CI/CD BENEFITS PROPOSAL

WHAT DOES CI/CD STAND FOR? THE CONCEPTS EXPLAINED

CI/CD consist of three major concepts

Continuous Integration

Continuous Integration describes the process of merging developer branches to the main branch several times a day. CI puts an emphasis on test automation and finally generates a high quality, deployable artifact.

Continuous Delivery

In addition to Continuous Integration, Continuous Delivery makes sure that changes of a software product can be released quickly to customers in an automated way and at any point in time.

Continuous Deployment

Continuous Deployment extends Continuous Delivery in such a way that it allows frequent automated deployments without any human interaction. Typical phases in Continuous Deployment are Infrastructure Provisioning, Smoke Testing, Production Deployments and automated Rollbacks.

WHAT ARE OUR OUR MAIN POINTS?

1. Our manual release process is error-prone and always leads to delays of production deployments

2. This in turn often leads to poor software quality since we don’t have time for quality analysis anymore

3. Deployments are pretty complex. Only a chosen few experts are able to understand the whole process and tons of hand crafted helper scripts. No smoke tests and rollback mechanisms.

4. We get late feedback from the business department which prevents us from creating flexible solutions

WHAT ARE THE MILESTONES FACED?

1. Establishing CI/CD comes with a high amount of initial cost and learning. At first sight this might seem overwhelming compared to current best practices.

2. Delivering CI/CD pipelines is not a one time effort, but requires constant support and maintenance as well as continuous development and improvement.

3. Even though there are some challenges, CI/CD will improve overall business processes and dramatically reduce costs on the long run

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