



DevOps Case Study

Application Development & Testing

– DevOps way



70%
Reduced time
to Market



80%
Reduced cycle
time



2x
Business agility,
Collaboration

Customer Context & Goals

The client is one of the global university that provides campus and online degree programs

The DevOps and Cloud Automation CoE helped the customer:

- ▶ DevOps Services across life cycle from consulting to implementation to operations to support digital learning platform

Challenges

Provide Adaptive Learning Experiences across multiple form-factors

Delays in product releases due to frequent code changes and build failures

Destabilization of Application during Testing

Monitoring Security Threats & Application Performance

Inefficient Deployment and Management of Microservices



Solution

- ▶ Planned and implemented continuous delivery and DevOps at scale
- ▶ Streamlined application delivery pipeline through code, build, test and deploy stages
- ▶ Bamboo used to run tests for **18 services, 300+ packages and 4800+ unit tests**
- ▶ Hudson CI environment used to perform sanity testing for 5240+ back-end & front-end test cases
- ▶ Dockers setup to deploy and manage micro-services
- ▶ Python, Shell scripts to automate infrastructure provisioning
- ▶ Splunk web interface used to monitor servers, apps and traffic

Business Benefits

- ▶ Personalized Learning Experience addressing complete student life cycle management
- ▶ **40% increase** in overall team productivity with agile DevOps and continuous collaboration
- ▶ Full visibility and control, gaining the ability to sense and respond to change efficiently
- ▶ Release of new feature based on participating microservices only, in-spite of full product rollout

Tools and Environment



DevOps

Bamboo, Hudson, ClearCase, Microservices, Docker, GitHub



Cloud

EMC, AWS



Database

Oracle, Hadoop, MongoDB, MySQL, Percona, Riak



Automation

Python, Junit, SoapUI



Agile Project Management

JIRA



Analytics

News Relic, Splunk



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