Magic Quadrant for DevOps Platforms

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DevOps platforms provide an integrated alternative to custom toolchains, offering organizations an optimized and cohesive set of capabilities. Software engineering leaders should evaluate DevOps platforms to reduce complexity, improve security and accelerate software delivery.

Strategic Planning Assumption

By 2027, 80% of organizations will incorporate a DevOps platform into their tooling to reduce complexity and streamline software delivery, up from 25% in 2023.

Market Definition/Description

Gartner defines DevOps platforms as those that provide fully integrated capabilities to enable continuous delivery of software using Agile and DevOps practices. The capabilities span the development and delivery life cycle built around the continuous integration/continuous delivery (CI/CD) pipeline and include aspects such as versioning, testing, security, documentation and compliance. DevOps platforms support team collaboration, consistency, tool simplification and measurement of software delivery metrics.

DevOps platforms simplify the creation, maintenance and management of the components required for the delivery of modern software applications. Platforms create common workflows and data models, simplify user access, and provide a consistent user experience (UX) to reduce cognitive load. They lead to improved visibility, auditability and traceability

into the software development value stream. This end-to-end view encourages a systems-thinking mindset and accelerates feedback loops.

Organizations use DevOps platforms to minimize tool friction resulting from complex toolchains, manual handoffs and lack of consistent visibility throughout the software development life cycle (SDLC). This enables product teams to deliver faster customer value without compromising quality. The DevOps platforms market reflects the consolidation of technologies across development, security, infrastructure and operations to streamline software delivery.

DevOps platforms support multiple use cases, including, but not limited to:

- Agile software delivery — operationalize Agile development practices

- Cloud-native application delivery — build and deliver cloud-native applications across hybrid and multicloud environments

- MLOps — provide support for the management of machine learning models including versioning and feedback loops

- Mobile app delivery — build/test/deliver native mobile and mobile web applications

- Platform engineering — provide self-service, internal developer platforms to scale DevOps and software engineering practices

- Regulated delivery — support for compliance, auditing, traceability and governance

Mandatory Features

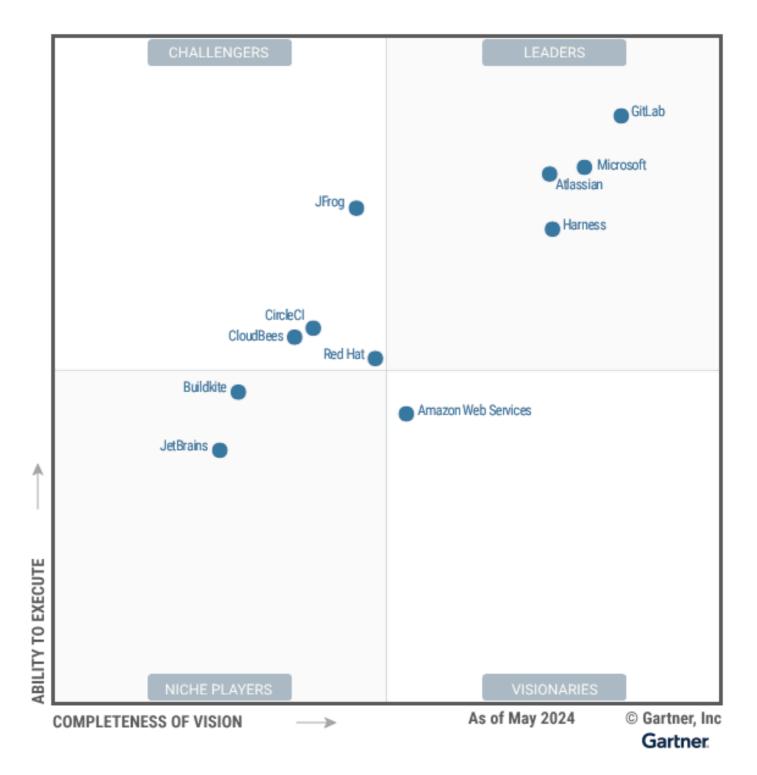The mandatory features for this market include:

- Continuous integration — native support for continuously building code, orchestrating verification and validation functions (test automation, security and compliance scans).

- Continuous delivery and release orchestration — continuous deployment (no gates) as well as release orchestration with gated approval mechanisms (e.g., to meet regulatory requirements or organizations transitioning from ITIL).

- Delivery of web applications including, but not limited to, containerized applications.

Common Features

The common features for this market include:

- Team collaboration and visualization of development workflows with a unified dashboard across multiple user personas.

- Value stream analytics (e.g., flow metrics, DORA metrics).

- Orchestration of security functions, including source, packages, configurations.

- Configuration automation — support for environment management, including infrastructure provisioning, configuration management and drift detection.

- Product planning, managing features and defects, roadmapping, backlog management, Kanban and Scrum.

- Source control repository, artifact registry and integrated development environments (IDEs).

- Software test automation — support for execution of functional and nonfunctional tests, test case management, code coverage analysis, performance testing, chaos testing, fuzz testing, penetration testing, and automated acceptance testing through tools, which can be natively included or seamlessly integrated.

- Application monitoring and observability — support for monitoring and observability to improve service-level objectives, gathering production telemetry (logs, metrics, events, traces) and support for automated incident response.

- AI-assisted and AI-powered continuous integration and deployment — support for optimizing DevOps processes like software test automation, infrastructure provisioning, security vulnerability detection and analyzing the operating data.

- Integrated developer portal — support for software catalogs and customizable dashboards offering teams detailed insights into software components, their interdependencies and underlying environments; additional functionality might include infrastructure KPIs, a forum for collaboration, and a knowledge base for enriched information.

