Software Development and Delivery Challenges

The public cloud has provided organizations with the agility to spin up resources on-demand for software development, helping to lower capital expenditures for development infrastructure. Yet, numerous opportunities remain to accelerate the software development and delivery process in order to decrease time-to-market and time-to-value.

Organizations have increasingly adopted agile methodologies to develop and deliver software faster and more flexibly than traditional software development methodologies. Additionally, they have also recognized the benefits of DevOps, as it automates the continuous integration and delivery (CI/CD) of new software builds into production. As a matter of fact, ESG research has discovered that 74% of respondents have recognized the complementary nature of agile development and DevOps and have adopted both extensively.\(^1\)

While agile and DevOps methodologies have helped to make software development more efficient, companies must still find ways to shorten the time from development to delivery to maintain business agility without compromising overall software quality and performance. This applies especially when multiple applications are being developed and maintained simultaneously. Specifically, challenges that organizations are facing today include:\(^2\)

GitLab is an open-source code repository and DevOps platform that can support the entire software development and delivery process from concept to production. Instead of relying on separate tools and processes that support the traditional sequential and handoff-driven model of software development, GitLab enables developer teams to code and collaborate early and often on multiple software development projects. Teams can decrease their overall development cycle and software delivery times while minimizing overall engineering risk. With GitLab, organizations can respond to evolving market demands quickly while adjusting long-term plans more effectively with early and continuous feedback. Operational expenses can also decrease as GitLab helps to maximize the efficiency and effectiveness of the overall development and delivery process.

With GitLab, your organization can:

- Design, develop, and securely manage code and project data from a single distributed version control system to enable rapid code improvement.
- Verify code via CI and automated testing to ensure fast delivery without sacrificing code quality.
- Simultaneously manage and optimize the overall development and delivery process with visibility into key metrics, as well as gain insight into the potential business value of each process step.
- Integrate security capabilities and testing from the beginning of the development process to ensure safe delivery and operation of applications.

Use GitLab capabilities in conjunction with Amazon Elastic Compute Cloud (EC2), AWS Elastic Kubernetes Service (EKS), AWS Fargate, AWS Lambda, and Amazon Serverless Application Model (SAM).
**Why AWS Marketplace?**

- Choose from thousands of solutions.
- Pay only for what you use.
- GitLab’s capabilities can integrate with multiple AWS services used for software development.

**ESG Business Justification**

- AWS Marketplace brings streamlined deployment to DevOps-based software development environments implemented via AWS services. Teams can immediately begin developing and deploying high-quality applications quickly and seamlessly in less time than traditional software development methodologies.
- ESG observed how organizations can easily configure Gitlab to automatically perform all aspects of software delivery—software configuration management, CI/CD, security testing, and code quality checks.
- GitLab ensures security throughout the software development process by providing static application security testing (SAST), dynamic application security testing (DAST), container scanning, and dependency scanning so that secure applications are delivered.
- GitLab integrates multiple software development tools into one platform to cover the entire software development and delivery process, easing implementation and minimizing development and administration costs.

**Why GitLab?**

- Implement a complete DevOps running on AWS cloud infrastructure.
- Utilize automation to build and deploy high-quality and secure applications.
- Manage the development and delivery of multiple applications simultaneously to decrease time-to-market and time-to-value.
- Gain granular visibility into software development and delivery processes to eliminate unnecessary and time-consuming activities.
- Build security assurance into the entire software development and delivery lifecycle.

**The Bigger Truth**

GitLab offers organizations a complete, fully integrated software development and deployment toolchain. The integration with AWS enables the full benefits of utilizing agile methodologies and DevOps practices for developing cloud-native applications. With GitLab, organizations can deliver high-quality and secure applications running on AWS with increased efficiency and less time.

ESG believes the business justification for an AWS Marketplace GitLab investment is clear: AWS Marketplace gets you to the cloud quickly and cost-efficiently with preconfigured solutions that expand your software development capabilities without adding effort or risk. Building your code development and delivery pipelines with GitLab ensures that a single source of truth drives software development and delivery. GitLab keeps the entire business continuously informed on the status of software production and performance of technical teams as they strive to produce business-critical applications on AWS. Application development with GitLab minimizes time-to-market and time-to-value, while decreasing overall development costs.

**LEARN MORE**