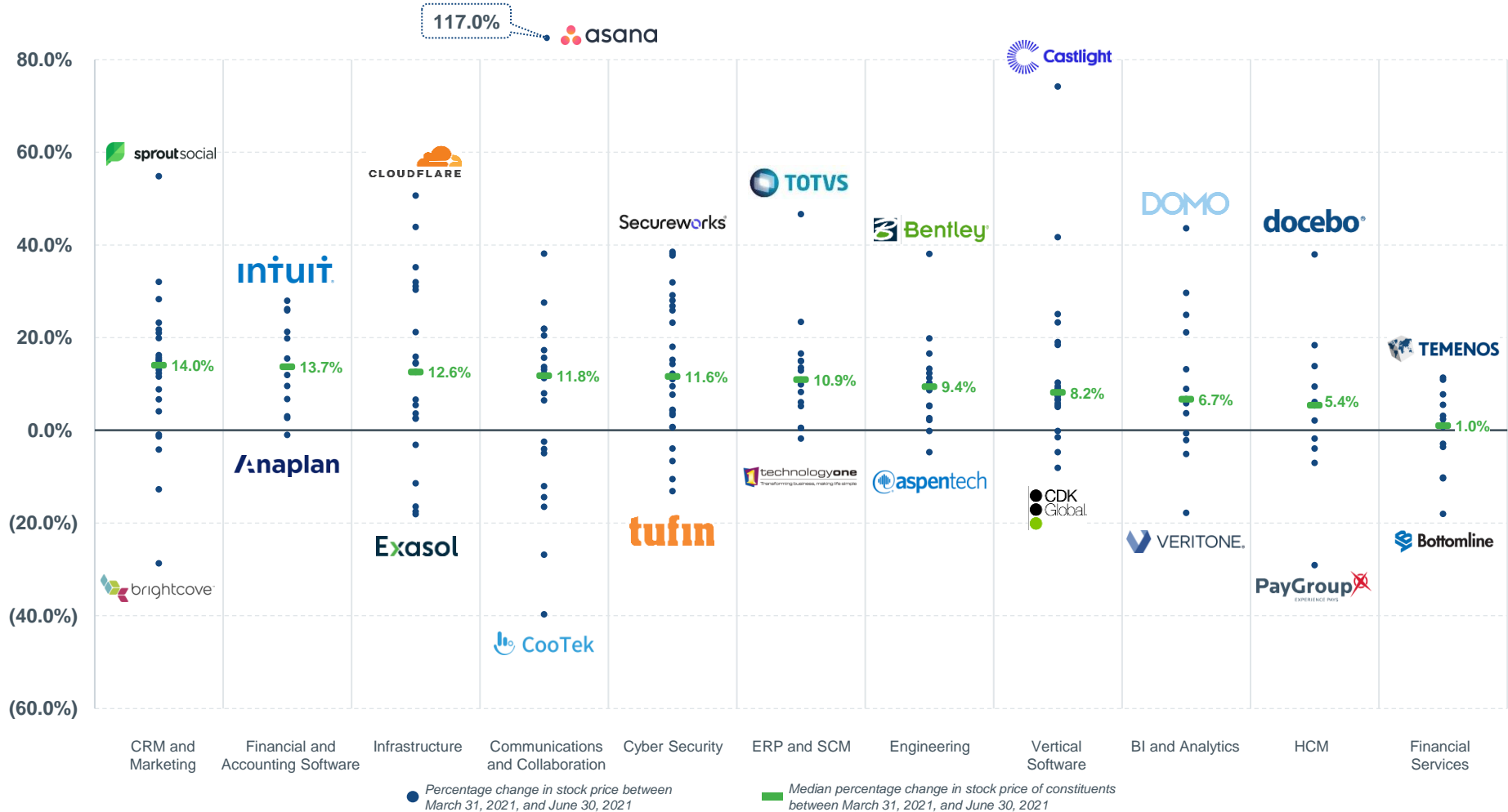
BI = Business Intelligence, CRM = Customer Relationship Management; ERP = Enterprise Resource Planning; SCM = Supply Chain Management; HCM = Human Capital Management
 Does not include companies listed post June 30, 2020, i.e., AI, ASAN, BIGC, BSY, DCT, DOCN, FROG, JAMF, MCFE, NCNO, OLO, ONTF, PATH, PCOR, PLTR, RXT, S, SNOW, SUMO, TUYA, U, XM
 Buckets ordered by median percentage change in stock price between June 30, 2020, and June 30, 2021.

Source: Capital IQ as of June 30, 2021
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Quarterly Performance of Stock Prices

After a Weak Q1, Strong Gains across Most Software Sectors in Q2

Performance of Pagemill-Tracked Software Universe between March 31, 2021, and June 30, 2021

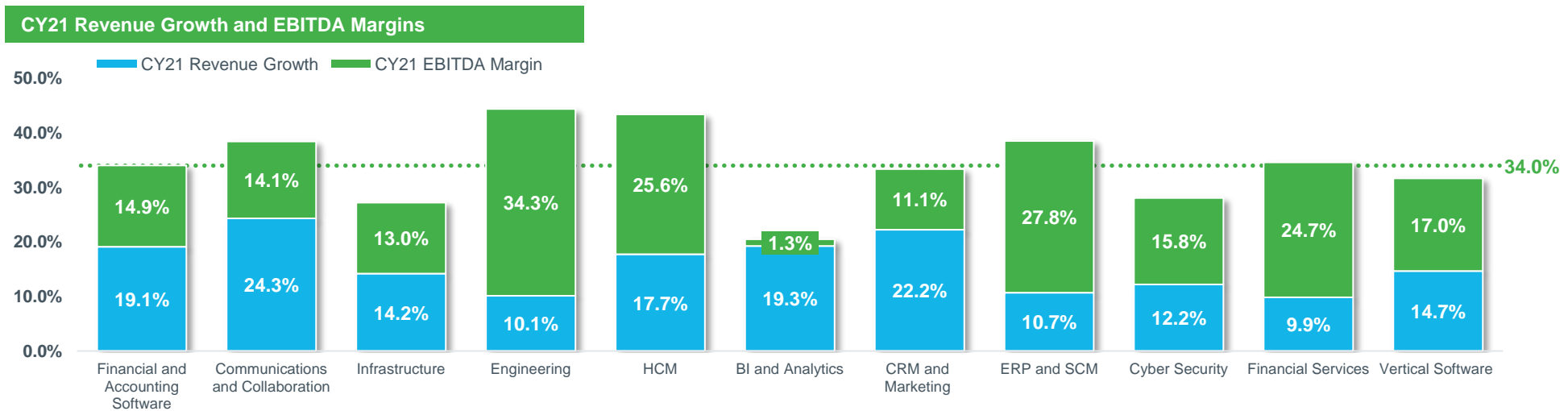
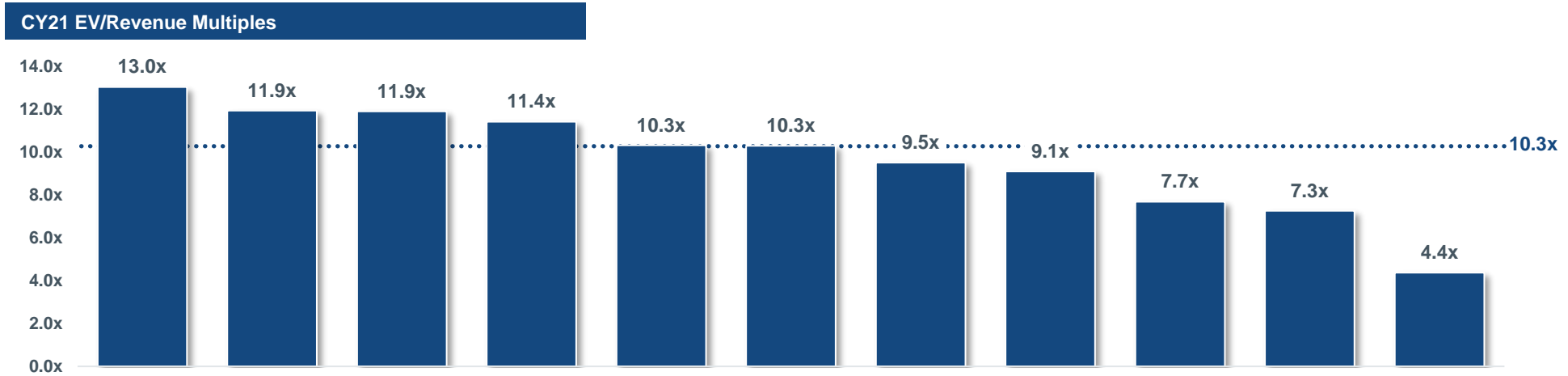