Magic Quadrant

Figure 1: Magic Quadrant for DevOps Platforms

CHALLENGERS — LEADERS

- GitLab
- Microsoft
- Atlassian
- Harness
- JFrog
- CircleCI
- CloudBees
- Red Hat
- Buildkite
- Amazon Web Services
- JetBrains

ABILITY TO EXECUTE

NICHE PLAYERS — VISIONARIES

COMPLETENESS OF VISION ⟶   As of May 2024   © Gartner, Inc

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Vendor Strengths and Cautions

Amazon Web Services

Amazon Web Services (AWS) is a Visionary in this Magic Quadrant. Its DevOps platform, Amazon CodeCatalyst, integrates AWS CodeArtifact, AWS CodeBuild, AWS CodeCommit, AWS CodeDeploy, AWS CodePipeline and AWS CodeStar into a unified platform. (During this evaluation, Amazon stopped onboarding new customers to CodeCommit.) The Amazon CodeCatalyst platform is rapidly developing capabilities for enhanced collaboration and reporting.

AWS operates globally, serving clients of all sizes across various sectors.

Amazon CodeCatalyst, which became generally available in April 2023, has broadened its functionality by adding support for Amazon Elastic Kubernetes Service (EKS) and Terraform, along with features for scheduled workflows and enhanced account management. Furthermore, AWS has enriched CodeCatalyst's integration capabilities, extending support from GitHub to include GitLab and Bitbucket code repositories, and integrating Amazon Q for Developers.

Strengths

- **Integration with AWS cloud services:** Amazon continues to lead in market share for IaaS and PaaS, and it offers tools that keep users up to date with the latest capabilities. However, its approach has been somewhat fragmented. CodeCatalyst addresses this by providing a unified platform that integrates these capabilities, offering a streamlined path for effective building and deployment to AWS cloud services.

- **Pricing advantage:** CodeCatalyst brings together a complete platform — from planning to delivery — and does it at a significantly lower price relative to other DevOps platforms in this Magic Quadrant, because the outcome will be users building AWS applications that drive the bottom line of AWS services.

- **Secure development environment:** AWS has responded to customer demands for increased security and privacy. In the last year, this has meant the addition of single sign-on support and the use of Amazon Virtual Private Cloud to create isolated development and test environments. AWS PrivateLink enables a private, secure connection between AWS CodeBuild, Amazon Elastic Cloud Compute and on-premises applications. This capability enables customers to restrict all network traffic to the managed instance without the need for other access gateway technologies.

Cautions

- **Still maturing:** Amazon CodeCatalyst is just over a year old and, while it brings a broad set of functionality together, it still misses enterprise features such as support for DORA and other DevOps metrics. Also, there is no integrated wiki and just a few third-party CodeCatalyst workflows (though GitHub Actions can be used).

- **Limited third-party integrations:** Amazon CodeCatalyst offers extensions to third-party developer tools and services, but few vendors are integrating with CodeCatalyst and other Amazon offerings at this point. This has historically been an issue with the Amazon DevOps components such as AWS CodePipeline.

- **Limited support for built-in application security capabilities:** Amazon CodeCatalyst continues to lag the market in support for code and application security.

Atlassian

Atlassian is a Leader in this Magic Quadrant. Its DevOps platform consists of Jira, Bitbucket, Jira Service Management, Confluence, Compass and Jira Product Discovery. The platform provides broad capabilities for product discovery, work management and issue tracking, source code management, release orchestration and CI/CD, incident management, change management and collaboration.

Atlassian's operations are geographically diversified, and it has clients of all sizes across all sectors.

Since 2023, Atlassian has enhanced its DevSecOps capabilities by improving vulnerability management within agile workflows. It has also continued to develop its internal developer portal, Compass.

Strengths

- **Work management, service management and collaboration:** Atlassian has effectively integrated Jira, Jira Service Management and Confluence to provide a platform that enables DevOps teams to collaboratively manage their work. Atlassian's customers find that these tools become a core part of their way of working. Atlassian's knowledge management tool, Confluence, has little competition and is widely used in software engineering organizations.

- **Platform ecosystem:** The Atlassian Marketplace offers thousands of third-party applications and integrations that extend the functionality of the Atlassian platform. Atlassian has also built a worldwide network of partners that offer strong implementation, consulting and support capabilities.

- **Effective innovation:** Atlassian has developed innovative new features, such as integrated DevSecOps planning, that build on its platform's strong agile work management capabilities. The platform uses a common data model to support innovation in areas like AI and analytics.

Cautions

- **Sales model:** Atlassian primarily sells its DevOps platform directly to customers via a fixed-price model. In Gartner client inquiries, some Atlassian customers have expressed frustration with this model. Atlassian's partner network provides a higher-touch sales approach and may offer discounts, and Atlassian offers enterprise customers the option of an enterprise license agreement and discounts on a case-by-case basis.

- **Lower adoption of CI/CD:** Atlassian Bitbucket, which provides source code management and CI/CD, has on-par capabilities but low customer adoption relative to other Atlassian products. Customers will need integrations with external tools to get functionality such as feature flag management.

- **Limited regulatory compliance for cloud products:** Atlassian has not yet obtained important regulatory compliance, such as FedRAMP, for its cloud products. At the same time, it ended support for its on-premises Server products in early 2024. As a result, customers in regulated industries may find that their only options are the on-premises Data Center products, which are more expensive than Server's.

Buildkite

Buildkite is a Niche Player in this Magic Quadrant. Its DevOps platform consists of Pipelines, Packages and Test Analytics. The platform provides support for CI/CD pipelines, universal package management (in beta), and test suite optimization and analytics.

Buildkite's operations are mostly in North America, with some presence in the Asia/Pacific region. It has clients across many industry sectors.

In 2023, Buildkite acquired Packagecloud, a package management platform for software artifacts that extends the Buildkite DevOps platform with support for several modern language package formats. It is delivered as Buildkite Packages.

Strengths

- **Scalability and performance:** Buildkite's strategy is to enable larger enterprises to run an unlimited number of build agents in parallel, reducing cycle times for building and testing software, and increasing developer efficiency. Some large Buildkite customers use more than 130,000 concurrent pipelines.

- **Intelligent workflows:** Buildkite's platform embeds intelligent workflows into multiple aspects to tailor CI workflows to the needs of the product. This gives pipeline customers

the flexibility to execute different steps during the build process based on runtime conditions, such as the branch, the environment or the results of previous steps.

