PitchBook

EMERGING TECH RESEARCH

Cloudtech: DevOps

Q2 2021 VC Update

Contents

Institutional Research Group

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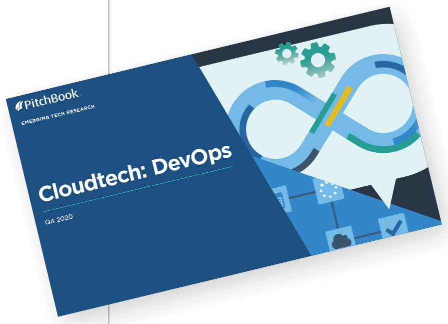


This Emerging Technology Research report is updated on a quarterly basis to reflect changes in venture capital deal activity and other market related updates deemed valuable by the research analyst. Readers can gain access to the previous quarterly report **here**.

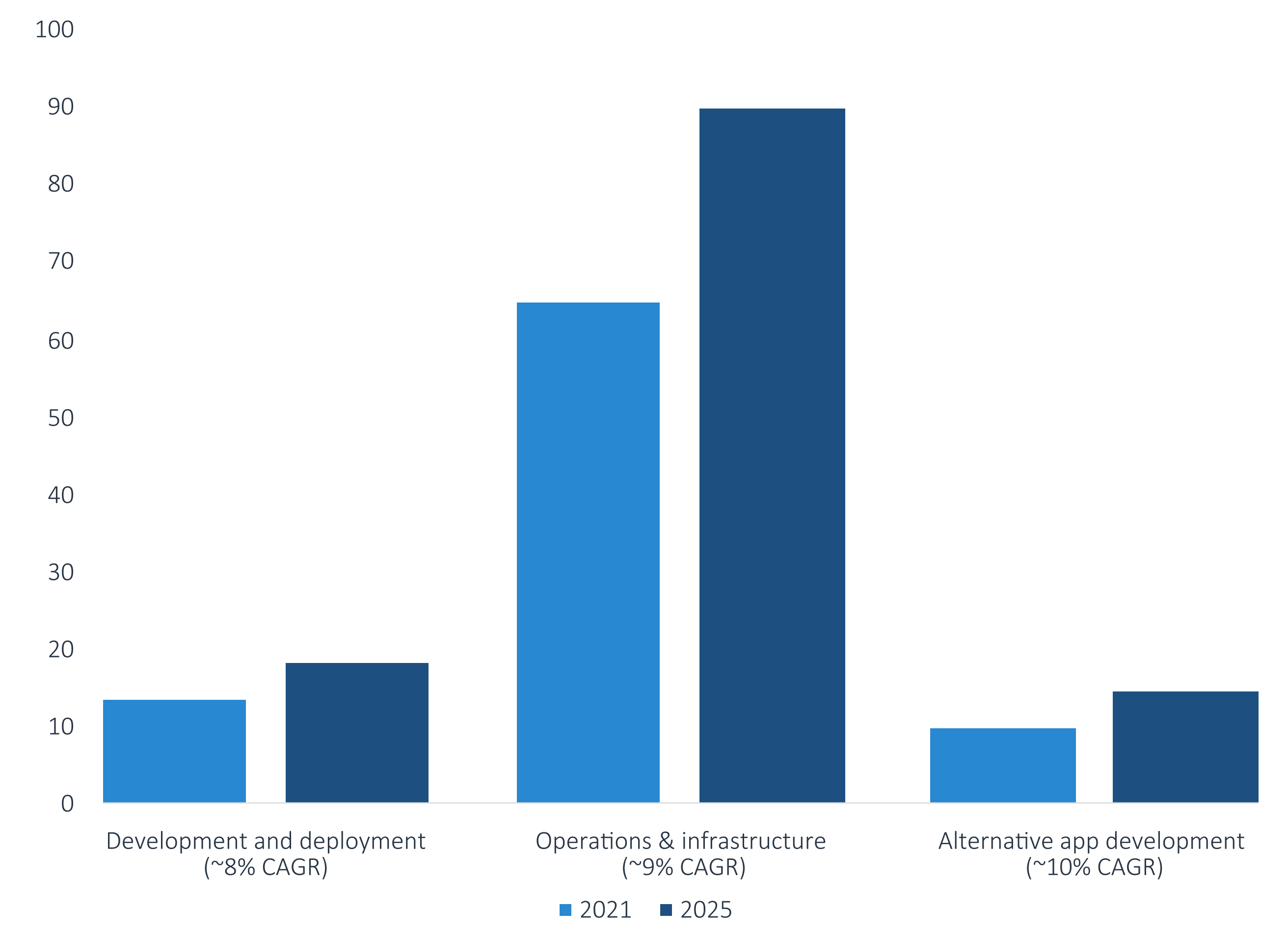
Vertical overview

The Cloudtech and DevOps vertical primarily includes digital products and tools used by developer and operations teams to build, operate, and maintain software and IT infrastructure. Emerging technologies and changing organizational approaches to software development are causing developer and operations functions to converge, giving rise to the “DevOps” movement. According to several industry surveys, successful DevOps implementation can improve an organization’s digital transformation strategy and production processes. As a result, enterprises are investing more aggressively in DevOps capabilities.

The fast pace of digital innovation has kept pressure on businesses to invest in digital capabilities, including organizational efforts to improve front-end customer software and automated systems to streamline internal processes. Cloud-native and hybrid cloud technologies have enabled many of these strategies, creating myriad new opportunities—but also challenges—for organizations. DevOps startups are creating tools and platforms as well as low-code and robotic process automation that can improve how DevOps teams manage and harness the potential of the cloud.

