PitchBook

PitchBook Data, Inc.

Nizar Tarhuni Executive Vice President of Research and Market Intelligence

Paul Condra Head of Emerging Technology Research

Institutional Research Group

Analysis

Robert Le
Senior Analyst, Emerging Technology
robert.le@pitchbook.com

Brendan Burke
Senior Analyst, Emerging Technology
brendan.burke@pitchbook.com

Rudy Yang
Senior Analyst, Emerging Technology
rudy.yang@pitchbook.com

Derek Hernandez
Senior Analyst, Emerging Technology
derek.hernandez@pitchbook.com

pbinstitutionalresearch@pitchbook.com

Publishing

Designed by **Caroline Suttie**

Published on December 19, 2024

EMERGING TECH RESEARCH

2025 Enterprise Technology Outlook

Our analysts' outlook on enterprise technology in 2025

PitchBook is a Morningstar company providing the most comprehensive, most accurate, and hard-to-find data for professionals doing business in the private markets.

2025 outlooks

Brendan Burke
Senior Analyst, Emerging Technology
brendan.burke@pitchbook.com

AI & ML

Outlook: A private AI company will surpass a $100 billion valuation, becoming a centicorn along with OpenAI.

Rationale

OpenAI has set a high-water mark for AI startups, reaching a $150 billion valuation. The company nearly doubled its valuation YoY. Private companies such as ByteDance and SpaceX have sustained heightened public-like valuations, suggesting that further centicorns will be created. Valuations for AI leaders are justified in part by heightened public comparables. Palantir has approached a $150 billion market cap with YTD growth around 300% based on the company's growth in the commercial market and retail demand for the AI theme. Palantir has been awarded an enterprise value (EV)/next 12-month (NTM) revenue multiple approaching 50x, hearkening back to the premiums of the COVID-19 era. Leading AI companies are growing to the point where this premium revenue multiple can push their valuations over $100 billion, contributing a $17 billion market for generative AI (GenAI) software in 2024, as we broke out in our Emerging Tech Future Report on GenAI's outlook. An appreciating public market increases the chances that private companies will experience a liquidity premium in public markets, with retail investors and new exchange-traded funds supporting valuation growth.

Leading contenders for centicorn status include:

Anthropic

We have contended that Anthropic may achieve higher enterprise revenue than OpenAI in the medium term. The company's privacy orientation and partnership with Amazon Web Services can lead to higher growth, even as its models' performance lags OpenAI's o1 series. The company has continued to raise VC funding, with a fresh tranche of $4 billion from Amazon on pace to close with an undisclosed valuation. Anthropic's estimated valuation exceeds $33 billion based on precedent transactions and public comparable companies, according to secondary market data aggregator Caplight's MarketPrice estimate.[1] The company's models are becoming more valuable to Amazon, supporting further valuation growth while earning revenue from Amazon Web Services' multibillion-dollar GenAI business. Anthropic is on pace to surpass its revenue target for the year, approaching $1 billion after setting a goal of $850 million, putting revenue growth on pace to earn significant valuation growth in 2025. The company has been subject to secondary trading activity, creating potential for valuation growth without an IPO.

CoreWeave

CoreWeave's estimated valuation is $25 billion based on precedent transactions and public comparable companies, according to secondary market data aggregator Caplight's MarketPrice estimate.[2] This estimate anticipated the company's recent step-up from $19 billion to $23 billion in a secondary transaction and forecasts

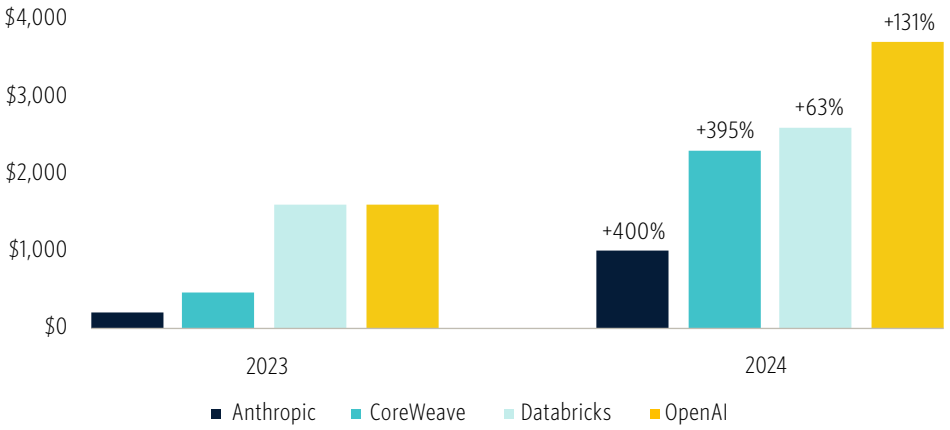
1: "Anthropic," Caplight, n.d., accessed December 10, 2024.
2: "CoreWeave," Caplight, n.d., accessed December 10, 2024.

further valuation growth. The company's path to centicorn status hinges on forecasts of revenue increasing around 230% in 2025 to $8 billion and earning a premium valuation multiple in public markets. While a hardware-centric business model may not earn a high valuation, a continued 10x revenue multiple could be stretched in a high-growth scenario. The shift to inference computing can drive heightened revenue growth as spending on production workloads begins to exceed pretraining, as we covered in our Q1 2024 AI & ML Report. CoreWeave also represents another pure-play AI company, potentially creating scarcity value for investors, which could result in a premium multiple above private markets.

