

APPLICATION DEVELOPMENT & DEPLOYMENT SECTOR UPDATE | FEBRUARY 2023

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Application Development & Deployment

Heightened Demand for Software Development Services Drives Sector M&A

KEY SECTOR TAKEAWAYS

Capstone Partners' Technology, Media, & Telecom (TMT) Group is pleased to share its Application Development (AppDev) & Deployment report. Led by the Services segment, AppDev & Deployment sector merger and acquisition (M&A) activity set an annual record in 2022 as acquirers looked to capitalize on digital transformation tailwinds. A persistent strategic and financial buyer pool has provided a favorable outlook for continued sector consolidation in 2023. Several additional key takeaways are outlined below.

1. The sector demonstrated significant economic resilience in 2022, supported by heightened demand for outsourced software development services and elevated digital transformation spending.
2. Organizations have increasingly relied on outsourced software development services to support digital transformation and information technology (IT) needs at reduced costs.
3. Sector M&A deal volume in 2022 rose 3.2% year-over-year (YOY) and 69.7% compared to 2020, illustrating long-term M&A market growth despite economic headwinds.
4. Average M&A purchase multiples in the AppDev & Deployment sector remained elevated in 2022, outperforming all years prior to 2021.
5. Strategic buyers continued to account for the majority of sector M&A deals in 2022, led by private strategics consolidating competitors to gain market share and shore up cash flows.
6. Due to a difficult lending environment, sponsors mainly focused on add-on deals to enhance portfolio businesses with advanced cloud computing capabilities and additional personnel.

Capstone Partners has developed a full suite of corporate finance solutions, including M&A advisory, debt advisory, financial advisory, and equity capital financing to help privately owned businesses and private equity firms through each stage of the company's lifecycle, ranging from growth to an ultimate exit transaction.

To learn more about Capstone's wide range of advisory services and AppDev & Deployment sector knowledge, please [contact us](#).



COST MITIGATION SPURS SERVICES SEGMENT DEMAND

The AppDev & Deployment sector demonstrated significant economic resilience in 2022, supported by heightened demand for outsourced software development services and elevated digital transformation spending by organizations looking to create new sources of value through digital products, services, and experiences. Of note, global digital transformation spending is forecasted to reach \$3.4 trillion by 2026 through a compound annual growth rate (CAGR) of 16.3% from 2021 to 2026, according to IDC Research.¹ The benefits of investing in digital transformation technology including automation, business intelligence, operational transparency, and customer experience are intended to insulate organizations from economic volatility. As a result, digital transformation spending is expected to remain robust, supporting AppDev & Deployment sector participants throughout a potential global recession.



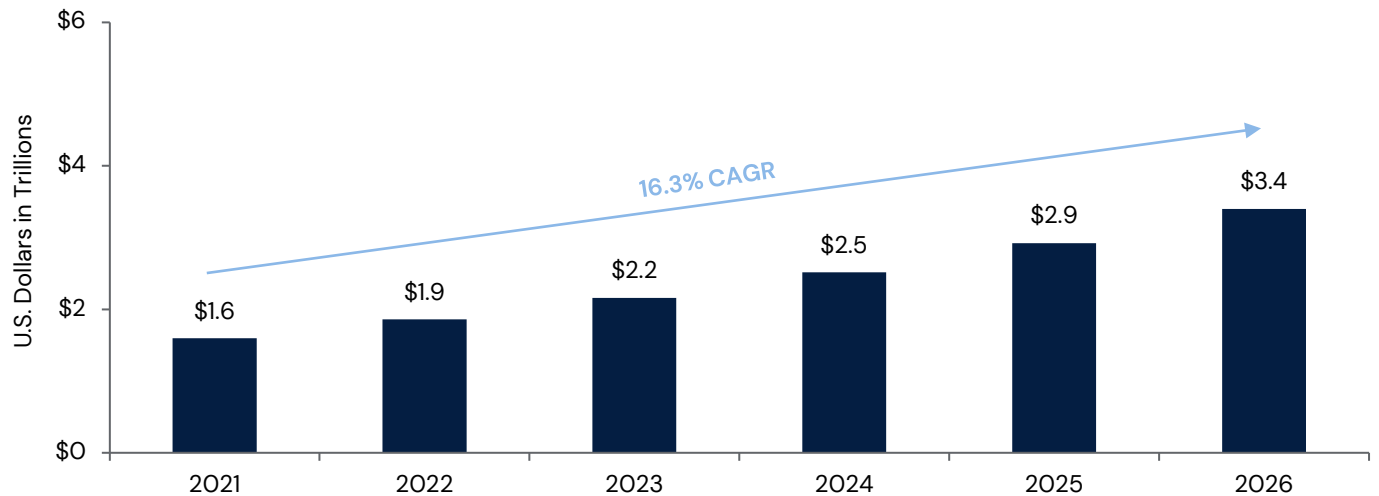
David DeSimone,
Managing Director

"Despite general economic headwinds in 2022, the AppDev and Deployment sector demonstrated remarkable resiliency in terms of M&A activity, especially for services companies, as strategic and financial buyers continued to consolidate in a market which has capitalized on trends of increased enterprise spending in digital transformation and outsourced application development."

Organizations have increasingly relied on outsourced software development services to support digital transformation and IT infrastructure needs. This has largely been driven by the high costs associated with building internal development teams, which can lead to tighter budget constraints and lower profit margins. In the U.S., the average annual salary per developer reached \$152,046 in 2022, according to STX Next.² However, embedded costs such as recruitment, training, administration and infrastructure, and benefits can add as much as 30% to the total cost of a single in-house developer. Especially for enterprise-wide solutions, businesses that outsource software development services stand to benefit from cost reductions, proven workflows and processes, scalability, and a quicker time-to-market. As a result, the Services segment is expected to continue to lead the AppDev & Deployment sector in market share, revenue, and acquisition opportunities in 2023.

Global Digital Transformation Spending to Reach \$3.4 Trillion by 2026

Global digital transformation spending is projected to rise at a 16.3% CAGR from 2021 to 2026, driven by cost-effective, outsourced software development services.