We estimate the market size of DevOps software to be in the range of $88 billion and growing in the high single digits rate. A large part of this market (roughly 75%) represents spend on operations and infrastructure software, much of which represents legacy on-premises solutions that are losing share to cloud infrastructure spend (itself an $80.0 billion market), which is growing closer to 30%. We estimate the market for developer tools and software to be around $13 billion (roughly 15% of the total)—also growing in the high-single digits rate. Alternative app development represents the remaining 10% of the market and is growing in the 10% range. We have limited our DevOps landscape to startups focused on software development, maintenance, and operation. Startups focused on opportunities related to data, storage, networking, and the provision of compute resources are not included in this overview.

Figure 1. DEVOPS MARKET SIZE BY SEGMENT



Source: PitchBook Emerging Tech Research | Geography: Global | *As of June 30, 2021

Q2 2021 timeline

VC DEAL

April 28, 2021
MessageBird closes $1.0 billion Series C, achieving a $3.8 billion valuation. This represents the largest deal recorded in the vertical in recent years. Dutch company **MessageBird** provides an API-based communication platform and spent $600.0 million of the raise to acquire US-based Sparkpost.

VC DEAL

April 28, 2021
Alchemy closes $80.0 million Series B, attaining a $440.0 million valuation and representing a 6x step-up valuation. The deal highlights the growing adoption of developer API-platforms focused on blockchain and DeFi use-cases.

VC DEAL

June **16, 2021**
BrowserStack closes $200.0 million Series B, achieves $3.8 billion valuation. A record for an India-based startup and validation of the growing market for automated software testing platforms with any-browser/any-device capabilities.

Apr 1 | May 1 | June 1 | July 1

IPO

April 21, 2021
UiPath (NYSE: PATH) completes IPO with $28.0 billion in exit value. The company is a leader in the RPA space with 30%+ revenue growth, benefiting from enterprise demand for easy-to-use process automation tools that can address legacy technology infrastructure.

M&A

April 29, 2021
IBM (NYSE: IBM) announces it will acquire **Turbonomic** for $1.75 billion (closed in June). The deal enhances **IBM**'s AI-powered operations management offerings (AIOps). **IBM** has made a series of recent acquisitions in the application automation and infrastructure space including **Instana** and myInvenio.

Q2 DEAL COUNT SUMMARY

79
total deals

$4.0B
Total raised

14.6%
QoQ deal value growth

6.8%
QoQ deal count growth

Q2 DEAL VALUE SUMMARY

299.9%
YoY growth in deal value

29.5%
YoY growth in deal count

230.8%
YTD growth in deal value (exc. Q1 2021)

DevOps VC ecosystem market map

Click to view interactive market map on the PitchBook platform

Market map is a representative overview of venture-backed or growth-stage providers in each segment. Companies listed have received venture capital or other notable private investments.

Development and deployment

Design and collaborate

planview, InVision, productboard, miro, Abstract, Clubhouse, zeroheight, Marvel, cycloid, Treno, Orbit, Linear, Software, LottieFiles, lokalise, taskade, anima, edify, parabeac, botany.io, Duckly, blossom, favro.

Developer platforms and IDEs

CODER, InfStones, Glitch, replit, dark, beacon, kite, loom.ai, Ionic, teamlabs., Tilt, Room Service, CODE OCEAN, CodeSandbox, ALTOSTRA, okteto, Viro Media, serenade, NUXTJS

Testing and code review

BrowserStack, UserTesting, SAUCELABS, UserZoom, Testin云测, Secure Code Warrior, cypress, rainforest, apiiro, Lightrun, diffblue, functionize, mabl, Katalon, UP9

Testing and code review (cont.)

sonarsource, Gremlin, LAMBDATEST, Kobiton, test.ai, SeaLights, EVINCED, testlio, Rollbar, maze, CODACY, ROOKOUT, datree.io, Global App Testing, waldo, meshdynamics, CHAOSIQ, AppQuality, TestingTime, QualityClouds, SPEEDSCALE, Code Intelligence, FUZZBUZZ, embold, deepsource, pulselabs, Meeshkan, Virtuoso, Muuk Test, retest, testsigma, symflower, D-RisQ Software Systems, asayer

Workflow integration

circleci, Sourcegraph, LaunchDarkly, split, Transposit, harness, jama software, Vercel, CloudBees, armory, TIDELIFT, appviewX, bitrise, OPSERA, ATOMIST, tackle.io, codefresh

API development

snapLogic, apigee, workato, Kong, RapidAPI, ably, Jitterbit, PubNub, Anyscale

API development (cont.)

RevenueCat, HASURA, Stoplight, check, Magic, QuickNode, stream, alef, Buf, Productfy, strapi, StepZen, Patch, CROSSCUT, kumulos, blobr, echoAR, PowerUser.ai, droplit

Alternative app development

Low code platforms

AUTOMATTIC, Airtable, outsystems, airkit, unqork, webflow, bubble, Retool, VANTIQ, EasySend, JOURNEYAPPS, openasapp, UNSTACK, nutshell, tapcart, Gatsby, DSP Concepts, Observable, Stacker, Internal, HYDROGEN, appify, Landbot, Adalo, intuiface, CROWD MACHINE, WayScript, HEX, alloy, Olympe, glide., Onymos, builder, y42, Dapp Hero, appboxo, fliplet, budibase, Allcancode

Alternative app development

Infrastructure management

AUTOMATION ANYWHERE, WorkFusion, CAMUNDA, BRYTER, CYCLONE, ProcessMaker, stradigi, KRYON, 云扩科技 ENCOO, indico, DeepSee, evoluteiq, ANTWORKS, ElectroNeek, Turbotic, 格创东智 GETECH.CN, PARABOLA, autologyx, TAILENT, MOST Digital, maxatta, Robocorp, DIGITAL WORKFORCE, 金智维 KINGSWARE, 实在智能, Rows, zeitworks, Roots Automation, CHOICEWORX, workist, ROCKETBOT

AI/ML applications

HIVE, faculty, ELEMENTL, AI DYNAMICS INC., DOMINO, dotData, aito, Weights & Biases, FRITZ AI, WHYLABS, Onepanel

DevOps VC ecosystem market map

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Market map is a representative overview of venture-backed or growth-stage providers in each segment. Companies listed have received venture capital or other notable private investments.