Databricks

Databricks' estimated valuation exceeds $56 billion based on precedent transactions and public comparable companies, according to secondary market data aggregator Caplight's MarketPrice estimate.[3] The company is in talks to close a tender offer at a $55 billion valuation, exceeding this estimate and suggesting further valuation growth is likely. In order to reach a $100 billion valuation in 2025, the company would only need to double this valuation. An IPO could accomplish this task, given that the company trades at a relatively modest revenue multiple around 20x compared with data pipeline peer Palantir, and far less than competitor Snowflake did after its IPO. A public listing for the company may not be necessary, yet it would be welcomed by public markets in search of AI market leadership.

AI revenue ($M) by leading companies



Source: PitchBook • Geography: Global • As of November 29, 2024

Risks

Valuation growth may slow as growth rates level off. GenAI is still a relatively small market, limiting the high-value contracts that can accrue to private companies. GenAI leaders forecast continued high growth into 2025, yet GenAI remains an outlier in enterprise software spending growth and may regress if initial pilot projects do not justify significant customer investments. Centicorns are rare, as we have tracked VC deals for only five such companies. Only around 30 formerly VC-backed companies have reached a $100 billion market cap in public markets, with

3: "Databricks," Caplight, n.d., accessed December 10, 2024.

only Palantir reaching that milestone among IPOs after 2020. Companies will need to achieve outlier revenue growth at previously unprecedented scale to join OpenAI in this club.

2024 outlook

Open-source GenAI orchestration projects will create multiple unicorn startups in early-stage deals.

Outcome

The basic insight of this prediction, that agent engineering would move the state of the art forward, has borne out from a practical perspective, yet the economic reality played out differently than we expected. Unicorn creation concentrated in coding, datacenter, foundation model, and search startups, along with select vertical applications. Cognition achieved a unicorn valuation at an early stage for building a coding agent, which can be considered an orchestration project yet is not open-source. Open-source orchestration startups achieved outstanding early-stage valuations over $100 million, yet no company became a unicorn. /dev/agents took the furthest step in this direction by achieving a $500 million seed-stage valuation based on the quality of the company's founders and vision for an agent operating system, which is consistent with our vision. While agent architectures have become popular, the diversity of approaches to building them has limited any one company from benefiting in terms of revenue.

Rudy Yang
Senior Analyst, Emerging Technology
rudy.yang@pitchbook.com

ENTERPRISE FINTECH

Outlook: Regulation tech will continue to lag other sectors in VC funding but will play a bigger role in enterprise fintech M&A.

Rationale

Regulation technology (regtech) remains the least-funded segment within enterprise fintech. On a trailing 12-month (TTM) basis, regtech startups raised just $325.9 million in VC as of Q3 2024, representing only 1.9% of the $16.9 billion allocated to enterprise fintech as a whole. Despite heightened attention on compliance and risk management in 2024—driven by failures in banking-as-a-service programs and the rapid integration of AI into product frameworks—we do not anticipate a significant rise in regtech's share of enterprise fintech funding in 2025. In our view, the segment's limited profit pools, constrained by its small addressable market and saturated landscape, make it less attractive to investors than other fintech segments. For instance, the regtech market is valued at $9.3 billion,[4] compared with $1.4 trillion for B2B payments.[5]

Rather, we expect that regtech companies will contribute to a greater number of acquisitions over the next two years. One reason for this is that many regtech startups specialize in niche offerings, such as payments fraud, digital identity, or compliance management. This makes regtech startups a fitting acquisition target for large corporates and bigger regtech companies, which are likely to roll up a smaller company's offerings to enhance their own capabilities or expand their product suites. The strategy allows these companies to remain competitive and deliver additional growth. Bundling multiple fintech point solutions under a single fintech provider is an ongoing trend. The revenue potential of most fintech point solutions is not large enough to generate a significant exit, and, separately, banks and payments companies save time and money by buying multiple services from a single provider. Furthermore, with rapid AI advancements in areas such as fraud prevention, know-your-customer (KYC), anti-money laundering (AML), and compliance management, strategic acquisitions will also serve to accelerate AI capabilities and secure top-tier talent.

We believe acquirers will be large fintech corporates, such as Visa, Mastercard, Stripe, and Plaid; bank technology companies, such as FIS and Temenos; and well-capitalized regtech companies, such as LexisNexis and Chainalysis, that are looking to enhance their capabilities or broaden their product suites. In 2024, we saw acquisition examples from corporates such as nCino acquiring onboarding automation startup DocFox for $75 million and Entrust acquiring identity verification company Onfido. Banktech and payment companies may also acquire regtech companies to enhance functions such as KYC/AML and fraud prevention. For example, BankID Norge, a digital identity company that operates as a subsidiary of payments app Vipps, acquired KYC/AML automation startup Beaufort in Q2 2024.

Banks may increasingly seek to acquire intellectual property in regtech, driven by mounting pressure to maintain robust risk management controls. AI advancements now enable firms to evaluate whether purchasing technology might yield more cost-

4: "RegTech Market Size," GMI, Preeti Wadhwani, April 2024.
5: "B2B Payments Transaction Market Size Expected to Reach USD 3.53 Trillion by 2033," Fintech Futures, May 24, 2024.

effective outcomes. For example, TD Bank's decision to add 700 compliance staff after being fined $3.1 billion for inadequate AML controls raises the question of whether an AI-driven solution might have been a more efficient and scalable alternative.

Visa and Mastercard are also strong candidates to make regtech acquisitions given their acquisitive track records and significant focus in leveraging AI in areas such as fraud detection and prevention. In 2024, it has become evident that both companies are committed to becoming leaders in this space. In September, Visa acquired AI-powered fraud detection and crime surveillance company Featurespace for $925 million, and Mastercard bought AI-powered threat intelligence company Recorded Future for $2.7 billion.