Source: IDC Research



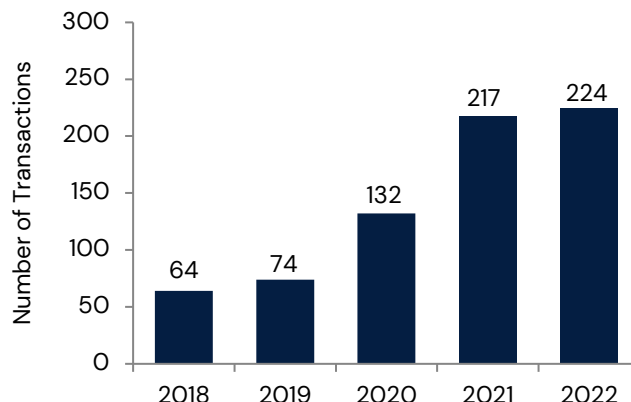
M&A ACTIVITY REACHES NEW HEIGHTS IN 2022

M&A activity in the AppDev & Deployment sector reached record levels in 2022, with 224 transactions announced or completed. This marks an increase of 3.2% YOY and 69.7% compared to 2020, demonstrating the resilience of sector deal flow despite economic headwinds. A persistent strategic and private equity buyer pool has contributed to elevated levels of sector M&A activity, with both buyer groups engaging in competitive bid processes to capitalize on digital transformation tailwinds. Strategic buyers continued to account for the majority (62.9%) of sector M&A transactions in 2022, led by private strategics (33.5% of 2022 deals) horizontally consolidating competitors to gain market share, bolster workforces, and shore up cash flows. Private equity firms maintained their sector presence in 2022, comprising 37.1% of deals. Due to a difficult lending environment, sponsors mainly focused on add-on deals (31.3%), engaging in smaller tuck-in acquisitions to enhance portfolio businesses with advanced cloud computing capabilities and additional personnel.

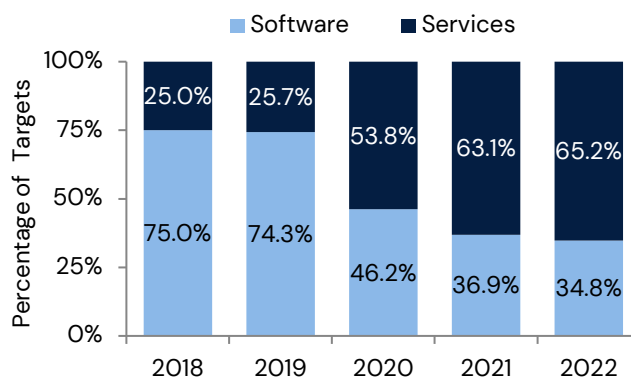
The Services segment continued to account for the majority (65.2%) of sector M&A targets in 2022, led by outsourced IT providers, custom application development businesses, and digital and cloud transformation services providers. As organizations have increasingly shifted to outsourcing their software development and IT infrastructure needs, buyers have looked to gain entry in the segment through accretive acquisitions. The Software segment (34.8% of 2022 M&A targets) attracted strong acquirer interest from strategics and sponsor-backed portfolio companies in 2022, with buyers typically targeting segment participants within a specific technology stack such as Microsoft Dynamics 365 and Azure.

Average M&A purchase multiples in the AppDev & Deployment sector remained elevated in 2022 at 3.9x EV/Revenue and 11.1x EV/EBITDA. On an EBITDA multiple basis, average 2022 sector multiples outperformed all years prior to 2021, with the average revenue multiple reaching a record high. Buyers demonstrated a willingness to pay premium valuations for Software segment participants, with 2022 average M&A purchase multiples of 6.9x EV/Revenue and 16.1x EV/EBITDA, driven by a high degree of target interoperability and revenue visibility.

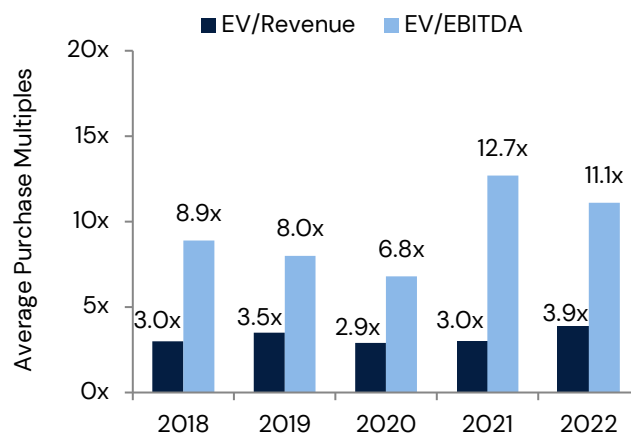
M&A Deal Volume Outperforms Historic Levels in 2022



Services Targets Comprise Majority of Sector M&A Activity



AppDev & Deployment M&A Multiples Remain Elevated in 2022



Source: Capital IQ, PitchBook, FactSet, and Capstone Partners



NOTABLE LARGE-SCALE M&A TRANSACTIONS

In 2022, six AppDev & Deployment sector M&A transactions were announced or completed with valuations exceeding \$1 billion in enterprise value, demonstrating buyers' willingness to consolidate leading players. This marks a stark increase compared to 2021, with only one large-scale M&A deal completed. Public strategic buyers and private equity firms accounted for equal shares of large-scale transactions in the sector in 2022 (three deals respectively). Public buyers' acquisition strategies largely focused on expanding capabilities and creating stronger operations to yield significant cash flows. Amid a volatile public equity market, sponsors typically engaged in take-private acquisitions to solidify portfolios' earnings and reduce cash-burn rates. Several notable large-scale deals in the space are outlined below.

In August 2022, OpenText (Nasdaq:OTEX) entered into a definitive agreement to acquire Micro Focus International (LSE:MCRO) for an enterprise value of \$5.9 billion, equivalent to 2.1x EV/Revenue and 8.9x EV/EBITDA. Micro Focus operates a full-service enterprise software business, offering application delivery, modernization, and IT operations solutions. OpenText provides software which enables clients to retrieve unstructured data. Following the completion of the deal, Micro Focus is expected to bring significant revenue and operating scale to OpenText, with an aggregate total addressable market of \$170 billion, according to a press release.³ In addition, OpenText has estimated that Micro Focus will be fully integrated into its operating model within six quarters post-close.

