



Oracle Applications MAA on HP Systems

A set of joint projects between Oracle and HP

Oracle Maximum Availability Architecture (MAA) is Oracle's best practices blueprint based on proven Oracle high availability technologies and recommendations. The goal of MAA is to minimize the complexity in designing the optimal high availability system.

HP has been delivering high-availability and disaster tolerant solutions for mission critical applications for more than 25 years. HP Serviceguard, with more than 150,000 licenses sold worldwide, together with HP Integrity servers and HP StorageWorks Enterprise Virtual Arrays provide a unique combination of availability, scalability and virtualization that enable optimized business outcomes while decreasing costs and mitigating risk.

Together HP and Oracle tested and validated Oracle E-Business Suite (EBS) and Siebel CRM 8.0 with MAA configurations.

Oracle E-Business Suite Release 12 MAA Project

The goal of this project was to research and validate best practice recommendations for customers transitioning their Oracle E-Business Suite Applications to an MAA environment while keeping their downtime to a minimum. The starting environment was Oracle E-Business Suite Release 12 on a single instance (non-RAC) Oracle Database 10g Release 2. The final configuration consisted of a primary and standby site with Oracle E-Business Suite Release 12 running on a two-node Oracle Database 10gR2 Real Application Clusters (RAC), Oracle Clusterware and HP Serviceguard Release A.11.18 Extension for RAC (SGeRAC) all deployed on HP Integrity servers and HP-UX 11i v3 with HP StorageWorks EVA4000. The architecture includes Oracle Automatic Storage Management (ASM) and a disaster recovery site leveraging Oracle Data Guard.

Siebel CRM 8.0 MAA Project

The goal of this project was to research and validate best practice recommendations for customers transitioning their Siebel CRM Applications to an MAA environment while keeping their downtime to a minimum. The starting environment was Oracle's Siebel 8.0 on a single instance (non-RAC) Oracle Database 10g Release 2. The final configuration consists of a primary and standby site with Siebel 8.0 running on a two-node Oracle Database 10gR2 Real Application Clusters (RAC), Oracle Clusterware and HP Serviceguard Release A.11.18 Extension for RAC (SGeRAC), all deployed on HP Integrity servers and HP-UX 11i v2 and 11i v3 with HP StorageWorks EVA4000. The architecture included Oracle Automatic Storage Management (ASM) and a disaster recovery site leveraging Oracle Data Guard.



Approach

Achieving an MAA configuration for E-Business Suite required three main transitions:

1 - Establish Multiple Load Balanced Application-Tier Servers

Two HP Integrity servers were configured with E-Business Suite Release 12 Application-Tier - Web and Forms servers load balanced by an F5 BIG-IP LTM 3400 load balancer.

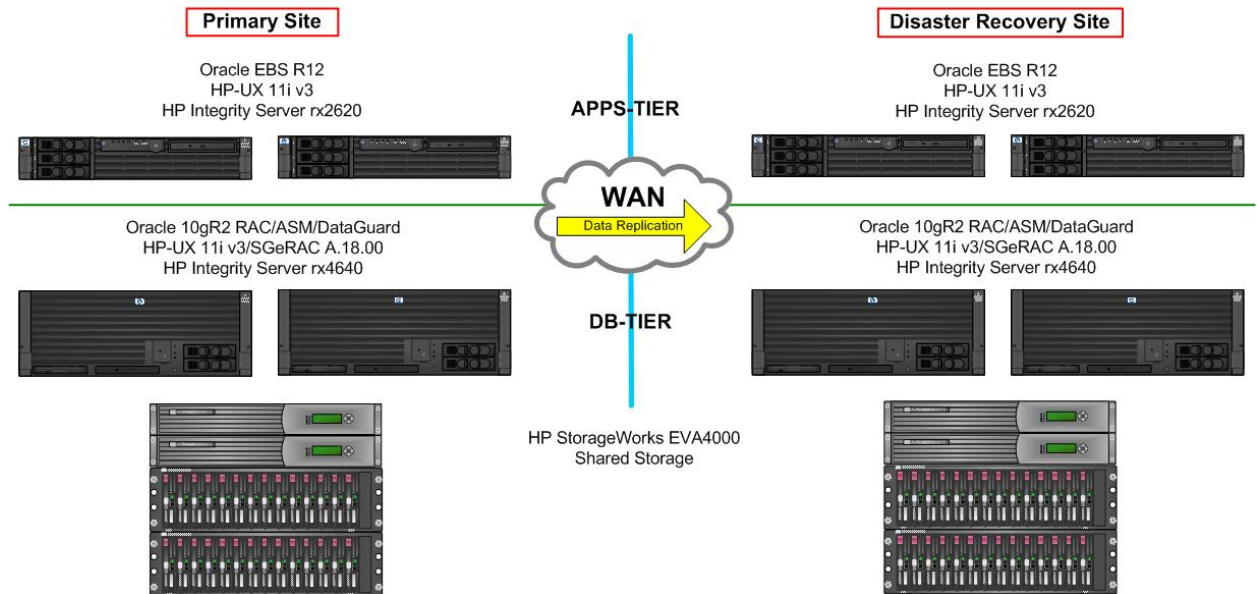
2 - Establish Oracle RAC and ASM at the Primary Site

A single node Oracle RAC 10g Release 2 instance was configured on a new HP Integrity server utilizing HP SGeRAC, Oracle Clusterware, and Oracle ASM. A second instance of Oracle RAC was later added to the primary site.