BI = Business Intelligence, CRM = Customer Relationship Management; ERP = Enterprise Resource Planning; SCM = Supply Chain Management; HCM = Human Capital Management
 Buckets ordered by median percentage change in stock price between March 31, 2021, and June 30, 2021.
 Does not include companies listed post March 31, 2021, i.e., PATH, PCOR, S,

Source: Capital IQ as of June 30, 2021
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Public Software Market Multiples

Sector Multiples Range from 13.0x to 4.4x, with a Median of 10.3x CY 2021 Revenues



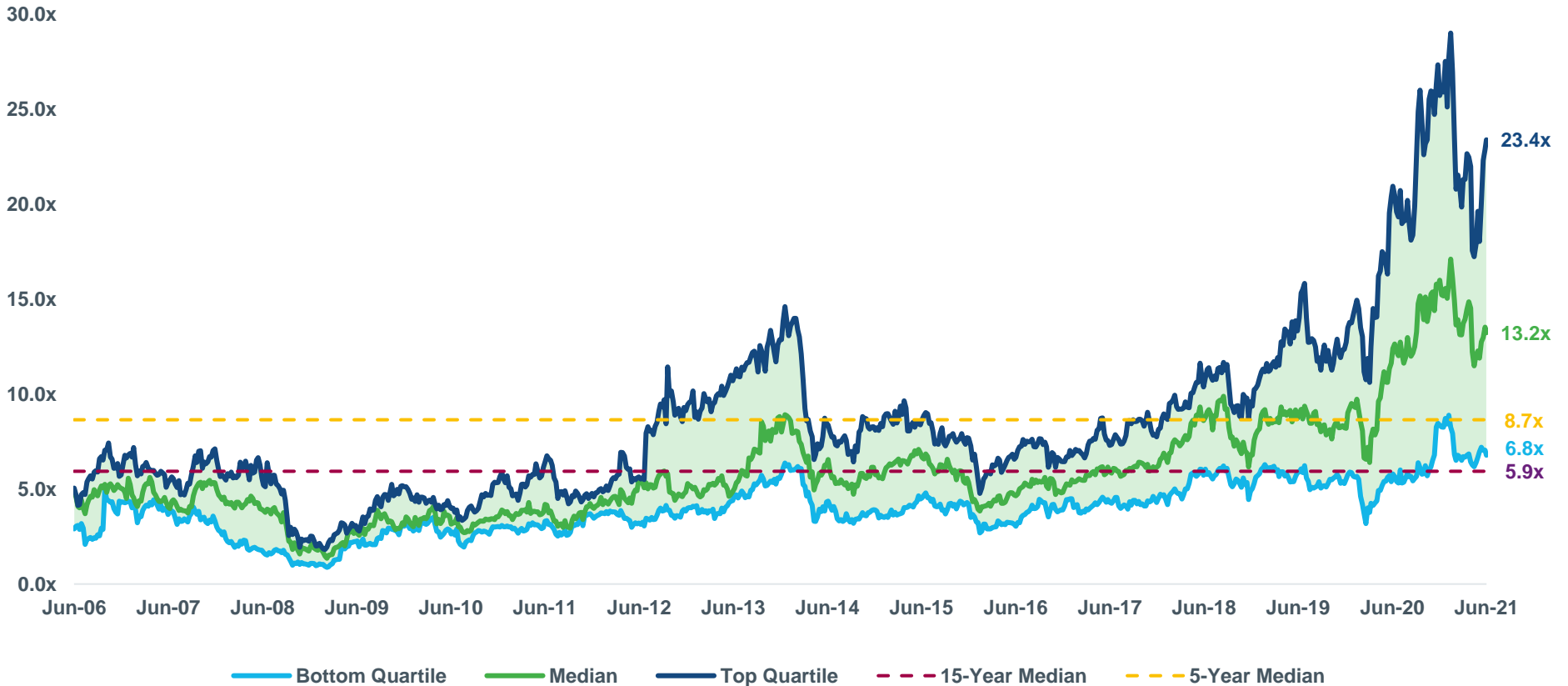
BI = Business Intelligence, CRM = Customer Relationship Management, ERP = Enterprise Resource Planning; HCM = Human Capital Management; SCM = Supply Chain Management
Buckets ordered by CY21 Revenue Multiples

SaaS Companies Continue to Trade at Post-GFC Highs

Despite a Pullback at the Beginning of Q2, SaaS Companies Continue to Trade Significantly Above Historic Levels

Performance of Pagemill Partners SaaS Index Over the Last 15 Years




























EV/NTM Revenue



EV = Enterprise Value; NTM = Next 12 Months; SaaS = Software as a Service; GFC = Global Financial Crisis
 Pagemill Partners SaaS Index includes: DDOG, DOMO, DT, NEWR, PD, SPLK, TEAM, BOX, DOCU, DBX, EVBG, FIVN, RNG, SMAR, TWLO, ZM, ADBE, BIGC, ECOM, HUBS, LPSN, MDLA, CRM, SHOP, SVMK, YEXT, ZEN, ZI, CRWD, FEYE, MIME, OKTA, PING, PFPT, QLYS, SCWX, TENB, ZIXI, ZS, KXS, NOW, SPSC, ZUO, PLAN, AVLR, BILL, BL, COUP, WK, BNFT, CSOD, DCBO, PAYC, PCTY, WDAY, APPN, CLDR, NET, ESTC, FSLY, FROG, MDB, NTN, SNOW, WIX, TWOU, APPF, BLKB, HSTM, PS, QTWO, U and VEEV

IPO Window Remains Open with Notable First Day Pops












Average Post-IPO Performance Only Slightly Above First Day “Pop”

Company	Date of Listing	Gross Proceeds (\$)	Offering Share Price (\$)	Market Cap at Listing ² (\$)	First Day “Pop” ¹	Latest Market Cap	Change in Share Price Since Listing
 SentinelOne	29-Jun	1225.0	35	8,973	 21%	10,896	 21%
					Median: 38%	Median: 41%	
 PROCORE	19-May	634.5	67	8,585	 31%	12,256	 42%
 UiPath	20-Apr	1,337.9	56	29,073	 23%	34,565	 21%
 DigitalOcean	23-Mar	775.5	47.00	4,949	 -10%	5,924	 0%
 tuya	17-Mar	915.4	21.00	11,755	 19%	13,714	 17%
 olo	16-Mar	450.0	25.00	3,550	 39%	5,516	 50%
 ON24	03-Feb	428.0	50.00	2,224	 42%	1,645	 -29%
 qualtrics	28-Jan	1550.9	30.00	15,102	 52%	19,624	 28%
 c3.ai	08-Dec	651.0	42.00	4,026	 120%	6,467	 49%
 McAfee	21-Oct	740.0	20.00	3,309	 -7%	4,632	 40%
 Palantir	30-Sep	<i>Direct Listings</i>	7.25	11,961	 31%	49,471	 264%

¹First Day “Pop” = Closing First Day Share Price/Offering Share Price; ²Market Capitalization at Listing = Market Capitalization on First Day post-IPO/First Day Pop; ³Direct listing prices as determined by listing exchange, New York Stock Exchange for both

