Growing IT & Business Resilience through DevSecOps

- Adapt to rapidly changing priorities in a time of uncertainty
- Pivot your IT to meet today's new market demands
- Create an environment of innovation for tomorrow

GitLab

In an era of global crisis that is rapidly driving changing business priorities, nearly every organization lacks financial predictability and stability. They face losing market share, brand equity, and customer satisfaction. The ability to make critical decisions and execute on those decisions is hindered by this new environment of uncertainty and volatility. Each business must find a path to stabilize, grow, and innovate to not only survive the turbulence, but thrive in the years to come.

IT leaders are at a crossroads—an inflection point. They hold the key to enabling the entire organization to recover and build resilience into the processes, technology, and outcomes required to outlast the disruptions they are facing and the ones inevitably to come. This is the time to ask:

> **How can I use this opportunity to rethink the way my IT team manages its business to develop and improve the overall organization?**
>
> **How do we develop 'anti-fragility'[1] —the ability to do better despite shocks and disruptions—that creates a foundation of growth and strength that enables us to continually adapt and prosper?**
>
> **Do we have the right insight, technology, and processes to 'build the right things fast' to respond to the market, leapfrog the competition, and emerge in a better place?**

Current events have caused IT leaders to realize that organizations are limited to being reactive, unable to adapt to today's catastrophic disruptions, let alone innovate for the future. Ever-dynamic business priorities throw collaboration and business processes into chaos and cause inefficiencies, loss of revenue to the organization, and in-flight projects to be abandoned. The organization is unable to focus on customer needs or to pivot quickly to changing market demand. Simply put, disruption has exposed the dangers of complex processes, functional silos, and the abundance of IT tools that prevent your ability to respond to disruption at the speed of change. Now, every organization must discover new ways to streamline their application delivery to be able to survive, pivot, adjust, adapt, innovate and thrive.

The DevSecOps Toolchain Dilemma

New tools to enable automated integration, testing, management of digital assets, scanning for vulnerabilities, and repeated deployment and configuration of applications, have given teams the ability to assemble chains of interdependent tools and tasks required to build, test, and deliver a working application. As organizational needs evolve over time, teams routinely add tools to address those needs. While the decision to add functionality to the toolchain may be appropriate at the time, maintaining those tools long-term is neither practical nor sustainable.

While these integrated toolchains help accelerate application delivery, they also introduce new costs and overhead in the form of complexity, islands of data, inconsistent security settings, reporting challenges,

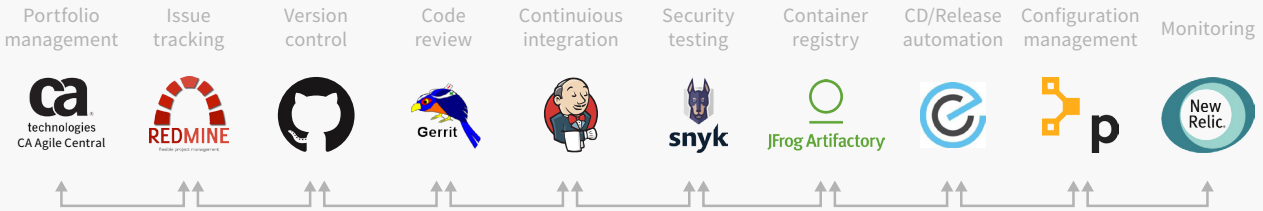
[1] *Taleb, Nassim N. A Definition of Antifragile and its Implications. (April 2014). https://fs.blog/2014/04/antifragile-a-definition/*

and compliance issues. Each new tool adds a new integration and factor of complexity to the entire application delivery team's work as well as maintenance and overhead to efficiently manage. Project managers, developers, testers, operations, and security teams each bring their own tool, contributing to the overall complexity.