- **Test optimization:** Buildkite's test analytics tool enables customers to monitor the performance and reliability of their test suite. It provides tracking, reporting and analysis of the suite's efficiency to help software engineering teams identify long-running tests and flaky tests, and insights that enable teams to reorganize test suites to improve test cycle times.

Cautions

- **Narrow focus:** The Buildkite platform only provides solutions for parts of the CI/CD process. Deploying a comprehensive CI/CD pipeline will require integration with additional tools or DevOps platforms to fill the gaps not provided by the Buildkite platform.

- **Limited geographic support for cloud data centers:** Buildkite is a SaaS platform that is hosted and serviced from cloud data centers in the U.S. Customers outside the U.S. cannot host Buildkite at a cloud data center in their region. Such customers should ensure that Buildkite's mechanisms for meeting data residency requirements are acceptable. Also, Buildkite does not offer the option to configure a backup or disaster recovery data center.

- **New hosted offering:** Since the hosted offering is new, potential users should watch for feedback on performance and balance the ease of fully hosted versus the hybrid user-managed infrastructure, which offers control but requires significant operational overhead.

CircleCI

CircleCI is a Challenger in this Magic Quadrant. Its DevOps platform is also called CircleCI. It provides support for hosted and managed build infrastructure, self-hosted runners, CI/CD, test automation, insights into build performance and support for LLM-enabled apps.

CircleCI's operations are mostly in North America, with some presence in Europe. Its clients span many industries, with the greatest concentration in the technology sector.

In 2023, CircleCI introduced new security features such as OpenID Connect (OIDC), groups management and configuration policies to better meet the needs of enterprise customers. CircleCI has continued to enhance its intelligence platform to support cost optimization and

improve developer experience with test execution, self-healing pipelines and a smart release orchestrator.

Strengths

- **FedRAMP and SOC 2 Type II compliance:** CircleCI differentiates itself from most of its competitors by providing the only FedRAMP-approved and SOC 2 Type II certification for its platform. CircleCI is an attractive option for customers in highly regulated industries.

- **Customer satisfaction:** CircleCI scores a 4.7 on Gartner Peer Insights for its DevOps platform. Its evaluation, contracting and product capabilities are strengths, with scores reaching into the 4.8 range. Peer Insights ratings highlight the reliability of the platform and strong integration with other common DevOps tools.

- **Ease of use:** On Gartner Peer Insights, CircleCI customers report high satisfaction with the platform's usability, including the ease of deployment, administration, configuration and debugging support. At the time of evaluation, 86% of Peer Insights reviewers would recommend using CircleCI. The platform has also effectively integrated AI by providing recommendations within the developer flow and enhancing developer experience within the IDE to help developers debug pipeline issues.

Cautions

- **Narrow focus:** The CircleCI platform provides solutions focused on improving developer experiences, such as build and test execution. It is not intended as a core tool for the Ops stage of the DevOps life cycle. Deploying a comprehensive CI/CD solution requires integration with other tools or DevOps platforms to implement capabilities not provided by the CircleCI platform.

- **Geographic strategy:** Potential customers will have to navigate CircleCI's limited data residency support. CircleCI has no data center presence outside the U.S. and Canada. Customer options for cloud regions are limited to the U.S.

- **Pricing model:** While CircleCI offers a free service, customers note that pricing can scale quickly as usage increases. Since the pricing model is based on credit consumption, referring to the full pricing list is advised as dependency on the platform increases.

CloudBees

CloudBees is a Challenger in this Magic Quadrant. Its DevOps platform consists of CloudBees CI, CloudBees CD/RO (Continuous Delivery and Release Orchestration), CloudBees Feature Management and CloudBees Compliance.

CloudBees' operations are mostly in North America, with some presence in Europe. It has clients in many industry sectors.

In 2023, CloudBees continued to enhance its high availability and high scalability architectures to promote the continuous operation of CI/CD pipelines, and provide efficient load management and pipeline execution in large-scale enterprise environments.

Strengths

- **Continuous compliance:** CloudBees continues to excel at supporting customers in highly regulated industries. CloudBees Compliance provides automation to help customers comply with security and compliance standards (such as CIS, NIST, FedRAMP, PCI-DSS, HIPAA, CSA) and minimize exposure to security vulnerabilities.

- **Feature management:** CloudBees remains one of few DevOps platforms to natively support feature management, with capabilities that match dedicated third-party feature management tools. We continue to see increased use of experimentation by DevOps platform users and the value of integration comes both from simplification and compliance, protecting customer data with strong regional support.

- **Customer engagement:** CloudBees is strong from an operations perspective and in customer engagement. This comes from a long history of Jenkins at scale, CloudBees CI, CloudBees University and supporting a broad portfolio of enterprise clients. Customer reviews on Gartner Peer Insights support this statement.

Cautions

- **Narrow focus:** The CloudBees platform provides solutions focused on improving developer experiences by streamlining build and test execution and release orchestration. The platform relies on integrations with other tools or platforms to support the full DevOps life cycle needs, such as version control, planning, development and testing, and artifact management. Integration with other tooling is required for customers to achieve comprehensive DevOps platform capabilities.

- **Customer satisfaction:** CloudBees' overall Peer Insights score — 4.3 out of 5 — is among the lowest of vendors within this research. Customers expressed dissatisfaction with such

things as documentation and Kubernetes support.

- **Legacy perception:** Users perceive Jenkins as a legacy CI platform and Gartner finds CloudBees' overall marketing strategy a weak point. When modernizing their developer tooling, organizations are seeking to reduce the level of effort to create and manage CI/CD for new cloud-native targets and start by looking elsewhere. This is driven not only by perception, but also the attraction of new platforms that provide a broader suite.

GitLab

GitLab is a Leader in this Magic Quadrant. Its DevOps platform consists of GitLab and GitLab Duo. It provides capabilities for planning, source code management, CI, deployment automation, observability, application security testing, software supply chain security, compliance reporting, value stream analytics and incident management.

GitLab's operations are geographically diversified, and it has clients of all sizes across all sectors.

