ORACLE
DATABASE APPLIANCE

ORACLE
PEOPLESOFT

An Oracle White Paper
June 2014

Solution-in-a-box:
Best Practices for Deploying Oracle PeopleSoft Applications with Grid Infrastructure Bundled Agents (XAG) on Oracle Database Appliance

ORACLE

Executive Overview

Oracle PeopleSoft applications are designed to address the most complex business requirements and provide comprehensive business and industry solutions, enabling organizations to increase productivity, accelerate business performance and provide a lower cost of ownership. Oracle Database Appliance is an Oracle engineered system, consisting of hardware and software, designed to simplify the deployment, maintenance and support of high availability Oracle Database and Oracle PeopleSoft Application solutions.

This document deals with the best practices for deployment of PeopleSoft applications on Oracle Database Appliance using grid infrastructure bundled agent, with steps to deploy PeopleSoft applications on Oracle Database Appliance in a high availability environment.

Related Materials

This paper is not a general introduction to the PeopleSoft applications and Oracle Database Appliance. It is written for experienced IT professionals with a good understanding of the PeopleSoft Pure Internet Architecture, Oracle Database Appliance and Grid Infrastructure Agents. To take full advantage of the information in this paper, one should have a basic understanding of Oracle Database Appliance administration and PeopleSoft PeopleTools administration. This paper does not replace the product documentation for PeopleSoft PeopleTools 8.5x. Before you read this paper, you should become familiar with the PeopleSoft Pure Internet Architecture information available in PeopleSoft PeopleTools product documentation to ensure that you have a good understanding of the technologies.

The following documentation available on the PeopleSoft Online Help site discusses many of the fundamental concepts that are related to PeopleSoft PeopleTools.

- [PeopleTools: Getting Started with PeopleTools](#)

- [PeopleTools: System and Server Administration](#)

Additionally, you should become familiar with the documentation that is delivered with Oracle Database Appliance. You can refer to Oracle Database Appliance Getting Started Guide and other documentation at:

- [Oracle Database Appliance Documentation](#)

Introduction

The PeopleSoft application runs within the PeopleSoft Pure Internet Architecture (PIA) which is primarily a combination of web server, application server, and process scheduler (batch server). In PIA, servers work closely with each other to complete the job.

The Oracle Grid Infrastructure provides the necessary components to manage high availability (HA) and resource management for any business critical application. Oracle Grid Infrastructure Agents (XAG) are Oracle Grid Infrastructure components that provide the HA framework to application resources and resource types managed through the agent management interface, AGCTL. This agent framework provides a complete, ready to use application HA solution that contains pre-defined Oracle Grid Infrastructure resource configurations and application agents for complete application HA.

The Oracle Clusterware Infrastructure Agents for PIA are now part of the Oracle Grid Infrastructure. They automate the failover of PeopleSoft application server, batch server and web server processes in an Oracle RAC environment. This paper will outline the steps to configure PeopleSoft application server, batch server, web server and the Grid Infrastructure Agents (XAG) for complete PeopleSoft application HA deployed on Oracle Database Appliance. For unplanned outages the Oracle Grid Infrastructure Agents for PIA servers will ensure that the PIA servers tolerate server failures by moving processing to the second node in the Oracle Database Appliance. For planned outages, the Oracle Grid Infrastructure Agents allow online relocation to other nodes of the Oracle Database Appliance without interrupting the PIA server operation. As a result Oracle Database Appliance with Oracle Grid Infrastructure Agents (XAG) provides complete high availability for PeopleSoft applications.

Oracle Database Appliance Bare Metal Platform Deployment Architecture

This section summarizes some of the key architectural points that will make it easier to understand the installation procedure in this paper.

This paper provides instructions to deploy PeopleSoft PeopleTools in Oracle Database Appliance on a bare metal platform (that is, a conventional operating system rather than a virtualized platform) using XAG.

After completing the procedures outlined in this paper, the Oracle Database Appliance will be configured with a two-node RAC database, and with the PeopleSoft application deployed in a shared mount point and registered in the Oracle Grid Infrastructure.

