

GitOps Service

Adoption of Kubernetes with containerized and cloud native applications have reshaped the overall technology landscape. Given that 92% of organizations use containers in production¹, the need to rapidly deliver products and features in a manner that minimizes effort and risk is critical to remain competitive in today's market.

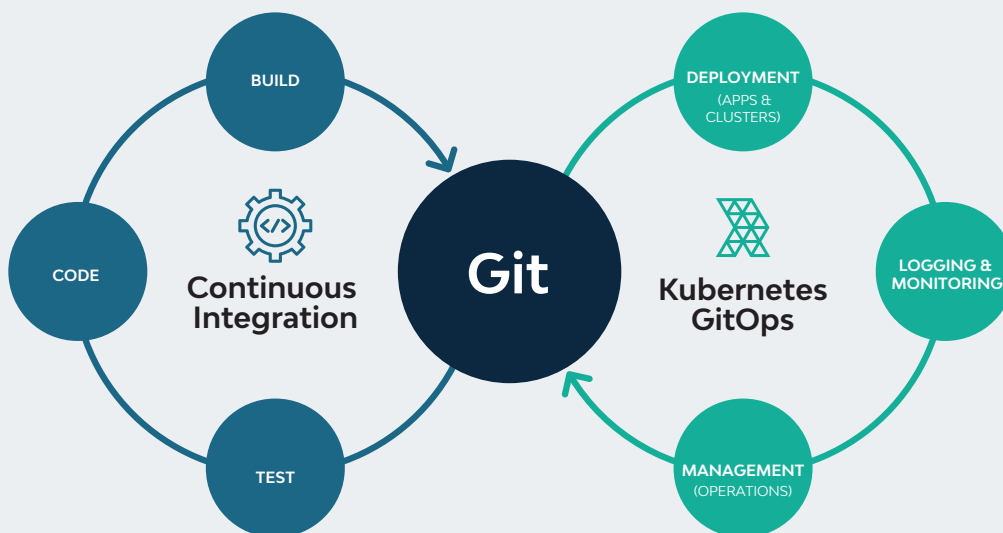
Leveraging the power of a proven and innovative GitOps service that scales beyond a single use case, supports application and cluster customizations and eliminates security and compliance risk makes it easy for developers to start instantly and grow to infinite scale. Building an end-to-end platform typically involves integrating many different systems requiring a tremendous amount of time, money and expertise. One of the biggest challenges to being successful is meeting the demands of aggressive business timelines and scope.

Enterprise-Grade Continuous Deployment

Today, DevOps is growing rapidly, encompassing more verticals, companies, teams and applications. To that end, as organizations refine, improve and expand their DevOps strategy, cloud native services are a central component to enable operational efficiency, security, developer speed and productivity. Rafay's GitOps Service ensures Git is the single source of truth for your delivery pipelines, enabling developers to make pull requests accelerating and simplifying infrastructure and application deployments and operational tasks for Kubernetes infrastructure.

¹CNCF_Survey_Report_2020, November 2020 – https://www.cncf.io/wp-content/uploads/2020/11/CNCF_Survey_Report_2020.pdf

Rafay GitOps Service



Rafay's comprehensive GitOps framework enables DevOps to deliver large-scale, complex, distributed systems with confidence by helping you take advantage of:

Multi-stage pipelines applying a variety of features, including stages, dependencies, conditions and templates.

Kubernetes and non-Kubernetes resources governed as part of your deployment pipeline.

A Fully managed service (SaaS) mitigating risk of repeating cycle of cloud native infrastructure and tool evolution.

Bring Your Deployment Pipelines into the 21st Century

Rafay provides flexibility to leverage the native GitOps Service to discover a new way to manage your systems. Accelerate deployment velocity by enabling collaboration among software development and IT operations teams. Rafay provides organizations the ability to generate unprecedented development and IT operational efficiencies, which offers enhancements in three key areas:



Accelerate Delivery: Standardize on Git as the center of continuous delivery pipelines. Enable developers and operations teams to make use of pull requests to dramatically simplify and streamline both cluster operations and application delivery in Kubernetes.