In the first three quarters of 2024, there were 15 acquisitions and buyouts of VC-backed regtech startups, accounting for 13.6% of enterprise fintech VC exits. The disclosed exit value totaled $2 billion, representing 28.8% of the year's disclosed exit value for the sector. Notably, the $925 million acquisition of Featurespace and the $723.4 million buyout of BioCatch constituted the bulk of this total. This marks a positive shift for regtech exits, especially compared with the past three years when disclosed exit value averaged just 4.5% of enterprise fintech exit value and exit count averaged 7.9% of total enterprise fintech exits.

Looking ahead, appetite for regtech acquisitions could grow alongside the broader recovery in fintech M&A. In our Q4 2024 fintech M&A report, we note that corporate M&A and buyouts are showing early signs of revival—a trend that could accelerate if interest rates decline over the next two years.

Risks

Interest rates, inflationary pressures, and geopolitical conditions heavily influence valuation multiples and the operating environment for fintech companies. If 2025 brings continued capital constraints and challenges in generating free cash flow, acquisition activity is likely to remain soft. Companies will need strong capitalization and confidence in valuation stability before committing to deals. Otherwise, M&A may remain secondary in capital allocation priorities. Furthermore, fintech companies seeking acquisitions for inorganic growth may prioritize targets that align closely with their core offerings. For instance, a payments company might focus on acquiring another payments firm to scale operations rather than pursuing a regtech company specializing in fraud detection. This strategic focus could limit regtech's appeal to non-regtech-native fintech acquirers.

2024 outlook

A rise in partnerships and demand for growth will drive an acceleration in M&A.

Outcome

In 2023, we predicted that an increasing number of partnerships and slowing growth would help drive more deals. As of Q3 2024, we recorded 79 estimated deals, up 56% YoY. On a TTM basis, estimated deal count is up 14.5% YoY to 248, compared with 217 in 2023. This signals that there has been moderate improvement in fintech acquisitions, although we have not seen many deals completed as a result of previously formed partnerships. Although it is hard to tell, it appears partnerships were not the primary driver for 2024's slight uptick in M&A.

Robert Le
Senior Analyst, Emerging Technology
robert.le@pitchbook.com

CRYPTO

Outlook: The crypto market will see a resurgence in VC funding, surpassing $18 billion in annual investment, with multiple quarters exceeding $5 billion in capital deployment, up from annual and quarterly averages of $9.9 billion and $2.5 billion, respectively, from 2023 to 2024.

Rationale

In the past two years, crypto VC funding has experienced a significant slowdown, with annual investments ranging between roughly $9 billion and $10 billion, far below the peaks of $24.7 billion in 2021 and $29.8 billion in 2022. This downturn reflected the broader bear market in digital assets, exacerbated by macroeconomic challenges, regulatory uncertainties, and high-profile collapses such as FTX. However, as the crypto ecosystem continues to mature, 2025 is likely to witness a positive shift in investor sentiment driven by several key factors.

We expect the involvement of major traditional financial institutions such as BlackRock, Franklin Templeton, and Goldman Sachs to continue bolstering investor confidence in the crypto market. These institutions not only bring legitimacy and access to a significantly larger customer base, potentially accelerating mainstream adoption of digital assets, but also enjoy long-standing relationships with regulators. Their established rapport and dialogue with regulatory bodies position them as effective intermediaries, navigating compliance and fostering an environment of trust that crypto-native companies often struggle to achieve. Their involvement will likely encourage other institutional players, including asset managers, hedge funds, and sovereign wealth funds, to allocate capital to crypto startups.

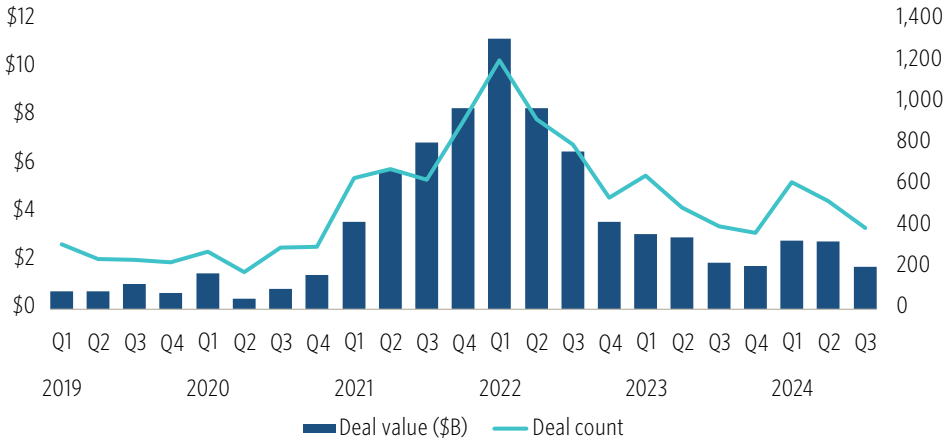
We also expect generalist VCs—which had largely retreated following the market's contraction in 2022—to return to the crypto space in 2025. Their return will be driven by the stabilization of crypto markets; the approval of regulated financial products such as spot Bitcoin ETFs; and the emergence of clearer use cases in areas such as decentralized finance (DeFi), Web3 infrastructure, and consumer-facing applications.