Global private equity firm Thoma Bravo acquired Anaplan (NYSE:PLAN) in March 2022 for an enterprise value of \$10.1 billion, equivalent to 16.0x EV/Revenue. Under the terms of the agreement, Anaplan shareholders received \$63.75 per share, representing a 41% premium on Anaplan's closing stock price on March 18, 2022, according to a press release.⁴ Thoma Bravo completed the transaction in June 2022, with Anaplan no longer listed on the New York Stock Exchange. Anaplan develops an orchestration platform for clients to organize IT architectures without requiring coding knowledge. Thoma Bravo plans to bolster Anaplan's cloud-native enterprise planning solution through operating efficiency measures and add-on engagements.

Google, an operating subsidiary of Alphabet (Nasdaq:GOOGL), acquired Mandiant (Nasdaq:MNDT) in March 2022 for an enterprise value of \$5.4 billion, or 11.1x EV/Revenue. Mandiant provides application security and cybersecurity solutions through its eXtended detection and response (XDR) platform Mandiant Advantage. Google stands to benefit from Mandiant's zero-trust architecture, servicing clients across 22 countries, according to a press release.⁵ The transaction also enables Google to deliver a suite of end-to-end security operations solutions for SaaS and cloud-based products. The acquisition showcases a public strategic buyers' inclination to vertically integrate specialized providers to defend application lifecycles.

In January 2022, Vista Equity Partners-backed Tibco acquired Citrix Systems (Nasdaq:CTXS) for an enterprise value of \$16.7 billion, equivalent to 5.2x EV/Revenue and 26.1x EV/EBITDA. Citrix marks Tibco's tenth add-on acquisition since joining Vista Equity's portfolio in September 2014 (\$3.9 billion, 3.6x EV/Revenue). Vista Equity plans to merge the businesses to create a leading application lifecycle management and enterprise software portfolio. "The platform we have built will expand and deepen our relationships with our valued customers and partners, drive the future of mission-critical cloud software solutions, and create long-term value for all our stakeholders," said Tom Krause, CEO of the combined entity, in a press release.⁶



NOTABLE MIDDLE MARKET M&A TRANSACTIONS

The middle market (less than \$500 million in enterprise value) continued to yield considerable amounts of AppDev & Deployment sector M&A activity in 2022, comprising 82.2% of disclosed transactions. This represents an uptick from 2021 levels (79.4%), illustrating the strength of middle market sector players engaging in sell-side transactions. Public strategic buyers accounted for the majority (64.9%) of middle market AppDev & Deployment deals in 2022, followed by private strategics (24.3%), private equity add-on engagements (8.1%), and sponsor platform deals (2.7%). Profitability, recurring revenue, and asset-light business models continued to be key investment criteria among buyers in the AppDev & Deployment middle market. Outlined below are several notable middle market transactions in the sector.



In October 2022, global private equity firm KKR (NYSE:KKR) entered into a definitive agreement to acquire Ness Technologies for an enterprise value of \$500 million. Ness provides digital transformation services including cloud engineering, data and analytics, user experience engineering, and packaged enterprise application deployment. KKR pursued the transaction to develop a digital transformation portfolio serving high-growth end markets. “Digital transformation and adoption is a critical strategy for businesses of all sizes worldwide. Against this backdrop, KKR believes that Ness is well-positioned for growth, supported by its exceptional, experience-led product engineering heritage,” said Gaurav Trehan, CEO of KKR India, in a press release.⁷

Leading digital transformation consulting firm Perficient (Nasdaq:PRFT) acquired Ameex Technologies in October 2022 for an enterprise value of \$38 million, equivalent to 2.0x EV/Revenue. Ameex offers open-source application development, software testing, test automation, and performance testing services. With the acquisition, Perficient gains more than 400 skilled developers and ~\$19 million in annual revenue, according to a press release.⁸ The transaction also strengthens Perficient’s global delivery capabilities and capacity with enhanced agile software design, development, and testing for clients. Perficient plans to continue expanding its presence in the Services segment through additional acquisitions in 2023.

In July 2022, Ideal Holdings (ATSE:INTEK) acquired Byte Solutions (ATSE:BYTE) for an enterprise value of \$55.7 million, equivalent to 1.2x EV/Revenue and 9.8x EV/EBITDA. Ideal operates as an alternative investment firm, focused on majority stake investments in the TMT industry. In addition, the firm assumes moderate risk with long-term holdings, seeking an internal rate of return of 20%, according to the firm’s website.⁹ Byte offers custom software development and technology unification services. Byte is also registered with the European Union Trusted List of Services Providers and serves the public sector; an end market that Ideal has prioritized in recent months.

Alithya Group (TSX:ALYA) acquired Datum Solutions in June 2022 for an enterprise value of \$45.6 million, equivalent to 2.5x EV/Revenue and 7.6x EV/EBITDA. Datum is a leading provider of internet protocol (IP)-enabled digital transformation services. Datum specializes in application modernization and data migration with the use of software and services, deploying more than 150 professionals to clients in the U.S., Europe, India, and Australia, according to a press release.¹⁰ “Datum’s highly skilled team as well as its suite of 14 proprietary products and cloud-based Software as-a-Service (SaaS) offering will help us add scale as we continue our growth and transformation initiatives,” said Paul Raymond, Alithya CEO, in the press release.



