Best Practices for Oracle Exadata Cloud Deployments

Real World Implementation: World Bank Group

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ITS Treasury

The World Bank Group

ITS Treasury WBG & IFC

WORLD BANK GROUP
INTEGRATED SERVICES
Information and Technology Solutions

Swamy Kiran, Senior IT Officer, Data and Information Management

Organization Overview

- Financial Services
- Treasury Systems and products
- Market position : Global
- Key IT locations : USA, India

Oracle Engineered Systems (ES)

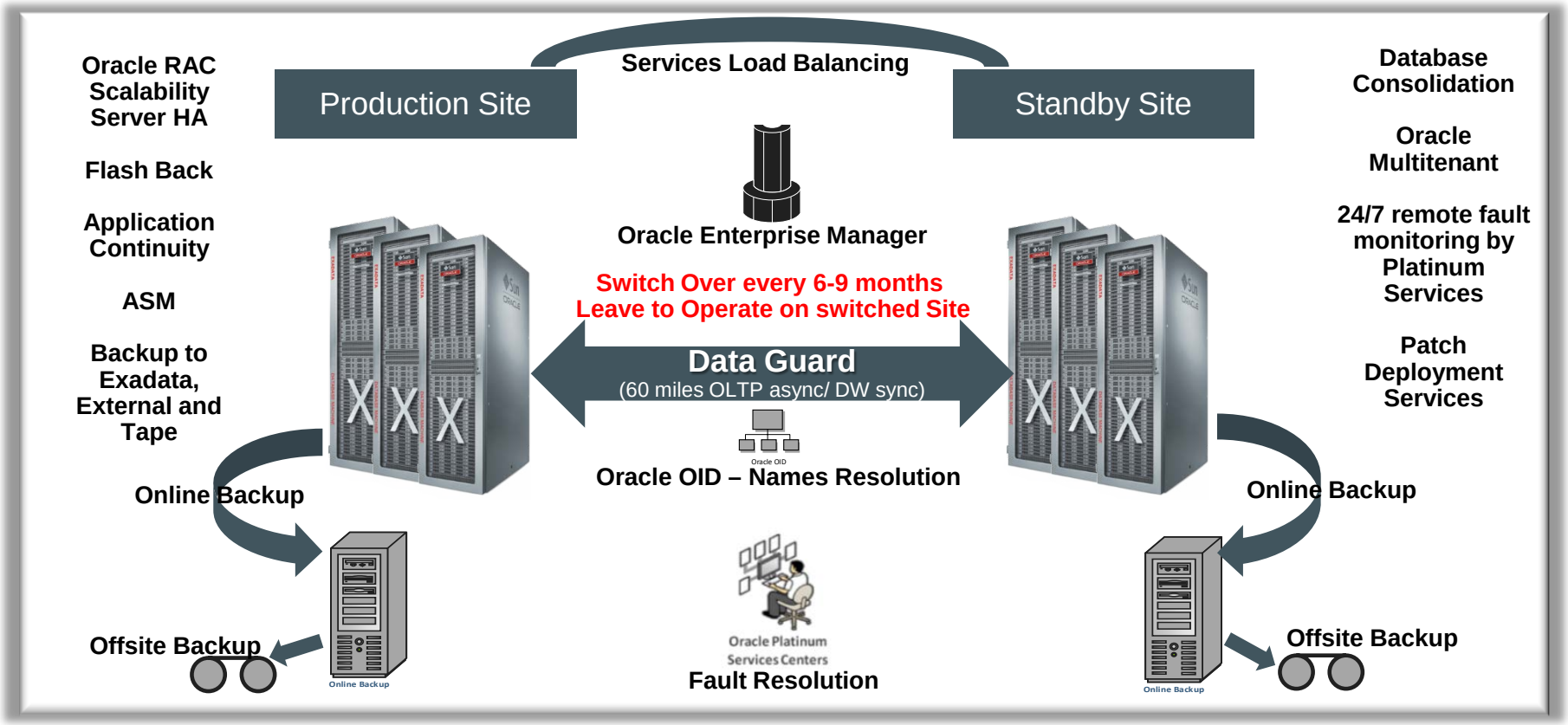
- Oracle Exadata
- Quantities : 9 (X4-2)
- We are in production 4+ years
- WBG+IFC Treasury 40+ Applications are running on Oracle ES – Trading Applications, Money Market, Enterprise Data Management - Both OLTP & Warehouse
- All of our Exadata systems are covered by Platinum Services

Oracle Exadata MAA Perspectives

- Eliminate risk of downtime and data loss
- Consolidation of Database work load - DB as a Services
- Reduced Complexity of database infrastructure
- Improve quality of service while increasing ROI
- Reduce down time, Reliable & Scalable Performance and End-to-End Management
- Twice a year patching – Patch assessment is completed by Platinum Services team
- Prepare for planned and un-planned outages

MAA Architecture at WBG-IFC Treasury

Best Practice of MAA helped us not to failover in last 4yrs



PoV (Proof of Value) - Objective

➢ Background

World Bank's Treasury (IBRD and IFC) currently use Oracle Exadata Machines to operate Oracle databases in the bank's on-premise data centers. The current Exadata Machines X4-2 reaches end-of-life in 2019, these Exadata needs migrate next generation currently X7-2.