Operations and infrastructure

Observability

sysdig, nexthink, QuantumMetric, fullstory, logz.io, moogsoft, ScienceLogic, SENTRY, Coralogix, TIGERA, controlUp, Grafana Labs, 听云 TINGYUN, bigpanda, virtana, logdna, zenoss Own IT, NETDATA

Cloud management

LeanIX, CloudHealth by vmware, Workspot., 驻云科技, 安畅网络 Anchnet, OKERA, env0, ZERO STACK, Quali, CloudBolt, vendr, Stacklet, CORESTACK, iQuate, itopia, CLOUDZERO, Vega, BetterCloud, Densify, yotascale, Pliant, {disrupt:Ops}, JetStream Software, openstack, SCALR, render, Jelastic, CloudNatix, replex, MontyCloud, zluri, taloflow, ternary

Infrastructure management

HashiCorp, docker, MIRANTIS, COPADO, netlify, PLATFORM9, ionir, weaveworks, puppet, REPLICATED, Pulumi, Temporal, serverless, spectro cloud, Macrometa, opsani, upbound, RAFAY, slim.ai, TRIGGERMESH, CLOUDIFY, CLOUDTRUTH, SPACELIFT, KONTAIN, artifakt, webiny, Qovery, exotanium, 8base, nimbella, bunnyshell, serverless stack, CLOUD 66, codeherent, fission, Frontline, mimik

Operations mgmt and AIOps

skykick, unravel, JELLYFISH, FireHydrant, SHORELINE, OKAY, Peritus.ai, OpsRamp, UINO 优诺, 必示 BIZSEER, stepsize, FAROS, SEDAI, BLAMELESS, StackPulse

Integration software

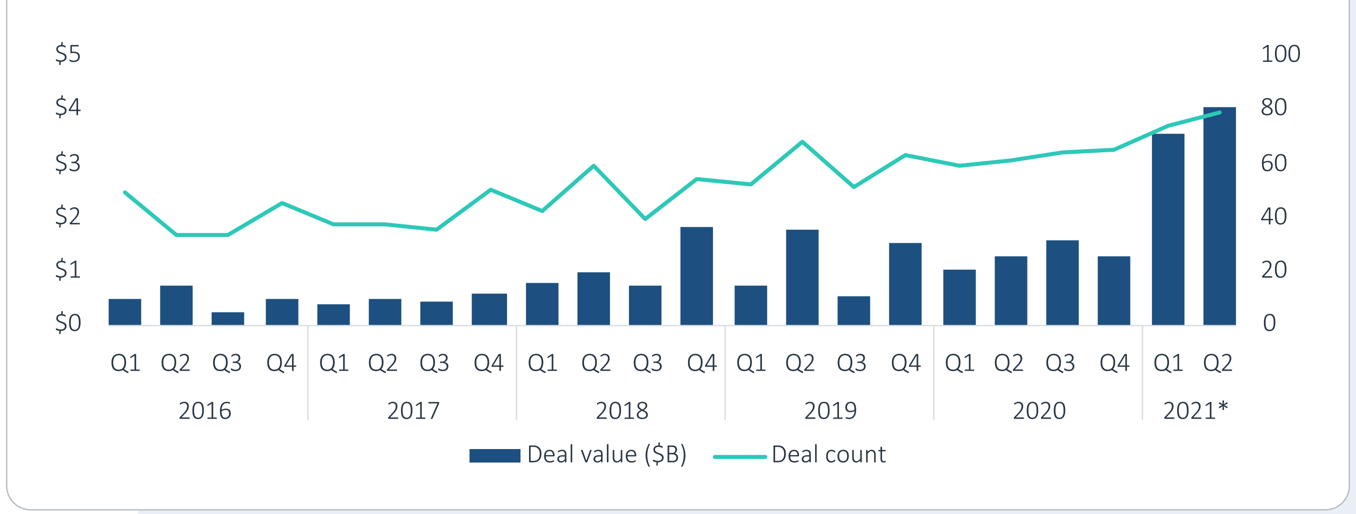
tray.io, OpenLegacy, Tyk, Integry, CYCLR, zapier, TakeShape, ubio, BOS, acho

VC activity

In Q2 2021, we recorded 79 Cloudtech and DevOps deals worth $4.0 billion, up from $3.5 billion across 74 deals in Q1. The largest deals were led by development & deployment-related startups, with several late-stage $100+ million deals, reflecting the overall surge in late-stage pre-money valuations, which are averaging $430 million in 2021 to date. This included a $1.0 billion Series C for **MessageBird**, which provides a set of APIs that enable organizations to build and integrate client communications channels; a $425.0 million Series D for financial API platform **Plaid**; a $200.0 million deal for India-based **BrowserStack**, a testing startup that helps developers test across browsers at scale; and a $200.0 million Series E for **Figma**, which benefits from trends in remote work and collaboration (and achieves a $10.0 billion valuation). Within our segment for alternative app development, **Neo4j** closed a $325.0 million round as graph database technology becomes increasingly relevant for AI-based app development. **Sysdig**, a company that focuses on securing containers and cloud-native infrastructure, closed the largest operations & infrastructure deal—a $180.0 million Series F—achieving unicorn status and highlighting strong demand for Kubernetes security solutions. The company has since announced its intention to acquire **Apolicy**, a startup that develops "policy as code" for cloud-native infrastructure.