SELECT M&A TRANSACTIONS

Date	Target	Acquirer	Target Business Description	Enterprise Value (mm)	EV/LTM Revenue	EBITDA
12/16/22	ACG Automation Consulting	Marondo Capital	Offers IT project management and development operations (DevOps).	-	-	-
12/06/22	Optistar Technology Consultants	Synoptek	Provides managed IT and software development services.	-	-	-
11/25/22	BELIKE SOFTWARE	Singular People (BME:SNG)	Offers software consultancy services including strategic consulting and software development solutions.	-	-	-
11/22/22	TeamTek Consulting	Accolite	Provides DevOps and data operations (DataOps) services.	-	-	-
11/08/22	FOEX	Oracle (NYSE:ORCL)	Offers software development tools and services to support the Oracle database technology stack.	-	-	-
11/07/22	Drifty	Outsystems	Develops open-source software tools and frameworks for developing mobile and web applications.	-	-	-
11/07/22	Beanstalk Networks	MeridianLink (NYSE:MLNK)	Offers web-based software delivery, managed hosting, internet networking, and software development.	\$65.0	-	-
11/03/22	Wovenware	Maxar Technologies (NYSE:MAXR)	Operates as a software engineering business that develops software solutions for clients.	\$33.0	-	-
10/27/22	Ness Technologies	KKR & Co. (NYSE:KKR)	Provides software development and deployment services.	\$500.0	-	-
10/27/22	WillowTree	Telus International	Develops custom mobile and web applications.	\$1,225.0	8.8x	-
10/27/22	eMundo	Gofore (HLSE:GOFORE)	Develops software hosting tools and provides IT services.	\$10.8	1.8x	27.0x
10/13/22	Syrinx Consulting	DeWinter Group	Provides software development and consulting services.	-	-	-
10/11/22	Ameex Technologies	Perficient (Nasdaq:PRFT)	Offers application development, software testing, and test automation services.	\$38.0	2.0x	-
10/11/22	Hiper Consultancy	Blis Digital	Operates as a software development firm.	-	-	-
10/06/22	Synbioz	SAS Ouidou Consulting	Provides application development, mobile development, DevOps, hosting, and cloud migration solutions.	-	-	-
09/29/22	Eleviant Technologies	Computer Task Group (Nasdaq:CTG)	Offers digital transformation, mobile and web application development, and cloud migration services.	\$23.6	-	-
09/28/22	ReleaseIQ.io	CloudBees	Develops and provides an orchestration platform for automating software delivery.	-	-	-
08/25/22	Micro Focus (LSE:MCRO)	Open Text (Nasdaq:OTEX)	Offers infrastructure software products that are managed on a portfolio.	\$5,898.7	2.1x	8.9x
08/11/22	Axivion	Qt Group (HLSE:QTCOM)	Provides software architecture verification tools.	\$45.5	-	-
07/01/22	Byte Computer	Ideal Holdings (ATSE:INTEK)	Offers system integration, software development, and technology unification services.	\$55.7	1.2x	9.8x
06/24/22	Prime Source	LZG International (OTCPK:LZGI)	Provides software development and consulting services.	\$18.0	-	-
06/01/22	Datum Consulting Group	Alithya Group (TSX:ALYA)	Offers application development and software consulting services.	\$45.6	2.5x	7.6x
06/01/22	GlideFast Consulting	ASGN (NYSE:ASGN)	Provides application development, implementations, and managed support services.	\$351.8	-	-

Source: Capital IQ, PitchBook, FactSet, and Capstone Partners



BUYER UNIVERSE

Capstone has built relationships with and tracked buyers that have been highly acquisitive in the AppDev & Deployment sector, particularly those that have completed notable transactions. Our sector expertise and network provides us with unique insights into this buyer universe and sector and growth drivers for the companies within it.