In 2023, GitLab updated its platform by adding support for generative AI, cloud development environments, compliance reports, a value stream dashboard and improvements in build infrastructure. The company releases new features and security updates frequently and these by entitlement to all versions: hosted, self-managed and dedicated.

Strengths

- **Built-in security capabilities:** GitLab continues to expand its security capabilities and has recently strengthened them via acquisitions such as Oxeye. This contributes to its Leader status in this Magic Quadrant and its improving position in our 2023 Magic Quadrant for Application Security Testing.

- **Market understanding:** GitLab provides capabilities across the life cycle of software development and throughout the many roles and responsibilities that developers will operate. It provides a variety of tooling — from task management and planning, through to creation with code repositories, cloud development environments, securing of solutions and deployment. GitLab's mission of providing capabilities across these areas increases its value to enterprise developers.

- **Customer satisfaction:** GitLab has one of the highest Net Promoter Scores on Gartner's Peer Insights for DevOps Platforms. At the time of evaluation, 92% of reviewers on Peer

Insights would recommend GitLab. Specific areas of customer appreciation include the all-in-one platform and support of the DevSecOps approach.

Cautions

- **Sales strategy:** GitLab offers less aggressive discounts for enterprise customers than competitors within this research, especially for its premium product. This will impact clients that are negotiating for advantageous pricing.

- **One bundle for all:** GitLab sells its DevOps platform as a single product, which may not be ideal for customers that only want to use a subset of its features. Customers cannot purchase specific capabilities individually. Recently, this has seen some change, with a new ability to add extra Enterprise Agile Planning seats to existing GitLab Ultimate licenses.

- **Sparse documentation areas:** GitLab has rapidly expanded the functionality of its platform by integrating open-source software (OSS), but these capabilities vary in quality. Some of its new features provide no more functionality than what the core OSS provides, and some lack sufficient documentation. Also, GitLab has introduced some new OSS features into beta/early access without a clear timeline for general availability.

Harness

Harness is a Leader in this Magic Quadrant. Its DevOps platform consists of the following modules: Code Repository, Continuous Integration, Continuous Delivery & GitOps, Feature Flags, Service Reliability Management, Chaos Engineering, Software Engineering Insights, Internal Developer Portal, Security Testing Orchestration, Infrastructure as Code Management, Software Supply Chain Assurance and Cloud Cost Management.

Harness' operations are in North America, Europe and India. Its clients are mostly large organizations in many industry sectors primarily located in North America, Europe and Asia.

In 2023, Harness completed its acquisition of Propelo to expand its software engineering intelligence capabilities. Harness also introduced: Harness Code Repository, based on its open-source Gitness project; Harness Internal Developer Portal (IDP), built on Backstage; and Harness Infrastructure as Code Management (IaCM). The addition of generative AI capabilities via Harness AIDA enables a variety of scenarios, such as security vulnerability detection and remediation.

Strengths

- **Strong cloud-native capabilities:** Harness provides platform engineering teams with a wide range of capabilities to support cloud-native DevOps. Recent acquisitions by Harness, such as Armory, have enabled the platform's capabilities to provide a more comprehensive solution that supports the entire product delivery life cycle.

- **Market responsiveness:** Harness continues to effectively respond to market demands. It has added more DevOps-specific capabilities in the past year than any other vendor in this Magic Quadrant. For example: the release of Harness Code Repository, which removes the dependency on other tools; IaCM, for scaling the usage of Terraform with security and control; and Harness IDP, to better support platform engineering teams.

- **Feature management:** The Harness platform natively supports feature management, which could displace a dedicated third-party feature management tool. It enables product teams to adopt progressive delivery by separating release from deployment, providing feature monitoring and reporting, and supporting the identification and removal of flags that are no longer needed.

Cautions

- **Customer satisfaction:** On Gartner Peer Insights, Harness' scores for integration and employment, service and support, and product capability lag those of other vendors within this research. Customer dislikes include lack of documentation and customer support.

- **Limited support for data residency:** Harness has not yet expanded its cloud-hosting options beyond the U.S. Non-U.S. customers utilizing the Harness SaaS platform will struggle to meet their data residency compliance requirements.

- **Learning curve:** As Harness continues to increase its support for the entire DevSecOps life cycle with new acquisitions, users have found it difficult to keep up with all of the new capabilities. Users have cited challenges with the lack of intuitive UI and the lack of detailed guidance on best practices or standards for using the platform.

JetBrains

JetBrains is a Niche Player in this Magic Quadrant. Its DevOps platform consists of Space, TeamCity and YouTrack. (During this evaluation, JetBrains announced that it is ending support for Space and pivoting in the future to a new product.) JetBrains also has a large stable of IDEs for several languages. YouTrack provides core project management

supporting traditional and agile techniques, and knowledge management. TeamCity is JetBrains' CI/CD platform that can be utilized on-premises or as a cloud offering.

JetBrains' operations are geographically diversified. It does not disclose the size or nature of its clients.

Since 2023, JetBrains has released a static code analysis tool called Qodana. It has also delivered generative AI capabilities that integrate directly into its IDEs and YouTrack, which reduces context switching and improves developer experience.

Strengths

- **Secure platform:** JetBrains demonstrates a very strong approach to ensuring the security of its platform, including a comprehensive "red team" strategy. JetBrains maintained a record of zero security breaches throughout the past year.

- **Collaboration features:** JetBrains' DevOps platform remains strong in its support of software engineering team collaboration and communication, which respondents to Gartner's Software Engineering Survey for 2024 tell us is the most valuable type of tool for increasing developer productivity.

- **Strong mind share:** JetBrains has a strong presence in the IDE market and was one of the earliest vendors to offer a CI tool, which established its position in that market as well. This has given JetBrains a strong mind share among developers.

Cautions

- **Limited innovation:** JetBrains has delivered few innovative features for its DevOps tools due to its focus on enhancing its IDE products. JetBrains has not made any strategic acquisitions to gain innovative capabilities.

- **Questionable sales execution and pricing:** JetBrains provided little evidence of effective direct sales execution and pricing compared with other vendors in this Magic Quadrant. Customers may choose to engage with the vendor's partners to negotiate and build a relationship.