Generalist VCs focus on startups that can demonstrate traditional characteristics such as recurring revenue, measurable traction, and clear pathways to profitability, as opposed to crypto-native metrics such as tokenomics, total value locked (TVL), and speculative token demand. Their re-entry may catalyze a shift in funding priorities, emphasizing user-centric innovations and market-ready products over speculative projects. Furthermore, their involvement often attracts co-investment from institutional players, which will contribute to greater investment funding in 2025. This return will represent a strategic repositioning of these investors by targeting high-growth opportunities within crypto's broader convergence with AI, fintech, and traditional finance—which is also a bet on crypto as a foundational layer for the next phase of digital transformation. Because early-stage deals have remained relatively competitive even during the crypto bear market, we may see heightened competition for late-stage investments in 2025, driving larger deal sizes and higher valuations. This trend could significantly contribute to the overall

increase in investment totals, as mega-rounds—larger funding rounds typically exceeding $100 million—have been minimal over the past two years, which partly explains the subdued funding levels during that period.

Lastly, we believe that 2025 will begin with notable macro tailwinds, including declining interest rates and improved global liquidity conditions, creating a fertile environment for broader VC funding. For crypto in particular, these conditions are likely to drive increased prices across publicly traded tokens, which historically have had a strong positive correlation with VC funding levels. While this correlation broke down during the bear market when token prices recovered without a proportional recovery in VC funding, we anticipate its re-emergence as market sentiment improves. Higher token prices not only reflect increased investor confidence but also provide startup founders and early token holders with greater liquidity, enabling them to reinvest in new ventures or attract additional capital. This renewed alignment between public token markets and venture funding could create a reinforcing cycle of growth as rising valuations spark further investment activity.

Crypto VC deal activity by quarter



Source: PitchBook • Geography: Global • As of September 30, 2024

Risks

This optimistic outlook depends on stable macroeconomic conditions, a predictable regulatory environment, and the continued alignment of institutional interest in the crypto ecosystem. The crypto market's inherent volatility and its reliance on global liquidity conditions pose ongoing risks to investor sentiment. Regulatory and legislative uncertainty remain a significant risk, particularly in key markets such as the US, where enforcement actions and delays of regulatory approvals of crypto IPO or M&A transactions could dampen investor enthusiasm.

2024 outlook

The crypto market will see a significant shift toward centralized financial structures, influenced by greater institutional adoption. This movement marks a pivotal deviation from crypto's traditional emphasis on decentralization.

Outcome

While institutional interest grew, as evidenced by the launch of crypto exchange-traded products (ETPs) by traditional asset managers and increased custodial dominance by Coinbase and other centralized entities, the rise of decentralized technologies such as distributed validator tech also gained traction. This created a mixed outcome: Centralization in asset management expanded, but decentralization efforts persisted, counterbalancing the trend. The expected revival of DeFi was slower than anticipated (as measured by TVL), although innovations continued. Overall, the market saw both centralizing forces and resilience in decentralized innovation shaping the narrative.

Brendan Burke
Senior Analyst, Emerging Technology
brendan.burke@pitchbook.com

INFORMATION SECURITY

Outlook: VC mega-exits over $1 billion will come from application security and security operations.

Rationale

Information security (infosec) produced five mega-exits over $1 billion in 2021, including four IPOs and one acquisition. The vertical has produced only two since then, including Rubrik's $4.9 billion IPO in 2024. These exits have historically been concentrated in the largest segments by end-user spending, including endpoint security, identity & access management, and network security. VC investments in complementary segments yielded a mega-exit in data security in 2024, leaving application security and security operations as segments without a mega-exit since 2020, when JFrog and Sumo Logic completed IPOs. This may change in 2025 with a full IPO pipeline and a need for revenue growth at legacy vendors.

Prime IPO candidates include security operations unicorns Arctic Wolf, Armis, and Huntress, along with application security leader Snyk. Arctic Wolf has become a private giant with the revenue scale needed to go public, reaching an estimated $438 million in 2023 revenue, according to private market data aggregator Notice, based in part on Sacra research.[6] Armis disclosed that the company is pursuing an IPO after reaching $200 million in annual recurring revenue.[7] The company has expanded its product suite from endpoint security to security operations via acquisitions of vulnerability assessment and threat intelligence software. Recent product announcements show that the company can present itself as a full-featured platform instead of a point solution. PitchBook reported on a possible IPO for Huntress on the back of efficient revenue growth.[8] Snyk has become poised for an IPO as well, which would present the largest exit tracked in application security.

Significant acquisitions are possible, although some acquirers may have indigestion from multiple acquisition integrations. Google entertained a mega-acquisition of Wiz for $23 billion. Palo Alto Networks invested $500 million in IBM's security operations software, eschewing a startup acquisition yet realizing value from a high-value investment. Palo Alto Networks has also seen outstanding revenue growth from its early $459 million acquisition of secure browser innovator Talon Cyber Security. The success of these strategies along with the value in code-to-cloud security derived from prior application security acquisitions shows that M&A can pay off for scaled vendors. We have also seen that PE investors can snap up a company while in the IPO process, creating potential for large LBOs that recently have been focused on take-private deals rather than VC exits.

Risks

Cloud security, which we consider a category of network security, may produce the largest exit if market leader Wiz realizes its valuation in an IPO. Wiz gains visibility over cloud environments and is expanding into application security and

6: "Arctic Wolf," Notice, n.d., accessed December 10, 2024.
7: "Armis Raises $200M at $4.2B Valuation as Growth Soars, Eyes IPO," Armis, October 28, 2024.
8: "Cybersecurity Unicorn Huntress Hits $100M Revenue Milestone Ahead of IPO," PitchBook, Rosie Bradbury, September 16, 2024.

data security via product development. The company stepped back from an M&A process to pursue an IPO, although we do not believe it is likely in the coming year. Significant exits are also possible in network security and endpoint security, with IPO backlogs including Claroty in industrial endpoint security and Cato Networks in secure networking.

