



Fundamentals and Benefits of CI/CD



Presentation

What is CI/CD Pipeline.



A continuous integration and continuous deployment (CI/CD) pipeline is a series of steps that must be performed in order to deliver a new version of software.



Automating the pipeline have benefits technically and from business and cost prospective



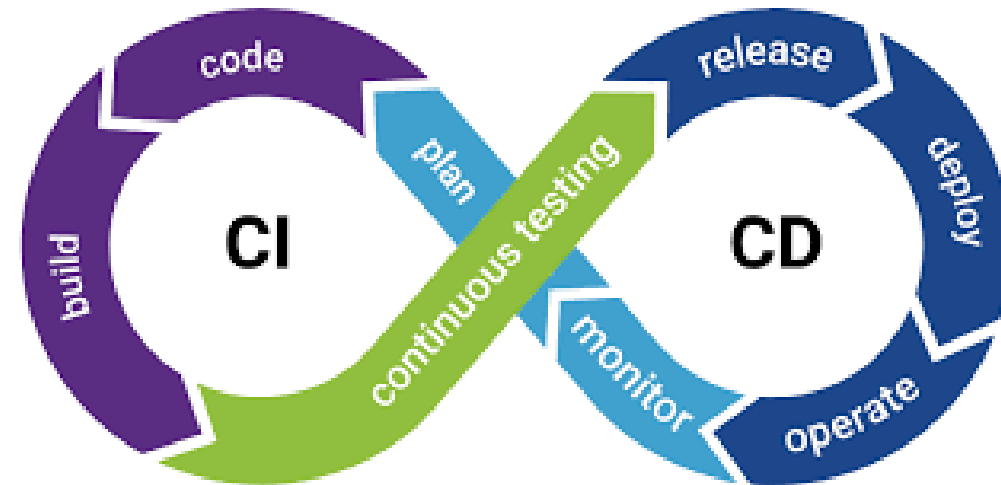
As custom applications become key to how companies differentiate, the rate at which code can be released has become a competitive differentiator.



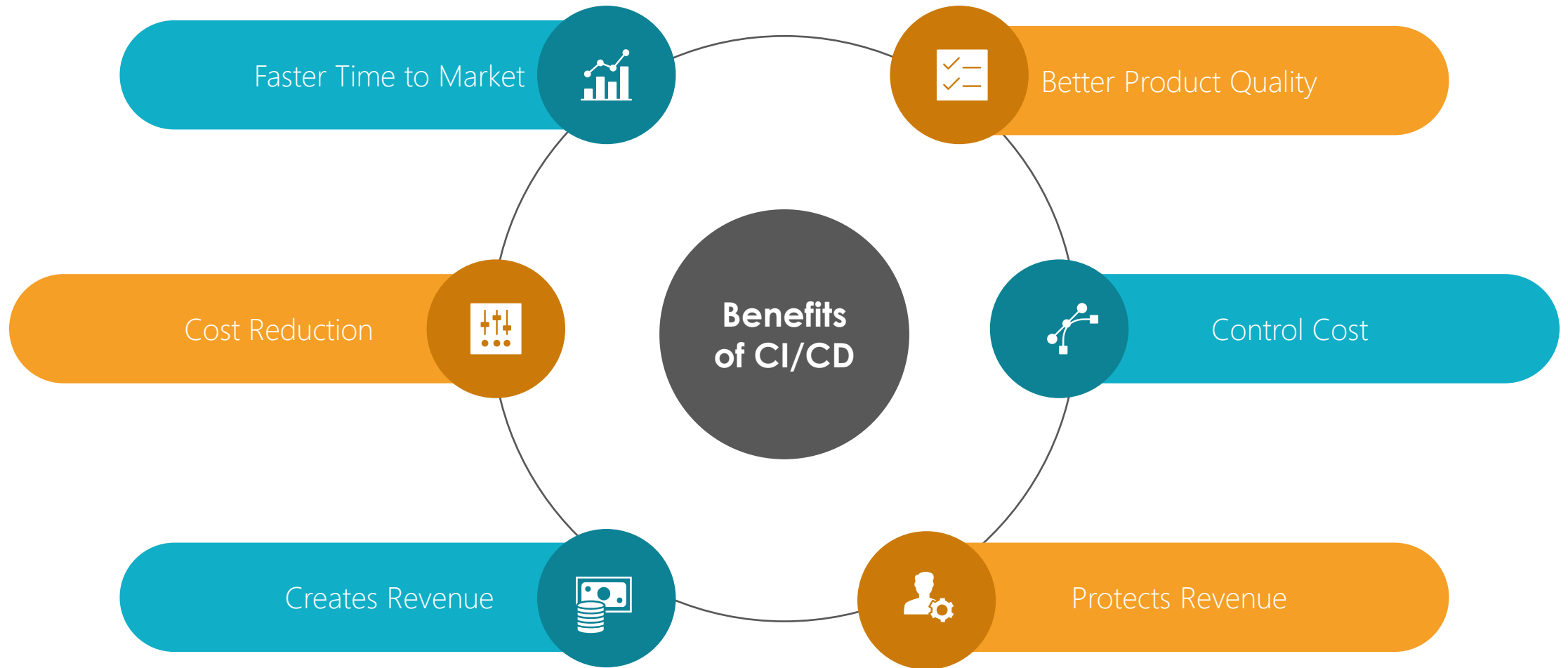
CI/CD automates most of the traditional manual human intervention needed to get new code from a commit into production such as build, test, and deploy, as well as infrastructure provisioning.



CI/CD helps achieve better applications and more stable releases



• Business Benefits of CI/CD •



Cost Reduction

CI/CD automates the source code management, the version control system, the deployment mechanisms, and smoke testing:

- This will decrease the employees needed for these steps. Thus, reduce the need of extra resources and by its turn, reduces the project cost.

Stable releases ensures that no extra cost will be spent in fixing the releases

Avoid having to pull out the product or application in case of failures.

- This will reduce cost spent in rolling back after deployment to production

On top of the effort saved from maintaining a huge fleet of designated servers, you'll also be able to run more work on fewer servers total, saving infrastructure costs.

CI/CD reduces the Mean Time To Resolution (MTTR), because the code changes are smaller and fault isolations are easier to detect.

- One of the most important business risk assurances is to keep failures to a minimum and quickly recover from any failures that do happen.

Creates and Protect Revenue



Resources

CI CD helps automate testing and monitoring jobs of the product. This will let engineers working on revenue-generating projects



Increases Productivity

Developers are focused on solving business problems instead of focusing on maintaining and fixing issues. This will help develop a greater number of projects and hence more revenue.



Faster Time to Market

CI/CD can bring new products and features to market faster and immediately start generating revenue from the features they deploy rather than waiting for the entire app to be completed (and checked manually) before they can launch.



Reliable Releases

With the continuous merging and releasing of new products and features, knowing that quality was top of mind throughout the entire process assures stakeholders their investment is worthwhile.