

IDC Innovators

IDC Innovators: DevOps Code Release Management Software Tools, 2018

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IDC INNOVATORS IN DEVOPS CODE RELEASE MANAGEMENT SOFTWARE TOOLS

Embracing a DevOps practice means an organization must dramatically accelerate its development practices, moving from a classic monolithic software design model to a more modular design point with clear delineations between software components. This approach allows organizations to life-cycle each portion of code individually, leading to a more rapid update process that can be measured in weeks, days, or even potentially in hours. The theoretical endgame is a true microservices design point, which may be practical for Google or Twitter, as well as more mainstream innovative companies that have made the investment. But this tends to be harder to achieve by enterprises that are only today transitioning from waterfall to agile processes.

Part of the agile development process means having code that is located in a shared repository, with the potential for numerous development versions to be active and iterated simultaneously, leading to a significant need for the kinds of code release management software tools provided by the vendors in this study (see Figures 1-4).

FIGURE 1

IDC Innovators in DevOps Code Release Management Software Tools, 2018

|  | | The vendors listed in this IDC Innovators study are considered key emerging vendors in code release management for DevOps practices. | |
|---|----------|--|--|
| DevOps Code Release Management Software Tools | | | |
| Company Name: | Founded: | Headquarters: | |
| Electric Cloud | 2002 | San Jose, California | |
| JFrog Ltd. | 2008 | Netanya, Israel, and Sunnyvale, California | |
| Shippable Inc. | 2013 | Seattle, Washington | |











Source: IDC, 2018

FIGURE 2

Electric Cloud

Why Electric Cloud Was Chosen as an IDC Innovator

Electric Cloud's products facilitate organizations' movement to a streamlined release process. The company says its products help organizations deliver better software faster by integrating and orchestrating their existing tools and processes.

| Company Name | | | |
|---|---|---|--|
|  Founded 2002 |  Number of Employees 100 |  Headquarters San Jose, California |  Number of Customers 100+ |
|  Product Name ElectricFlow |  Founders John Ousterhout and John Graham-Cumming | |  Typical Deal Size \$30,000 to \$250,000 |
|  Profiled Product/Service ElectricFlow |  Funding U.S. Venture Partners, RRE Ventures, Rembrandt Venture Partners, Mayfield Fund, and Siemens Venture Capital | |  Geographic Mix (% of Revenue by Major Region) 80% United States, 10% EMEA, and 10% APAC |

IDC Innovator Assessment

- ElectricFlow is a unified DevOps platform that streamlines how teams build, test, and release software.
- It offers the ability to orchestrate releases, manage environments and pipelines, and automate deployments for single or multiple components, applications, and microservices.
- It extends CI/CD from on-premises and cloud to legacy environments, including mainframe platforms.

Key Differentiator

ElectricFlow provides development teams with application release automation that emphasizes organizational and tool chain visibility and agility. This ensures that developer and deployment teams can easily adapt to and take advantage of new technologies and situations while decreasing the cost and risk of software release. ElectricFlow is designed to integrate with current and future tool chains and stacks, allowing teams to model their environments, pipelines, applications, and releases. This model-based approach allows orchestration of complex releases, deployment automation, and streamlined pipeline and environment management, while making work visible, compliant, and auditable. The price range for the company's products starts with team solutions at \$3,000/month, with larger enterprise implementations starting at \$150,000/year.

Challenges

Like other players in the crowded and fragmented DevOps tooling space, Electric Cloud faces a market where it works to differentiate itself as a key part of a larger DevOps tool chain. It has interesting cutting-edge technology such as advanced analytics and insights into release payload, status, and health, which may be more advanced than the needs of the average development shop today.









Source: IDC, 2018

FIGURE 3

JFrog

Why JFrog Was Chosen as an IDC Innovator

Artifact repositories are a key element of modern development environments; however, these same repositories can become cluttered with numerous versions of a project. JFrog's Artifactory product organizes local repositories to third-party repository content, ensuring that developers are accessing the correct versions of a given project while integrating with CI/CD systems and automating the software flow.

| Company Name | | | |
|---|---|--|---|
|  Founded 2008 |  Number of Employees 300 |  Headquarters Netanya, Israel, and Sunnyvale, California |  Number of Customers 4,000 |
|  Product Name JFrog Artifactory |  Founders Shlomi Ben Haim, Yoav Landman, and Fred Simon | | |
|  Profiled Product/Service JFrog's flagship product is a universal "artifact repository" management tool. |  Funding Series A: \$3.5 million, Series B: \$7 million, Series C: \$52 million from VMware, Scale Venture Partners, Dell Technologies Capital, Qumra Capital, Sapphire Ventures, Vintage Investments, Battery Ventures, and Gemini Israel Ventures | | |

IDC Innovator Assessment

- JFrog is a solution that can work with a variety of other CI/CD and DevOps products, and it empowers developers to share and store copies of code in a binary format across different infrastructures.
- JFrog has signed up numerous high-profile customers that speak to the value that its portfolio offers.
- JFrog is aggressively expanding its portfolio to complement Artifactory and made acquisitions to expand its portfolio, including Conan (a C/C++ package manager) and CloudMunch (a DevOps BI product).