- **Limited marketing strategy:** JetBrains demonstrated a less sophisticated marketing strategy relative to its competitors in this Magic Quadrant. This may impact its ability to influence the market to align with its vision.

JFrog

JFrog is a Challenger in this Magic Quadrant. Its DevOps platform consists of JFrog Artifactory, JFrog Pipelines, JFrog Distribution, JFrog Security Essentials (Xray), JFrog Advanced Security, JFrog Curation, JFrog Connect and JFrog Catalog.

JFrog's operations are mostly in North America and Europe, and it has clients across all sizes and sectors.

Since 2023, JFrog has added the ability to proactively block malicious or risky open-source packages and provide an audit trail of new packages. It has also added features for managing machine learning (ML) models and enhanced its release life cycle management capabilities.

Strengths

- **Artifact management mind share:** Artifactory continues to be the product for which JFrog is best known. It is a widely used and strong tool for managing and distributing binary artifacts. JFrog continues to enhance its capabilities (for example, by adding ML model management) and leverage its popularity to expand its DevOps platform.

- **Market responsiveness to security demand:** With JFrog Xray, JFrog Curation and JFrog Advanced Security, the company has responded effectively to customer demand for greater security and auditability of software supply chains. JFrog has also responded to customer demand for simpler, consolidated toolchains with JFrog Pipelines.

- **Customer experience and support:** JFrog demonstrates a high level of attention to customer satisfaction, service levels and technical support relative to other vendors in this Magic Quadrant, such as automatic director-level escalation of all customer support concerns.

Cautions

- **Limited native CI/CD product capabilities:** Given the company's focus on software supply chain management, JFrog Pipelines' CI/CD capabilities are not as strong as some of its competitors' offerings in this regard. All JFrog customers use JFrog Artifactory, but the majority of those customers choose to integrate third-party CI/CD solutions instead of using JFrog Pipelines.

- **Limited capabilities for collaboration and planning:** JFrog lags competitors in areas such as collaboration and planning tools, choosing instead to focus its innovations on the

capabilities of its Artifactory product, such as ML model management and advances in security.

- **Limited partner channel maturity:** Though JFrog has partners worldwide, the partner channel accounts for only a small percentage of its sales.

Microsoft

Microsoft is a Leader in this Magic Quadrant. It offers two independent DevOps platforms: GitHub and Azure DevOps. Microsoft primarily focuses on its GitHub platform, which includes Dependabot, GitHub Actions, GitHub Advisory Database, GitHub Codespaces, GitHub Copilot, GitHub Discussions, GitHub Issues, GitHub Packages, GitHub Projects and GitHub Repositories.

Microsoft's operations are geographically diversified, and it has clients of all sizes across all sectors.

In 2023, Microsoft expanded the capabilities of GitHub Copilot, GitHub Codespaces (improved ownership and billing management), GitHub Projects (templates and Copilot integration) and increased integrations (for example, Azure Boards) with Azure DevOps services. Microsoft added macOS runners and support for ARM64 to enhance performance and energy efficiency. Security capabilities continue to be expanded, with GitHub appearing as a Challenger in Gartner's 2023 Magic Quadrant for Application Security Testing.

Strengths

- **Strong developer community:** Microsoft has a large developer presence and, at the time of evaluation, Gartner Peer Insights showed that 96% of reviewers would recommend GitHub — the highest percentage among all platforms in this Magic Quadrant. GitHub is the largest collection of OSS projects. Its strong developer community provides Microsoft with strong input on user needs, and it combines this with effective programs to gain feedback and test new capabilities.

- **Generative AI mind share:** Microsoft has focused on delivering numerous innovative capabilities via GitHub Copilot to enable the use of GenAI in DevOps workflows. Interest in GitHub Copilot is often cited as a driver to shifting platform investments to GitHub.

- **Collaborative focus:** GitHub incorporates many features that emphasize its social coding ethos. These include: Discussion for forum-like discussions; Actions, which enable CI and

other workflows to be automated; strong support for code reviews and understanding dependencies; and the ability to carry out many actions from a mobile device.

Cautions

- **Market confusion:** GitHub and Azure DevOps are two independent platforms with duplicate features in some areas and unique parts in others. It is clear that GitHub is where innovation is driven, but for the large base of users on Azure DevOps, some of the messaging around the platform is unclear. The Azure DevOps roadmap shows a focus on feature integrations with GitHub.

- **Complexity:** GitHub does not offer ease of use of other CI tools that have visual pipeline construction, thus demanding a longer learning curve if users are not familiar with YAML. While there are many integrations, setup and management of these integrations can be complex.

- **Developer and team focus:** While GitHub is used by some very large teams and focused on the developer experience, it lacks the controls and capabilities sought by engineering and portfolio leaders, such as support for value stream metrics or enterprise agile. Customers may use Azure Boards in conjunction with GitHub to gain this functionality.

Red Hat

Red Hat is a Challenger in this Magic Quadrant. Its DevOps platform delivers capabilities via Red Hat OpenShift and Red Hat Ansible Automation Platform. It includes support for CI/CD and infrastructure automation. It makes use of cloud development environments and common templates and playbooks to aid with platform engineering, and is built on top of a variety of OSS technologies that include Kubernetes, Tekton, Ansible and Argo CD.

Red Hat's operations are geographically diversified, and it has clients of all sizes across all sectors.

In 2023, Red Hat released Red Hat Developer Hub, an internal developer portal based on Backstage, and integrated IBM watsonX into its DevOps platform to provide LLM-based coding assistance. Red Hat also made Event-Driven Ansible generally available and added integrations to handle real-time automation scenarios and reduce toil.

Strengths

- **Global availability:** Red Hat's DevOps platform is available as a SaaS offering in all geographies with the exception of China.

- **Hybrid and multicloud:** With the combined capabilities of Red Hat Ansible Automation Platform and Red Hat OpenShift, users have a package that enables applications to be delivered to all cloud platforms, with autoscaling and strong management tooling that spans from the edge to IBM mainframes.

