



# Overview of CI/CD

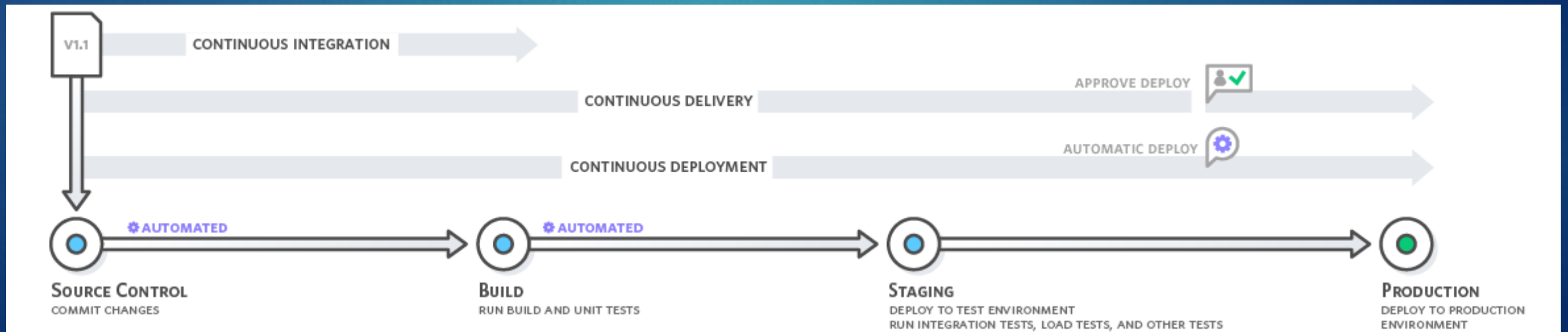
HOW ORGANIZATIONS SAVE COST AND DELIVER FASTER

# What is CI/CD?

- ▶ **Continuous integration** is a DevOps software development practice where developers regularly merge their code changes into a central repository, after which automated builds and tests are run. The key goals of continuous integration are to find and address bugs quicker, improve software quality, and reduce the time it takes to validate and release new software updates.
- ▶ **Continuous delivery** is a software development practice where code changes are automatically prepared for a release to production. A pillar of modern application development, continuous delivery expands upon continuous integration by deploying all code changes to a testing environment and/or a production environment after the build stage. When properly implemented, developers will always have a deployment-ready build artifact that has passed through a standardized test process.

# Continuous delivery visualization

Continuous delivery automates the entire software release process. Every revision that is committed triggers an automated flow that builds, tests, and then stages the update. The final decision to deploy to a live production environment is triggered by the developer.



# Continuous Integration

## Benefit of CI

- Reduce code conflicts
- Faster code merging
- Catch compile error after merge

## Organization benefit

- Cost reduction (catch error quickly)
- Increase revenue
- Cost avoidance (catch unexpected error)

# Continuous Delivery

## Benefit of CD

- Faster and more frequent deployments
- Automated rollback in case of failure
- Avoid manual steps in deployment
- Less human-error in deployment

## Organization benefits:

- Faster and accurate feature delivery for companies/customer
- Reduce down time
- Less infrastructure cost
- Prevent security vulnerabilities