The following figure represents the final configuration. Oracle Database Appliance is deployed on a bare metal platform. Oracle Grid Infrastructure is configured on both the nodes, and RAC database is deployed on both nodes. PeopleSoft application and PeopleSoft PeopleTools software is configured on a shared file system configured using ACFS. These file systems are accessible to both the nodes and PIA services can failover to other node if any node goes down.
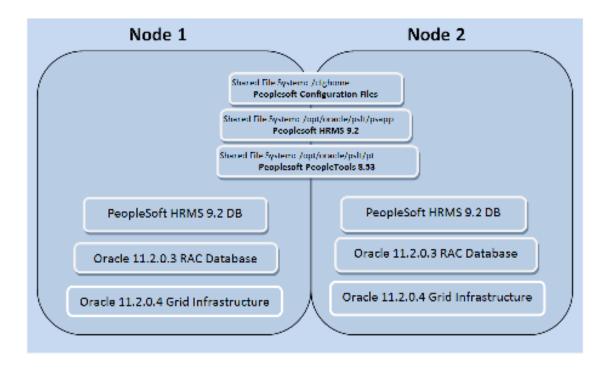
Figure: Configuration of Oracle Database Appliance node1 and node2.

Note: This paper describes deploying the solution on an Oracle Database Appliance X4-2 running ODA software release 2.9 and PeopleSoft PeopleTools 8.53. The steps are applicable for later software and hardware releases, but some of the component versions may be different.

Software on each physical server

The following lists the main components of the configuration:

Oracle Database Appliance Bare Metal Platform:

- Oracle Linux 5.9

- Oracle Database 11gR2

- Real Application Clusters (RAC) 11gR2

- Automatic Storage Management (ASM) 11gR2

- Oracle Clusterware 11gR2

- PeopleSoft PeopleTools and PeopleSoft Application:

- PeopleSoft PeopleTools 8.53

- PeopleSoft HRMS Application 9.2

- Oracle WebLogic Server 10.3.6

- Oracle Tuxedo 11gR1

Understanding the PeopleSoft Installation

This section lists the necessary steps to install the PeopleSoft application database on Oracle Database 11gR2, and configure the application server, process scheduler, and PIA on Oracle Database Appliance 2.9 (or later). In this document, all passwords are assumed to be *welcome1*. Change these passwords as appropriate. This document requires access to both nodes of the Oracle Database Appliance as root, grid, and oracle users.

Task 1: Deploying Oracle Database Appliance Bare Metal Platform

1. Deploy Oracle Database Appliance as a bare metal platform in order to support PIA.

    The Oracle Database Appliance bare metal platform setup instructions are provided on the setup poster, which is available at: http://docs.oracle.com/cd/E22693_01/. Follow the instructions to set up the Oracle Database Appliance.

    These instructions use the following hostnames for the two nodes:

    - Oracle Database Appliance – Node1: odanode1

    - Oracle Database Appliance – Node2: odanode2

2. Download the latest RDBMS Clone Bundle for Oracle Database 11.2.0.3.0.

    The Oracle Database Appliance team releases RDBMS Clone Bundles for each Oracle Database Appliance version. PeopleSoft PeopleTools 8.53 requires Oracle Database 11.2.0.3.0. Use the following command to extract the file:

    ```
    $ oakcli unpack -package \
    ```

    ```
    <absolute_path_to_downloaded_patch_file>/p14777276_29000_Linux-x86-64.zip
    ```

Task 2: Setting Up PeopleSoft Users and Shared File System for PeopleSoft PeopleTools and PeopleSoft Application Home

A PeopleSoft administrator is required to manage PeopleSoft runtime and local installed software. This is a non-root user who cannot stop or start OS services, install system software, change kernel parameters, and so on. A shared file system is required for PeopleSoft PeopleTools (*PS_HOME*) and PeopleSoft Application Home (*PS_APP_HOME*). The file system needs a shared file system because application, batch, and web servers need to start on different nodes in the event of planned or unplanned outages. One can create a shared file system with Oracle Automatic Storage Management (ASM) Cluster File System (ACFS) on Oracle Database Appliance.

1. Create a shared file system as described in the following table to host the *PS_HOME*, *PS_APP_HOME* and *PS_CFG_HOME* locations.

    Log in to node1 as the grid user and create the shared mount point as follows:

MOUNT POINT	DISK SIZE
/opt/oracle/psft/pt	50G
/opt/oracle/psft/psapp	30G
/cfghome	30G

See "ODA (Oracle Database Appliance): How To Setup ACFS Post Deploy," My Oracle Support, Document 1435019.1 for information on creating the ACFS file system on Oracle Database Appliance.