- **Service level:** Red Hat offers a service-level agreement that provides better response time and availability than other vendors in this research.

Cautions

- **OpenShift-oriented:** Red Hat's DevOps platform is oriented toward its OpenShift Container Platform. Users of other container management platforms may find it more difficult to implement Red Hat's offering than those of other vendors in this Magic Quadrant.

- **Limited reporting:** Red Hat collects a variety of information across its various components, but doesn't have a cohesive reporting system. It is integrated with Prometheus, which can perform the data collection; this, in turn, can be used by Grafana to build dashboards.

- **Ansible integration with third-party tools:** While it is possible to integrate many third-party tools with Red Hat Ansible, there are fewer directly supported integrations compared with other vendors' platforms in this Magic Quadrant.

Vendors Added and Dropped

We review and adjust our inclusion criteria for Magic Quadrants as markets change. As a result of these adjustments, the mix of vendors in any Magic Quadrant may change over time. A vendor's appearance in a Magic Quadrant one year and not the next does not necessarily indicate that we have changed our opinion of that vendor. It may be a reflection of a change in the market and, therefore, changed evaluation criteria, or of a change of focus by that vendor.

Added

- **Buildkite**

Dropped

- **Bitrise:** For 2024, Gartner narrowed the focus of this Magic Quadrant to exclude vendors that focus on individual DevOps use cases (in Bitrise's case, mobile) rather than general-purpose capabilities.

- **Codefresh:** This vendor did not rank among the top 20 organizations in the Customer Interest Indicator (CII) defined by Gartner for this Magic Quadrant.

- **Google Cloud Platform:** This vendor no longer provides a dedicated DevOps platform.

- **VMware:** This vendor did not meet the criterion for number of customers, nor for customer and revenue growth.

Inclusion and Exclusion Criteria

For a Magic Quadrant, Gartner sets an upper limit of 20 vendors to focus on the most relevant providers in the market.

The following inclusion criteria represent the specific attributes that Gartner analysts deemed necessary for a vendor to be evaluated in this Magic Quadrant.

Inclusion Criteria

DevOps platform vendors included in this Magic Quadrant met the following criteria as of 1 January 2024:

Market Participation Inclusion Criteria

To be considered a participant in the market, each vendor must:

- Provide a dedicated, generally available (GA) DevOps platform as of 1 January 2024. GA means the product or service is available on a public-facing price sheet/card for purchase directly by clients. The vendor must be able to furnish the link to a pricing page for its DevOps platform.

- Sell the solution directly to paying customers without requiring them to engage in professional services. The vendor must provide at least first-line support for these capabilities, including the use of bundled open-source software. This includes, but is not limited to, comprehensive product documentation, installation guidance (e.g., build

runners, Kubernetes cluster setup) and reference examples (e.g., in the case of pipelines as code).

- Demonstrate an active product roadmap, go-to-market and selling strategy for the solution.

- Have phone, email and web customer support. The vendor must offer a contract, console/portal, technical documentation and customer support in English (either as the product's default language or as an optional localization).

- Have at least 10% of its paying customers in each of two of the three following geographic regions:

  - U.S. and Canada

  - Europe (including U.K. and Ireland)

  - Asia/Pacific

Platform Capabilities Inclusion Criteria

The DevOps platforms must offer native support for the following standard capabilities as described in the market definition:

1. Continuous integration (CI) — Native support for continuously building code, and orchestrating verification and validation functions (test automation, security and compliance scans).

2. Continuous delivery (CD) and release orchestration — Continuous deployment (no gates) as well as gated approval mechanisms (e.g., to meet regulatory requirements or organizations transitioning from ITIL).

3. Integrated solution for secure development, team collaboration and visualization of development workflows, with a unified dashboard across multiple user personas.

4. Provide value stream metrics to measure the flow of work, as well as the flow of value across the complete software delivery value stream (e.g., flow metrics, DORA metrics).

5. Secure software delivery — Support for orchestrating security functions as an integral part of the software development life cycle (SDLC).

Performance Inclusion Criteria

The vendor is required to meet the following financial performance criteria (reported in U.S. dollars). The default accounting standard is generally accepted accounting principles (GAAP):

- The DevOps platform offering must have generated at least $60 million in annual GAAP revenue during the 12 calendar months before January 2024. The DevOps platform must have at least 200 paying, production (non-beta-test) customers (excluding sales to managed service providers), with at least 75 seats per customer on average utilizing the must-have functionality (CI/CD).

or

- The DevOps platform offering must have generated a minimum of $15 million in annual revenue and gained 35 net new customers in the calendar year 2023 when compared with the calendar year 2022 utilizing the must-have functionality (CI/CD).

In addition, the vendor must rank among the top 20 organizations in the Customer Interest Indicator (CII) defined by Gartner for this Magic Quadrant. The CII for this Magic Quadrant was calculated using a balanced set of measures, including:

- Gartner customer search, inquiry volume or pricing requests.

- Frequency of mentions as a competitor to other vendors in the Magic Quadrant for DevOps Platforms in reviews for similar use cases on Gartner's Peer Insights forum, as of 1 January 2024.

- Scores and frequency of mentions, as measured on Gartner Peer Insights.

- Significant innovations in the market, as noted by major publications, product enhancements or introductions, or industry awards.

- Other significant developments in corporate posture (e.g., mergers and acquisitions [M&A] activity).

- The volume of job listings specifies the DevOps platform on a range of employment websites in the Americas, Europe and Asia/Pacific.

Exclusion Criteria

We excluded vendors from the analysis if:

- The primary use case for the DevOps platform is the delivery of low-code applications, packaged business applications or SaaS-based applications (i.e., developing, extending, configuring or customizing applications such as Salesforce, Microsoft Dynamics 365, Oracle, SAP or ServiceNow). The market needs and expected platform capabilities for these use cases differ from the market definition of this Magic Quadrant.

- The platform is only sold as part of custom software development or professional services engagements (e.g., professional services providers using a custom solution for their clients).