IPO Window Remains Open with Notable First Day Pops

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Company	Date of Listing	Gross Proceeds (\$)	Offering Share Price (\$)	Market Cap at Listing ² (\$)	First Day “Pop” ¹	Latest Market Cap	Change in Share Price Since Listing
 asana	30-Sep	<i>Direct Listings</i>	21.00	3,246	37% Median: 38%	10,150	195% Median: 41%
 Bentley	22-Sep	236.5	22.00	5,747	52%	17,926	194%
 unity	18-Sep	1300.0	52.00	13,695	31%	30,688	111%
 sumo logic	16-Sep	325.6	22.00	2,171	22%	2,205	-6%
 JFrog	16-Sep	509.0	44.00	3,902	47%	4,257	3%
 snowflake	15-Sep	3360.0	120.00	33,203	112%	71,604	102%
 Duck Creek Technologies	13-Aug	405.0	27.00	3,464	48%	5,725	61%
 BIGCOMMERCE	04-Aug	216.5	24.00	1,580	201%	4,564	171%
 rackspace technology	04-Aug	703.5	21.00	4,180	-22%	4,073	-7%
 jamf	21-Jul	468.0	26.00	3,025	51%	3,964	29%
 ncino	13-Jul	249.9	31.00	2,779	195%	5,718	93%

¹First Day “Pop” = Closing First Day Share Price / Offering Share Price; ²Market Capitalization at Listing = Market Capitalization on First Day post-IPO / First Day Pop; ³Direct listing prices as determined by listing exchange, New York Stock Exchange for both

Select Recent Pagemill Transactions

Sell-Side Advisors



whiteCryption has been acquired by Zimperium, a portfolio company of Warburg Pincus and SoftBank



On July 2, 2021, whiteCryption, a leading provider of cyber security software and pioneer in mobile application shielding and cryptographic key protection, was acquired by Zimperium, the global leader in mobile security.

whiteCryption's security software protects mobile and desktop applications, firmware, and embedded applications, and is available for all popular platforms such as Android, iOS, Windows, and macOS. It has a core focus on providing app shielding products for banks, financial institutions, medical device companies, auto makers, and media companies.

Sell-Side Advisors



Instec has been acquired by Insurity, a portfolio company of GI Partners



On April 14, 2021, Insurance Information Technologies ("Instec"), a SaaS based insurance software provider, was acquired by Insurity, a leading provider of cloud-based software for P&C carriers, brokers, and MGAs.

Instec delivers mid-size P&C carriers a policy administration platform that insurance carriers and MGAs can leverage to build out new insurance products, refresh existing ones, or acquire new books of business. Instec's unique approach enables mid-size P&C carriers to migrate, launch, or expand complex commercial offerings from start to first quote in as little as four weeks.

Growth Capital



Rockley Photonics has received a strategic investment from Medtronic



On March 19, 2021, Rockley Photonics ("Rockley"), a leading developer of integrated silicon photonic chips and modules, announced a strategic investment from Medtronic, one of the largest medical device companies in the world.

Rockley has positioned itself for hyper scale manufacture with a uniquely capable platform that can address multiple huge and emerging markets, including health monitoring in consumer devices, data communications and machine vision. Rockley has partnered with multiple tier-1 customers across the markets it serves to deliver the complex optical systems required for transformational product realization.

Select Recent Pagemill Transactions

Sell-Side Advisors



AT Internet has been acquired by Piano, Inc.



AT INTERNET

piano

On March 2, 2021, Applied Technologies Internet SAS (“AT Internet”), a market leader in digital analytics and contextual data was acquired by Piano Software Inc. (“Piano”), a global subscription commerce and customer experience platform.

AT Internet empowers organizations to effectively measure and analyze how visitors arrive on their digital platforms, as well as their subsequent actions and behaviors. The combination of AT Internet and Piano forms an industry-first customer experience platform powered by contextual analytics, which empowers digital marketing, data, and product teams for enterprise customers globally.

Sell-Side Advisors



NuSource Financial, a portfolio company of Tonka Bay Equity Partners has been acquired by Mosaic Capital Partners



On February 17, 2021, NuSource Financial (“NuSource”), a market-leading bank technology integration company was acquired by Mosaic Capital Partners (“Mosaic”) from Tonka Bay Equity Partners (“Tonka Bay”).

NuSource provides an Automated Teller Machine (ATM)/Interactive Teller Machine (ITM), equipment, and security systems to financial institutions. The company provides technology integration and installation of ATM and ITM as well other related system integration programs, to enable customers to digitize and comprehensively transform its branches and customers’ staffing needs.

Growth Capital



Brightpearl Limited has received a significant Series C growth equity investment from Sage plc

Brightpearl

sage

On December 23, 2020, Sage plc (“Sage”), a market leader in cloud business management solutions, announced a significant partnership with Brightpearl Limited (“Brightpearl”), a market leading digital operations platform targeted at digital retailers across the globe.

Under the partnership, Sage made a minority investment of approximately \$23 mn into the business and took a seat on Brightpearl’s board. Together, Sage and Brightpearl will help retail and e-commerce customers take advantage of the best-of-breed cloud finance and retail management solutions, supporting them on their digital journey.

Public Trading Data for Software Companies



\$ in USD millions (except for share price)

Company Name	Share Price 30/06/2021	52-Week		% of 52 Week High	Market Cap	Enterprise Value	Revenue		Revenue Growth ¹	EBITDA LTM	EBITDA Margin ²	EV/Revenue	
		Low	High				LTM	CY2020				CY 2021	CY 2022
BI and Analytics													
Alteryx, Inc.	\$86.02	\$73.32	\$185.75	(53.7%)	\$5,774.5	\$5,738.1	\$529.1	\$571.8	21%	(\$13.9)	(2.6%)	10.0x	8.3x
C3.ai, Inc.	62.53	47.22	183.90	(66.0%)	6,466.9	5,379.2	183.2	225.8	35%	(56.0)	(30.5%)	23.8x	17.6x
Datadog, Inc.	104.08	69.73	119.43	(12.9%)	32,096.5	31,344.9	670.8	889.0	34%	(15.3)	(2.3%)	35.3x	26.3x
Domo, Inc.	80.83	29.29	84.00	(3.8%)	2,560.7	2,580.9	221.7	250.6	18%	(64.2)	(29.0%)	10.3x	8.7x
Dynatrace, Inc.	58.42	33.83	60.87	(4.0%)	16,571.1	16,685.7	757.7	846.4	25%	132.2	17.4%	19.7x	15.8x
Expert.ai S.p.A.	3.51	2.35	4.13	(15.1%)	178.2	153.5	42.9	39.7	39%	(11.8)	(27.6%)	3.9x	2.8x
MicroStrategy Incorporated	664.50	114.21	1,315.00	(49.5%)	6,476.6	8,148.5	507.0	502.7	5%	85.8	16.9%	16.2x	15.5x
New Relic, Inc.	66.97	51.52	81.10	(17.4%)	4,315.3	4,019.9	685.5	698.4	9%	(179.0)	(26.1%)	5.8x	5.3x
PagerDuty, Inc.	42.58	23.00	58.36	(27.0%)	3,561.5	3,314.9	227.4	270.4	24%	(63.5)	(27.9%)	12.3x	9.9x
Palantir Technologies Inc.	26.36	8.90	45.00	(41.4%)	49,471.0	47,584.3	1,204.6	1,480.9	30%	(1,203.4)	(99.9%)	32.1x	24.8x
Splunk Inc.	144.58	110.28	225.89	(36.0%)	23,699.2	24,389.0	2,297.4	2,536.8	21%	(761.6)	(33.2%)	9.6x	7.9x
Teradata Corporation	49.97	17.99	59.58	(16.1%)	5,476.7	5,626.7	1,893.0	1,914.2	3%	293.0	15.5%	2.9x	2.9x
Veritone, Inc.	19.71	6.63	50.34	(60.8%)	644.2	523.7	70.0	80.6	27%	(60.7)	(86.7%)	6.5x	5.1x
Average												14.5x	11.6x
Median												10.3x	8.7x

BI = Business Intelligence; ¹ Forecasts Revenue Growth between CY 2021 and CY 2022; ² LTM EBITDA Margin; CY = Calendar Year; Market Cap = Market Capitalization; EV = Enterprise Value; EBITDA = Earnings before Interest, Tax, Depreciation and Amortization

Source: S&P Global Market Intelligence and Capital IQ as of June 30, 2021. It includes the most actively traded software companies for respective covered sectors, excluding most microcap companies.

