

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

## **What is CI/CD?**

CI/CD is a method to frequently deliver apps to customers by introducing automation into the stages of app development. The main concepts attributed to CI/CD are continuous integration, continuous delivery, and continuous deployment. CI/CD is a solution to the problems integrating new code can cause for development and operations teams (AKA "integration hell").

Source: <https://www.redhat.com/>

## **Benefits of CI/CD**

Benefits of CI/CD includes:

### **1. Cost Reduction**

When CI/CD is setup on a project, developer don't waste time on issues from new developer code because proper checks are put in place to ensure new commits to the code base does not break the existing working code. Whenever there is an issue, automatic rollback is put in place which makes the company spend less infrastructure costs from unused resources.

### **2. Revenue Protection**

Whenever deployment fails, a properly setup CI/CD can undo to return production to working state. This ensure revenu is protected

### 3. Increase in Revenue

The main purpose of setting up CI/CD pipeline is to deliver a functional application to end users quickly as well as frequently. When a proper CI/CD strategy is in place, organizations can ship code changes every week, day and hour, thus increasing revenue.