

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.

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

- **Faster time to market**
 - **Reduced risk**
 - **Better code quality**
 - **Shorter review time**
 - **Smoother path to production**
 - **Faster bug fixes**
 - **Measurable progress**
 - **Collaboration and communication**
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HITCHES OF CI/CD

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