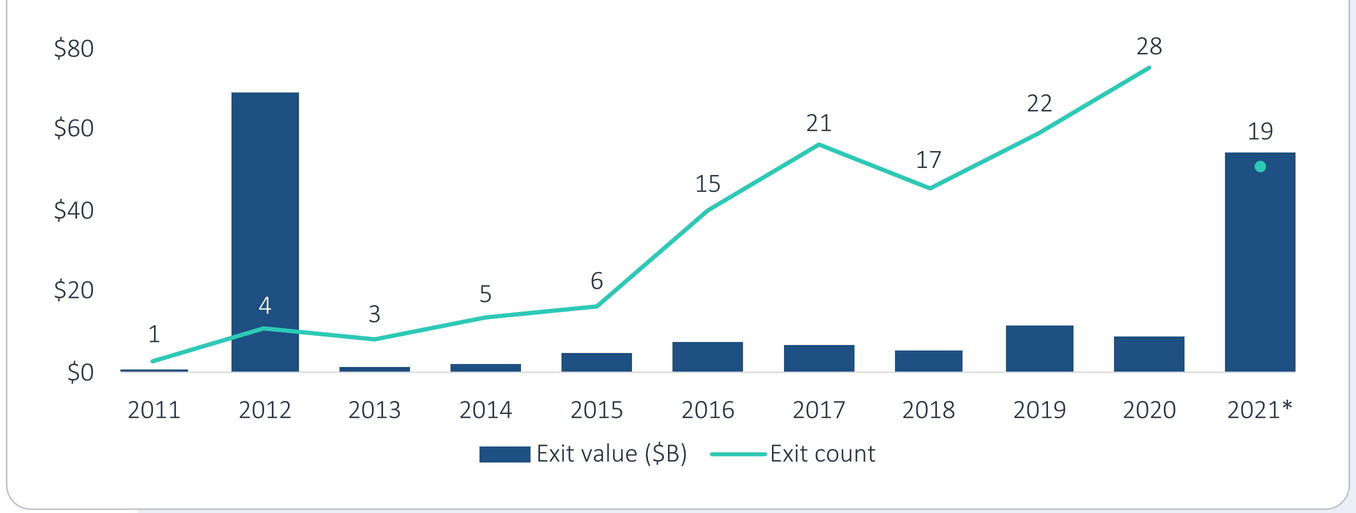
Exit activity was relatively stable in terms of deal count, but deal value was dominated by the IPO of **UiPath**, which achieved an exit value of $27.7 billion. While not strictly used by DevOps teams, we nonetheless view **UiPath** as riding the wave of digital transformation and organizations seeking relatively low-lift ways to modernize and automate IT-related operational processes. **Confluent** (NASDAQ: CFLT) also completed an $8.3 billion IPO in the quarter, as the company's data and application integration platform has proved to be popular among developers. M&A deals included the $1.8 billion acquisition of **Turbonomic** by **IBM** (NYSE: IBM) to boost its capabilities related to AIOps—an increasingly relevant approach to smart infrastructure management.