Multi cluster deployments: Create and manage pipelines to deploy to multiple clusters spanning data centers, cloud providers and the edge based on policy without requiring inbound access to remote cluster's API server.



Application and cluster customizations: Build sophisticated workflows to dynamically apply cluster and application specific override specs for each value set defining application parameters, dependencies and environment specific needs

Key Capabilities to Accelerate DevOps

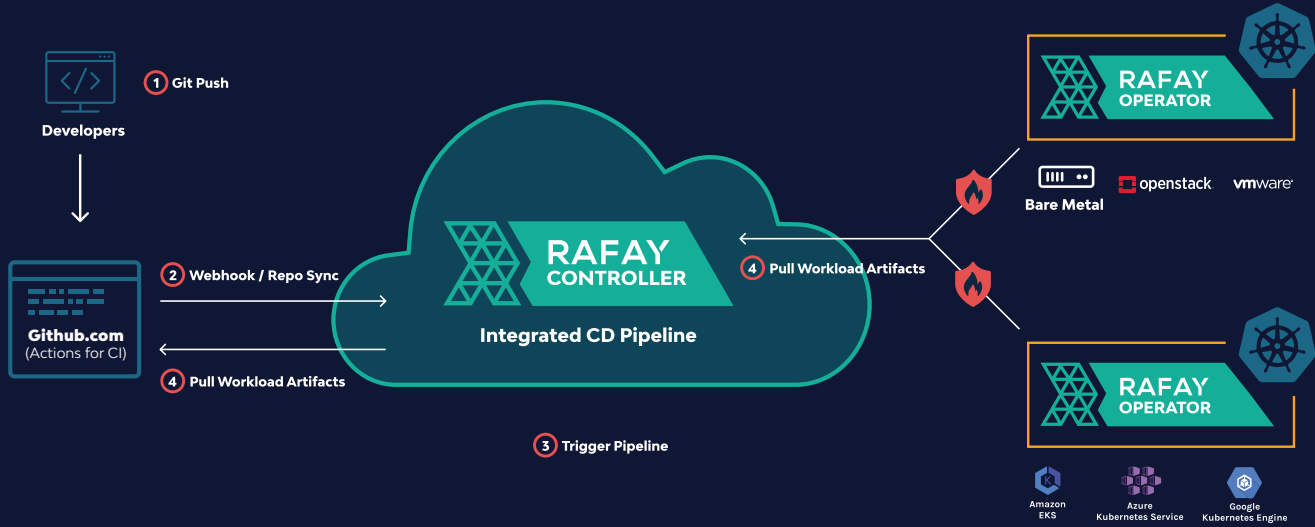
The advent of modern development practices has favored enterprises, but Kubernetes and open source have changed the game. Rafay's Operations Platform enables SRE and IT operations to manage the entire development, security and operations pipelines from a single control plane. Modern software development practices assume support for the full application stack, including K8s and non-container based technologies such as web servers, RDS databases, virtual private clouds (VPCs), libraries and so on.

Rafay's GitOps Service enables engineers and DevOps experts to spread beyond just product delivery with the following key features:

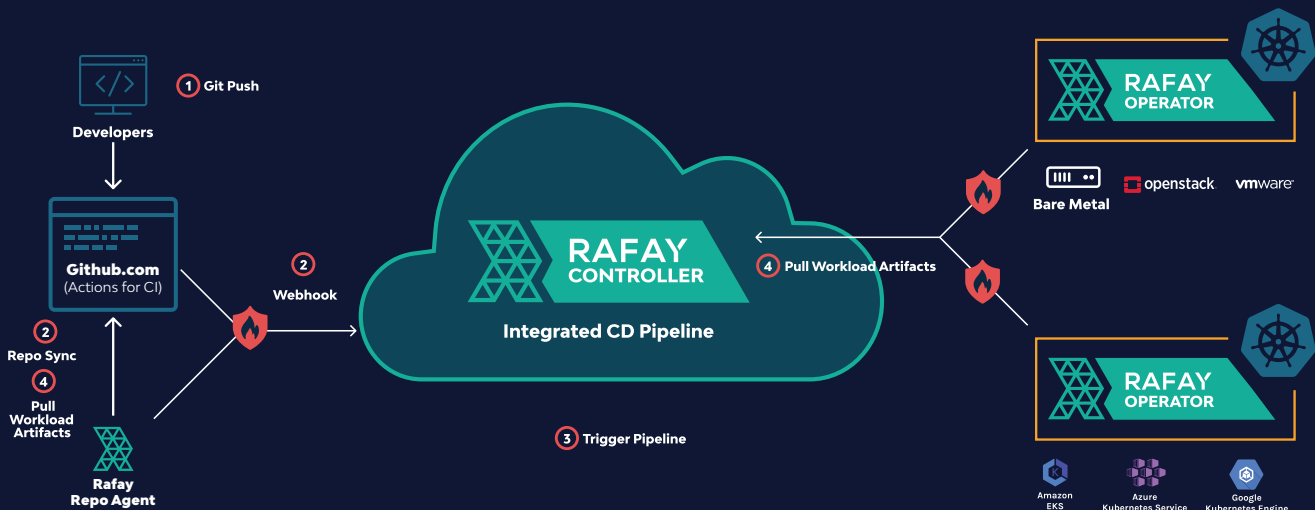
- **Application Deployments.** Provide a reliable means to automatically deploy to clusters that match a placement policy, such as workloads configured with a cluster label, location or name.
- **Application Templates.** Enable quick, repeatable creation of governed resources/manifests with extensive customizations to applications based on the deployment and environment context.
- **Multi Stage Pipelines.** Improve and simplify viewing and managing jobs, steps, and tasks of your CD pipeline sequence and execution with multi-stage DAG (directed acyclic graph) style pipelines.
- **Triggers.** Execute workflows and deployments based on webhooks, cron jobs (periodic checks of Git repos for changes) or manual triggers.
- **Conditional Execution of Stages.** Implement clear, easy to understand conditional logic for pipeline execution control and per stage pre-conditions.
- **Drift Detection.** Detect, inspect and block misconfigurations and unauthorized K8s deployments via an admission controller to ensure container compliance.
- **Git Writeback.** Kubernetes resources can themselves be synchronized bidirectionally from Git repositories ensuring consistency of any changes.
- **Multi-Cluster Application Deployments.** Deploy applications across different clusters and/or projects based on labels or Kubernetes style resource selectors.
- **Approvals.** Inject additional approvals enabling peer reviews and control of artifact and application deployments often critical for separation of duties, such as QA verification prior to production promotion.
- **Terraform Support.** Pipelines with native support for Terraform enabling teams full lifecycle management of both k8s resources as well as non Kubernetes resources.

Rafay's cloud-based GitOps Service supports both Public and Private Repos

GitOps: Public Repos



GitOps: Private Repos




No other vendor comes close to providing the end-to-end integration, best-in-class capabilities and built-in automation eliminating barriers between enterprises and their customers.


	RAFAY GITOPS SERVICE	ARGOCD	FLUXCD
Application Deployments	✓	✓	✓
Application Templates	✓	✗	✗
Pull from Repos Behind Firewalls	✓	✗	✗
Deploy to Clusters Behind Firewalls	✓	✗	✗
Pipelines	Custom, parallel & multi-staged	Non-customizable, single stage	Non-customizable, single stage
Conditional Execution of Stages	✓	✗	✗
Multi-cluster App Deployments	✓	Partial	✓
Non-K8s Deployments	✓	✗	✗
Drift Detection	Prevent issues before they occur	Detect with manual healing of drift	✗
Non-Git Approvals	✓	✗	✗

Rafay's GitOps Service is one of several services available from the Kubernetes Operations Platform.


RAFAY KUBERNETES OPERATIONS PLATFORM




Multi-Cluster Management Service




GitOps Service




Zero-Trust Access Service



Kubernetes Policy Management Service



Backup & Restore Service



Visibility & Monitoring Service