3 - Establish Disaster Recovery Site Utilizing Oracle Data Guard

A two-node Oracle Database RAC 10g Release 2 environment identical to the primary site was created at the DR site utilizing HP SGeRAC, Oracle Clusterware and ASM. The latest backup of the production database was installed on the DR systems and the Data Guard physical standby was configured. The Oracle E-Business Suite application-tier software from the primary site was also cloned to the disaster site. The DR site was kept up to date by constantly applying the redo logs from the primary site, allowing the DR site to take over in the event of an emergency. As part of the demonstration, the failure detection and failover processes were fully automated using Oracle Fast-Start Failover.

Lab Configuration



Additional Information

Oracle Open World Presentation –

http://www.oracle.com/technology/deploy/availability/pdf/oracle-openworld-2007/s290710_exley.pdf

E-Business Suite Site Failure Demonstration –

<http://www.oracle.com/technology/deploy/availability/demonstrations.html>

Business Continuity for Oracle Applications Release 12 on Database Release 10gR2 –

http://metalink.oracle.com/metalink/plsql/ml2_documents.showNOT?p_id=452056.1



Approach

Achieving an MAA configuration for Siebel 8.0 required five main transitions:

1 - Establish Multiple Load Balanced Web Servers

Two HP Integrity servers were configured with Siebel 8.0 Web Servers load balanced by an F5 BIG-IP LTM 3400 load balancer.

2 - Establish Multiple Load Balanced Siebel Servers

Two HP Integrity servers were configured with Siebel 8.0 Siebel Servers.

3 - Establish a Clustered Siebel Server and Gateway Server

Two HP Integrity servers were configured in a HP Serviceguard Cluster and Siebel Server and Gateway Server were installed and configured

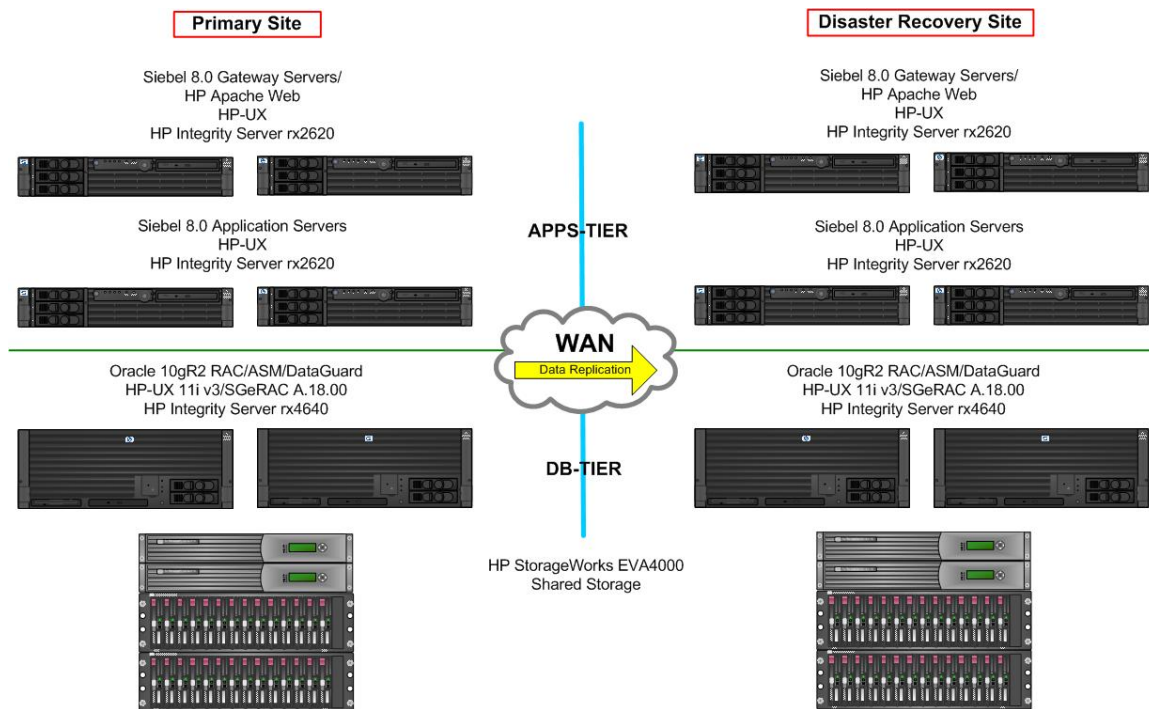
4 - Establish Oracle RAC and ASM at the Primary Site

An Oracle RAC 10g Release 2 database was configured on two HP Integrity servers utilizing HP SGeRAC, Oracle Clusterware, and Oracle ASM.

5 - Establish Disaster Recovery Site Utilizing Oracle Data Guard

A two-node Oracle Database RAC 10g Release 2 environment identical to the primary site was established on the DR site. The latest backup of the production database was installed on the DR systems and the Data Guard physical standby was configured. Siebel 8.0 Web Servers, Siebel Servers and a Gateway Server were also configured on the DR site. The DR site was kept up to date by applying redo logs from the primary site, allowing the DR site to take over in the event of an emergency. The failure detection and failover processes were fully automated using Oracle Fast-Start Failover.

Lab Configuration



Additional Information

Oracle Open World 2007 Presentation –

http://www.oracle.com/technology/deploy/availability/pdf/oracle-openworld-2007/s290542_exley.pdf

Siebel RAC Instance Failover Demonstration –

<http://www.oracle.com/technology/deploy/availability/viewlets/siebelrac/maasiebelracinstancefailure.html>

Siebel Site Failover Demonstration –

<http://www.oracle.com/technology/deploy/availability/viewlets/siebelldr/maasiebelsitefailure.html>