Figure 2. **DEVOPS QUARTERLY VC DEAL ACTIVITY**



Source: PitchBook | Geography: Global | *As of June 30, 2021

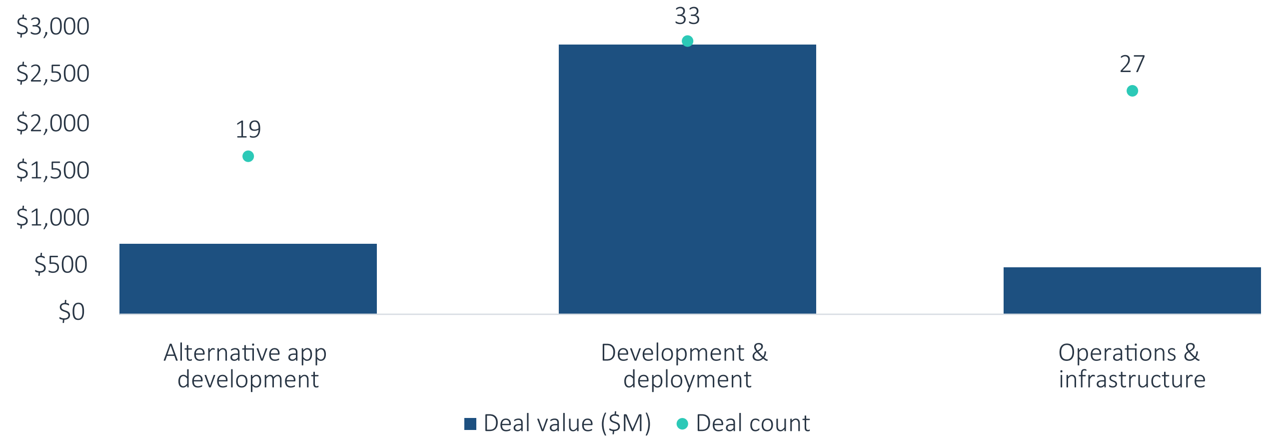
Figure 2. **DEVOPS VC EXIT ACTIVITY**



Source: PitchBook | Geography: Global | *As of June 30, 2021

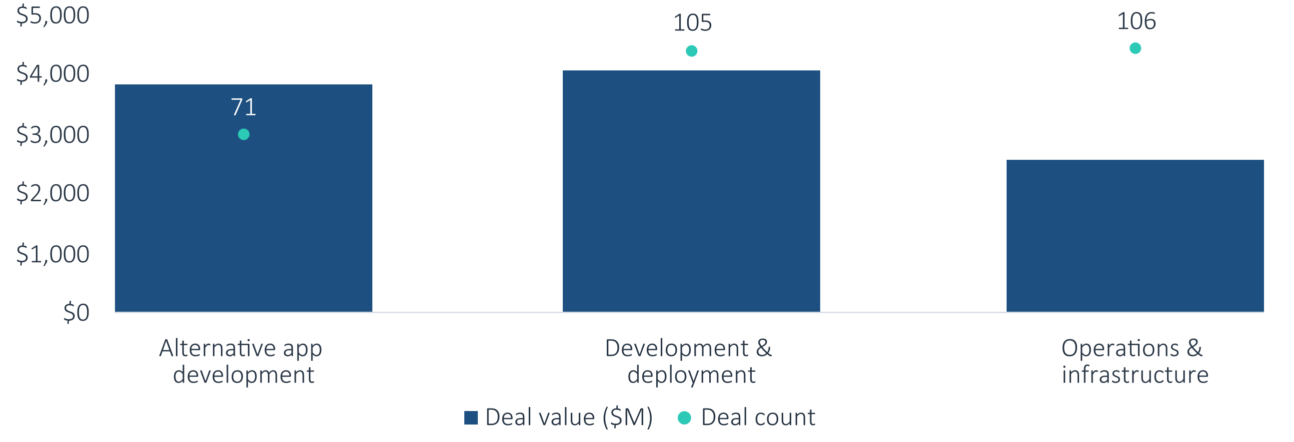
VC ACTIVITY

Figure 3. DEVOPS VC DEAL ACTIVITY BY SUBSEGMENT



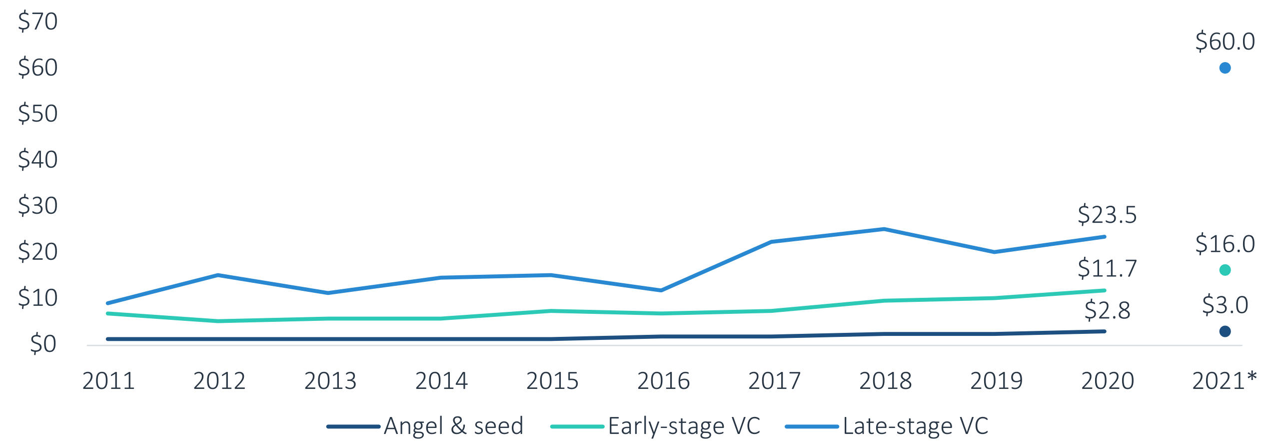
Source: PitchBook | Geography: Global | *As of June 30, 2021

Figure 4. DEVOPS TTM DEAL ACTIVITY BY SUBSEGMENT



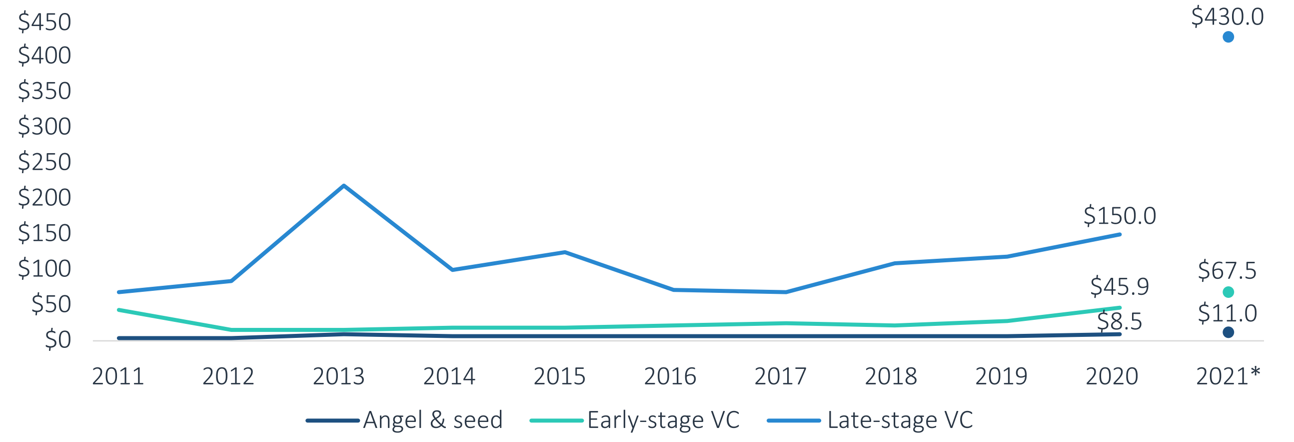
Source: PitchBook | Geography: Global | *As of June 30, 2021