Acquisition values put pressure on valuations. Cloud workload security leader Lacework failed to achieve a mega-exit—after being valued at more than $1 billion—due to slowing revenue growth. Infosec leaders have not exceeded $800 million in disclosed acquisition values since 2021. Okta's record acquisition of Auth0 for $6.5 billion has proven to be a daunting integration challenge that has not realized the expected revenue synergies. IT leaders such as Cisco and Google have proven to have the greatest appetite for large acquisitions yet face competing priorities. A more business-friendly Federal Trade Commission could further open the door for significant acquisitions, yet financial considerations may still prevent deals from closing, as they did with Wiz.

2024 outlook

Infosec leaders will make multiple identity & access management acquisitions.

Outcome

This prediction technically came true, although acquisitions continued to focus on application security, data security, and security operations for the largest infosec leaders. The specific theme we identified of identity threat detection & response produced acquisitions of Authomize by Delinea, Double Zero Security by Proofpoint, Entitle by BeyondTrust, and Spera Security by Okta. Most of these acquirers were already identity leaders, showing that endpoint and network leaders see limited value in acquiring identity startups. The data security posture management acquisition theme continued for longer than we expected, now stretching for two years with six more acquisitions in 2024. Identity remains relatively underinvested in both VC and M&A terms compared with the size of the market and scope of new opportunities in machine identity management. This segment could still become more central to the industry in 2025.

Derek Hernandez
Senior Analyst, Emerging Technology
derek.hernandez@pitchbook.com

ENTERPRISE SAAS

Outlook: Autonomous AI agents will become the next major revolution in enterprise SaaS, leveraging many recent technologies to create value by automating complex tasks and enhancing customer interactions across various sectors, especially within HR tech, analytics, customer relationship management, and enterprise resource planning.

Rationale

Autonomous AI agents are set to transform enterprise software as a service (SaaS) across a multitude of applications and industries. These agents, powered by advanced AI & machine learning (ML) technologies, are poised to redefine how businesses operate, engage with customers, and drive decision-making. These are a direct evolution from the recent natural language processing (NLP) and large language model (LLM) technologies. AI agents stand to once more revolutionize the pace of business by dispensing with human input in many circumstances and throughout many industries.

The AI agents being developed today are autonomous systems designed to execute tasks within a specific problem set with minimal human input. This is enabled through the integration of NLP, predictive analytics, and deep learning. As these technologies develop, they will likely become integral components of SaaS ecosystems. Many SaaS vendors are incorporating AI agents into existing SaaS solutions and platforms, providing their clients with the ability to handle complex tasks that were often especially labor-intensive. AI agents now function as virtual assistants in many industries, including healthcare, finance, and operations, and have been used to manage workflows, analyze data, and automate repetitive processes. Some examples include Cognigy in customer service; aiXplain in analytics; and CrewAI as a multi-agent option, with support from Microsoft's AutoGen and Amazon Bedrock for enterprise development of additional AI agents. These agents are generally tailored to industry-specific needs, allowing for specialization and reducing the demands on a successful agent. In healthcare, AI agents streamline patient data management and can automate some telemedicine engagements. In finance, these technologies assist with fraud detection and provide real-time investment insights. This trend toward specialized applications demonstrates how AI agents are adapting to the nuanced demands of different sectors. This is especially true in today's conversational interfaces powered by AI agents, which are revolutionizing customer interactions within customer relationship management (CRM) SaaS platforms. These agents can provide instantaneous 24/7 support, dynamically recall information, and conduct sentiment analysis to deliver empathetic responses.

Operational costs across many industries would be reduced by employing AI agents, as demonstrated by Amazon and Klarna in their customer service roles, as well as a broad spectrum (FedEx, Adecco, Accenture, Ace Hardware, IBM, and RBC Wealth

Management) employing Salesforce's Agentforce to create their own custom AI agents. This is driving SaaS vendors to develop more effective solutions, which can be priced to capture that advantage. Personalized solutions, beyond even vertical specialization, would allow AI agents to deliver tailored experiences that increase customer loyalty through instantaneous analysis of user behavior. As AI agents capture market share among more "mundane" tasks where they are best suited and can be best trusted, human efforts can be directed to strategic and creative work, which would potentially accelerate innovation within enterprises as well. AI agents may soon become a fundamental driver of the next stage of SaaS evolution. We expect that both startups and incumbents will recognize this potential and will be working feverishly to exploit it.

Risks

While the promise of AI agents in SaaS technologies is compelling, there are significant reasons to doubt they will transform the industry in the near term. Integrating AI agents into existing SaaS platforms is a technically demanding process, necessitating substantial investment with many potential pitfalls. AI agents often require substantial reconfiguration of existing SaaS architectures and workflows, which may hinder near-term advancements. These agents are also dependent on high-quality, structured data, and most have not yet achieved finesse and adaptability with unstructured information, which can lead to potentially critical inaccuracies that can create significant failures. This is especially worrying as AI agents may also have significant data privacy and security concerns, especially across industries with strict regulatory structures. Thus, many firms remain reluctant to entrust critical business functions to autonomous systems that lack accountability.

2024 outlook

Enterprise vendors will employ recent AI & ML breakthroughs to develop more mature and impactful solutions beyond the initial rush of early solutions.