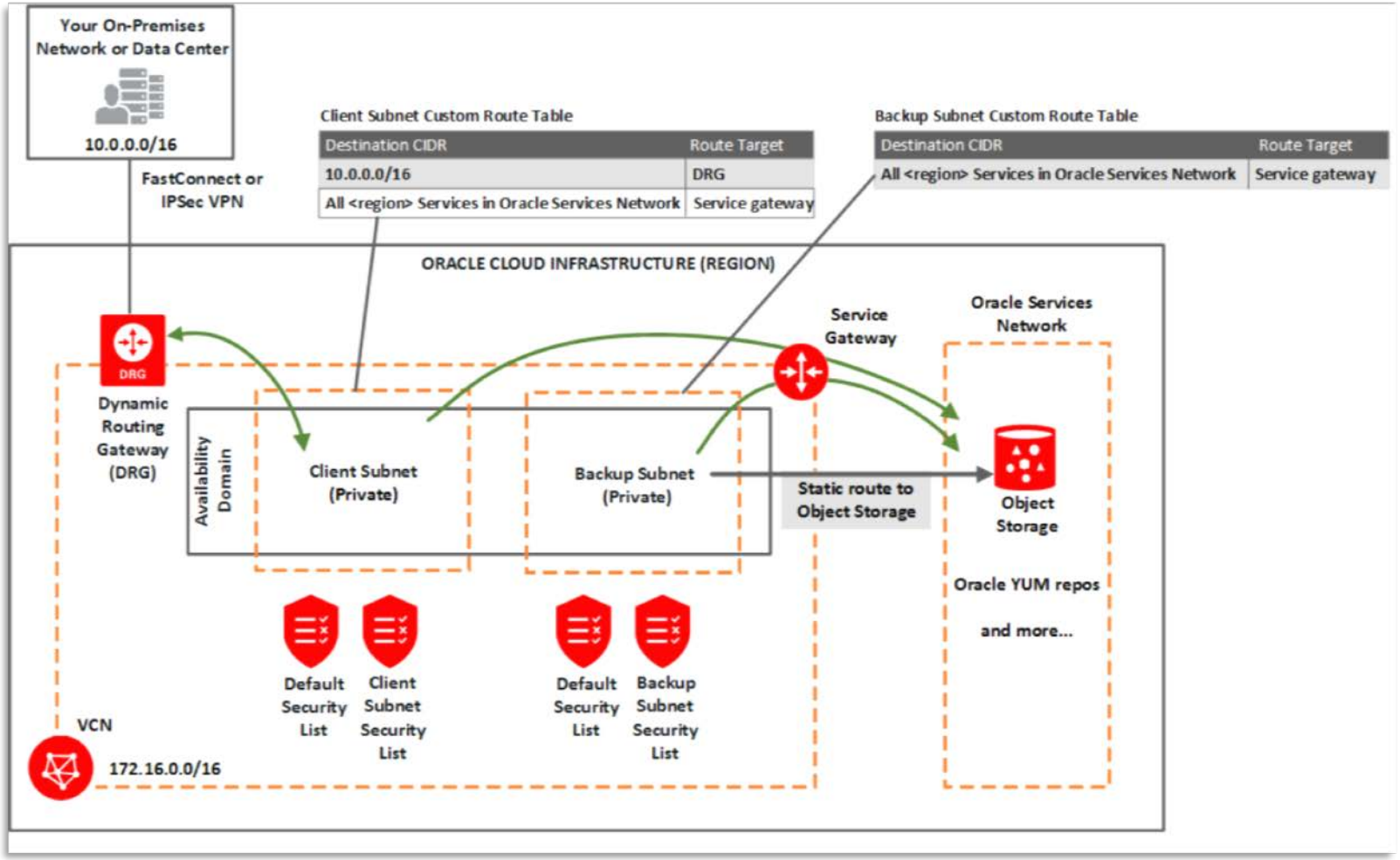
There are 3 options to move to next generation offered by Oracle

- This POV will help World Bank gather information to assist the upcoming decision on moving to Exadata Cloud Service.

➢ POV Objectives

- ✓ ExaCS/Exadata Functional Equivalence: Demonstrate that Oracle's Exadata Cloud Service operates in the same fashion as Oracle Exadata Database Machine on premise.
- ✓ On-premise Application Access to Exadata CS: Demonstrate an on-premise application accessing data contained within Oracle Exadata Cloud Service.
- ✓ Performance of Exadata CS: Document the performance characteristics of Oracle Exadata Cloud Service.

PoV Architecture at WBG-IFC Treasury



Best Practices for – Exadata DB Systems

Oracle recommends to follow some of the best practice guidelines to ensure the manageability of your Exadata DB Systems ExaCS

- SSH Key settings associated with Exadata DB Systems
- Apply “only” patches available via cloud Exadata DB Services
- Apply quarterly patches regularly
- Networking : Subnets, Route tables, Static route, Dynamic routing gateway (DRG), FastConnect (BGP) - follow as per the setup requirements
- Exadata Cloud Service – Data Guard between Availability Domains and Regions
- Exadata Database Backup – Exadata and Object Storage