Figure 5. MEDIAN DEVOPS VC DEAL SIZE ($M) BY STAGE



Source: PitchBook | Geography: Global | *As of June 30, 2021

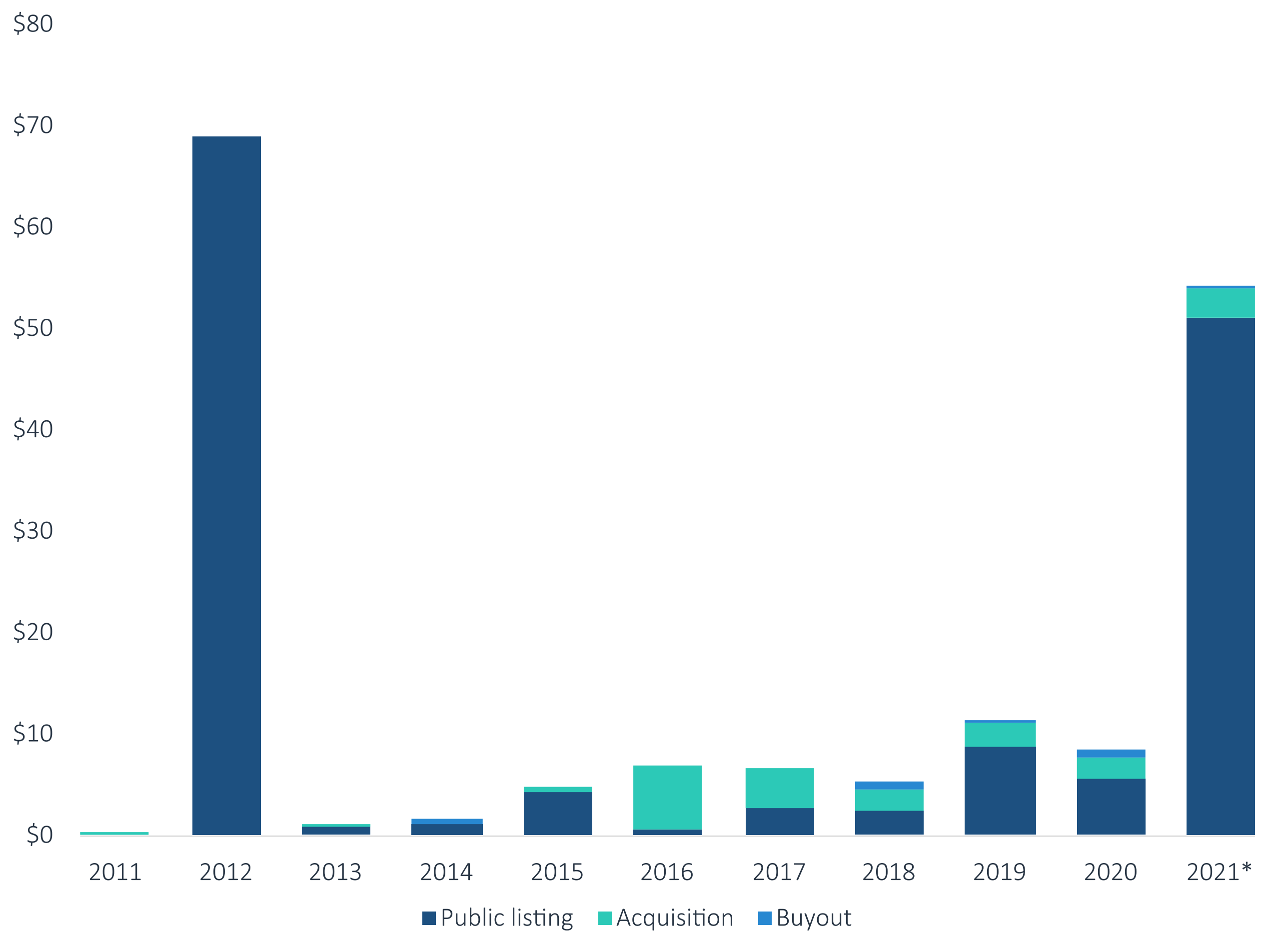
Figure 6. MEDIAN DEVOPS VC PRE-MONEY VALUATION ($M) BY STAGE