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\$ in USD millions (except for share price)

Company Name	Share Price 30/06/2021	52-Week		% of 52 Week High	Market Cap	Enterprise Value	Revenue		Revenue Growth ¹	EBITDA LTM	EBITDA Margin ²	EV/Revenue	
		Low	High				LTM	CY2020				CY 2021	CY 2022
Communications and Collaboration													
8x8, Inc.	\$27.76	\$14.71	\$39.17	(29.1%)	\$3,050.6	\$3,301.6	\$532.3	\$586.8	15%	(\$128.0)	(24.0%)	5.6x	4.9x
Agora, Inc.	41.96	33.60	114.97	(63.5%)	4,861.9	3,990.7	138.2	183.1	45%	(14.5)	(10.5%)	21.8x	15.0x
Asana, Inc.	62.03	20.57	64.93	(4.5%)	10,150.1	10,376.9	256.0	338.7	29%	(193.4)	(75.5%)	30.6x	23.8x
Atlassian Corporation Plc	256.86	160.01	272.13	(5.6%)	64,519.0	63,649.9	2,089.1	2,215.3	16%	134.5	6.4%	28.7x	24.8x
Avaya Holdings Corp.	26.90	11.45	34.06	(21.0%)	2,275.0	4,886.0	2,957.0	2,968.9	3%	513.0	17.3%	1.6x	1.6x
Box, Inc.	25.55	15.08	26.77	(4.6%)	4,159.3	4,237.1	789.7	849.8	11%	41.4	5.2%	5.0x	4.5x
CooTek (Cayman) Inc.	1.67	1.56	7.45	(77.6%)	107.9	111.8	416.0	403.3	-5%	(46.0)	(11.0%)	0.3x	0.3x
DocuSign, Inc.	279.57	170.80	290.23	(3.7%)	54,470.1	54,636.1	1,625.1	2,047.8	29%	(71.9)	(4.4%)	26.7x	20.7x
Dropbox, Inc.	30.31	17.66	30.54	(0.7%)	11,755.9	12,309.8	1,970.5	2,124.3	9%	309.9	15.7%	5.8x	5.3x
Everbridge, Inc.	136.08	100.17	178.98	(24.0%)	5,200.4	5,121.4	294.5	358.8	25%	(43.6)	(14.8%)	14.3x	11.4x
Extreme Networks, Inc.	11.16	3.73	12.06	(7.5%)	1,406.8	1,605.4	1,009.4	1,040.4	5%	94.3	9.3%	1.5x	1.5x
Five9, Inc.	183.39	107.10	201.75	(9.1%)	12,295.0	12,484.6	521.7	551.5	17%	16.9	3.2%	22.6x	19.3x
Jamf Holding Corp.	33.57	27.77	51.00	(34.2%)	3,964.1	3,796.0	290.2	338.9	20%	30.6	10.5%	11.2x	9.3x
Juniper Networks, Inc.	27.35	19.51	29.08	(5.9%)	8,963.7	9,520.8	4,607.5	4,647.9	3%	678.2	14.7%	2.0x	2.0x
ON24, Inc.	35.48	31.03	81.98	(56.7%)	1,645.1	1,259.3	182.3	209.2	21%	24.7	13.6%	6.0x	5.0x
Open Text Corporation	50.80	36.18	51.84	(2.0%)	13,798.8	16,188.5	3,319.2	3,366.8	1%	1,043.7	31.4%	4.8x	4.8x
RingCentral, Inc.	290.58	229.00	449.00	(35.3%)	26,405.9	27,383.4	1,369.8	1,508.3	24%	(82.0)	(6.0%)	18.2x	14.7x
Smartsheet Inc.	72.32	40.21	85.43	(15.3%)	9,048.1	8,694.5	417.1	514.1	29%	(114.4)	(27.4%)	16.9x	13.1x
TeamViewer AG	37.61	34.73	65.05	(42.2%)	7,562.2	8,096.1	568.3	637.6	28%	199.8	35.2%	12.7x	9.9x
Twilio Inc.	394.16	214.32	457.30	(13.8%)	67,500.0	63,301.1	2,255.0	2,546.6	31%	(456.9)	(20.3%)	24.9x	19.0x
Vonage Holdings Corp.	14.41	9.52	15.72	(8.3%)	3,622.5	4,124.7	1,217.1	1,353.0	9%	112.7	9.3%	3.0x	2.8x
Zoom Video Communications	387.03	230.00	588.84	(34.3%)	114,036.8	109,450.1	3,279.4	4,002.0	20%	973.7	29.7%	27.3x	22.9x
Average												13.3x	10.8x
Median												11.9x	9.6x

¹ Forecasts Revenue Growth between CY 2021 and CY 2022; ² LTM EBITDA Margin CY = Calendar Year; Market Cap = Market Capitalization; EV = Enterprise Value; EBITDA = Earnings before Interest, Tax, Depreciation and Amortization

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		Low	High				LTM	CY2020				CY 2021	CY 2022
CRM and Marketing													
Adobe Inc.	\$585.64	\$416.29	\$592.24	(1.1%)	\$278,998.9	\$277,923.9	\$14,389.0	\$15,662.0	15%	\$5,729.0	39.8%	17.7x	15.5x
Aimia Inc.	3.94	2.36	4.50	(12.5%)	364.3	233.1	15.9	4.4	109%	(0.6)	(3.5%)	NM	25.1x
BigCommerce Holdings, Inc.	64.92	42.17	162.50	(60.0%)	4,563.6	4,370.7	165.9	198.2	23%	(36.9)	(22.2%)	22.1x	18.0x
Brightcove Inc.	14.35	7.45	25.26	(43.2%)	579.0	552.1	209.1	214.9	11%	15.0	7.2%	2.6x	2.3x
Cardlytics, Inc.	126.93	55.89	161.47	(21.4%)	4,173.0	3,750.3	225.2	280.3	34%	(48.1)	(21.4%)	13.4x	10.0x
ChannelAdvisor Corporation	24.51	12.95	28.94	(15.3%)	728.8	655.9	152.2	160.1	8%	26.6	17.5%	4.1x	3.8x
HubSpot, Inc.	582.72	205.07	605.74	(3.8%)	27,228.0	26,788.9	965.4	1,244.2	27%	(29.6)	(3.1%)	21.5x	16.9x
LivePerson, Inc.	63.24	37.10	72.23	(12.4%)	4,360.6	4,259.6	424.4	465.6	23%	(3.8)	(0.9%)	9.1x	7.4x
Medallia, Inc.	33.75	23.58	48.28	(30.1%)	5,352.4	5,437.7	495.9	568.9	20%	(106.5)	(21.5%)	9.6x	8.0x
NICE Ltd.	244.29	195.50	281.62	(13.3%)	15,419.7	14,658.7	1,692.6	1,816.0	11%	432.7	25.6%	8.1x	7.3x
Pegasystems Inc.	139.19	96.26	148.80	(6.5%)	11,311.6	11,508.3	1,163.8	1,241.5	21%	(38.3)	(3.3%)	9.3x	7.7x
Qualtrics International Inc.	38.25	29.36	57.28	(33.2%)	19,623.7	19,781.1	894.4	986.0	20%	(533.9)	(59.7%)	20.1x	16.7x
salesforce.com, inc.	244.27	181.93	284.50	(14.1%)	226,194.0	217,454.0	22,350.0	25,977.5	19%	3,476.0	15.6%	8.4x	7.0x
Shopify Inc.	1,460.98	839.40	1,552.23	(5.9%)	182,136.3	175,342.5	3,853.2	4,428.9	33%	531.6	13.8%	39.6x	29.7x
Sprout Social, Inc.	89.42	24.55	95.25	(6.1%)	4,792.2	4,649.9	156.5	177.1	27%	(20.2)	(12.9%)	26.2x	20.7x
Momentive Global Inc.	21.07	16.35	28.12	(25.1%)	3,068.7	3,117.5	389.6	444.5	20%	(64.6)	(16.6%)	7.0x	5.9x
TechTarget, Inc.	77.49	29.86	101.12	(23.4%)	2,181.1	2,311.7	169.9	243.8	14%	36.1	21.3%	9.5x	8.3x
Upland Software, Inc.	41.17	30.40	53.00	(22.3%)	1,239.2	1,600.3	297.7	307.0	6%	43.4	14.6%	5.2x	4.9x
Verint Systems Inc.	45.07	41.33	77.70	(42.0%)	2,929.5	3,866.8	1,288.7	863.9	6%	186.5	14.5%	NM	4.2x
Yext, Inc.	14.29	12.01	20.90	(31.6%)	1,804.0	1,666.8	361.3	385.5	15%	(72.7)	(20.1%)	4.3x	3.7x
Zendesk, Inc.	144.34	84.10	166.60	(13.4%)	17,125.9	16,869.6	1,161.7	1,313.9	25%	(116.0)	(10.0%)	12.8x	10.2x
ZoomInfo Technologies Inc.	52.17	30.83	60.28	(13.5%)	9,675.1	10,500.7	527.3	674.6	29%	99.4	18.9%	15.6x	12.1x
Average												13.3x	11.2x
Median												9.5x	8.1x