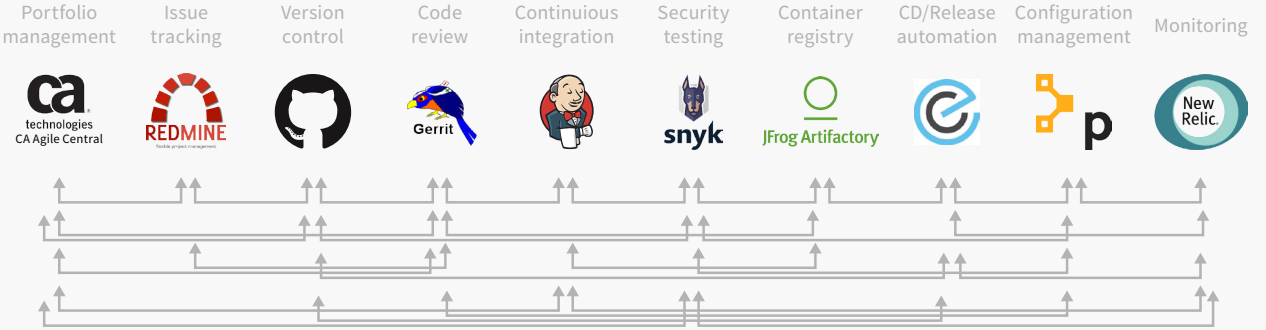
This effectively results in a complex, fragile, expensive Frankenstein tool chain, where development teams are forced to waste cycle time tinkering on the assembly line tools rather than delivering value. The toolchain and the processes effectively prohibit the ability to pivot and adapt quickly to changing business and market dynamics.

The overhead of managing this DevOps toolchain introduces a 'toolchain tax'. What development teams need is an end-to-end, fully functional assembly line that is efficient, easy to manage, and able to quickly build, test, and deploy their application at the speed of change without the waste and overhead of managing dozens of disparate tools and bespoke integrations.

A toolchain



A toolchain integration headache



Essential DevSecOps Capabilities for Growing Business Resilience

Businesses must address the following capability requirements to incorporate and grow resilience across their IT organizations:

DYNAMIC, CENTRALIZED COLLABORATION

Fluid, responsive, cross-functional teams must be enabled to collaboratively and securely contribute within and across organizations through a single source of truth, not multiple repositories or data sources. Contributors need one interface, one user model, and one data model to effectively and efficiently collaborate.

FRICTIONLESS ONBOARDING

New team members and new capabilities must be able to be rapidly onboarded with minimal disruption or investment and without extensive training or previous knowledge.

END-TO-END VISIBILITY AND REPORTING

There must be a common data model that allows for insights across the entire DevSecOps lifecycle. This visibility must include centralized reporting to respond and optimize delivery, a program-level view to keep projects on track, configurable insights that show the status of work over time, cycle analytics data that helps identify areas of improvement, and a 'roll up' of security vulnerability data.

EMPOWERED CROSS-FUNCTIONAL TEAMS

Developers must have the ability to identify and quickly fix vulnerabilities in their code with immediate and precise pipeline feedback to 'shift left' and ensure security testing at the point of code commit. Security teams must have the confidence of all code being tested and have visibility into the vulnerabilities that are being released to production. Operations teams must have the ability to automate deployments and create replicable infrastructure.

AUTO-SCALING

The solution must be able to automatically scale to match the performance and cost demands of the organization and provide flexible hosting strategy flexibility over time to provide the most cost-effective infrastructure for your organization as needs evolve.

UNIFIED DEVSECOPS EXPERIENCE

Development, Security, and Ops teams need a consistent and efficient experience across the software development lifecycle to increase productivity and deliver applications more quickly with fewer errors and vulnerabilities.

CONCURRENT WORKSTREAMS

Internal, external, and remote co-workers must have the ability to work on projects in parallel to shorten cycle times and accelerate the software delivery process, not by waiting on other teams or organizing work in sequential steps and handoffs.

How GitLab Enables DevSecOps Business Resilience

As a single application, GitLab has a unique value for delivery teams:

- A single, common user experience for the entire toolchain
- A common security and access model
- Single source of truth for reporting and managing the development work
- Simplified compliance and auditing
- A single conversation where everyone—from management to end-users, developers, and security—participates and contributes
- A unified governance model

Specific GitLab capabilities that facilitate DevSecOps business resilience:

INCREASED DEVSECOPS TEAM PRODUCTIVITY

Collaboration through a single interface for all team members—developers, Security, Ops, as well as other stakeholders—eliminates back-and-forth email conversations and knowledge silos.

- Compliance made easy with auditable artifacts stored in the Merge Request
- Security is built into the developer workflow with contextual vulnerability feedback

A COMPLETE DEVOPS PLATFORM

GitLab is a complete DevSecOps platform, delivered as a single application, fundamentally changing the way development, security and ops teams collaborate.

- Start with GitLab on just the use case that you need to improve
- Continue using tools you love
- Begin the evolution to a single end-to-end experience for all of DevSecOps
- Experience real collaboration, visibility, control, and reporting from idea to production

FASTER CYCLE TIME WHILE ALSO IMPROVING QUALITY AND SECURITY

Accelerate cycle time from weeks (or months) to minutes. Significantly reduce development costs and time-to-market while increasing developer productivity and your ability to attract and retain developer talent.