Leading Strategic Buyers



Leading Financial Buyers



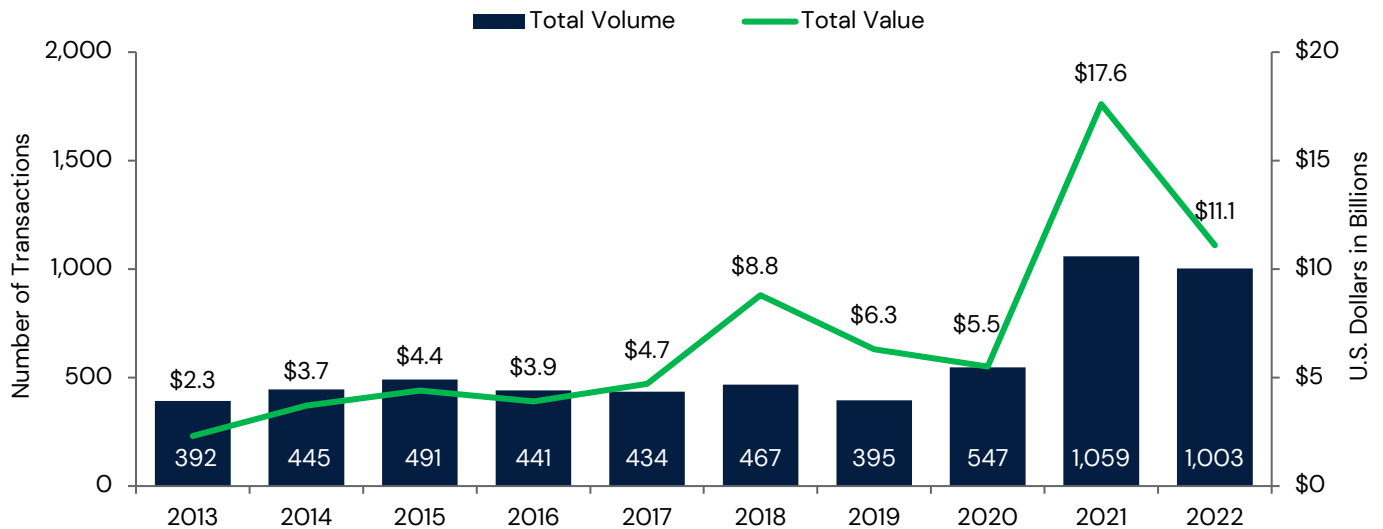
Source: Capstone Partners



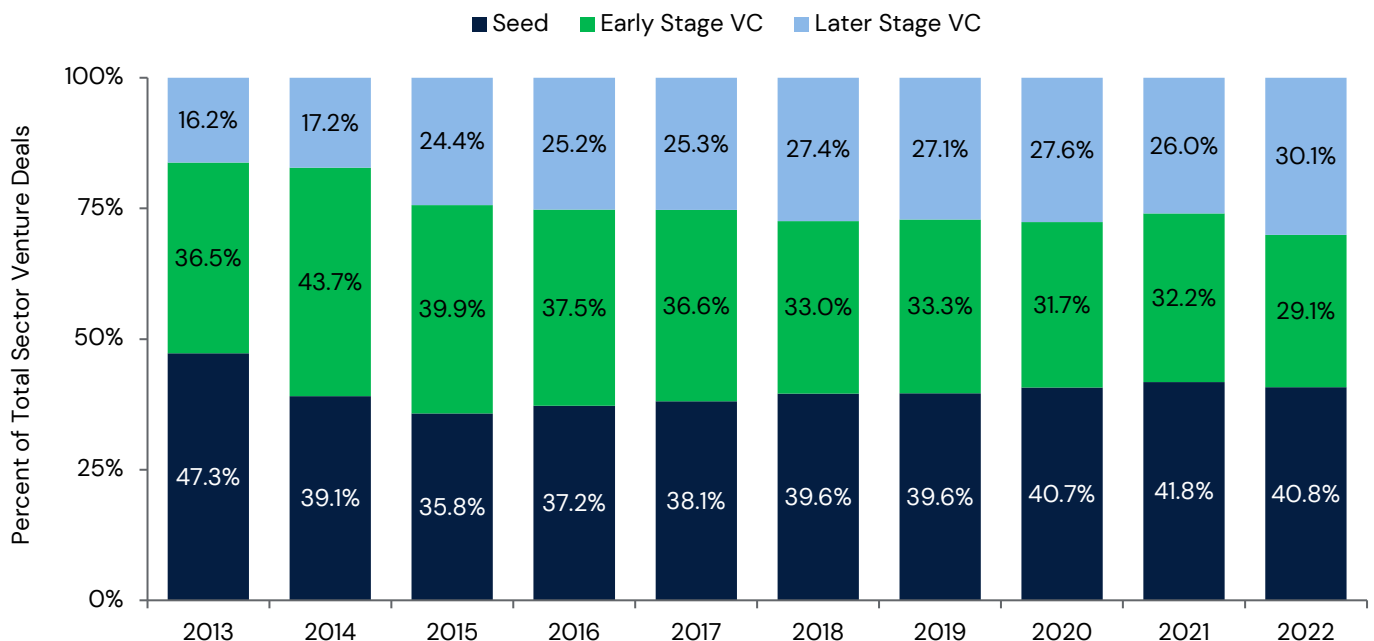
VENTURE CAPITAL ACTIVITY

Capital invested in the AppDev & Deployment sector by venture capital firms declined to \$11.1 billion in 2022, down 58.6% from record levels in 2021. However, total funding in 2022 outperformed 2020 by 101.8%, demonstrating the continued attractiveness of startups in the sector. The number of sector venture capital deals in 2022 also declined from 2021, yet outpaced 2020 levels by 83.4%. Venture capital firms increasingly chased later stage financing rounds, comprising 30.1% of total sector venture deals in 2022.

AppDev & Deployment Venture Capital Raises Remain Elevated in 2022



Venture Capital Firms Increasingly Chase Later Stage Funding Rounds



Source: PitchBook and Capstone Partners



APPDEV & DEPLOYMENT PUBLIC COMPANY DATA

Segment	% 52 Wk High	Enterprise Value	EV / LTM		EBITDA Margin
			Revenue	EBITDA	
Application Lifecycle Management	76.4%	\$32,637.1	7.5x	25.5x	21.3%
Application Programming Interface	41.0%	\$4,834.8	1.7x	12.7x	12.5%
Architecture & Design	58.1%	\$43,860.3	6.4x	25.5x	28.9%
Collaboration	55.8%	10,279.0	4.4x	27.8x	11.1%
Development	60.4%	\$2,685.9	5.5x	NM	NA
Low-Code & No-Code	55.1%	\$36,155.2	4.2x	32.4x	16.4%
Multi-Segment Vendors	77.9%	\$373,718.5	5.3x	15.6x	29.4%
Performance Management	53.6%	\$16,416.0	9.9x	NA	7.5%
Rapid Application Development	75.3%	\$2,412.7	6.7x	24.0x	31.1%
Security	55.6%	\$13,179.1	6.5x	21.3x	21.1%
Testing Automation	77.6%	\$7,682.1	2.5x	7.8x	27.0%

Source: Capital IQ as of January 4, 2023

PUBLIC COMPANY DATA BY SEGMENT

	Price	% 52 Wk	Market	Enterprise	LTM			EV / LTM	
Company	01/04/23	High	Cap	Value	Revenue	EBITDA	Margin	Revenue	EBITDA
APPLICATION LIFECYCLE MANAGEMENT									
Nutanix, Inc.	\$26.30	78.0%	\$6,051.9	\$6,113.7	\$1,635.9	NM	NA	3.7x	NM
PTC Inc.	\$119.65	89.9%	\$14,137.1	\$15,405.2	\$1,933.3	\$603.2	31.2%	8.0x	25.5x
ServiceNow, Inc.	\$385.50	61.3%	\$77,722.2	\$74,374.2	\$6,919.0	\$787.0	11.4%	10.7x	NM
Mean		76.4%	\$32,637.1	\$31,964.3	\$3,496.1	\$695.1	21.3%	7.5x	25.5x
Median		78.0%	\$14,137.1	\$15,405.2	\$1,933.3	\$695.1	21.3%	8.0x	25.5x
APPLICATION PROGRAMMING INTERFACE									
Axway Software SA	\$17.93	62.7%	\$375.2	\$470.3	\$296.4	\$37.0	12.5%	1.6x	12.7x
Twilio Inc.	\$50.42	19.2%	\$9,294.4	\$6,338.7	\$3,644.5	NM	NA	1.7x	NM
Mean		41.0%	\$4,834.8	\$3,404.5	\$1,970.5	\$37.0	12.5%	1.7x	12.7x
Median		41.0%	\$4,834.8	\$3,404.5	\$1,970.5	\$37.0	12.5%	1.7x	12.7x

EV = enterprise value; LTM = last twelve months

NM = not meaningful; \$ in millions except per share data

Source: Capital IQ as of January 4, 2023



PUBLIC COMPANY DATA BY SEGMENT (CONTINUED)

