



UDAPEOPLE  
BUSINESS CASE FOR CI/CD

# UDAPEOPLE BUSINESS CASE FOR CI/CD - OVERVIEW

- ❖ The CI/CD concepts
- ❖ Our current Issues
- ❖ How we could benefit from DevOps principles and how CI/CD can help
- ❖ What are the Benefits & Challenges?

# UDAPEOPLE - CI/CD 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 – Current Issues

- Our manual release process always leads to delays of
  - production deployments
  - Manual process is error-prone
  - This leads to poor software quality
  - Deployments are complex with limited expertise and high dependency on them
  - Late feedback loops which prevents us from creating flexible solutions

## UDAPEOPLE - CI/CD – How CI/CD Helps

- Implement Continuous Integration: automate compiling, testing, code analysis and artifact storage
- Automate Infrastructure CRUD operations
- Automate manual deployment steps for smoke tests and rollbacks
- Add automated infrastructure provisioning
- Implement Continuous Deployment: automated deployment of changes at any given point in time
- Involve customers and business stakeholders early in process

# UDAPEOPLE - CI/CD – Benefits & Challenges

## ■ Benefits

- ✓ Faster feedback cycles of customers lead to higher customer satisfaction
- ✓ Automated Smoke Tests and Rollbacks will protect project revenue due to reduced downtimes from deploy-related crashes
- ✓ Cost reduction due to faster deployments
- ✓ Reduced complexity and safe manual troubleshooting time

## ■ Challenges

- ✓ High Initial cost to setup the pipeline
- ✓ Training of staff
- ✓ constant support and maintenance as well as continuous development and improvement

Overall, CI/CD will improve overall business processes and dramatically reduce costs on the long run