Honorable Mentions

Alauda: Alauda offers a Kubernetes-based DevOps platform called Alauda Container Platform (ACP) that leverages open-source components to deliver a fully managed, integrated set of capabilities for cloud-native development and delivery. ACP is designed to provide a solid foundation for platform engineering. Additional capabilities include container management, Kubernetes cluster management, service mesh, data and AI services, and hybrid/multicloud management. Alauda did not meet Gartner's CII criteria for inclusion in this Magic Quadrant.

Bitrise: Bitrise offers a DevOps platform that provides strong capabilities for customers building applications for mobile platforms. Bitrise did not meet the market definition for this Magic Quadrant.

CodeNOW: CodeNOW is a DevOps platform that enables cloud-native CD using open-source components. CodeNOW did not meet the minimum revenue- and growth-related inclusion criteria for this Magic Quadrant.

Huawei: Huawei offers CodeArts, a secure and reliable DevSecOps platform that covers the entire SDLC. It provides a comprehensive range of functions, including requirement and design, source code management, IDE, CI, automated testing, application security testing, supply chain security, deployment, observability and management, and efficiency insight. The platform offers tools for developing web, mobile, microservice, cloud-native and embedded apps. While Huawei CodeArts is a leading platform in China, it is still seeking to expand globally. Currently, it does not meet the geographical selection criteria for this Magic Quadrant.

Opsera: Opsera Unified DevOps platform includes toolchain orchestration across the SDLC. Opsera supports preconfigured software delivery workflows using an opinionated set of open-source components, and it integrates with commercial tools that customers may already use. Opsera Unified Insights provides a high-level overview and granular visibility of software delivery performance metrics, with persona-based dashboards from planning to deployment. Opsera did not meet the minimum revenue- and growth-related inclusion criteria for this Magic Quadrant.

Evaluation Criteria

Ability to Execute

Product or Service: We specifically looked for excellence in these areas:

- Product planning

- Software development

- Continuous integration

- Continuous delivery and release orchestration

- Configuration automation

- Monitoring, observability and operations support

- A managed version of open-source components in the platform

- An integrated platform for orchestration, collaboration and visualization

- Software delivery metrics

- Secure delivery

- AI augmentation and accessibility

Overall Viability: We specifically looked for excellence in these areas:

- Revenue growth

- Employee growth and retention

- Healthy financials, including funding status

Sales Execution/Pricing: We specifically looked for excellence in these areas:

- Customer growth and sales momentum

- Partner strength

- Customer wins and renewals

Market Responsiveness/Record: We specifically looked for excellence in the areas of business agility and customer responsiveness.

Marketing Execution: We specifically looked for excellence in these areas:

- Articulating value proposition to different audiences

- Thought leadership in marketing

Customer Experience: We specifically looked for excellence in these areas:

- Customer vote of confidence and customer satisfaction

- Commitment to improving customer experience

Operations: We specifically looked for excellence in these areas:

- Quality and effectiveness of programs to support the platform

- Quality and effectiveness of programs to engage customers

Ability to Execute Evaluation Criteria

Evaluation Criteria	*Weighting*
Product or Service	High
Overall Viability	Medium
Sales Execution/Pricing	High

Evaluation Criteria	Weighting
Market Responsiveness/Record	High
Marketing Execution	Low
Customer Experience	High
Operations	Low

Source: Gartner (September 2024)

Completeness of Vision

Market Understanding: We specifically looked for excellence in these areas:

- Strategic vision for the market

- Understanding of competitive landscape

- Active product roadmap and path forward

Marketing Strategy: We specifically looked for excellence in the area of linking market understanding to messaging.

Sales Strategy: We specifically looked for excellence in these areas:

- Adopting multiple sales motions

- Growing the business

- Licensing and pricing models

Offering (Product) Strategy: We specifically looked for excellence in these areas:

- Compelling product vision

- Competitive differentiation

- Moving from a DIY toolchain to a platform approach

Business Model: We specifically looked for excellence in these areas:

- Building a platform ecosystem

- OEM-centric/partner-centric business model

Vertical/Industry Strategy: We specifically looked for excellence in the area of specialization for industry verticals and domain expertise.

Innovation: We specifically looked for excellence in these areas:

- Innovation as a competitive advantage

- Organic innovation

- Inorganic innovation

Geographic Strategy: We specifically looked for excellence in these areas:

- Demonstrate platform capabilities to support multiple geographies

- Demonstrate sales strategy across geographies

- Demonstrate partner strategy across geographies

Completeness of Vision Evaluation Criteria

Evaluation Criteria	Weighting
Market Understanding	High
Marketing Strategy	Low
Sales Strategy	Medium
Offering (Product) Strategy	High
Business Model	Low
Vertical/Industry Strategy	Medium

Evaluation Criteria	Weighting
Innovation	High
Geographic Strategy	Medium

Quadrant Descriptions

Leaders

Leaders have a deep understanding of the DevOps platform market. They have a record of strong execution and can influence the market's direction with their thought leadership and resources.

Leaders also have a clear vision and well-defined product roadmap. They continuously expand their capabilities to deliver functionally rich platforms with robust capabilities at all stages of the software development life cycle (SDLC). These vendors stand out in a highly competitive, global market, and serve a wide range of organizations and use cases.

The most distinctive attribute of Leaders in this market is their versatility across multiple dimensions. These dimensions include native support for a range of critical capabilities across the SDLC, as well as support for diverse use cases. Leaders should have the ability to meet the needs of multiple personas across different teams (such as development, operations and site reliability engineering). They should also have a strong market penetration across geographies, verticals and organizations of all sizes, and possess a vibrant developer community and thriving partner ecosystem.

Leaders are well-positioned to remain dominant as the DevOps platform market evolves. In this rapidly changing market, however, vendors that lose focus could fall out of the Leaders quadrant.

Challengers

Challengers offer competitive DevOps platforms that deliver value for certain industries or use cases. These vendors have shown strong execution in their respective focus areas and are expanding their customer base.

Although Challengers demonstrate the financial strength and commitment to compete in the DevOps platform market, they have not demonstrated the vision required to expand their offering beyond their core customer base to serve different types of buyers and needs.

