

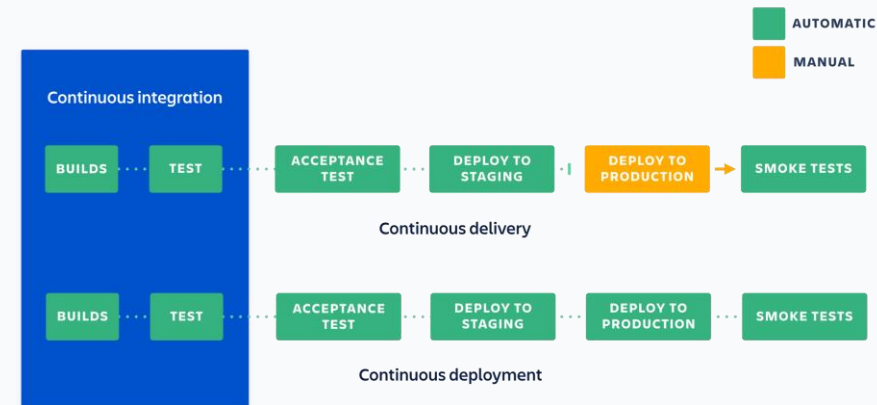
The background is a complex, abstract geometric pattern composed of numerous triangles in various shades of blue, orange, purple, and brown. A white grid is overlaid on the image, consisting of two vertical lines and two horizontal lines that create a frame around the text.

Entering the world of Continuous Integration & Continuous Deployment (CI/CD)

Udapeople

What is CI/CD?

“Continuous integration (CI) and continuous delivery (CD) embody a culture, set of operating principles, and collection of practices that enable application development teams to deliver code changes more frequently and reliably. ” - [Isaac Sacolick \(INFOWORLD\)](#)



Common benefits of CI/CD

1. Easier to Implement programmatic solutions,
2. Increased Fault Isolation,
3. Faster Mean Time To Resolution (MTTR),
4. More Test Reliability,
5. Faster Release Rate,
6. Smaller Backlog,
7. Increased User Satisfaction,
8. Increased Team Transparency and AccountabilityIncreased,
9. Overall Reduced Costs for Maintenance and Deployment,
10. Easier Maintenance and Updates.

The CI/CD shift

“To understand the impact of CI/CD and DevOps, it helps to have the full picture. In our survey 83% of developers said they're releasing code faster than ever before. In fact, nearly 60% of them deploy multiple times a day, once a day, or once every few days (that's 15 percentage points higher than in 2019).” – [GitLab \(2019\)](#)

CI/CD helps in talent retention

- “Every organization is now a software organization, regardless of its underlying mission and purpose. They recognize the critical nature of dev productivity. If roadblocks keep developers from delivering new capabilities, they’ll leave. Companies organizing around “one pizza” dev teams focus on easy-to-use solutions for end-to-end software delivery. Marketing such desirable customer experiences is critical to attracting and retaining talent.” - **Simon King, Synopsys**
- One of the top 5 reasons, based on a worldwide Forbes survey, developers leave organizations is due to roadblocks out of their control. Most of these roadblocks can be linked to a **poor integration and deployment strategy!**

Team ownership increases with good CI/CD

- “Good CI/CD can also help to increase a sense of ownership within engineering teams. Teams feel empowered when using CI/CD properly; a well-implemented deployment pipeline helps a team own the software, from development all the way to production, enabling rapid changes when needed.” - [Matthew Skelton \(Conflux\)](#)



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Conclusion

“Continuous integration and continuous delivery provide an ideal scenario for your organization’s application teams. Your developers simply push code to a repository. This code will be integrated, tested, deployed, tested again, merged with infrastructure, go through security and quality reviews, and be ready to deploy with extremely high confidence. When CI/CD is used, code quality is improved, and software updates are delivered quickly and with high confidence that there will be no breaking changes. The impact of any release can be correlated with data from production and operations. It can be used for planning the next cycle, too—a vital DevOps practice in your organization’s cloud transformation. ” – [Amazon Web Service](#)

