

1. Higher efficiency

One of the main advantages of a CI/CD pipeline is increased productivity => **Reduce cost**

2. Reduced risk of defects

Late in the development phase, faults are costly and time-consuming to find and fix. This is especially true when issues develop with features that have already been made available in production.

A CI/CD pipeline enables you to test and deploy code more often, giving QA engineers the ability to find and solve mistakes as they arise. By doing so, you are successfully reducing dangers in the present. =>

Reduce time on issue

3. Faster product delivery

A CI/CD procedure that runs without hiccups can enable numerous daily releases. Without much manual labor, teams may automatically create, test, and deliver features. Some of the frameworks and tools that can be used to do this are Docker, Kubernetes, and Travis CI.

Your team can update customers frequently and effectively thanks to CD. The effectiveness of the entire team, including the deployment of new features and bug fixes, increases when CI/CD is implemented.

Businesses can respond to changes in the market, security threats, consumer wants, and financial pressures more quickly. => **Less time to go to market**

Your team can use CI/CD and automated testing to bring the repair to production systems more quickly and with higher certainty if a new security feature is required. What formerly required weeks or months to complete can now be

4. Log generation

For DevOps, observability is essential. You must determine the cause if anything isn't correct. To identify key performance indicators, you'll need a mechanism to monitor the system's performance over time. A technical tool that supports this effort is observability.

Information logging is essential to observability. Logs offer a wealth of data that may be used to analyze program activity and understand what's going on behind the UI. At every stage of the software development process, a CI/CD pipeline creates a large amount of logging data. => **Less time to detect issue => Reduce cost**

5. Quick rollback if required

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6. **Better planning**

Organizations can do this by using a CI/CD pipeline to make sure they have a well-organized surplus of resources and a constant line of communication with customers. => **Reduce cost**

7. **Efficient testing & monitoring**

Automating each test case and experimenting with the software are steps in the testing process. Automation should be used for every cycle that needs to be performed repeatedly over time, and there are enough technologies out there to make this a reality. There will almost always be ways to automate the equivalent of manual testing measures, thus it is important to analyze them for potential automation consequences.

With a clear goal of providing quality delivery quickly, the code delivery cycle should make it possible to run the test suite on each product assembly generated without client involvement.

Ops teams can supervise and guarantee that the environment is stable and that the application is functioning as planned by using continuous monitoring. They have to make sure the applications run smoothly.

In order to do this, software that can track application health and problems must be deployed. The development team and the operations team may also need to work together to incorporate self-observing or information gathering capabilities into the applications. The product must be continuously checked by the developers from beginning to end. => **Reduce cost**