Outcome

Much of 2024 has continued to be bogged down by immature solutions and uneven deployments. Nevertheless, there have been massive advances in implementing these technologies across diverse solution sets and many instances of real accomplishments. We expect this prediction will likely require additional time to be fully realized. There has been a resurgent investment cycle in startups across enterprise SaaS, driven largely by early-stage AI solutions. Investors continue to believe in the promise of better solutions, and we expect this to continue for the foreseeable future.

Derek Hernandez
Senior Analyst, Emerging Technology
derek.hernandez@pitchbook.com

INFRASTRUCTURE SAAS: DEVOPS

Outlook: There will be greater consolidation of development operations startups by major infrastructure SaaS providers, as recent generative technologies have created a proliferation of solutions competing across use cases.

Rationale

The development operations (DevOps) landscape is poised for significant consolidation as major infrastructure SaaS providers such as Microsoft, Amazon, Oracle, IBM, Broadcom, and SAP look to enhance their competitive edge and expand their solutions ecosystems. The engagement of generative technologies, such as AI-driven coding tools, automated pipelines, and infrastructure management solutions, has predictably driven the creation of a plethora of startups, especially in our create and full-service DevOps subsegments. So far in 2024, DevOps has led the pack in the number of deals done. The segment has notched 109 deals, 33.9% of the total deals done in 2024 (out of four segments) and 22.5% higher than the next-most-prolific segment.

Many of these have begun entering their respective markets by offering niche capabilities. This proliferation has driven immense innovation over the past 12 months and has fragmented the market. In many instances this has created overlapping use cases and redundancy in solutions offerings, especially across GenAI coding copilot solutions. Larger players are poised to take advantage of the opportunity, especially in this environment, by acquiring startups with complementary technologies. These incumbents will likely seek to streamline their portfolios and offer end-to-end DevOps solutions to their customers.

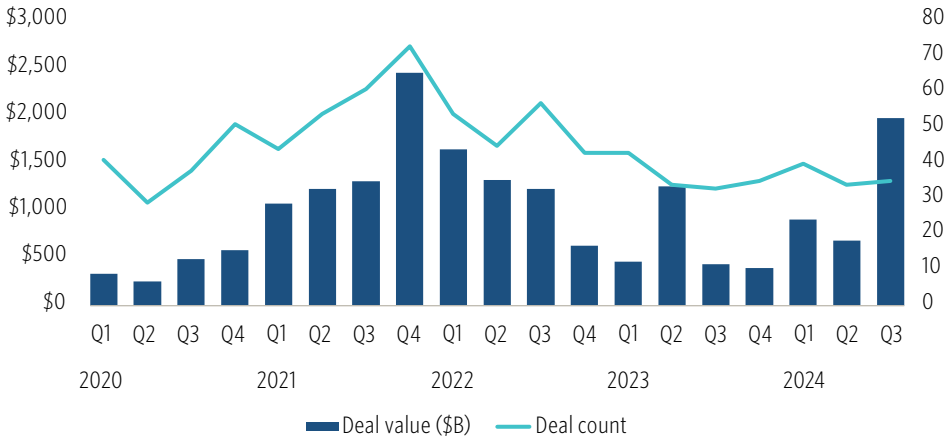
Generative technologies have lowered the barriers to entry for startups across the board but especially in software development, where logic- and rules-based approaches are the dominant tactics. This has enabled rapid development of highly specialized tools, especially in the realm of AI-assisted software development. Such innovative solutions may be impressive, but they often create a patchwork approach of "best practices" in which these niche solutions fail to cohere well for enterprise clients. While they are often better solutions, on their own they lack the scalability, integrations, and enterprise-grade features that larger enterprises require.

Major SaaS incumbents, including Microsoft, Google, and Oracle, already address many of the needs of major enterprise customers and could continue to grow through targeted acquisitions, incorporating best-of-breed solutions into their platforms and leveraging their resources to enhance performance, security, and reliability. This not only strengthens their value proposition but also helps consolidate their own market share, as many enterprise clients generally prefer integrated, all-in-one platforms over fragmented toolchains.

A consolidation within DevOps aligns with the growing demand for seamless development workflows in hybrid and multicloud environments as well. As enterprises grapple with the complexity of managing a variety of infrastructure stacks, the ability to leverage unified tool sets demands an increasing premium. By acquiring DevOps startups, larger infrastructure SaaS incumbents are positioned to best address these challenges, offering integrated platforms that simplify processes such as continuous integration and continuous deployment, infrastructure as code, and observability. This strategy not only accelerates time to market for clients but also positions the consolidators as indispensable partners for each enterprise's digital transformation journeys.

Given the rapid development of new technologies, the strategic acquisition of DevOps startups is a logical response to the competitive pressures and opportunities created by generative technologies. This allows major infrastructure SaaS incumbents to harness rapid innovations while driving growth, enhancing customer loyalty, and charting the ongoing evolution of DevOps.

DevOps VC deal activity by quarter



Source: PitchBook • Geography: Global • As of September 30, 2024

Risks

Although consolidating DevOps solutions may appear to be low-hanging fruit for major incumbents, many of today's solutions seek to solve overlapping or redundant use cases. While there may be some notable M&A within DevOps in 2025, there could very well be a lack of truly unique solutions among startups compared with the in-house developments already being produced by today's incumbents. The build-versus-buy argument will ultimately be determined by the ability of these incumbents to develop their own solutions and whether that may entail pursuing the more expensive route of purchasing many smaller players. This is highlighted by the median VC pre-money valuation for these deals, which was $69 million, the second highest among the four infrastructure SaaS segments. Acquiring startups and integrating their technologies can be costly and complex, with no guarantee of success. Cultural clashes, integration difficulties, and the potential for customer attrition during transitions can erode the value of acquisitions.

