

Pipeline Assessment and Optimization

CI/CD pipelines are the foundation of modern software delivery, yet most evolve incrementally under delivery pressure without a structured review against best practices. Over time, this results in slow build times, fragile deployments, security gaps, and escalating infrastructure costs.

Keyva's Pipeline Assessment and Optimization solution delivers a structured, expert led evaluation of your CI/CD pipeline portfolio and produces a prioritized, actionable optimization roadmap in three weeks or less.

Assessment Approach

The engagement follows a proven three phase methodology: discovery, analysis, and executive readout. Keyva engineers work directly with your teams, reviewing repositories and pipeline configurations in place and benchmarking your current state against industry best practices across more than ten critical domains.

Each engagement evaluates pipelines across the following capability areas: Version control practices, pull request and merge workflows, CI pipeline structure, CD and deployment processes, GitOps practices, pipeline security, testing strategy, pipeline quality, standardization, collaboration and ownership, infrastructure, performance, and observability.

Supported Platforms

The assessment supports a broad range of leading CI/CD platforms commonly used across modern development environments, ensuring relevance regardless of tooling choices.

CI/CD Technologies: GitHub Actions, GitLab CI/CD, Jenkins, Azure DevOps Pipelines, Google Cloud Build, CircleCI, Bitbucket Pipelines, TeamCity, Harness, Argo CD, Flux CD, Tekton, and AWS CodePipeline.

Scope of Engagement

The engagement is delivered through a structured, phased approach designed to provide rapid insight, actionable recommendations, and clear alignment across engineering, platform, and security teams.

Discovery and Inventory

This phase establishes a clear, shared understanding of the current pipeline landscape and developer experience.

- Stakeholder alignment with engineering, platform, and security leads
- Comprehensive inventory of repositories and pipelines across all platforms
- Developer experience survey to identify friction points and bottlenecks
- Toolchain and integration mapping, including CAs, secrets, artifact registries, and SIEM
- Baseline metric collection covering build duration, failure rates, MTTR, and cost per build

Deliverable: Complete pipeline inventory, baseline metrics, and confirmed assessment scope.



Pipeline Analysis

This phase delivers a deep technical and operational evaluation of pipelines across all assessment domains.

- Detailed review of all assessment categories for each CI/CD platform
- Security focused analysis including secrets handling, OIDC usage, software supply chain risks, and dependency scanning
- GitOps and infrastructure as code pipeline review covering Terraform, Ansible, and Helm
- Standardization gap analysis across teams and repositories
- Up to four structured interviews with platform teams to validate findings

Deliverable: Comprehensive findings matrix and validated interview readouts with the platform team.

Optimization and Roadmap Handover

This phase translates findings into an executable plan aligned to business and engineering priorities.

- Effort and impact based prioritization of all recommendations
- Phased implementation roadmap highlighting quick wins and strategic improvements
- Executive summary and readout presentation
- Full written assessment report
- Optional two week follow up check in to support execution momentum

Deliverable: Assessment report, executive readout deck, and implementation roadmap.

Outcome

Keyva's Pipeline Assessment and Optimization solution delivers measurable operational, security, and cost improvements across the software delivery lifecycle.

- **Faster Software Delivery:** Reduce average build times by 30–50 percent through caching, parallelization, and stage optimization, increasing deployment velocity
- **Reduced Security Risk:** Eliminate credential exposure, secret sprawl, and supply chain vulnerabilities before they become incidents or audit failures
- **Recovered Engineering Capacity:** Free developers from pipeline instability, manual fixes, and on call interruptions, redirecting time toward feature and platform work
- **Audit Ready CI/CD Controls:** Establish documented, enforceable standards that support compliance and governance requirements
- **Lower Infrastructure Costs:** Right size CI/CD compute resources and eliminate redundant or uncached build steps
- **A Scalable Pipeline Foundation:** Replace bespoke, fragile scripts with reusable templates and standards that scale without accruing technical debt