

case STUDY

Tax Revenue Agency Implements SRM Solution and Reduces Recovery Time Objectives to 25 Minutes

The Challenge

House of Brick recently engaged with a state tax revenue agency that was facing the challenge of implementing a Disaster Recovery (DR) solution for a custom developed tier-one business critical application stack that was composed of 60 VMware virtual machines. The client retained House of Brick to assess their application infrastructure and provide an effective and low cost plan to implement a VMware Site Recovery Manager (SRM) solution. The project requirements had strict Recovery Time Objectives (RTO) and Recovery Point Objectives (RPO) for DR.

The client was prepared to use SRM to protect application server VMs, but had not considered using SRM to protect its Oracle RAC servers. Oracle's Data Guard had been the presumed solution for the 7 production Oracle Real Application Clusters (RAC) instances requiring DR protection. House of Brick was brought in to assess the plan and provide an implementation roadmap for mixing SRM and Oracle Data Guard services.

The Solution

House of Brick, having assessed the environment, proposed using SRM with an EMC array based replication instead of Data Guard to protect the Oracle VMs. They demonstrated, through analysis, that such a solution would address the RPO and RTO requirements for this project. This had the benefits of using one automated DR solution for all VMs and eliminating Oracle standby server maintenance at the DR Site.

House of Brick also provided the scripting required to reconfigure Oracle CRS clusterware at the Recovery Site upon failover and integrated it with the SRM Recovery Plan. Database integrity and performance were validated at both the Protected and Recovery Sites after implementing our recommended best practices for virtualizing Oracle RAC.

Based on the analysis provided by House of Brick, all 60 business critical VMs were divided into logical application groups that provided the context for analyzing the storage layer. Once this context was established, House of Brick identified deficiencies in the storage and SAN replication layer configuration, which would require a redesign to be optimized for SRM. They recommended a storage design that eliminated the need for consistency groups and aligned Protection Groups with a smaller subset of volumes and datastores. This more granular approach facilitated SRM implementation and testing efforts while simplifying storage maintenance.

The Results

House of Brick expertise enabled the client to leverage their EMC and VMware technology to provide an SRM solution with an RPO of 30 seconds and an RTO of 25 minutes. By simplifying storage to align with application groups and eliminating Data Guard, House of Brick implemented a cost effective solution that required even less maintenance than anticipated.

