



The AWS Infrastructure Team at Taashee Linux Services has assisted a leading super specialty hospital chain in India to perform Application Migration process successfully from on-premise to cloud. Their Database Replication maintenance was another task completed effectively by Taashee's AWS team of cloud specialists and engineers.



## Client Introduction

Our client is an established healthcare services provider in India, which was looking to migrate applications securely to the cloud to overcome increased traffic density and avoid complexities in resource scalability. One of the architectural challenges was to hot-replicate database instances on-premise to ensure security and consistency without disturbing their regular workflows. The client was also looking for a competent team to manage their entire Cloud Landscape on a day-to-day basis.

## Client Issues

The major issues/requirements of the client are as listed below.

- » Required a cost-effective Application Migration platform to move all the data and resources from on-premise to cloud.
- » Needed Database Syncs at their Head Office to maintain an updated repository with all the changes included. This was required for analytics and to meet safety compliance.



## AWS Solutions from Taashee

Taashee Linux Services emerged successful in resolving the issues of clients with timely resolutions provided in a cost-effective manner with respect to Application Migration and Database Replication.

- » AWS Engineers at Taashee successfully migrated the client's on-premise application to the cloud. Additionally, the dump size has been reduced with the DB dump compressed into .bz2 format.

- » Taashee's Infrastructure Team successfully completed the provision of customized solutions with the migration of applications from Amazon's account to the client's personalized AWS cloud account.

- » Linear consistency has been achieved by the Infrastructure Team with Database Replication with the implementation of AWS Direct Connect at the client's Head Office.

- » Configured the router tables for better, secure and reliable connectivity between AWS and client's HO.



## Result

Taashee team perpetually worked on bringing down AWS billing costs on a month-on-month basis. It was achieved using advanced monitoring techniques, need-based scaling up of server instances and using reserved instances wherever possible.

## Technical Challenges



### Database Activities

- » Accomplished the process of PostgreSQL Advanced migration for performance enhancement along with extended Oracle compatibility.
- » Maintained replicated copies of database across different availability zones (AZ) in the cloud with Master/Slave/Secondary Slave
- » Ensured better database performance with PostgreSQL config optimization.
- » Achieved load balancing feature with the successful implementation of pgpool setup.



### Security Controls

- » Configured bastion servers to control network access to EC2 instances, which resulted in ensuring robust network-based access controls.
- » Implemented periodic forced password change policy for the users.
- » Conducting regular security audits on all AWS related configurations and all Linux server instances.



### Programming Tasks

- » Created a tool using Lambda and Python for dynamic availability of bastion host on request and approval.
- » Created custom CloudWatch matrix covering RAM utilization, session counts and few other custom KPIs.
- » Created custom monitoring scripts and push reports for presenting detailed KPIs of the databases.

## On-going management & Optimization

The chief advantage that Taashee offered to client is it's holistic service approach. Taashee has teams specializing in handling Java applications in areas like Optimization, Application Server Management and JVM Profiling and Tuning. The Database expertise is provided by our certified and experienced PostgreSQL engineers and the AWS infrastructure and security related issues are taken care by our dedicated AWS certified professionals.

Unlike many other AWS service providers, Taashee distinguishes itself with a team of super specialists in the field of Linux, Tomcat, JBoss, PostgreSQL, MySQL, MongoDB, Alfresco and AWS itself.

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