Company	Price	% 52 Wk	Market	Enterprise	LTM			EV / LTM	
	01/04/23	High	Cap	Value	Revenue	EBITDA	Margin	Revenue	EBITDA
ARCHITECTURE & DESIGN									
Adobe Inc.	\$336.92	59.7%	\$156,634.1	\$155,171.1	\$17,606.0	\$7,071.7	40.2%	8.8x	21.9x
ANSYS, Inc.	\$238.64	60.1%	\$20,788.5	\$21,038.8	\$2,027.1	\$694.1	34.2%	10.4x	30.3x
Autodesk, Inc.	\$185.15	65.0%	\$39,949.4	\$41,143.4	\$4,898.4	\$1,131.8	23.1%	8.4x	36.4x
InVision Aktiengesellschaft	\$11.39	36.5%	\$25.5	\$26.0	\$14.0	NM	NA	1.9x	NM
Software Aktiengesellschaft	\$25.74	69.1%	\$1,903.9	\$2,116.5	\$871.7	\$159.0	18.2%	2.4x	13.3x
Mean		58.1%	\$43,860.3	\$43,899.2	\$5,083.4	\$2,264.2	28.9%	6.4x	25.5x
Median		60.1%	\$20,788.5	\$21,038.8	\$2,027.1	\$913.0	28.7%	8.4x	26.1x
COLLABORATION									
Box, Inc.	\$31.31	94.8%	\$4,474.7	\$5,142.6	\$967.8	\$137.7	14.2%	5.3x	37.4x
DocuSign, Inc.	\$56.75	36.3%	\$11,411.0	\$11,273.3	\$2,437.2	\$22.7	0.9%	4.6x	NM
Zoom Video Communications, Inc.	\$66.66	36.3%	\$19,486.2	\$14,421.1	\$4,346.5	\$793.9	18.3%	3.3x	18.2x
Mean		55.8%	\$11,790.6	\$10,279.0	\$2,583.8	\$318.1	11.1%	4.4x	27.8x
Median		36.3%	\$11,411.0	\$11,273.3	\$2,437.2	\$137.7	14.2%	4.6x	27.8x
DEVELOPMENT									
JFrog Ltd.	\$22.01	70.2%	\$2,207.4	\$1,796.3	\$262.7	NM	NA	6.8x	NM
New Relic, Inc.	\$56.15	50.6%	\$3,837.2	\$3,575.5	\$852.7	NM	NA	4.2x	NM
Mean		60.4%	\$3,022.3	\$2,685.9	\$557.7	NA	NA	5.5x	NA
Median		50.6%	\$3,837.2	\$3,575.5	\$852.7	NA	NA	5.5x	NA
LOW-CODE & NO-CODE									
Netcall plc	\$1.18	95.9%	\$186.6	\$170.4	\$37.0	\$4.4	11.9%	4.6x	38.6x
Pegasystems Inc.	\$34.61	31.4%	\$2,844.6	\$3,250.3	\$1,237.6	NM	NA	2.6x	NM
salesforce.com, inc.	\$134.78	52.5%	\$133,567.0	\$136,293.0	\$30,294.0	\$3,515.0	11.6%	4.5x	38.8x
Temenos AG	\$56.72	40.8%	\$4,070.9	\$4,906.9	\$961.6	\$246.7	25.7%	5.1x	19.9x
Mean		55.1%	\$35,167.3	\$36,155.2	\$8,132.6	\$1,255.4	16.4%	4.2x	32.4x
Median		46.6%	\$3,457.8	\$4,078.6	\$1,099.6	\$246.7	11.9%	4.6x	29.3x

EV = enterprise value; LTM = last twelve months

NM = not meaningful; \$ in millions except per share data

Source: Capital IQ as of January 4, 2023



PUBLIC COMPANY DATA BY SEGMENT (CONTINUED)

Company	Price	% 52 Wk	Market	Enterprise	LTM			EV / LTM	
	01/04/23	High	Cap	Value	Revenue	EBITDA	Margin	Revenue	EBITDA
MULTI-SEGMENT VENDORS									
Alphabet Inc.	\$89.12	58.8%	\$1,157,010.0	\$1,070,087.0	\$282,113.0	\$97,358.0	34.5%	3.8x	11.0x
Atlassian Corporation Plc	\$126.50	35.8%	\$32,323.3	\$32,091.1	\$2,996.3	NM	NA	10.7x	NM
Cisco Systems, Inc.	\$47.94	76.3%	\$196,942.5	\$187,060.5	\$52,289.0	\$16,501.0	31.6%	3.6x	11.3x
Hewlett Packard Enterprise	\$16.06	90.4%	\$20,586.0	\$31,053.0	\$28,496.0	\$5,165.0	18.1%	1.1x	6.0x
International Business Machines	\$141.55	92.4%	\$127,979.1	\$172,307.1	\$60,535.0	\$13,381.8	22.1%	2.8x	12.9x
Micro Focus International plc	\$6.36	99.8%	\$2,055.2	\$5,561.2	\$2,743.8	\$598.9	21.8%	2.0x	9.3x
Microsoft Corporation	\$239.58	71.5%	\$1,786,428.9	\$1,756,320.9	\$203,075.0	\$98,841.0	48.7%	8.6x	17.8x
Oracle Corporation	\$83.72	93.5%	\$225,730.3	\$309,769.3	\$46,073.0	\$18,375.0	39.9%	6.7x	16.9x
SAP SE	\$103.90	78.6%	\$121,027.2	\$125,076.3	\$29,825.5	\$6,365.0	21.3%	4.2x	19.7x
Synopsys, Inc.	\$319.68	81.7%	\$48,724.7	\$47,859.0	\$5,081.5	\$1,335.4	26.3%	9.4x	35.8x
Mean		77.9%	\$371,880.7	\$373,718.5	\$71,322.8	\$28,657.9	29.4%	5.3x	15.6x
Median		80.1%	\$124,503.1	\$148,691.7	\$37,949.2	\$13,381.8	26.3%	4.0x	12.9x
PERFORMANCE MANAGEMENT									
Datadog, Inc.	\$72.09	39.0%	\$22,892.9	\$21,963.3	\$1,531.9	\$40.2	2.6%	14.3x	NM
Dynatrace, Inc.	\$38.35	64.3%	\$11,039.2	\$10,757.8	\$1,040.0	\$129.1	12.4%	10.3x	NM
Splunk Inc.	\$86.82	57.6%	\$14,212.4	\$16,526.9	\$3,303.7	NM	NA	5.0x	NM
Mean		53.6%	\$16,048.2	\$16,416.0	\$1,958.5	\$84.6	7.5%	9.9x	NA
Median		57.6%	\$14,212.4	\$16,526.9	\$1,531.9	\$84.6	7.5%	10.3x	NA
RAPID APPLICATION DEVELOPMENT									
Alteryx, Inc.	\$49.81	65.2%	\$3,441.5	\$4,024.6	\$728.1	NM	NA	5.5x	NM
Altium Limited	\$23.61	79.0%	\$3,108.7	\$2,923.2	\$220.8	\$78.9	35.8%	13.2x	37.0x
Appian Corporation	\$32.40	48.4%	\$2,350.5	\$2,318.0	\$447.2	NM	NA	5.2x	NM
IAR Systems Group AB (publ)	\$14.41	90.0%	\$196.7	\$184.3	\$34.8	\$8.5	24.5%	5.3x	21.6x
Progress Software Corporation	\$50.97	94.0%	\$2,191.6	\$2,613.3	\$585.0	\$193.5	33.1%	4.5x	13.5x
Mean		75.3%	\$2,257.8	\$2,412.7	\$403.2	\$93.7	31.1%	6.7x	24.0x
Median		79.0%	\$2,350.5	\$2,613.3	\$447.2	\$78.9	33.1%	5.3x	21.6x