- Single application
- Rapidly innovating platform
- Automated CI/CD and security testing
- High performance with easy scaling and management
- Increased developer productivity

SINGLE DEVSECOPS APPLICATION THAT “JUST WORKS”

Minimize friction and reduce handoff time between teams by collaborating at the point of code change. Simple and streamlined, GitLab has just one interface, one login, one permissions model, and one data store.

- No plugin pain or toolchain ‘tax’
- Reduce operational costs (license, operations & maintenance, integrations, etc.)
- Open, end-to-end, contextual collaborative development
- Comprehensive reporting across entire lifecycle

HIGH PERFORMANCE WITH EASY SCALING AND MANAGEMENT

Reduce infrastructure costs over time with highly available, highly scalable architecture, powered by extensible, templated YAML files (instead of plug-ins) for self-service, flexible CI that doesn't require additional resources.

- Runners scale based on demand through auto-scaling and parallelizing pipelines
- Execute distributed runners on any operating system (Mac, Linux, or Windows) or in the cloud at the same time

SAME EXPERIENCE ON FLEXIBLE GITLAB HOSTING OPTIONS

Leverage true workflow portability regardless of cloud destination, adopt new cloud provider technology, and reduce the technical and operational risk of cloud migration.

- Identical performance and flexibility on SaaS or self-managed (on-premises or on any cloud service)
- Deploy GitLab to any environment or cloud service provider
- Migrate from one hosting option to another as your needs change

GLOBAL COMMUNITY OF RAPID INNOVATION

A global community of 4800+ developers and millions of users drive new features and innovations to our ever-dynamic and supported DevSecOps platform every single month.

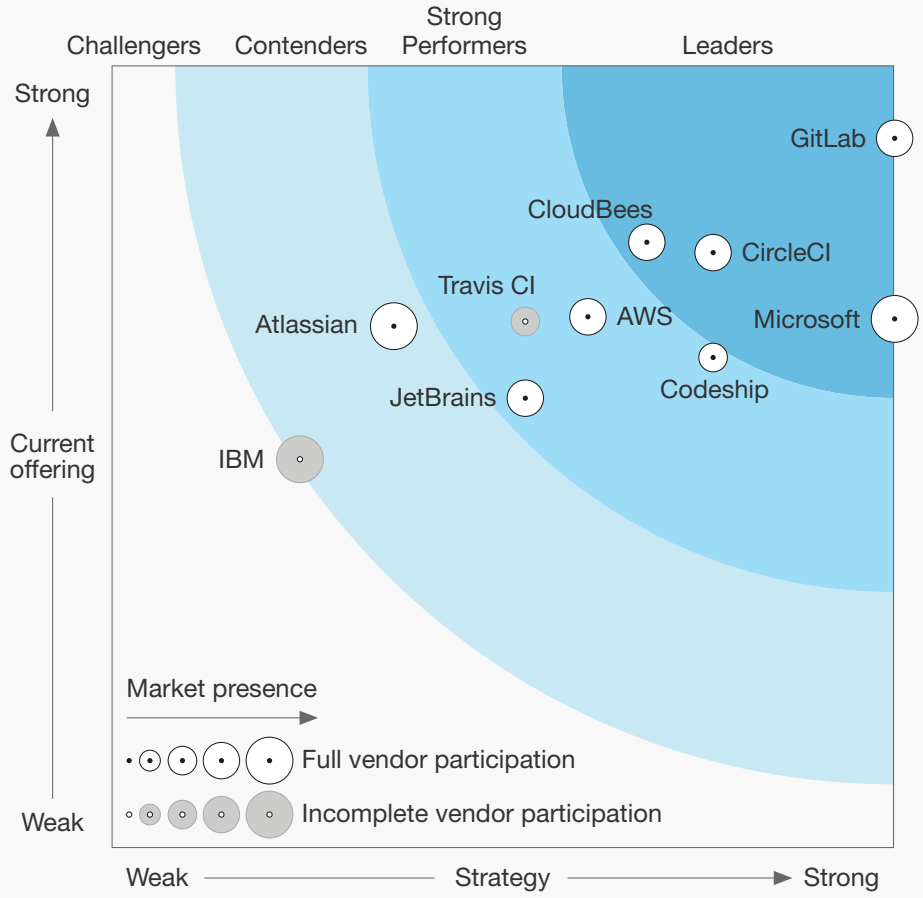
- Constant, consistent product iteration
- Open source and transparent partner

Time to Stop Paying the DevSecOps Toolchain ‘Tax’

GitLab simplifies the process to design, develop, test, and integrate the components of your end-to-end software assembly line. This eliminates your toolchain ‘tax’ (**the overhead of maintaining multiple standalone tools**) and allows your organization to focus its resources on building and deploying mission-critical applications and driving innovation across business units, teams, and projects.