2024 outlook

Infrastructure investment will be driven higher by data software & systems, as enterprises seek to capture and monetize their data like never before.

Outcome

Data software & systems indeed saw the highest level of investment of our four segments with $4.1 billion invested over the 12 months ended September 30, 2024. This segment was followed closely by DevOps (3.4% less at $4 billion) and application infrastructure (27% less at $3 billion). Data software & systems was the most consistent investment over the past four quarters, with the highest average deal value of $37.1 million over 111 deals. Meanwhile, the other major infrastructure SaaS segments were bolstered by singular megadeals of hundreds of millions or single-digit billions, which were less representative of broader investment in each segment.

Robert Le
Senior Analyst, Emerging Technology
robert.le@pitchbook.com

INSURTECH

Outlook: Vertical integration will gain significant traction, with more companies adopting Tesla-style models that align product, insurance, and servicing under a single platform.

Rationale

Vertical integration within the insurance industry has begun to increase over the past year as companies seek to differentiate in a competitive market while addressing consumer demands for seamless experiences. In Q2 2024, Assurant acquired iSmash, a UK-based tech repair brand to integrate repair services with device insurance. Assurant created an end-to-end solution for customers who need rapid repair or replacement of insured electronics. This approach allows the company to more efficiently manage the claims process, reduce third-party repair costs, and ensure consistent service quality. Assurant's approach mirrors the successful strategies of those in other industries, such as Tesla, which integrates its vehicle manufacturing with insurance and servicing to provide a seamless customer experience.

Similar trends have long been evident in the health insurance sector, where companies such as UnitedHealth Group and Aetna have successfully pursued vertical integration to streamline healthcare delivery and insurance. For instance, UnitedHealth's acquisition of Optum brought healthcare providers and insurers under one umbrella, enabling better care coordination and risk management, while Aetna's merger with CVS Health created a cohesive ecosystem that combines insurance, pharmacy services, and retail healthcare. These examples underscore the potential of vertical integration to improve underwriting, increase operational efficiency, open new distribution channels, and enhance customer satisfaction.

In 2025, we expect greater vertical integration in home products or services, where insurance companies could partner with or acquire smart device manufacturers to bundle insurance policies with Internet of Things-enabled monitoring and repair services. For example, a homeowner's flood policy could include coverage for water damage paired with leak-detection sensors that trigger automatic dispatch of repair services. A market example is State Farm's $1.2 billion investment in ADT in 2022, which led to the home security monitoring service offering State Farm home insurance with its service, including premium discounts.

Similarly, we expect auto insurance companies to announce new partnerships to integrate with electric vehicle manufacturers or ride-hailing platforms to provide comprehensive coverage that includes usage-based insurance, dynamic pricing, and maintenance services. A market example of this is Uber's partnership with commercial insurance startup INSHUR in 2023, which offered on-demand deliverers and drivers access to insurance, flexible pricing, and an improved claims experience.

In wearables, insurance companies could vertically integrate with wearable technology providers or develop proprietary devices such as smartwatches or fitness trackers to offer policies tailored to real-time health data. Such integrations would not only enable insurtech companies to differentiate by delivering personalized, behavior-based pricing but also enhance their ability to proactively manage risks. By leveraging data from wearables, insurers could incentivize healthier lifestyles, predict potential health issues, and streamline claims processes, creating a more dynamic and efficient insurance model. A market example is life insurer John Hancock partnering with ŌURA to integrate the Oura Ring into its Vitality Program, offering customers personalized health data to encourage healthy habits.

The benefits of vertical integration are clear: By owning more of the insurance value chain, insurers can reduce costs by minimizing reliance on third-party service providers (brokers and agents, for example), improve customer loyalty through better service quality, and leverage data insights from partners for more accurate underwriting and pricing. We expect vertical integration to increase in 2025 as insurers aim to capture greater control over the customer journey and unlock new revenue streams. This shift will also enable insurers to respond more effectively to complex risks, offering customized solutions while streamlining processes to meet growing demands for transparency and efficiency.

Risks

Despite its promise, vertical integration poses significant challenges. Combining insurance with products or services often involves the collection and analysis of large amounts of customer data, raising concerns about privacy and regulatory compliance. For instance, programs such as General Motors' OnStar Smart Driver have faced criticism for sharing driving data with insurers, illustrating the need for transparency and consumer trust in vertically integrated models. Furthermore, the complexity of integrating operations across segments may lead to execution challenges, cultural mismatches, or inefficiencies, particularly during the initial stages of implementation. These challenges may slow new partnership announcements in 2025.

2024 outlook

Insurtech investments across VC and M&A will increase, driven by incumbent capital deployment.

Outcome

Our prediction did not materialize. While incumbents such as State Farm and Munich Re participated in select VC rounds, overall VC investment in insurtech remained subdued, reflecting broader market caution and a continued focus on profitability over growth. M&A activity was particularly minimal, as regulatory concerns and economic uncertainty made large-scale acquisitions less attractive. Many incumbents opted for smaller strategic partnerships or internal innovation initiatives rather than pursuing costly acquisitions, highlighting a shift toward risk-averse strategies during a challenging macroeconomic environment.

Analyst Q&A

Which subsegment of your coverage is the most underappreciated by investors?