Source: PitchBook | Geography: Global | *As of June 30, 2021

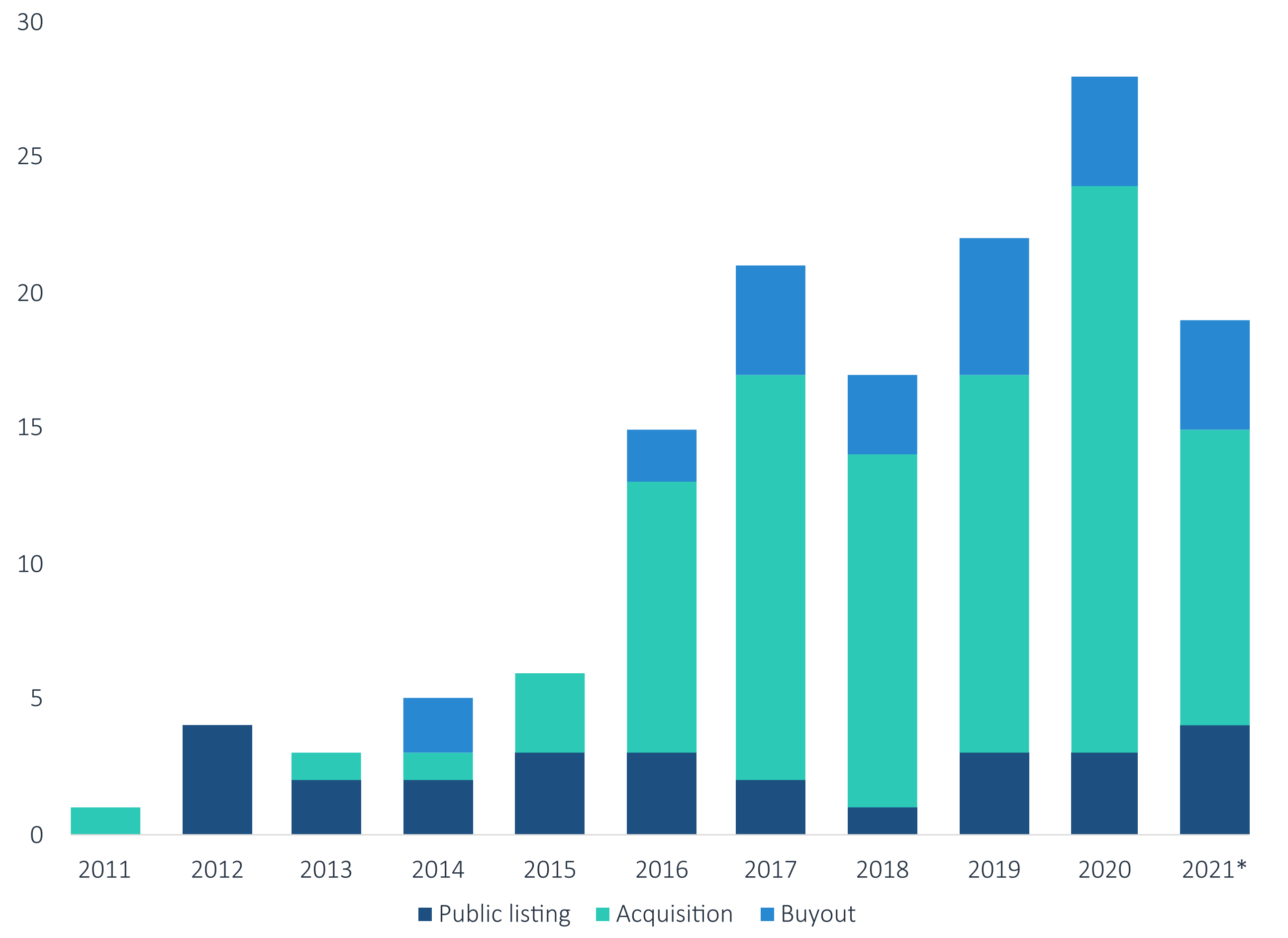
VC ACTIVITY

Figure 7. **VC EXIT VALUE ($B) BY TYPE**



Source: PitchBook Emerging Tech Research | Geography: Global | *As of June 30, 2021

Figure 8. **VC EXIT COUNT BY TYPE**



Source: PitchBook Emerging Tech Research | Geography: Global | *As of June 30, 2021

Figure 9.

Key early-stage deals*

COMPANY	CLOSE DATE	SUBSEGMENT	STAGE	DEAL SIZE ($M)	LEAD INVESTOR(S)	VALUATION STEP-UP
Tapcart	June 28, 2021	Alternative app development	Series B	$50.0	Left Lane Capital	N/A
Salto	May 19, 2021	Development & deployment	Series B	$42.0	Accel	N/A
Airkit	May 11, 2021	Alternative app development	Series B	$40.0	EQT Ventures	N/A
RevenueCat	May 27, 2021	Development & deployment	Series B	$40.0	Y Combinator	N/A
Streamlit	April 7, 2021	Alternative app development	Series B	$35.0	Sequoia Capital	N/A
Blameless	April 1, 2021	Operations & infrastructure	Series B	$30.0	N/A	N/A
Aleo	April 20, 2021	Development & deployment	Series A	$28.0	Andreessen Horowitz	N/A
Magic	May 1, 2021	Development & deployment	Series A	$27.0	N/A	N/A
Lightrun	May 26, 2021	Development & deployment	Series A	$23.0	Insight Partners	N/A
FireHydrant	June 28, 2021	Operations & infrastructure	Series B	$23.0	Harmony Partners	N/A

Source: PitchBook | Geography: Global | *As of June 30, 2021

Figure 10.

Key late-stage deals*

COMPANY	CLOSE DATE	SUBSEGMENT	STAGE	DEAL SIZE ($M)	LEAD INVESTOR(S)	VALUATION STEP-UP
MessageBird	April 28, 2021	Development & deployment	Series C	$1,000.0	Spark Capital	N/A
Plaid	April 15, 2021	Development & deployment	Series D	$425.0	Altimeter Capital Management	N/A
Neo4j	June 17, 2021	Alternative app development	Series F	$325.0	Eurazeo	N/A
BrowserStack	June 16, 2021	Development & deployment	Series B	$200.0	Bond Capital	N/A
Figma	June 24, 2021	Development & deployment	Series E	$200.0	Durable Capital Partners	N/A
Sysdig	April 19, 2021	Operations & infrastructure	Series F	$188.0	Third Point Ventures, Premji Invest	N/A
Nylas	June 17, 2021	Development & deployment	Series C	$120.0	Tiger Global Management	N/A
Vercel	May 18, 2021	Development & deployment	Series C	$102.0	Bedrock	N/A
UserZoom	April 15, 2021	Development & deployment	Series B	$100.0	Owl Rock Capital Group	N/A
CircleCI	May 5, 2021	Development & deployment	Series F	$100.0	Greenspring Associates	N/A

Source: PitchBook | Geography: Global | *As of June 30, 2021

VC ACTIVITY

Figure 11.