CRM = Customer Relationship Management; ¹ Forecasts Revenue Growth between CY 2021 and CY 2022; ² LTM EBITDA Margin; CY = Calendar Year; Market Cap = Market Capitalization; EV = Enterprise Value; EBITDA = Earnings before Interest, Tax, Depreciation and Amortization

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		Low	High				LTM	CY2020				CY 2021	CY 2022
Cyber Security													
Absolute Software Corporation	\$14.47	\$9.89	\$20.18	(28.3%)	\$715.6	\$593.5	\$116.2	\$126.4	13%	\$18.4	15.9%	4.7x	4.2x
Avast Plc	6.76	5.77	8.35	(19.0%)	6,967.7	7,699.3	892.9	943.0	7%	416.7	46.7%	8.2x	7.6x
Check Point Software	116.13	106.10	139.26	(16.6%)	15,711.3	11,679.2	2,106.5	2,139.5	3%	941.5	44.7%	5.5x	5.3x
CrowdStrike Holdings, Inc.	251.31	93.37	260.82	(3.6%)	56,748.5	55,846.8	999.2	1,362.9	36%	(55.5)	(5.6%)	41.0x	30.1x
CyberArk Software Ltd.	130.27	95.12	169.70	(23.2%)	5,179.5	4,502.3	470.4	490.2	13%	7.8	1.7%	9.2x	8.2x
F5 Networks, Inc.	186.66	116.79	216.15	(13.6%)	11,127.7	11,232.0	2,536.2	2,609.0	8%	556.3	21.9%	4.3x	4.0x
FireEye, Inc.	20.22	11.62	25.53	(20.8%)	4,785.4	4,931.1	962.2	1,021.7	8%	(32.9)	(3.4%)	4.8x	4.5x
Fortinet, Inc.	238.19	106.75	247.33	(3.7%)	38,900.6	37,007.1	2,910.5	3,113.3	16%	630.4	21.7%	11.9x	10.3x
F-Secure Oyj	4.77	3.33	5.15	(7.3%)	755.7	741.3	270.8	278.9	7%	28.3	10.5%	2.7x	2.5x
McAfee Corp.	28.02	14.80	29.36	(4.6%)	4,632.3	14,543.3	2,994.0	2,021.1	7%	504.0	16.8%	NM	6.7x
Mimecast Limited	53.05	37.03	59.48	(10.8%)	3,457.2	3,414.1	528.8	559.7	13%	82.6	15.6%	6.1x	5.4x
NortonLifeLock Inc.	27.22	17.98	28.92	(5.9%)	15,786.1	18,528.1	2,623.0	2,750.1	7%	1,235.0	47.1%	6.7x	6.3x
Okta, Inc.	244.68	185.05	294.00	(16.8%)	37,431.2	36,711.0	903.6	1,222.6	38%	(202.3)	(22.4%)	30.0x	21.8x
Palo Alto Networks, Inc.	371.05	219.34	403.00	(7.9%)	36,136.9	36,699.8	3,987.2	4,604.8	18%	(2.3)	(0.1%)	8.0x	6.8x
Ping Identity Holding Corp.	22.90	19.97	37.80	(39.4%)	1,879.8	1,884.1	251.1	269.3	13%	(20.6)	(8.2%)	7.0x	6.2x
Proofpoint, Inc.	173.76	91.60	174.61	(0.5%)	10,013.4	10,248.0	1,138.3	1,213.0	16%	(32.6)	(2.9%)	8.4x	7.3x
Qualys, Inc.	100.69	86.65	148.84	(32.4%)	3,941.2	3,537.5	373.5	403.4	11%	107.7	28.8%	8.8x	7.9x
Radware Ltd.	30.78	21.66	32.59	(5.5%)	1,401.6	1,052.5	268.0	272.8	9%	23.8	8.9%	3.9x	3.5x
Rapid7, Inc.	94.63	50.80	98.98	(4.4%)	5,216.9	5,549.6	434.6	504.3	19%	(49.3)	(11.4%)	11.0x	9.2x
SecureWorks Corp.	18.53	10.01	22.37	(17.2%)	1,555.4	1,402.5	559.3	545.2	3%	11.1	2.0%	2.6x	2.5x
SentinelOne, Inc.	42.50	41.11	46.50	(8.6%)	10,895.8	11,200.5	112.5	NA	NA	(145.9)	(129.7%)	NM	NM
Sumo Logic, Inc.	20.65	15.80	46.37	(55.5%)	2,205.5	1,807.4	209.7	235.0	20%	(76.9)	(36.7%)	7.7x	6.4x
Tenable Holdings, Inc.	41.35	27.96	58.45	(29.3%)	4,366.2	4,083.4	483.8	522.5	18%	(6.0)	(1.2%)	7.8x	6.6x
Tufin Software Technologies	9.12	6.34	20.11	(54.6%)	335.3	246.7	101.0	107.6	13%	(27.9)	(27.6%)	2.3x	2.0x
Varonis Systems, Inc.	57.62	30.76	75.33	(23.5%)	6,116.5	5,580.3	335.2	370.3	22%	(74.2)	(22.1%)	15.1x	12.3x
Zix Corporation	7.05	5.24	10.37	(32.0%)	391.4	711.5	226.1	249.2	14%	38.9	17.2%	2.9x	2.5x
Zscaler, Inc.	216.06	107.02	230.88	(6.4%)	29,597.4	29,086.5	601.9	775.2	31%	(159.7)	(26.5%)	37.5x	28.7x
Average												10.3x	8.4x
Median												7.7x	6.5x

¹ Forecasts Revenue Growth between CY 2021 and CY 2022; ² LTM EBITDA Margin CY = Calendar Year; Market Cap = Market Capitalization; EV = Enterprise Value; EBITDA = Earnings before Interest, Tax, Depreciation and Amortization