Key Differentiator

JFrog has the ability to unify artifact repositories for all types of binaries while managing dependencies. The most mature product in its portfolio, Artifactory, has seen good adoption among large customers, and the company cites users such as Bank of America, Goldman Sachs, Visa, Facebook, Twitter, Twilio, Dell EMC, Google, Workday, Amazon, Netflix, Spotify, and Cisco among its installed base. The company has additional products that build the DevOps capabilities of Artifactory, with JFrog Xray (continuous security and impact analysis software), JFrog Bintray (universal distribution platform), and JFrog Mission Control (centralized multisite DevOps administrative management) rounding out its portfolio. JFrog's solution set is not only about the build and storage of binary artifacts but also about the distribution and management in ways that help organizations distribute and share software packages.

Challenges

The CI/CD and the development side of the DevOps market is still relatively fluid, with a substantial number of VC-backed start-ups selling a wide variety of products. There are efforts on the part of numerous vendors to stitch together a larger solution set but also integrate with other best-of-breed solutions. At some point, this market will begin to consolidate, and as that happens, there will be winners and losers.










Source: IDC, 2018

FIGURE 4

Shippable

Why Shippable Was Chosen as an IDC Innovator

Shippable specializes in continuous integration and continuous delivery, with a focus on integrating disparate DevOps tool chains into unified “assembly lines” of code.

| Company Name | | | |
|--|---|---|--|
|  Founded 2013 |  Number of Employees 30 |  Headquarters Seattle, Washington |  Number of Customers 300+ |
|  Product Name Shippable |  Founders Avi Cavale and Manisha Sahasrabudhe | | |
|  Profiled Product/ Service Shippable is a tool chain integration solution that can be used to tie multiple products together for a common CI environment. |  Funding Seed and Series A total: \$10.1 million |  Typical Deal Size \$5,000 to \$50,000 | |

IDC Innovator Assessment

- Tool chain collaboration is a focus for many organizations today that are seeking to integrate different DevOps workflows that are not integrated with one another.
- Shippable segments off sensitive information such as tokens, keys, and passwords and securely stores them so they are not inadvertently disclosed in an automation script.
- Shippable offers a variety of deployment models at multiple price points to accommodate a customer’s specific deployment preference and needs.

Key Differentiator

Although a relatively small start-up, Shippable has the interesting distinction of supporting some noteworthy clients such as Red Hat and The Linux Foundation. The price range for the company’s products starts at \$5,000/year for the SaaS version of the product, while an on-premises subscription starts at \$20/month/user.

Challenges

As a relative latecomer to the market, and smaller than many of its competitors, Shippable does not yet have the momentum that some other competitors in the market have, or the size and the level of venture capital investment. The company’s ability to make it to the “short list” among potential customers is a concern. However, given the disjointed nature of the DevOps tool chains that spans the industry, Shippable may have a role to play in which the company can navigate into a longer-term strategy.

Source: IDC, 2018

TECHNOLOGY DEFINITION

A DevOps practice combines modern operational practices that optimize for agile development connected to a fast-deploy, fast-fail, fast-recovery operational model that begins with the development of a modern application software code. The code itself is stored in a repository, which facilitates a collaborative and fast development process. In most cases, multiple iterations of the code will exist in the repository based on forks and what commits have been made. Developers and DevOps professionals must have a good control mechanism that helps facilitate the selection of the right code components for the construction of a new release, and they must be able to backtrack the use and location of those same software components in the event that a newly discovered vulnerability causes the need for a release update. Code release management software tools typically provide resources to automate and help enable continuous delivery in a DevOps tool chain.

IDC INNOVATORS INCLUSION CRITERIA

An "IDC Innovators" document recognizes emerging vendors chosen by an IDC analyst because they offer an innovative new technology or a groundbreaking business model, or both, and were approved by the IDC Innovators Review Panel. It is not an exhaustive evaluation of all companies in a segment or a comparative ranking of the companies.

An IDC Innovators document highlights vendors that meet the following criteria:

- In IDC's opinion, the company exhibits innovative technology or a new business model.
- The company has annual revenue <\$100 million at the time of selection.
- Customers are currently using the company's products and services (i.e., the products and services are not conceptual or in the process of being released).
- The product, service, or business model must solve or help to alleviate an IT buyer challenge.

In addition, vendors in the process of being acquired by a larger company may be included provided the acquisition is not finalized at the time of publication of the document. Vendors funded by venture capital firms may also be included even if the venture capital firm has a financial stake in the vendor's company.

LEARN MORE

Related Research

- *Worldwide DevOps Software Forecast Update, 2017-2021* (IDC #US43276517, December 2017)
- *IDC FutureScape: Worldwide Developer and DevOps 2018 Predictions* (IDC #US42652317, October 2017)
- *Market Analysis Perspective: Worldwide Agile ALM Quality and Portfolio Strategies, 2017* (IDC #US42050817, September 2017)
- *Worldwide DevOps Software Market Shares, 2016: Year of Growth and Innovation* (IDC #US41840817, July 2017)
- *Worldwide Software Configuration, Change, and Process Management Market Shares, 2016: Agile Automation Enables DevOps Releases and Market Growth* (IDC #US42822017, June 2017)

Synopsis

IDC Innovators are emerging vendors with revenue <\$100 million that have demonstrated either a groundbreaking business model or an innovative new technology – or both. This IDC Innovators study profiles three key emerging vendors in code release management for DevOps practices: Electric Cloud, JFrog, and Shippable.

"Managing artifacts and supporting a continuous delivery process is essential to any agile development environment, but given the increased focus on componentization and the shift to a microservices architectural model, the industry will have far more individual components and projects to manage," said Al Gillen, group VP, Software Development and Open Source Software. "Failing to manage the archive efficiently directly undermines the intent of a more agile development environment."

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