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Rapyder Helps Oxigen Successfully Migrate to AWS Cloud

Introduction

Oxigen Services India Pvt. Ltd., powered by 14 years of service excellence in the digital business of micro payments of services and remittances in a 'real time' environment, is India's largest payments solutions provider.

Oxigen focuses on growing its footprint and serving the last mile by providing Aadhaar-enabled branchless banking services, cashless micropayments services, and remittances. Its business involves service aggregation and distribution, utilizing mobile, PoS, and web for online payment processing and money transfer services. It is built to service the nation's Telecom/DTH Operators, multiple Services Providers, and Banks, pan India.

AWS Services

EC2, NLB, ALB, S3, CloudWatch, CloudWatch Logs, CloudTrail, GuardDuty, Config, WAF, Direct Connect, Site-2-Site VPN, Route53, CloudFormation, Inspector.

Today, Oxigen boasts a 150-million customer base and a retail footprint of over 2,00,000 outlets. Oxigen has processed over 6 billion transactions, with an existing volume of 600 million transactions annually. Oxigen services are device agnostic and available through a point of sale device, "MicroATM," website, and mobile App.

Business Need

Oxigen was running its three mainstream business applications in an on-premise setup in a hybrid model of physical and virtual machines.

The infrastructure hardware was nearing its end of life. Because they had both B2B and B2C applications, they were looking for a public cloud platform that could support the growth based on the user base that might be added soon.

Solution Approach

Rapyder worked with Oxygen to complete their on-prem deployment assessment.

As part of the assessment conducted, the following points were deduced:

Total cost of ownership by moving to AWS
Migration strategy
Migration plan and wave planning
As part of the migration, 90+ servers across 10 applications were moved to AWS.

A detailed operating model was set up with monitoring and backup needs.

- Landing Zone was implemented with a multi-account setup using AWS Cloudformation.
- AWS Dedicated hosts were used for the provisioning of EC2 instances.
- Direct Connect and site-to-site VPN were implemented from AWS to connect to the partner banks for the applications.
- AWS VM Import/Export was used to move custom VM files to AWS for OEMS, B2B, B2C, and PCI applications.
- Route53 is used for the DNS configuration.
- All Software licenses, including Microsoft Windows and SQL Server, were under the BYOL agreement, which is used per the application's need on the instances in Dedicated hosts. This helped in bringing the cost further down.
- Lift and Shift migration was planned where servers migrated to AWS without affecting the existing deployment architecture.
- PCI security controls are implemented for the PCI-compliant application section.
- AWS security services, i.e., AWS Inspector, AWS Config & AWS GuardDuty setup, are done at the account level.
- AWS WAF was implemented with standard OWASP rules along with rate-limiting automation.
- Post the migration, the usage statistics were observed, and Reserved instances were recommended and implemented as part of the optimization.

Reaping Rewards

- The entire migration of Applications and Databases was completed with minimal downtime and negligible impact on the business.
- Secure access to developers to the private servers using OpenVPN Client.
- The entire solution that was stitched and implemented met the criteria of security best practices.
- The migration to AWS brought about superior performance of all the applications, to the tune of 8% overall benefit.

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