Key VC exits*

COMPANY	CLOSE DATE	SUBSEGMENT	EXIT SIZE	EXIT TYPE	ACQUIRER(S)/INDEX	POST-MONEY VALUATION ($M)	VALUATION STEP-UP
UiPath	April 21, 2021	Alternative app development	$27,746.5	Public listing	N/A	$29,084.4	0.79x
Confluent	June 24, 2021	Operations & infrastructure	$8,257.2	Public listing	N/A	$9,085.2	1.83x
Turbonomic	June 17, 2021	Operations & infrastructure	$1,750.0	Acquisition	International Business Machines	$1,750.0	1.82x
Tasktop Group	April 8, 2021	Development & deployment	$151.8	Buyout	Sumeru Equity Partners	$151.8	N/A
Sensu	June 10, 2021	Operations & infrastructure	$22.5	Acquisition	Sumo Logic	$22.5	0.75x
Vamp	May 5, 2021	Operations & infrastructure	N/A	Acquisition	CircleCI	N/A	N/A
Bugsnag	May 18, 2021	Operations & infrastructure	N/A	Buyout	Vista Equity Partners, Francisco Partners SmartBear	N/A	N/A
Ayehu	June 10, 2021	Operations & infrastructure	N/A	Buyout	Resolve Systems, Insight Partners	N/A	N/A

Source: PitchBook | Geography: Global | *As of June 30, 2021

Figure 12.

Top strategic acquirers of DevOps companies since 2017*

INVESTOR	DEAL COUNT	INVESTOR TYPE
SmartBear	5	PE-backed company
VMware	4	Corporation
International Business Machines	3	Corporation
CloudBees	3	VC-backed company
Digital.ai	3	PE-backed company
Atlassian	3	Corporation
Splunk	3	Corporation
New Relic	3	Corporation
Tricentis	3	VC-backed company
Perforce Software	3	PE-backed company

Source: PitchBook | Geography: Global | *As of June 30, 2021

VC ACTIVITY

Figure 13.

Top VC investors in DevOps companies since 2017*

INVESTOR	DEAL COUNT	ANGEL & SEED	EARLY-STAGE VC	LATE-STAGE VC	INVESTOR TYPE
Accel	62	6	24	32	VC
Index Ventures	35	6	12	17	VC
Sequoia Capital	31	4	9	18	VC
Andreessen Horowitz	31	5	8	18	VC
Lightspeed Venture Partners	27	7	14	6	VC

Source: PitchBook | Geography: Global | *As of June 30, 2021

Figure 14.

Key VC-backed companies

COMPANY	VC RAISED TO DATE*	SUBSEGMENT	CATEGORY
Automattic	$846.3	Alternative app development	Low code platforms
Neo4j	$515.7	Alternative app development	AI/ML applications
MessageBird	$1,100.0	Development & deployment	API development
Plaid	$734.3	Development & deployment	API development
WorkFusion	$341.1	Alternative app development	RPA & process automation
Airtable	$617.6	Alternative app development	Low code platforms
Vega Cloud	$253.3	Operations & infrastructure	Cloud management
BrowserStack	$250.0	Development & deployment	Testing & code review
Figma	$332.9	Development & deployment	Design and collaborate
Unqork	$416.3	Alternative app development	Low code platforms

Source: PitchBook | Geography: Global | *As of June 30, 2021

Emerging opportunities

GitOps

The rise of container adoption is driving more management complexity. GitOps has emerged as one approach to help scale the use of containers, but it remains relatively nascent.

GitOps

Growing container adoption could drive GitOps adoption—although it's still early

Emerging tools related to GitOps could attract more venture capital as the practice slowly gains adoption among DevOps teams. While the phrase "GitOps" is sometimes viewed as marketing hype, it represents a set of processes that help automate the integration and delivery of software by using Git as the central storage repository for both application and infrastructure code, specifically for Kubernetes (i.e., container) related management. GitOps expands the scope of developer functions to include more operations-related infrastructure management and reflects how the DevOps community is devising new approaches to solving the complexities arising from the increased use of Kubernetes to manage container infrastructure. Advantages of successful GitOps practices include better auditability and increased observability in ways that can help scale continuous integration processes for configuration and infrastructure management. Key risks include a relatively smaller user community, complexity of implementation, and risk of obsolescence from competing approaches.

As GitOps is based on the open-source Git repository, providers focused on enterprise versions related to Git (GitLab, GitHub, and BitBucket) are well positioned. A requirement of GitOps is the need for a software agent that can constantly reconcile code in Git with code in production. Open-source software Argo appears to be gaining traction as an effective software agent upon which enterprise offerings are being built. Startups promoting GitOps capabilities include **CodeFresh** (which raised a $27.0 million Series C in March) and **Weaveworks** (which raised a $36.7 million Series C last October), both of which seek to provide enterprise-grade dashboards that can help scale GitOps across multiple deployments with improved observability and control functions.

We believe the market for container management software is maturing but remains subject to rapid disruptions as new technologies emerge, primarily led by advancement in open-source software. Gartner sizes the delivery automation market at roughly $11 billion in 2021, and we believe container management is a key growth driver within this segment. The market faces strong competition from large cloud hyperscalers that can integrate delivery automation capabilities within broader cloud infrastructure offerings. While startups are key in helping enterprises avoid vendor lock-in, hyperscalers shine in making these complex technologies easier to use within existing workflows—an important value add for enterprises given the wide skills gap that exists in this area of technology.

About PitchBook Emerging Tech Research

Independent, objective and timely market intel

As the private markets continue to grow in complexity and competition, it's essential for investors to understand the industries, sectors and companies driving the asset class.

Our Emerging Tech Research provides detailed analysis of nascent tech sectors so you can better navigate the changing markets you operate in—and pursue new opportunities with confidence.

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