UDAPEOPLE

CI/CD BUSINESS BENEFITS PROPOSAL

OVERVEIW

➢ What does CI/CD stands for ? The concepts explained

➢ What are the CI/CD solution to business problems,with the benefits ?

➢ What challenges would we be confronted with ?

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.

UDAPEOPLE-CI/CD BUSINESS BENEFITS PROPOSAL

What are the CI/CD solution to business problems, with the benefits ?

➢ Manual and error-prone release process

Solution

> Implement Continuous Integration: automate compiling, testing, code analysis and artifact storage

Benefit

> Cost reduction due to less human errors and faster deployments

➢ Complex deployments and handcrafted automation which often fail. Missing smoke tests and rollback mechanisms.

Solution

> Automate today's manual deployment steps for smoke tests and rollbacks

Benefit

> Automated Smoke Tests and Rollbacks will protect project revenue   due to reduced downtimes from deploy-related crashes

What challenges would we be confronted with ?

➢ 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.

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

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