



How Doyensys added value to an International Fitness and Lifestyle Client

Introduction

This client of Doyensys is a global company headquartered in the U.S. that offers multiple products and services to their clients. These include weight loss and maintenance, fitness, and lifestyle changes, like a comprehensive diet program. The peak business season commences post-Christmas and usually continues till the end of February or the beginning of March.

Problem Statement

- Make available a mission-critical system for the client.
- The customer had implemented an architecture that included Oracle Real Application Clusters (RAC) and two Data Guard physical standby databases. It included one local to the production data center for recovery from operations-induced data corruption, and one remote for disaster recovery (DR).
- The client needed help to manage costs as the customer had consolidated QA/performance test, integration test, and development environments onto the same environment used for disaster recovery.

Project Requirements

This project was a unique scenario as Doyensys worked for a customer for their client. The client approached Doyensys with a host of requirements, which included:

- Upgrading the system, including the hardware, operating system, grid home from 12c to 19c, middle tiers, and the network. Some of these upgrades were small but significant for the user. The final goal was to save costs.
- Enhance the performance of e-commerce applications and back-office processing while also supporting a monthly/quarterly closing. The client has a process where all the processing to close financial books globally is done within one working day.
- Build a resilient architecture to assure availability in the face of both physical and logical failures.
- Optimize footprint, deployment, and ongoing management costs.

Solutions

Doyensys was able to add value to the client's needs by offering and implementing the below solutions.

- ✔ Doyensys migrated financial Production and Non-Production ERP systems from one data center to another.
- ✔ The team at Doyensys worked to offer a new environment that makes extensive use of Oracle Database System and Maximum Availability Architecture. As a result, the client benefitted from a 24x7, high performance, and comprehensive data protection in a consolidated environment characterized by a high volume of mixed workloads (OLTP, reporting, and batch) and demanding service level expectations.
- ✔ To maximize the use of their computing assets, the team implemented a cost-effective architecture by creatively using Data Guard standby systems for multiple purposes and incorporating low-cost storage.



System Monitoring

- ✔ The team at Doyensys works proactively to monitor Oracle Enterprise Manager 13c. The team also uses an apex custom-developed tool to monitor the environment. The administration team performs three scheduled checkups of databases daily.
- ✔ During this process, the team checks for system and database log messages and verifies the space usage. Additionally, the team members also check for long-running sessions and inspect the database system status.
- ✔ The database team also generates and analyzes regular database AWR reports (Report generation is automated on all PROD environment). If they find any poor-performing SQL statements, they co-ordinate with other teams to optimize the SQL statements and enhance the query performance.

EBS Architecture

The client's financial ERP system has a three-tier architecture, which includes two for web and one for concurrent. An external load balancing tool shares the load across the node in a round-robin method. SSL is implemented at the load balancer level, which adds security to the system. Also every user is authenticated through IDCS, with appgate SSO which is again a two-step verification process.



Maintenance and Patching

Doyensys has successfully patched one time along with one upgrade from Linux 6.6 to 7.8. The team was able to perform patching on a scheduled basis every quarter.

How Doyensys added value to the client?

Apart from delivering on the given requirements, the team also provided a few enhancements to offer a complete package to the client.



Automation

Some of the customer's EBS instances need are refreshed every Tuesday and Saturday. The Doyensys team automated this process to almost zero manual intervention. The custom shell script triggers itself to clone the database, scrub the sensitive production data, create custom database links, reset passwords, tar and untar application tier, clone the application tier, etc. is all done by itself. The sanity check is the only manual intervention required before releasing the database. It has reduced the timing of cloning.



Scripting

The team scripted everything in the environment, right from creating a standby database, switchover, failover, cloning, monitoring, code deployment, etc. The monitoring tool DBMON is getting better every day as the team keeps on updating and writing the new shell script to monitor the environment. Earlier it was just a core database, but now it is capable of monitoring Oracle 12.2 EBS Applications and a few areas of Weblogics as well.