

Fundamentals and Benefits of CI/CD to Achieve, Build, and Deploy Automation for Cloud-Based Software Products

One of the corner-stones of DEVOPs is the implementation of CI/CD which bridges the divide between the development and operations teams.

Continuous integration:

This merges or the works of various developers into a shared repository. This can be done numerous times a day and makes collaboration between developers seamlessly.

Continuous Deployment:

This enables teams to release features to production automatically. Clients or customers can get feedback fast and any errors or failures can be rolled back automatically.

Continuous Delivery:

Code can be deployed to production and put into use immediately without laborious preparation for product releases. Teams can automate the testing and deployment procedures.

Benefits of CI/CD:

Compile errors can be discovered fast:

This will enable developers to spend more time on more productive process of writing code for new features since compile errors are quickly detected and fixed on merge. This will reduce the cost of hiring more developers.

Automated Unit tests:

Unit tests are carried out efficiently: unit tests reduce the probability of bugs in production. Since these bugs are discovered early in CI/CD , time to production is reduced and customer satisfaction is improved.

Faster product deployment:

With CI/CD, products are deployed to production faster. This can increase the revenue of the company.

Automated smoke tests:

With CI/CD, smoke tests can be automated reducing the chances of a major bug or crash in production. This will protect the company revenue.

Automate infrastructure clean up:

With CI/CD, redundant infrastructure can be cleaned up automatically, saving production costs.

Automated roll backs on failure:

Upon failure, the new infrastructure can be rolled back to the initial job protecting the company revenue.

Conclusion:

Implementing CI/CD will be beneficial to the company, our developers will spend their time developing new features faster, our features will be tested and deployed to production faster. This will make our customers very happy with our services and we will have better revenue.