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		Low	High				LTM	CY2020				CY 2021	CY 2022
Engineering													
Altair Engineering Inc.	\$68.97	\$36.21	\$71.53	(3.6%)	\$5,182.5	\$5,165.7	\$488.6	\$509.5	10%	\$45.0	9.2%	10.1x	9.2x
ANSYS, Inc.	347.06	287.33	413.19	(16.0%)	30,246.8	30,189.6	1,739.5	1,860.5	11%	610.1	35.1%	16.2x	14.7x
Aspen Technology, Inc.	137.54	93.55	162.56	(15.4%)	9,354.8	9,370.7	713.4	710.1	1%	381.3	53.5%	13.2x	13.1x
Autodesk, Inc.	291.90	215.83	321.13	(9.1%)	64,221.9	65,389.9	3,894.0	4,354.1	19%	755.1	19.4%	15.0x	12.6x
AVEVA Group plc	51.21	42.32	74.08	(30.9%)	15,417.3	16,079.1	1,130.2	1,418.0	29%	214.2	19.0%	11.3x	8.8x
Bentley Systems, Incorporated	64.78	27.00	67.00	(3.3%)	17,926.0	18,073.1	828.9	917.3	11%	245.9	29.7%	19.7x	17.8x
Cadence Design Systems, Inc.	136.82	95.23	149.08	(8.2%)	38,072.2	37,676.2	2,890.8	2,940.4	7%	901.0	31.2%	12.8x	12.0x
Dassault Systèmes SE	48.49	34.02	49.21	(1.4%)	63,494.5	65,307.3	5,433.5	5,672.1	9%	1,176.4	21.7%	11.5x	10.6x
Hexagon AB (publ)	14.82	9.07	15.10	(1.8%)	38,048.0	40,548.2	4,779.9	4,955.7	6%	1,689.6	35.3%	8.2x	7.7x
Nemetschek SE	76.50	60.41	83.65	(8.5%)	8,835.7	8,854.1	750.5	768.4	9%	192.5	25.6%	11.5x	10.5x
PTC Inc.	141.26	76.15	149.50	(5.5%)	16,506.9	17,895.6	1,717.5	1,760.6	12%	403.9	23.5%	10.2x	9.1x
Roper Technologies, Inc.	470.20	362.90	472.09	(0.4%)	49,483.4	58,226.3	5,987.6	6,390.8	4%	2,181.9	36.4%	9.1x	8.7x
Synopsys, Inc.	275.79	188.82	300.91	(8.3%)	42,072.9	41,311.4	3,984.2	4,182.3	9%	903.1	22.7%	9.9x	9.1x
Trimble Inc.	81.83	41.34	84.87	(3.6%)	20,536.5	21,763.2	3,241.9	3,482.9	8%	700.8	21.6%	6.2x	5.8x
Average												11.8x	10.7x
Median												11.4x	9.9x
ERP and SCM													
American Software, Inc.	\$21.96	\$13.25	\$28.45	(22.8%)	\$718.3	\$615.2	\$111.4	\$116.1	8%	\$5.8	5.2%	5.3x	4.9x
Kinaxis Inc.	131.62	100.13	181.59	(27.5%)	3,582.6	3,366.2	229.2	246.3	28%	22.2	9.7%	13.7x	10.6x
Manhattan Associates, Inc.	144.84	83.74	147.34	(1.7%)	9,214.3	9,049.5	619.8	634.2	9%	136.5	22.0%	14.3x	13.1x
Microsoft Corporation	270.90	196.25	271.65	(0.3%)	2,040,303.5	1,996,550.5	168,088.0	176,145.6	11%	80,816.0	48.1%	11.3x	10.2x
Oracle Corporation	77.84	53.66	85.03	(8.5%)	217,329.3	258,513.3	40,479.0	41,315.0	4%	17,948.0	44.3%	6.3x	6.0x
SAP SE	140.91	106.63	169.93	(17.1%)	166,209.6	173,911.8	32,121.2	32,420.9	4%	8,394.6	26.1%	5.4x	5.2x
ServiceNow, Inc.	549.55	390.84	598.37	(8.2%)	108,507.5	107,159.5	5,171.5	5,742.7	25%	633.2	12.2%	18.7x	14.9x
Serviceware SE	19.21	13.10	22.53	(14.7%)	201.7	177.3	90.2	94.9	13%	(1.3)	(1.4%)	1.9x	1.7x
SPS Commerce, Inc.	99.85	69.39	118.06	(15.4%)	3,580.9	3,394.7	347.5	372.9	11%	76.1	21.9%	9.1x	8.2x
Technology One Limited	6.98	5.60	7.42	(6.0%)	2,244.8	2,191.1	231.8	237.5	11%	75.3	32.5%	9.2x	8.3x
Tecsys Inc.	33.75	19.53	53.74	(37.2%)	489.5	467.6	99.8	109.0	15%	10.3	10.3%	4.3x	3.7x
The Descartes Systems Group	69.20	54.21	70.56	(1.9%)	5,848.1	5,723.4	363.8	407.7	12%	142.6	39.2%	14.0x	12.5x
TOTVS S.A.	7.51	4.59	7.64	(1.7%)	4,261.5	4,114.3	480.3	623.4	17%	91.0	19.0%	6.6x	5.6x
WiseTech Global Limited	23.94	13.74	25.81	(7.2%)	7,743.1	7,585.2	356.6	424.3	18%	91.0	25.5%	17.9x	15.2x
Zuora, Inc.	17.25	9.15	18.64	(7.5%)	2,109.7	1,981.7	311.9	338.2	14%	(53.5)	(17.2%)	5.9x	5.1x
Average												9.6x	8.4x
Median												9.1x	8.2x

ERP = Enterprise Resource Planning; SCM = Supply Chain Management ¹ Forecasts Revenue Growth between CY 2021 and CY 2022;
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		Low	High				LTM	CY2020				CY 2021	CY 2022
Financial and Accounting Software													
Anaplan, Inc.	\$53.30	\$41.51	\$86.17	(38.1%)	\$7,714.2	\$7,442.4	\$473.7	\$558.6	26%	(\$147.7)	(31.2%)	13.3x	10.6x
Avalara, Inc.	161.80	114.22	185.37	(12.7%)	13,909.9	13,333.3	542.7	652.5	23%	(41.6)	(7.7%)	20.4x	16.6x
Basware Oyj	47.13	34.56	51.99	(9.4%)	681.3	729.4	180.1	185.0	12%	12.6	7.0%	3.9x	3.5x
Bill.com Holdings, Inc.	183.18	77.81	195.95	(6.5%)	17,253.7	16,475.4	202.1	309.4	84%	(49.0)	(24.2%)	53.2x	28.9x
BlackLine, Inc.	111.27	71.20	154.61	(28.0%)	6,458.8	6,397.4	368.0	418.5	21%	(2.5)	(0.7%)	15.3x	12.6x
Coupa Software Incorporated	262.11	215.00	377.04	(30.5%)	19,271.7	20,246.1	589.4	685.7	25%	(114.7)	(19.5%)	29.5x	23.7x
Intuit Inc.	490.17	280.99	492.60	(0.5%)	133,943.5	132,299.5	8,888.0	10,583.2	7%	2,862.0	32.2%	12.5x	11.6x
Reckon Limited	0.72	0.47	0.75	(4.0%)	81.1	109.3	58.3	56.5	2%	11.3	19.3%	1.9x	1.9x
The Sage Group plc	9.45	7.50	10.70	(11.6%)	10,058.3	10,215.7	2,569.3	2,546.8	6%	611.7	23.8%	4.0x	3.8x
Wolters Kluwer N.V.	100.45	75.74	101.14	(0.7%)	26,084.9	28,911.6	5,441.1	5,509.8	4%	1,599.5	29.4%	5.2x	5.1x
Workiva Inc.	111.33	51.44	115.62	(3.7%)	5,565.8	5,357.0	391.7	419.4	16%	(17.6)	(4.5%)	12.8x	11.0x
Xero Limited	102.79	65.71	118.45	(13.2%)	15,200.5	15,090.7	593.3	672.0	26%	51.4	8.7%	22.5x	17.8x
Average												16.2x	12.3x
Median												13.0x	11.3x
Financial Services													
Bottomline Technologies	\$37.08	\$36.05	\$55.09	(32.7%)	\$1,683.0	\$1,712.3	\$459.9	\$495.5	11%	\$40.9	8.9%	3.5x	3.1x
Broadridge Financial Solutions	161.53	123.87	167.54	(3.6%)	18,757.8	20,431.1	4,824.0	5,143.7	6%	999.4	20.7%	4.0x	3.7x
Duck Creek Technologies, Inc.	43.51	33.91	59.40	(26.8%)	5,725.4	5,384.9	247.8	262.7	17%	(10.5)	(4.2%)	20.5x	17.5x
EVO Payments, Inc.	27.74	20.45	31.99	(13.3%)	1,305.9	2,556.8	462.1	487.5	11%	135.1	29.2%	5.2x	4.7x
Fidelity National Information	141.67	120.17	156.73	(9.6%)	87,853.2	106,442.2	13,212.0	13,689.4	8%	4,601.0	34.8%	7.8x	7.2x
GreenSky, Inc.	5.55	3.34	7.40	(25.0%)	400.4	515.9	532.5	568.1	14%	88.5	16.6%	0.9x	0.8x
Guidewire Software, Inc.	112.72	91.77	134.22	(16.0%)	9,373.2	8,743.1	757.5	747.6	8%	(26.6)	(3.5%)	11.7x	10.8x
i3 Verticals, Inc.	30.22	20.25	35.99	(16.0%)	662.6	936.0	161.0	224.4	14%	16.5	10.3%	4.2x	3.7x
Jack Henry & Associates, Inc.	163.51	141.65	200.98	(18.6%)	12,130.1	12,324.3	1,718.5	1,821.8	7%	448.9	26.1%	6.8x	6.3x
nCino, Inc.	59.92	48.00	103.95	(42.4%)	5,718.4	5,363.5	221.9	259.4	23%	(47.6)	(21.4%)	20.7x	16.8x
Q2 Holdings, Inc.	102.58	83.52	148.56	(31.0%)	5,775.8	5,855.2	426.9	496.3	21%	(42.9)	(10.0%)	11.8x	9.8x
SimCorp A/S	125.52	110.74	149.09	(15.8%)	4,972.8	4,961.9	543.5	587.0	9%	157.9	29.0%	8.5x	7.7x
SS&C Technologies Holdings	72.06	54.57	75.94	(5.1%)	18,424.3	24,998.7	4,848.6	4,914.7	4%	1,796.8	37.1%	5.1x	4.9x
Temenos AG	160.73	104.29	177.93	(9.7%)	11,676.4	12,557.2	931.8	986.8	10%	268.8	28.9%	12.7x	11.6x
Average												8.8x	7.8x
Median												7.3x	6.7x