Enterprise fintech	Data analytics	Infosec	AI & ML	Enterprise SaaS	Infrastructure SaaS	Crypto	Insurtech
							
CFO stack: There is a lot of innovation beyond expense management in areas such as payroll and tax.	Unstructured data analytics: New schemata for novel datasets in fields such as audio, images, and video contribute to a subsegment forecast to grow 40% per year over the next three years to a $50 billion market.	Data protection & encryption: Databases face new risks from GenAI agents and quantum algorithms. The category recently produced 2024's top exit in Rubrik.	AI agents are much hyped, but companies building tooling for them have faced low valuations that do not reflect the size of the developer community building agents.	Analytic platforms have received less attention across enterprise software as AI-driven solutions shift to activities and workflow.	Networking software continues to be underappreciated as increasingly complex demands are made of these solutions.	Applications serving retail or business users: The untapped potential lies in strong network effects, recurring revenues, and the ability to onboard users into the broader crypto ecosystem.	Cyber insurance: With AI's rapid growth, attack surfaces and potential vulnerabilities expand. This leads to more sophisticated threats and unique risk vectors, creating an opportunity for coverage innovation and growth.

Which incumbent/legacy providers face the most risk of disruption?

Enterprise fintech	Data analytics	Infosec	AI & ML	Enterprise SaaS	Infrastructure SaaS	Crypto	Insurtech
							
Core banking: Several next-gen providers play in the space and offer modern cores that threaten to provide greater speed, flexibility, and efficiency.	Modern data stack vendors that specialize in only one of the subsegments in our data infrastructure segment are rapidly becoming legacy providers as integrations between the data storage and compute layers enable end-to-end analytics and data governance.	Managed security service providers without proprietary software face disruption from managed detection & response and endpoint security vendors.	Professional services firms are exposed to automation trends from new data-driven AI development. Bespoke services can be replicated by GenAI applications.	Many CRM incumbents have grown costly, inflexible, and increasingly unwieldy. This creates an opportunity for modern composable approaches.	Traditional, on-premises software models continue to be a point of weakness for incumbent infrastructure vendors.	Traditional banks and payment service providers face disruption from crypto—especially stablecoins—due to faster, cheaper transactions and DeFi alternatives.	Traditional health insurers face the most disruption. Vertical integration, tech-driven players, and changing care models are reshaping insurance dynamics.

Which one or two seed-stage startups should Series A investors pay attention to?

Enterprise fintech	Data analytics	Infosec	AI & ML	Enterprise SaaS	Infrastructure SaaS	Crypto	Insurtech
							
Skyfire is building out the infrastructure for AI agent payments. Casca, an AI agent for banking automation, continues to gain traction.	Brighthive has developed AI agents that unify disparate unstructured data sources and automate multiple steps of the data transformation lifecycle with a conversational interface. The company is currently raising a Series A.	MIND raised a seed round from leading specialist investors to bring a novel data detection & response solution to market. This category has produced an M&A wave and supported Rubrik's IPO.	AgentOps raised a pre-seed round to ship popular open-source LLM agent developer tools. The company works closely with the LLM developer community.	H Company develops AI multi-agent models. Experience.com is an experience management platform for driving employee behavior.	Dnotitia develops a cloud and on-device LLM in South Korea. Zero Gravity develops a Web3 modular infrastructure platform.	Lantern Finance is positioned to fill the void left by Celsius and BlockFi with regulated, risk-managed centralized finance lending. With massive user demand already proven, Lantern offers a safer, scalable solution.	Armilla AI provides AI model verification and compliance, offering warranties to mitigate risk, which is crucial for enterprises adopting AI in regulated and high-risk sectors.

Which one or two Series A companies should Series B and C investors pay attention to?

Enterprise fintech	Data analytics	Infosec	AI & ML	Enterprise SaaS	Infrastructure SaaS	Crypto	Insurtech
							
Rainforest is a Stripe competitor targeting SaaS companies for embedded payments. Stitch is building out payments infrastructure for South Africa.	DeltaStream recently raised a Series A to commercialize the Apache Flink project for real-time stream processing. Apache's Kafka project for streaming previously produced an outstanding outcome with Confluent, and DeltaStream is ahead in Flink support.	Protopia AI recently raised a Series A to train AI models with concealed data. The company can scale revenue with the size of AI models, aligning the company with open-source AI usage.	CrewAI enables AI agents based on multiple models to collaborate on complex tasks. The startup achieved traction among Fortune 500 companies.	DevRev, a unifying AI platform for support and product teams, and BuildOps, a single ERP/CRM/OPS platform for commercial contractors.	Baichuan AI, an OpenAI competitor being funded in China, and Together, a cloud platform providing a decentralized interface for AI.	Fnality is disrupting wholesale payments with blockchain-based, central-bank-backed solutions, bridging traditional finance and DeFi.	Re is a decentralized platform connecting risk with capital, creating efficient, transparent reinsurance transactions that reduce barriers and friction in traditional reinsurance markets.

If you were to select only three subsectors from your coverage to invest in, which subsectors would you choose?

Enterprise fintech	Data analytics	Infosec	AI & ML	Enterprise SaaS	Infrastructure SaaS	Crypto	Insurtech
							
CFO stack, financial services infrastructure, and payments.	Database management systems, unstructured data analytics, and business intelligence offer the largest addressable markets.	Mega-exits have yet to occur for pure-play infosec startups in AI protection, cloud workload protection, and DevOps security.	Investors can gain access to the greatest platform shift in technology history by selecting investments among GPU cloud, foundation models, and AI semiconductors.	CRM sales, ERP human capital management, and AP analytics & business intelligence platforms.	Full-service DevOps, application infrastructure, and data management software.	DePIN & hardware, content & social, and onboarding & payments.	Cyber insurance, infrastructure & APIs, and claims & settlement.