EV = enterprise value; LTM = last twelve months
 NM = not meaningful; \$ in millions except per share data

Source: Capital IQ as of January 4, 2023



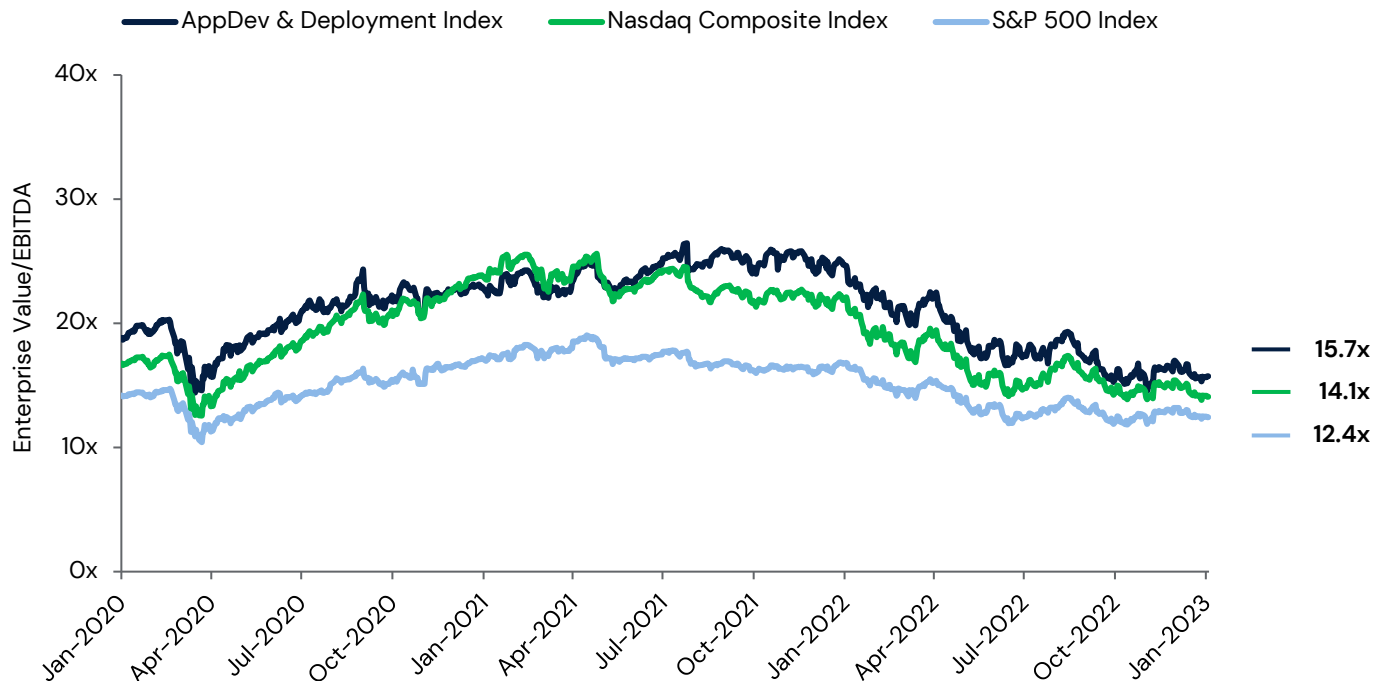
PUBLIC COMPANY DATA BY SEGMENT (CONTINUED)

	Price	% 52 Wk	Market	Enterprise	LTM			EV / LTM	
Company	01/04/23	High	Cap	Value	Revenue	EBITDA	Margin	Revenue	EBITDA
SECURITY									
Palo Alto Networks, Inc.	\$138.45	64.8%	\$41,861.3	\$42,019.3	\$5,817.5	\$224.3	3.9%	7.2x	NM
Qualys, Inc.	\$111.51	68.7%	\$4,236.0	\$3,819.6	\$468.7	\$179.2	38.2%	8.2x	21.3x
Rapid7, Inc.	\$34.96	29.5%	\$2,070.9	\$2,736.5	\$652.2	NM	NA	4.2x	NM
Tenable Holdings, Inc.	\$37.90	59.6%	\$4,264.3	\$4,141.0	\$647.6	NM	NA	6.4x	NM
Mean		55.6%	\$13,108.1	\$13,179.1	\$1,896.5	\$201.8	21.1%	6.5x	21.3x
Median		62.2%	\$4,250.2	\$3,980.3	\$649.9	\$201.8	21.1%	6.8x	21.3x
TESTING AUTOMATION									
Akamai Technologies, Inc.	\$84.97	68.9%	\$13,360.9	\$15,161.5	\$3,594.2	\$1,441.4	40.1%	4.2x	10.5x
SRA Holdings, Inc.	\$22.64	86.3%	\$279.6	\$202.7	\$291.1	\$40.4	13.9%	0.7x	5.0x
Mean		77.6%	\$6,820.3	\$7,682.1	\$1,942.7	\$740.9	27.0%	2.5x	7.8x
Median		77.6%	\$6,820.3	\$7,682.1	\$1,942.7	\$740.9	27.0%	2.5x	7.8x

EV = enterprise value; LTM = last twelve months
 NM = not meaningful; \$ in millions except per share data

