

# CI/CD - BENEFITS OF AUTOMATION FOR HIGHLY EFFECTIVE SERVICES

# CONTINUOUS INTEGRATION

The practice of automating the integration of code changes from various contributors into a single software project is known as continuous integration (CI). It's a fundamental DevOps best practice that enables developers to regularly merge code changes into a single repository, after which builds and tests are executed. Before integration, the new code is checked for correctness using automated tools.

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# CONTINUOUS DEPLOYMENT

Having continuous testing and operations at such a high level that new software versions can be validated and deployed into a production environment without the need for human intervention is what continuous deployment entails.



# CONTINUOUS DELIVERY

The "main" or "trunk" branch of an application's source code is always in a release-ready state thanks to continuous delivery. In other words, the most recent version could be deployed with the push of a button and without concern for failure if management came to your desk at 4:30 PM on a Friday and demanded that it be released immediately.



# BENEFITS OF CI/CD

- **Increased business sustainability**
- **Fast feedback**
- **Cost reduction**
- **Shorter time-to-market**



# HITCHES OF CI/CD

- **Security Vulnerabilities**
  - **Performance Issue**
  - **Flawed Automated Testing System**
  - **Technological Complication/Limitations**
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