To become Leaders, Challengers must improve on their specific areas of caution and match the Leaders' ability to establish a compelling product roadmap and a clear vision for the future.

Visionaries

Visionaries focus on innovating their platform technologies and go-to-market strategies based on emerging technology and business trends. They offer a clear product roadmap that demonstrates a strong understanding of market demands.

Despite having a clear vision, Visionaries currently lack visibility or credibility outside of their existing customer base or domain. Further, they may lack the resources or expertise to build awareness of their offerings beyond their respective focus area.

To become Leaders, Visionaries must build stronger recognition of their platforms in new market segments and improve their sales and marketing execution.

Niche Players

Niche Players typically specialize in one segment of the DevOps platform market or have a relatively limited geographic footprint. They may be startups or small companies just starting to succeed, or vendors focused on a specific subset of use cases, such as container-native or mobile applications. In some cases, Niche Players may not consider DevOps platforms as strategically significant in their broader portfolio of product offerings.

While Niche Players have not demonstrated the strongest Completeness of Vision or Ability to Execute relative to other vendors in this Magic Quadrant, qualifying for inclusion is quite an accomplishment in this highly competitive, global market.

Niche Players may be suitable for organizations that require local presence and support or need a platform that addresses specific industry use cases and functional requirements. These benefits can offset the viability risks that are often associated with smaller vendors.

Context

Software engineering leaders have traditionally used a set of specialized DevOps tools for each individual phase of the application delivery value stream. A fragmented DevOps toolchain is difficult to integrate, manage and orchestrate. These time-consuming tasks detract from work that delivers value to customers.

The DevOps platforms market represents a convergence of multiple complementary technologies spanning the entire SDLC as part of an integrated platform. These platforms aim to preserve context, reduce cognitive load and provide traceability as developers switch between CI, automated testing and CD workflows.

Due to the overlap in capabilities between platforms, a few vendors in this Magic Quadrant also feature in others (see **Magic Quadrant for Application Security Testing**).

In addition to providing a consolidated set of integrated capabilities, DevOps platforms provide numerous other benefits when compared with traditional DevOps toolchains. DevOps platforms can better enable software engineering leaders to:

- **Improve software security.** DevOps platforms integrate and automate security, compliance and governance as part of the development and delivery process. A few DevOps platform providers natively support application security capabilities in their offerings, including GitHub, GitLab and JFrog. See **How Software Engineering Leaders Can Mitigate Software Supply Chain Security Risks**, **Structure Application Security Tools and Practices for DevSecOps** and **How to Select DevSecOps Tools for Secure Software Delivery**.

- **Enhance developer experience.** DevOps platforms minimize context switching across multiple tools by providing a cohesive, integrated set of capabilities. See **A Software Engineering Leader's Guide to Improving Developer Experience** and **Adopt Platform Engineering to Improve the Developer Experience**.

- **Modernize application architectures.** DevOps platforms provide a strong foundation that enables software engineering teams to take advantage of cloud-native architectures. See **2024 Planning Guide for Software Development** and **How to Scale DevOps Workflows in Multicluster Kubernetes Environments**.

- **Gain greater visibility into the flow of work.** DevOps platforms provide a clear view into software delivery pipelines — from ideation to production — especially when used in conjunction with value stream management platforms. This visibility reduces friction and manual handoffs. See **Market Guide for Value Stream Management Platforms**.

Market Overview

A growing number of software engineering leaders are modernizing their DevOps toolchains by adopting DevOps platforms. A DevOps platform can replace many specialized tools across the application delivery value stream because it offers a set of managed, integrated capabilities with built-in support for orchestration.

By using DevOps platforms, software engineers will no longer need to dedicate time and effort for integrating, managing and orchestrating a collection of fragmented tools. As a result, developer experience improves and software engineering teams can deliver software faster.

By 2027, we predict that 80% of organizations will have switched from multiple point solutions to DevOps platforms to streamline application delivery, up from 25% in 2023. Several trends are driving this rapid adoption of DevOps platforms, including:

The rise of platform engineering: Platform engineering teams use DevOps platforms to build internal developer platforms and to orchestrate platform capabilities. Platform engineering teams deliver DevOps capabilities "as a service" to other software engineering teams, which enables stream-aligned teams to focus on creating customer value.

Related research: **Top Strategic Technology Trends for 2024: Platform Engineering**

A focus on developer productivity: The scarcity and expense of developer talent is driving software engineering leaders to maximize the productivity of their teams. Many are turning to generative AI tools offered by DevOps platform vendors. This, in turn, spurs interest in the DevOps platforms themselves.

Related research: **How to Use Generative AI to Boost Developer Productivity**

High customer demand for new types of applications: Software engineering teams need to use modern application architectures and technologies to deliver a diverse array of applications, including cloud-native, mobile, edge, IoT and web apps. DevOps platforms will become even more in-demand as organizations adopt agile and DevOps practices to deliver these digital products.

Related research: **2024 Planning Guide for Software Development**

Increasing technical debt in DevOps toolchains: A fragmented toolchain results in redundant tools, inefficient spending and a cumbersome experience for developers. Organizations are actively working to minimize this toolchain-related technical debt to improve the developer experience.

Related research: **Optimize Your Selection of DevOps Toolchains and Platforms**

Expansion of the DevOps engineer role: Without DevOps engineers, adopting and implementing DevOps platforms is challenging. Fortunately, most software engineering organizations now have DevOps engineers, and demand for DevOps engineers is high. In the Gartner Software Engineering Survey for 2024, 86% of respondents said they currently have DevOps engineers in their organization, and 38% of respondents said they plan to hire more DevOps engineers in the next year. [1]

In response to these trends, vendors are continuously innovating and expanding their capabilities. As a result, the DevOps platform market has become increasingly competitive and difficult to navigate.

Software engineering leaders should use our analysis of the DevOps platforms market to make a buying decision or to make the business case for modernizing their current toolchain.

⊕ Evidence

⊕ Evaluation Criteria Definitions

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