Source: Capital IQ as of January 4, 2023

EBITDA Multiples in Capstone's AppDev & Deployment Index Outpace S&P 500 and Nasdaq



Source: Capital IQ as of January 4, 2023
 Index Includes: NTNX, PTC, NOW, AXW, TLND, ADBE, ADSK, IVX, SOW, BOX, DOCU, ZM, FROG, NEWR, PEGA, CRM, GOOGL, TEAM, CSCO, HPE, IBM, MCRO, MSFT, ORCL, SAP, SNPS, DDOG, DT, SPLK, AYX, ALU, ANSS, APPN, IAR B, PRGS, QLYS, RPD, TENB, AKAM, 3817, TEMN, PANW

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David DeSimone rejoined the Boston office in 2015 as a Director in the Technology & Telecom Group. David brings more than 15 years of investment banking experience to Capstone Partners and will help expand the firm's technology sector coverage. David has worked on equity, debt and M&A transactions collectively valued at more than \$4 billion. Previously, David was a member of the Capstone team for nearly seven years where he led efforts in the Technology Solutions vertical as a Vice President and Director. Prior to rejoining Capstone, David served as a Principal at Bowen Advisors, an M&A and strategic advisory firm focused on technology companies including communications and healthcare IT. David has also worked as a Vice President at Boenning & Scattergood, a Philadelphia-based middle market investment bank, where he worked with clients across a variety of industries and developed the firm's technology practice. He spent his early career working at Needham & Company, RobertsonStephens and J.P. Morgan.

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Max joined Capstone Partners in 2021 and currently serves as an Associate on the Market Intelligence Team. Max provides M&A insights, proprietary research analysis, and macroeconomic trends for C-suite middle market executives. He specializes in the coverage of the Business Services, Education & Training, Financial Technology & Services, and Technology, Media & Telecom industries. Before joining the Market Intelligence Team at Capstone Partners, Max was an analyst at Lab42 Research, a Chicago-based market research firm. During his time at Lab42 Research, he specialized in the development, implementation, and analysis of proprietary research projects for clients in the Business Services, Consumer, Financial Services, Government, and Technology industries.





FIRM TRACK RECORD

Capstone has represented, and currently represents, numerous companies in the [TMT industry](#) and AppDev & Deployment sector. Sample recent engagements include the following:

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CORPORATE SALE
(IN MARKET)

SOFTWARE TESTING
PLATFORM

CONFIDENTIAL

CORPORATE SALE
(PRE-MARKET)

LOW-CODE, NO-
CODE PLATFORM

 **sentaca™**

HAS BEEN ACQUIRED BY



- Provides software development and Cloud transition services for the telecom industry

 **MATS®**
Easier done than said

HAS BEEN ACQUIRED BY



- Developer of a low-code software platform for enterprise applications

 **PRQA**
Programming Research

HAS BEEN ACQUIRED BY

PERFORCE

- Source code analysis software that improves code quality and security

 **VECTOR**
software

HAS BEEN ACQUIRED BY

VECTOR 

- Automated embedded software testing tools for safety-critical industries

 **doapp**
we do cool stuff

HAS BEEN ACQUIRED BY

 **NEWSCYCLE**
SOLUTIONS

- Mobile app development automation platform for media and sports

 **Test Direct**

HAS BEEN ACQUIRED BY

 **QUALITEST**
software testing experts


- Leading provider of independent IT testing and quality assurance services

 **zend** | The PHP Company


HAS BEEN ACQUIRED BY

 **RogueWave**
SOFTWARE

- Leader in end-to-end PHP web and mobile AppDev & Deployment solutions

 **NOLIO**

HAS BEEN ACQUIRED BY

 **ca**
technologies

- Provides application service automation software for data center apps



ENDNOTES

1. IDC Research, "IDC Spending Guide Sees Worldwide Digital Transformation Investments Reaching \$3.4 Trillion in 2026," <https://www.idc.com/getdoc.jsp?containerId=prUS49797222>, accessed January 17, 2023.
2. STX Next, "In-House Development vs. Software Development Outsourcing: A Comparison of Pros and Cons," <https://www.stxnext.com/blog/in-house-development-vs-software-development-outsourcing-comparison/>, accessed January 17, 2023.
3. OpenText, "OpenText to Acquire Micro Focus International plc," <https://investors.opentext.com/press-releases/press-releases-details/2022/OpenText-to-Acquire-Micro-Focus-International-plc/default.aspx>, accessed January 12, 2023.
4. Thoma Bravo, "Thoma Bravo Completes Acquisition of Anaplan," <https://www.thomabravo.com/press-releases/thoma-bravo-completes-acquisition-of-anaplan>, accessed January 12, 2023.
5. Mandiant, "Google Completes Acquisition of Mandiant," <https://www.mandiant.com/company/press-releases/google-completes-mandiant-acquisition>, accessed January 12, 2023.
6. BusinessWire, "Vista Equity Partners and Evergreen Coast Capital Announce the Completion of the Transaction to Acquire Citrix Systems and Combine It with TIBCO Software," <https://www.businesswire.com/news/home/20220929005993/en/Vista-Equity-Partners-and-Evergreen-Coast-Capital-Announce-the-Completion-of-the-Transaction-to-Acquire-Citrix-Systems-and-Combine-It-with-TIBCO-Software>, accessed January 11, 2023.
7. BusinessWire, "KKR to Acquire Ness Digital Engineering," <https://www.businesswire.com/news/home/20221026006146/en/%C2%AOKKR-to-Acquire-Ness-Digital-Engineering>, accessed January 11, 2023.
8. Perficient, "Perficient Announces Acquisition of Ameex Technologies," <https://www.perficient.com/newsroom/news-releases/2022/perficient-announces-acquisition-of-ameex-technologies>, accessed January 10, 2023.
9. Ideal Holdings, "Investment Philosophy & Strategy," <https://www.idealholdings.gr/en/ideal-holdings/investment-philosophy-strategy/#>, accessed January 11, 2023.
10. Alithya, "Alithya to Acquire Datum...," <https://www.alithya.com/en/newsroom/alithya-to-acquire-datum-adding-recurring-saas-revenues-and-growing-global-capabilities>, accessed January 11, 2023.



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