CI/CD in Google Cloud

Explore the world of Continuous Integration and Continuous Delivery with Google Cloud. Discover robust CI/CD services designed for modern delivery pipelines. Achieve faster deployments and reduce errors using the Google Cloud Platform.

1 by The XYZ Company



Core CI/CD Services

Cloud Build

Serverless CI/CD for automated builds.

Cloud Source Repositories

Managed Git repositories for code storage.

Container Registry

Store and manage container images securely.

Artifact Registry

Universal package management for artifacts.

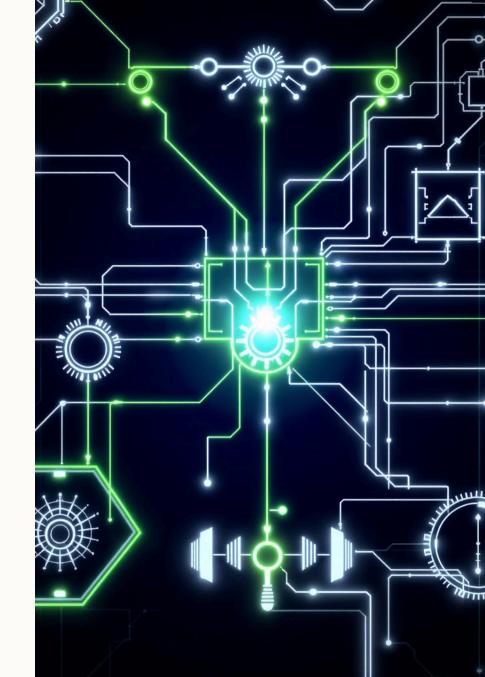
Container Registry

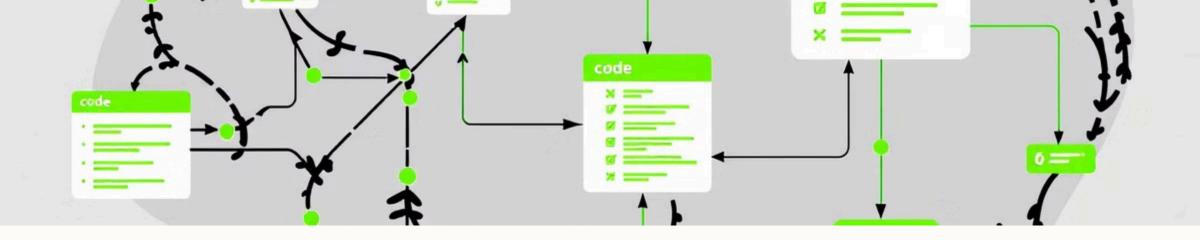
A single place for your team to manage container images, perform vulnerability analysis, and decide who can access what. Integrated with native Google Cloud tooling, Container Registry provides a foundation for modern application development.

Cloud Build Pipelines

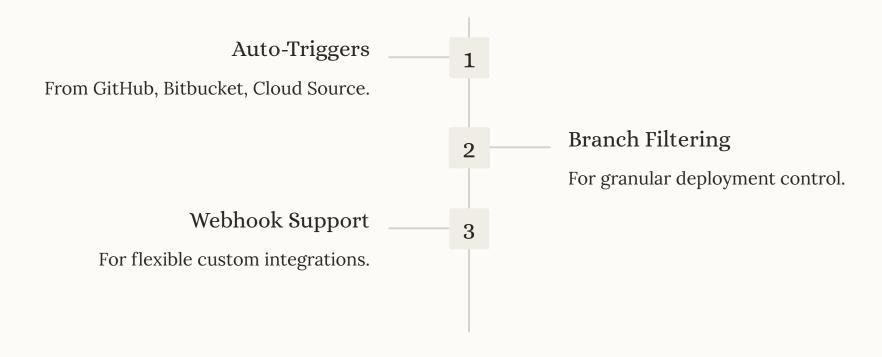
- Language SupportSupports 15+ languages and frameworks.
- Parallel Execution

 Reduces build time by up to 60%.
- Tool Integration
 Integrates with 30+ DevOps tools.
- Auto-Scaling
 Scales up to 32 cores/96GB RAM.





Source Control and Triggers



Artifact Management

Format Support

Docker, Node.js, Python, Java.

Vuln Scanning

Built-in vulnerability detection.

Access Control

IAM integration for security.



Deployment Strategies

1

Rolling Updates

Zero downtime deployments.

2

Blue-Green

Switch between environments.

3

Canary Releases

Traffic splitting for testing.

4

Automatic Rollbacks

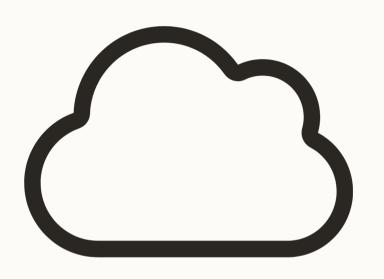
Quickly revert failed releases.

Deployment Process

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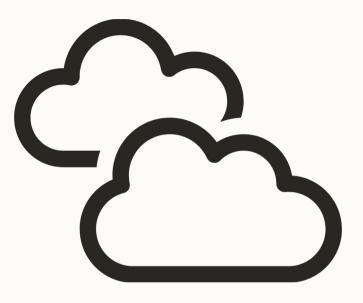


Services to deploy code in GCP Cloud



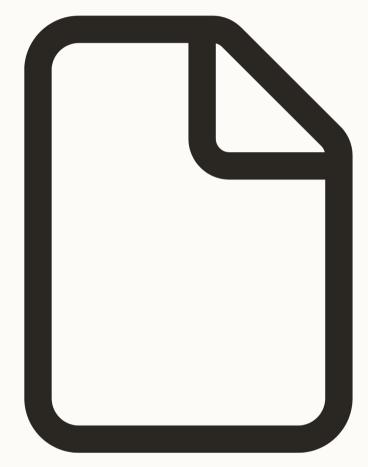
Cloud Deploy

Automate deployments to Google Kubernetes Engine, Cloud Run, and Compute Engine.



Cloud Run

Deploy containerized applications quickly and easily on a fully managed serverless platform.



Google Kubernetes Engine (GKE)

Orchestrate containerized applications using Kubernetes on Google Cloud.



Security and Compliance



Container Analysis API.



Binary Authorization for controls.



Encrypted storage and transmission.

Best Practices and Metrics