¹ Forecasts Revenue Growth between CY 2021 and CY 2022; ² LTM EBITDA Margin CY = Calendar Year; Market Cap = Market Capitalization; EV = Enterprise Value; EBITDA = Earnings before Interest, Tax, Depreciation and Amortization

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Public Trading Data for Software Companies



\$ in USD millions (except for share price)

Company Name	Share Price 30/06/2021	52-Week		% of 52 Week High	Market Cap	Enterprise Value	Revenue		Revenue Growth ¹	EBITDA LTM	EBITDA Margin ²	EV/Revenue	
		Low	High				LTM	CY2020				CY 2021	CY 2022
HCM													
Automatic Data Processing	\$198.62	\$127.31	\$200.51	(0.9%)	\$84,516.4	\$85,067.0	\$15,005.4	\$15,435.0	6%	\$3,893.9	25.9%	5.5x	5.2x
Benefitfocus, Inc.	14.10	9.36	17.58	(19.8%)	467.8	630.2	265.8	257.7	3%	25.6	9.6%	2.4x	2.4x
Ceridian HCM Holding Inc.	95.92	67.67	111.93	(14.3%)	14,314.9	15,154.6	854.3	1,002.8	17%	39.9	4.7%	15.1x	12.9x
Cornerstone OnDemand, Inc.	51.58	32.99	55.50	(7.1%)	3,414.6	4,447.9	800.1	857.0	8%	150.8	18.9%	5.2x	4.8x
Docebo Inc.	59.21	27.85	69.93	(15.3%)	1,935.9	1,719.1	71.1	96.9	33%	(5.7)	(8.0%)	17.7x	13.3x
Paychex, Inc.	107.30	69.96	108.23	(0.9%)	38,606.5	38,471.7	4,056.8	4,230.8	6%	1,652.7	40.7%	9.1x	8.6x
Paycom Software, Inc.	363.47	257.87	471.08	(22.8%)	21,006.0	20,838.3	931.8	1,018.2	25%	243.8	26.2%	20.5x	16.4x
PayGroup Limited	0.34	0.32	0.66	(48.9%)	38.6	30.7	11.9	18.0	27%	0.5	4.6%	1.7x	1.3x
Paylocity Holding Corporation	190.80	124.75	218.34	(12.6%)	10,394.7	10,288.9	598.8	695.3	22%	78.6	13.1%	14.8x	12.1x
TriNet Group, Inc.	72.48	56.91	87.60	(17.3%)	4,775.1	4,760.1	4,198.0	1,013.5	11%	383.0	9.1%	NM	4.2x
Workday, Inc.	238.74	174.52	282.77	(15.6%)	58,997.8	58,163.0	4,474.6	5,030.9	18%	162.2	3.6%	11.6x	9.8x
Average												10.4x	8.3x
Median												10.3x	8.6x

HCM = Human Capital Management; ¹ Forecasts Revenue Growth between CY 2021 and CY 2022; ² LTM EBITDA Margin; CY = Calendar Year; Market Cap = Market Capitalization; EV = Enterprise Value; EBITDA = Earnings before Interest, Tax, Depreciation and Amortization

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		Low	High				LTM	CY2020				CY 2021	CY 2022
Infrastructure													
Akamai Technologies, Inc.	\$116.60	\$92.64	\$124.91	(6.7%)	\$19,004.8	\$19,365.2	\$3,334.7	\$3,430.8	8%	\$1,092.4	32.8%	5.6x	5.2x
Appian Corporation	137.75	44.03	260.00	(47.0%)	9,759.1	9,584.6	314.6	354.7	18%	(34.2)	(10.9%)	27.0x	22.8x
Cisco Systems, Inc.	53.00	35.28	55.35	(4.2%)	223,352.8	212,311.8	48,846.0	51,260.3	3%	15,257.0	31.2%	4.1x	4.0x
Citrix Systems, Inc.	117.27	111.26	173.56	(32.4%)	14,561.1	17,731.6	3,164.7	3,375.6	9%	620.8	19.6%	5.3x	4.8x
Cloudera, Inc.	15.86	9.34	19.35	(18.0%)	4,634.5	4,407.1	883.1	921.9	9%	(11.9)	(1.4%)	4.8x	4.4x
Cloudflare, Inc.	105.84	32.70	109.98	(3.8%)	32,876.7	32,277.3	477.9	614.7	33%	(59.0)	(12.3%)	52.5x	39.5x
Commvault Systems, Inc.	78.17	36.50	82.17	(4.9%)	3,602.0	3,227.6	733.9	756.6	7%	62.9	8.6%	4.3x	4.0x
DigitalOcean Holdings, Inc.	55.59	35.35	57.89	(4.0%)	5,923.9	5,363.8	339.2	407.9	28%	65.0	19.2%	13.1x	10.3x
Elastic N.V.	145.76	80.18	176.49	(17.4%)	13,337.5	12,962.4	608.5	742.1	28%	(112.2)	(18.4%)	17.5x	13.7x
Exasol AG	20.78	12.78	34.95	(40.5%)	495.6	413.3	31.2	38.8	50%	(29.7)	(95.1%)	10.7x	7.1x
Fastly, Inc.	59.60	39.47	136.50	(56.3%)	6,893.6	6,789.5	312.8	382.5	26%	(97.1)	(31.0%)	17.8x	14.0x
JFrog Ltd.	45.52	33.38	95.20	(52.2%)	4,256.9	3,672.0	163.1	202.0	31%	(18.0)	(11.1%)	18.2x	13.9x
MongoDB, Inc.	361.52	186.27	428.97	(15.7%)	23,368.7	23,735.8	641.7	785.9	30%	(210.2)	(32.8%)	30.2x	23.3x
NetApp, Inc.	81.82	40.08	84.19	(2.8%)	18,263.6	16,411.6	5,744.0	6,056.7	5%	1,104.0	19.2%	2.7x	2.6x
Nutanix, Inc.	38.22	19.83	40.71	(6.1%)	8,086.0	8,007.9	1,331.5	1,460.0	13%	(612.5)	(46.0%)	5.5x	4.8x
Rackspace Technology, Inc.	19.61	15.25	26.43	(25.8%)	4,073.2	8,051.7	2,780.3	3,030.2	11%	618.3	22.2%	2.7x	2.4x
Snowflake Inc.	241.80	184.71	429.00	(43.6%)	71,603.7	66,696.2	712.1	1,114.8	64%	(640.1)	(89.9%)	59.8x	36.5x
Software Aktiengesellschaft	44.98	35.81	52.76	(14.7%)	3,328.0	2,985.5	977.6	970.6	8%	205.3	21.0%	3.1x	2.8x
SolarWinds Corporation	33.78	27.96	48.68	(30.6%)	5,340.8	6,995.8	1,045.2	1,057.7	9%	142.4	13.6%	6.6x	6.1x
Tuya Inc.	24.50	15.70	27.65	(11.4%)	13,714.1	12,502.3	217.8	340.6	62%	(87.5)	(40.2%)	36.7x	22.6x
UiPath Inc.	67.93	61.50	90.00	(24.5%)	34,564.9	32,704.6	680.8	857.8	33%	(289.7)	(42.6%)	38.1x	28.7x
VeriSign, Inc.	227.69	184.60	231.43	(1.6%)	25,642.2	26,251.7	1,291.2	1,323.8	9%	881.6	68.3%	19.8x	18.2x
Average												17.5x	13.3x
Median												11.9x	8.7x

