Continuous Delivery Challenges

To remain competitive, organizations need to launch products and services fast and frequently. In an ESG research survey, 38% of respondents said they are definitely under pressure to accelerate development of new products and services, with another 48% somewhat under pressure.\(^1\) To increase agility, businesses migrate to the public cloud and adopt microservices/containers. But variables like the following can hinder development speed, accuracy, and security: managing multiple microservices spanning multiple development teams; excessive scripting requirements; manual testing, deployment verification, and rollbacks; manual ticketing and approval processes; brittle pipelines; geographic/time zone communication delays; and lack of role-based access control. The complexity and lack of scalability of existing continuous integration (CI)/continuous delivery (CD) tools can limit their usefulness in the public cloud. Other potential deployment obstacles include lack of visibility, reporting, and audit trails. To address both cloud and on-premises deployment challenges, organizations can find relief in a self-service CD model with built-in quality control and security capabilities.

Factors affecting application deployment decisions:\(^2,3,4\)

43% of organizations cited security consistency across data center and public clouds as one of the most common cloud-native security challenges.

38% reported a preference for using a microservices architecture when deploying new application architectures.

70% said that container-based applications are/will be deployed in a combination of public cloud and private data centers.

Continuous Delivery-as-a-Service

Running on Amazon Web Services (AWS), Harness Continuous Delivery-as-a-Service works with your existing CI tools and processes. It also enables DevOps/engineering teams to release applications on demand without using scripts. Key areas of functionality help your organization accelerate digital transformation, eliminate deployment bottlenecks, reduce employee stress, and improve customer experience:

- **Smart Automation** helps organizations to build pipelines in minutes with no dependencies. It integrates with all clouds and tech stacks. Organizations can employ release strategies such as blue/green, canary, and rolling, and provision and decommission infrastructure on the fly.

- **Continuous Security** ensures enterprise-class compliance and governance by providing role-based access control, audit trails, and security management through integration with leading vendors.

- **Continuous Verification** relies on AI/ML to keep users informed of the impact of their deployments. If there is a quality issue, Harness is designed to automatically roll back applications. Integration with existing monitoring, observability, and logging tools allows users to verify performance and quality.

- **Continuous Insights** includes dashboards and reporting on metrics such as lead time, deployment velocity, mean time to release, and change failure rate. User productivity and confidence increase with the ability to monitor and manage applications, services, and deployments with single-pane-of-glass simplicity.

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\(^1\) Source: ESG Master Survey Results, Trends in Modern Application Environments, December 2019.
\(^3\) Source: ESG Master Survey Results, Trends in Modern Application Environments, December 2019.
\(^4\) Ibid.
Why AWS Marketplace?

Choose from thousands of solutions

Pay only for what you use

Avoid infrastructure ownership responsibilities and expedite software release with Harness.

AWS Marketplace is a digital catalog with thousands of software listings from independent software vendors that make it easy to test, buy, and deploy software that runs on AWS. Solutions are available through a wide variety of delivery methods. Other benefits include:

- Ready-to-run software.
- Searchable catalog.
- Detailed usage tracking.
- Free trials.
- Simple procurement, no provisioning required.

ESG Business Justification

- AWS Marketplace allows organizations to accelerate application deployment with SaaS simplicity. Harness Continuous Delivery-as-a-Service provides built-in automation, verification, and security to help organizations efficiently deploy compliant, high-quality applications.

- Integration with collaboration providers such as Jira and ServiceNow enable automatic ticketing and approvals, as well as auditing of pipelines and deployment status.

- Compliance and governance require less time and manual effort. Native SSO integration supports mapping and controlling access for teams, services, and environments. A catalog and history of user, pipeline, and deployment events ease the auditing process.

Why Harness Continuous Delivery?

- Increase deployment velocity.
- Reduce downtime.
- Decrease custom scripting.
- Decrease employee burnout.

The Bigger Truth

Organizations embark on digital transformation to gain operational efficiencies and marketplace advantage, and public cloud migration is an early step for many. Application deployment can contribute to both objectives when common challenges are solved. Formidable obstacles include manual processes; complex, unintegrated tools; and lack of scalability. Pervasive bottlenecks and the fact that many organizations support hundreds of applications help to explain why 70% of survey respondents employ DevOps either extensively or in a limited fashion and 38% prefer to use a microservices architecture hosted in containers.

AWS Marketplace gets you to the cloud quickly and cost-efficiently with preconfigured solutions that expand your capabilities without adding effort or risk. ESG believes the business justification for an AWS Marketplace Harness investment is clear. Harness Continuous Delivery-as-a-Service increases deployment velocity while supporting compliance, quality, and metrics.

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