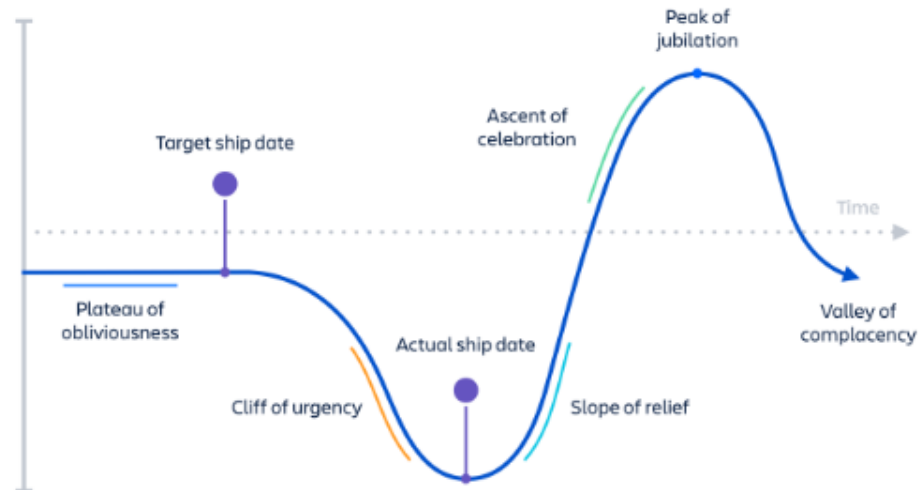# Business benefits of CI/CD

Why continuous delivery?

What emotions does the word "release" trigger in you? Relief? Elation? A fist-pumping sense of accomplishment? When new features are finally out to customers and bugs are fixed, everyone's happy, right? Well, the dark secret in many organizations is that shipping a release takes a huge amount of effort. If your team is still living with manual testing to prepare for releases and manual or semi-scripted deploys to perform them, your feelings may be closer to "dread" and "blinding rage".

Emotional cycle of manual delivery

Top business benefits of continuous delivery

Continuous delivery improves velocity, productivity, and sustainability of software development teams.

First off, velocity

Automated software delivery pipelines help organizations respond to market changes better. The need for speed is of utmost importance to reduce shelf time of new features. With a low Time2Market, organizations have a better chance to outmaneuver their competition and stay in business.

Remember that speed by itself is not a success metric. Without quality, speed is useless. There is no value in having continuous delivery pipelines shoot erroneous code into production at speed.

So, in the world of continuous delivery, velocity means responsible speed, and not suicidal speed.

Second, productivity

Productivity translates to happiness, and happy teams are more engaged.

Productivity increases when tedious and repetitive tasks, like filling out a bug report for every defect discovered, can be performed by pipelines instead of humans. This lets teams focus on vision while pipelines do the execution. And who doesn't want to delegate the heavy-lifting to tools?

Teams investigate issues reported by their pipelines and once they commit the fix, pipelines run again to validate whether the problem was fixed and if new problems were inadvertently introduced.

Third, sustainability

Businesses aim to win marathons, not just sprints. We know that cutting ahead of the pack takes grit. Consistently staying ahead of the pack can be even harder. It takes discipline and rigor. Working hard 24/7 will lead to premature burnouts. Instead, work smart, and delegate the repetitive work to machines, which by the way don't need coffee breaks and don't talk back!

Every organization, whether or not a tech company, is using technology to differentiate. Automated pipelines reduce manual labor and lead to eventual savings since personnel is more expensive than tools. The steep upfront investment can cause concern to inexperienced leadership, however, well-designed pipelines position organizations to innovate better and faster to meet their customers' needs. CD provides the business with more flexibility in how it delivers features and fixes. Specific sets of features can be released to specific customers, or released to a subset of customers, to ensure they function and scale as designed. Features can be tested and developed, but left dormant in the product, baking for multiple releases. Your marketing department wants that "big splash" at the yearly industry convention? With continuous delivery, it's not only possible, it's a trivial request.

What are the Business Benefits of CI/CD?

So, what are the business benefits of continuous integration and continuous delivery? In these next few sections, we'll take a look at CI/CD's business value from a few different angles.

Bring Products to Market Faster

Organizations that have effectively implemented 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.

Instead, teams already know the code is in good shape because they've automated testing, and continuous delivery means code is automatically deployed if it meets predefined criteria. Back-to-back releases are easier and less time-consuming, and, if something isn't working, they can pull features with a single click.

Allows Developers to Deliver Products Consumers Want Now.

Over the last couple of years, customer-centricity has been a core focus for businesses.

CI/CD enables organizations to respond to consumer needs as they evolve.

Teams have the flexibility to update applications and build and deploy new ones in response to emerging trends, new markets, and evolving expectations. According to Rodolfo Carmona, "good CI/CD implementation starts early in the production process by making the core functionality available to end-users right away. That way, early feedback and usability issues can be addressed without the need for major time-consuming refactors to change the direction later on."

CI/CD plays a crucial role in shortening time to value.

According to 3Pillar Software Engineer, Paul Estrada, the strategy "fosters a culture of innovation, allowing developers to experiment with new technologies and try out new ideas. Teams can test different features with real users in parallel and use their findings to ensure