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		Low	High				LTM	CY2020				CY 2021	CY 2022
Vertical Software													
2U, Inc.	\$41.67	\$28.45	\$59.74	(30.2%)	\$3,100.4	\$2,984.9	\$886.0	\$946.0	15%	(\$40.7)	(4.6%)	3.2x	2.7x
Allscripts Healthcare Solutions	18.51	6.33	19.01	(2.6%)	2,613.0	2,379.3	1,489.7	1,513.4	2%	35.4	2.4%	1.6x	1.5x
Amdocs Limited	77.36	54.68	82.38	(6.1%)	9,875.3	9,766.5	4,214.2	4,369.0	3%	785.5	18.6%	2.2x	2.2x
AppFolio, Inc.	141.20	110.22	186.59	(24.3%)	4,871.7	4,765.1	316.5	351.2	19%	14.6	4.6%	13.6x	11.4x
AssetMark Financial Holdings	25.06	20.88	29.45	(14.9%)	1,815.8	1,835.4	465.1	355.9	14%	34.7	7.5%	NM	4.5x
Black Knight, Inc.	77.98	68.33	97.19	(19.8%)	12,115.4	14,953.9	1,297.5	1,423.0	8%	455.8	35.1%	10.5x	9.7x
Blackbaud, Inc.	76.57	46.86	80.00	(4.3%)	3,640.3	4,187.7	906.2	905.0	2%	108.2	11.9%	4.6x	4.5x
Boxlight Corporation	2.41	0.85	4.65	(48.2%)	136.9	176.3	82.6	154.1	10%	(3.1)	(3.8%)	1.1x	1.0x
Castlight Health, Inc.	2.63	0.77	2.64	(0.4%)	415.3	371.6	142.8	138.3	4%	(0.6)	(0.4%)	2.7x	2.6x
CDK Global, Inc.	49.69	39.34	55.51	(10.5%)	6,050.9	7,024.1	1,950.9	1,734.8	6%	593.8	30.4%	4.0x	3.8x
Cerner Corporation	78.16	66.75	84.20	(7.2%)	23,550.9	23,943.8	5,608.2	5,803.2	6%	1,384.2	24.7%	4.1x	3.9x
Ebix, Inc.	33.90	17.83	64.14	(47.1%)	1,048.8	1,687.2	777.8	942.5	-37%	139.6	18.0%	1.8x	NM
Envestnet, Inc.	75.86	61.00	92.51	(18.0%)	4,128.5	4,724.0	1,026.8	1,150.7	11%	144.0	14.0%	4.1x	3.7x
FINEOS Corporation Holdings	2.92	2.52	4.31	(32.2%)	882.1	853.5	122.3	130.6	12%	(8.4)	(6.9%)	6.5x	5.8x
HealthStream, Inc.	27.94	17.95	28.40	(1.6%)	881.5	853.2	251.0	251.8	7%	37.3	14.9%	3.4x	3.2x
Inovalon Holdings, Inc.	34.08	17.56	34.32	(0.7%)	5,312.8	6,202.1	718.7	764.0	12%	212.3	29.5%	8.1x	7.2x
Olo Inc.	37.39	22.88	44.89	(16.7%)	5,515.5	4,929.0	118.5	141.4	28%	11.7	9.9%	34.9x	27.3x
Procore Technologies, Inc.	94.95	78.96	98.96	(4.0%)	12,255.6	12,663.5	421.9	488.6	23%	(32.3)	(7.6%)	25.9x	21.1x
Stride, Inc.	32.13	20.39	52.84	(39.2%)	1,289.5	1,428.9	1,408.2	1,509.0	2%	138.0	9.8%	0.9x	0.9x
Tabula Rasa HealthCare, Inc.	50.00	30.12	69.31	(27.9%)	1,242.1	1,594.5	301.1	343.3	17%	(25.2)	(8.4%)	4.6x	4.0x
Tyler Technologies, Inc.	452.37	319.58	479.79	(5.7%)	18,429.0	17,733.2	1,267.9	1,524.2	19%	239.6	18.9%	11.6x	9.8x
Unity Software Inc.	109.83	65.11	174.94	(37.2%)	30,688.4	29,176.6	840.2	1,013.5	27%	(308.3)	(36.7%)	28.8x	22.7x
Veeva Systems Inc.	310.95	232.44	325.54	(4.5%)	47,550.2	45,459.8	1,561.5	1,823.3	19%	446.9	28.6%	24.9x	21.0x
Average												9.2x	7.9x
Median												4.4x	4.3x

¹ Forecasts Revenue Growth between CY 2021 and CY 2022; ² LTM EBITDA Margin CY = Calendar Year; Market Cap = Market Capitalization; EV = Enterprise Value; EBITDA = Earnings before Interest, Tax, Depreciation and Amortization

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Firm Overview

Pagemill Partners
A KROLL BUSINESS



DUFF & PHELPS
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Pagemill Partners, a division of Duff & Phelps, is a technology advisory firm located in the heart of Silicon Valley with representation in London and Paris.

Global advisory focused firm ranked No. 5 middle-market M&A advisor for the past 10 years with 350+ corporate finance professionals and nearly 4,000 advisory-focused professionals¹

Significant Transaction Experience

- Over 300 transactions completed
- Strong track record of execution, running bespoke and competitive processes

- Advised on over 75 M&A transactions in 2020
- c.1,000 sell/buy and refinance transactions for 100+ PE firms, corporates and banks in 2020
- Advised 50 cross-border engagements in 2020

Deep Domain Expertise

- Fluency in key trends in the technology sector
- Thought leaders and strategic advisors to entrepreneurs and the PE community

- Five dedicated industry practices, each with deep sector expertise
- Established technology, industrials, business services, healthcare and consumer practices

Unparalleled Access to Buyers

- Unmatched access to technology-focused financial sponsors and strategics
- Regular dialogue with key players in the ecosystem

- Provides advisory services to over 65% of the Fortune 100 companies
- Global relationships across industry sectors and geographies

Unconflicted and Focused Approach

- Singular focus on the technology sector
- Purely focused on M&A advisory services for emerging growth and middle-market clients

- Unconflicted as the firm does not provide audit services
- Independent advisors to all our clients

¹Thomson Financial Securities Data U.S. deals \$10M - \$150M, including deals without a disclosed value. Full years 2011 through 2020.

Distinguished Enterprise Software Franchise

- Pagemill Partners has completed over 300 transactions, the majority of which are in enterprise software
 - Industry leaders leveraging both SaaS and perpetual models, including companies with hybrid delivery models
 - Underlying technology architecture, reliance on third-party technologies and strategic partnerships, product roadmaps and vertical go-to-market strategies are all important attributes that we have demonstrated experience in articulating and positioning



Experienced Technology M&A Advisors










Vertical Software / SaaS

 a business division of  has been acquired by 	 has been acquired by 	 has been acquired by 	 has been acquired by 
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Data & Analytics

 AT INTERNET has been acquired by 	 has been acquired by 	 has been acquired by 	 has been acquired by 
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Fintech & Payments

 has been acquired by 	 a portfolio company of  TONKA BAY has been acquired by 	 has been acquired by 	 has received funding from 
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Marketing Tech

 has been acquired by 	 has been acquired by 	 has been acquired by 	 has been acquired by 
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Retail and Commerce Technologies

 has received funding from 	 has been acquired by 	 has been acquired by 	 has been acquired by 
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Security

 has been acquired by 	 has been acquired by 	 has been acquired by 	 has been acquired by 
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Consumer Technologies

 has been acquired by  a subsidiary of 	 has been acquired by 	 has been acquired by 	 has been acquired by 
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Networking Technologies

 has been acquired by 	 has been acquired by 	 has been acquired by 	 has been acquired by 
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About Duff & Phelps

About Duff & Phelps, A Kroll Business

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