

Client is a telecom provider of multi-media communication and wireless solutions to consumers, with its products and services. One of the pioneers in the space, the client has a maze of legacy and modern software applications that support customer acquisition, retention, service delivery and in-house product engineering efforts. As part of its Enterprise digital transformation process, the client is embarked on a huge, multi-year, Cloud Migration initiative. This project covers re-hosting, refactoring and redesign of applications serving the different business units.

Existing system:

The client has development teams spread across the globe and applications run on four massive data centers with a high availability clustering architecture. The migration process involves close collaboration from the global IT and business teams, calibrated workload migration, without disruption to the business.

Given the complexity and magnitude of transformation, the client has crafted well thought-out process to identify applications and map dependencies, to prioritize the migration efforts. The tech stack considered for one such project comprised of: RHEL/Windows, Oracle, IBM DB2, MSSQL, MQ, Weblogic, OBIEE, ODI, Java, .NET, ANT, ESSBase, ESPX, SSO, Visual Studio.

Key business requirements were:

- Ensure Business Continuity in design & implementation
- Automate deployment of tech stack to avoid manual intervention
- Implement Backup solutions for App, DB, AWS components
- Design with auto-scaling feature based on CPU utilization and Network IOPs
- Monitoring solutions for performance and security

Choice of Cloud platform:

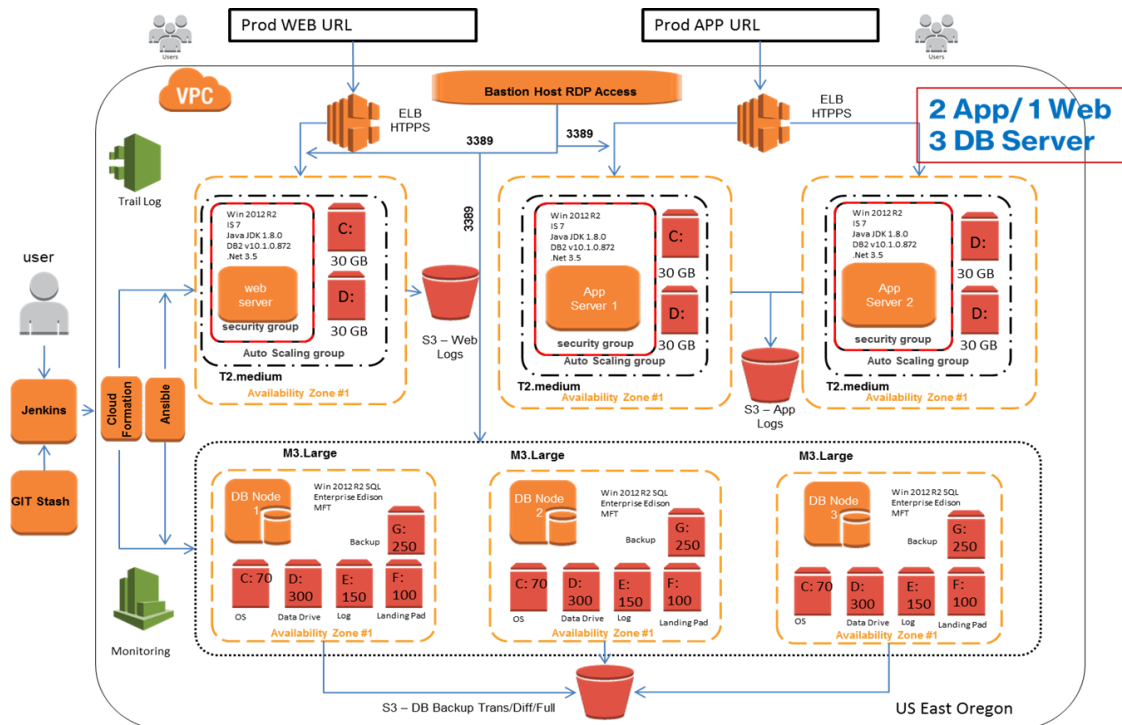
The choice of the hosting platform and optimizing the various components on that was the biggest decision as a SaaS provider for public access. The robustness and scalability of the platform, options for compute, memory, storage, bandwidth, multiple zones and open APIs were critical factors. The client had done detailed evaluation of the different options already and Newt Global validated that AWS presented the best environment to meet most of the business requirements.

Enterprise application migration to AWS

Solution Overview:

With a deep understanding of the AWS features as well as the tech-stack Newt Global implemented an automated end to end IAC implementation.

- Server Provisioning
- S/W installation
- Code Deployment
- Load balancer and configuration
- Auto scaling
 - Application deployment avoiding downtime
 - Scalability
 - Resource-based auto scaling



Process Expectations:

Cost optimization

- Terminating unused servers
- Resize instance based on metrics
- Cleaning unused volumes, snapshot, AMI
- Scheduled instance start/stop

Security

- IAM access within AWS
- Tightened Security rules and enabling access to trusted port/IP
- Captured Log about AWS Events
- Captured Log about ELB Events
- Controlled Server access from Bastion server per application

Management Process & Tools

- Inventory Management
- Ticket Management
- Automation Tools like Ansible, Cloud Formation, **Etc.**

Business benefits:

- ✓ Cost Savings + Lower turnaround on deployment of application workloads and hence faster Time to market
- ✓ Seamless migration of 17 enterprise applications to AWS environment with minimal disruption
- ✓ Better management of infra-structure for optimal resource utilization and application performance