GitLab is trusted by hundreds of thousands of organizations as their software development and delivery solution. It is deployed in AWS, Azure, Google, and other cloud platforms to support organizations globally in their application development projects.

Modern software architectures and techniques have matured to a point where it is possible to reduce complexity and increase speed-to-value while keeping acquisition costs in check. The adoption of DevSecOps and Agile development practices enable teams to practice iterative software development and prioritize the delivery of mission critical functional requirements while streamlining communication and cultural norms. It is essential that cybersecurity and security controls are at the foundation of modernizing the software delivery process. At GitLab, we are proud to be a part of this digital transformation, helping organizations deliver value at the speed of change and meet the vital needs of their customers.



Rated #1 in the Forrester CI Wave™

"GitLab supports development teams with a well-documented installation and configuration processes, and easy-to-follow UI, and a flexible per-seat pricing model that supports self service. GitLab's vision is to serve enterprise-scale, integrated software development teams that want to spend more time writing code and less time maintaining their tool chain."

— Forrester CI Wave™

How other organizations are using GitLab to grow resiliency and innovation in a time of uncertainty

- How an analytics software startup took aim at COVID-19
- How IoT Engineers are attacking the COVID pandemic
- Webinar on how Cook County, Illinois Assessor's office changed assessments in the face of COVID-19

Summary

As an IT leader in a new world of possibilities, you have an unique opportunity to transform and shape the technology, processes, and culture of your organization, positioning it to more easily adapt, restructure, respond, and serve new and existing customers and audiences. You can enable the business to deliver better products and services faster and securely with more agility, collaboration, and predictability through a stable and productive workforce. Enabling less disruption and fewer friction-filled bottlenecks and redundancies for your IT team means your business can more quickly and efficiently pivot to changing market demands, leading to a better market position and increased revenue. In short, the business will have the confidence to make and execute decisions that reflect its place as a market leader and innovator.

By simplifying your DevSecOps toolchain, you will increase operational efficiencies, deliver better software products faster, and reduce your security risks—all critical aspects to building and growing a continuous posture of organizational adaptiveness and innovation.

About GitLab

GitLab is a complete DevSecOps platform, delivered as a single application, fundamentally changing the way Development, Security, and Ops teams collaborate. GitLab helps teams accelerate software delivery from weeks to minutes, reduce development costs, and reduce the risk of application vulnerabilities while increasing developer productivity. GitLab provides unmatched visibility, radical new levels of efficiency and comprehensive governance to significantly compress the time between planning a change and monitoring its effect. Now, fast paced teams no longer have to integrate or synchronize multiple DevSecOps tools and are able to go faster by working seamlessly across the complete lifecycle.

GitLab delivers complete real-time visibility of all projects and relevant activities across the entire DevSecOps lifecycle. For the first time, teams can see everything that matters. Changes, status, cycle times, security and operational health are instantly available from a trusted single source of data. Information is shown where it matters most, e.g. production impact is shown together with the code changes that caused it. And developers see all relevant security and ops information for any change. With GitLab, there is never any need to wait on synchronizing your monitoring app to version control or copying information from tool to tool. GitLab frees teams to manage projects, not tools. These powerful capabilities eliminate guesswork, help teams drive accountability and give everyone the data-driven confidence to act with new certainty. With GitLab, DevSecOps teams get better every day by having the visibility to see progress and operate with a deeper understanding of cycle times across projects and activities.

GitLab drives radically faster cycle times by helping DevSecOps teams achieve higher levels of efficiency across all stages of the lifecycle making it possible for Product, Development, QA, Security, and Operations teams to work at the same time, instead of waiting for handoffs. Teams can collaborate and review changes together before pushing to production. GitLab eliminates the need to manually configure and integrate multiple tools for each project. GitLab makes it easy for teams to get started, they can start with GitLab using one or two use cases they need to improve, and then begin their evolution to a single end-to-end experience for all of DevSecOps.

Only GitLab delivers DevSecOps teams powerful new governance capabilities embedded across the expanded lifecycle to automate security, code quality and vulnerability management. With GitLab, tighter governance and control never slow down DevSecOps speed.

GitLab leads the next advancement of DevSecOps. Built on Open Source, GitLab delivers new innovations and features on the same day of every month by leveraging contributions from a passionate, global community of 4800+ developers and millions of users. Over 100,000 of the world's most demanding organizations trust GitLab to deliver great software at new speeds.

Start your free GitLab trial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