MindCraft

MIGRATION OF DEVOPS TOOLCHAIN FROM AWS TO SOFTLAYER

MindCraft adopted the lift-and-shift approach for the successful migration of tool chains and environments from AWS to SoftLayer for a global bank.

CLIENT

A leading global bank, with around 200 million customer accounts and business in more than 160 countries. The client provides consumers, corporations, governments and institutions with a broad range of financial products and services, including consumer banking and credit, corporate and investment banking, securities brokerage, transaction services, and wealth management.

CHALLENGES

The client planned to use the Backbase platform for digital acquisition of customers for their Credit Card line of business. A large number of developers, testers and functional analysts contributed to the development of applications on this platform. Since the application was being developed using Agile methodology, changes, in the form of new features, were to be made fast. Moreover, the deployment of these applications needed to keep up with the frequent changes and enhancements. As a result, a Continuous Integration-Continuous Delivery model was required to ensure that appropriate environments (Dev/Test/Production) reflected the right version of code. It is for this reason, that the client had adopted a DevOps toolchain & deployed it in the AWS environment. As a part of their larger strategy and IT roadmap, they decided to move the platform for this Application from AWS to IBM SoftLayer. The challenge thus, was to ensure that both the environments and the tool chain were migrated with least impact to development schedules and developer productivity.

THE APPROACH

MindCraft adopted a lift-and-shift approach with a view to eliminate the risk of variances between environments leading to impact on development. Two possible approaches were identified:

➢ VM Migration – Movement of VMs from AWS to IBM SoftLayer

➢ Docker Migration – A hybrid approach of moving Docker images between the two cloud environments and setting up the native applications, grounds up, followed by import of data from AWS to SoftLayer.

After some diligence on the pros and cons, the second approach was adopted as AWS imposes several restrictions on export out of VMs from its environments.

DEVOPS TOOLCHAIN

- Jira – User Stories
- Confluence – Supporting Documents
- GIT/Gerrit – Source Code Repository
- Jenkins – Continuous Integration
- SonarQube – Code Review
- Nexus – Software Repository
- Selenium – Testing Automation
- Jenkins Plugins for Pipeline Triggers, Builds & Deployments

Some of the DevOps tools were implemented on Docker containers while some were native installations.

ACTIVITIES INVOLVED

- ✓ Provisioning the required VMs in SoftLayer
- ✓ Copying Docker images, containers and data volumes from AWS to SoftLayer environment and resurrecting them in the latter
- ✓ Installing and configuring natively installed products (for e.g. Jira and Confluence) freshly in the SoftLayer environment
- ✓ Exporting and importing data for natively installed tools
- ✓ Installing and configuring LDAP
- ✓ Reconfiguring Jenkins jobs to work in SoftLayer
- ✓ Creating new environments in SoftLayer
- ✓ Allowing developers access to toolchain from a common reverse proxy
- ✓ SSL Setup for all tools with the new domain
- ✓ End-to-End testing

OUTCOME

Within a month of starting this activity, MindCraft had the entire tool chain ready for testing in the SoftLayer environment. After a comprehensive testing exercise, the client gave a go-ahead for the final configuration. This was done in a very short span of time with no impact on development schedules. MindCraft ensured that the entire tool chain and environments were ready to be used with zero-downtime and no loss of developer productivity.

MindCraft is a Software Services, & Solutions organization that helps customers get competitive edge through technology services like Digital Transformation, Business Insights, DevOps, Cloud and Middleware services. We possess unparalleled technical skills in niche technologies and abundant experience across Banking, Insurance & Financial Services industries. Established in 2002, we are a team of over 400 across India, Singapore & USA.

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