2. Set up a PeopleSoft administrator to manage PeopleSoft runtime and locally installed software.

   The PeopleSoft administrator manages two accounts: the psadm1 user is required for installed software, and the psadm2 user is the runtime administrator. Set up the PeopleSoft administrator on both the nodes of ODA as a root user with the following commands:

   ```
   useradd -g oinstall -s /bin/bash -c "PeopleSoft Installed Admin"
   psadm1
   ```

   ```
   useradd -g oinstall -s /bin/bash -c "PeopleSoft Runtime Admin"
   psadm2
   ```

3. Log in as psadm1 and psadm2 user on both nodes and export the following environment variables in .bashrc:

   ```
   export ORACLE_HOME=/u01/app/oracle/product/11.2.0.3/dbhome_1
   ```

   ```
   export PATH=$PATH:$ORACLE_HOME/bin
   ```

   ```
   export TNS_ADMIN=$ORACLE_HOME/network/admin
   ```

Task 3: Installing Oracle Grid Infrastructure Agents (XAG)

The Oracle Grid Infrastructure Agents require an operational installation of the Oracle Grid Infrastructure version 11.2.0.3 or later on all nodes where the application is targeted to run. The $XAG_HOME is created locally when the xagpack.zip file is unzipped in a local directory. The $XAG_HOME and sub-directories must be owned by the Oracle Grid Infrastructure install owner. The setup script, xagsetup.sh, must be run as the Oracle Grid Infrastructure install owner. The xagsetup.sh script offers the option to install locally only (the default), to install on all nodes in the cluster, or to install on a subset of nodes in the cluster where the application is targeted to run. When deploying the bundled agents to multiple nodes in the cluster, the xagsetup.sh is executed on only one node of the cluster, and the xagsetup.sh script will attempt to create the $XAG_HOME directory on all remote nodes, with an identical absolute path and the correct ownership and permissions. Review the readme.txt file in the $XAG_HOME directory for details. Output for xagsetup.sh execution is logged in the directory $XAG_HOME/log/xagsetup.log.

1. To download the agents for 11.2.0.3 or later, go to the following URL and select the Downloads tab:

   http://oracle.com/goto/clusterware

2. Execute the following commands to extract and install the agents:

   ```
   unzip xagpack.zip

   xagsetup.sh --install –nodes odanode1,odanode2
   ```

Task 4: Installing PeopleSoft PeopleTools 8.53

Oracle provides installation files for PeopleSoft PeopleTools on the Oracle Software Delivery Cloud portal. To obtain and install PeopleSoft PeopleTools 8.53:

1. Log in to Oracle Software Delivery Cloud at this URL:

   http://edelivery.oracle.com

2. On the Media Search Pack page, select PeopleSoft Enterprise and platform Linux 86_64.

3. Download the components in the following table from the PeopleSoft PeopleTools 8.53 media pack:

SOFTWARE	VERSION	INSTALLED LOCATION
Oracle PeopleSoft PeopleTools (3 discs)	8.53	/opt/oracle/psft/pt/tools
Oracle Weblogic Server Generic and Coherence	11gR1 (10.3.6)	/opt/oracle/psft/pt/bea
Oracle JDK for Linux x86-64 (64-bit)	JDK 7 Update 9	/opt/oracle/psft/pt/bea/jdk1.7
Oracle Tuxedo 11g Release 1 for Linux x86-64 (64-bit)	11.1.1.3.0	/opt/oracle/psft/pt/bea/tuxedo

4. Log in as psadm1 user to install PeopleSoft PeopleTools 8.53.

5. Stage the software on Oracle Database Appliance on node1 under the shared directory /opt/oracle/psft/pt/software and unzip the PeopleSoft PeopleTools 8.53 media pack files.

6. Install the components as psadm1 user.

   Install each component to the installed location listed in the table in step 3.

   For installation details, refer to **PeopleTools 8.53 Installation for Oracle**.

Task 5: Installing the PeopleSoft HCM 9.2 Application on ODA

Before beginning the PeopleSoft application database setup, obtain and install the PeopleSoft applications on Oracle Database Appliance. For this setup in this documentation, download Human Capital Management (HCM) 9.2 installation software zip files from the Oracle Software Delivery Cloud portal.

1. Log in to the Oracle Software Delivery Cloud portal at this URL:

http://edelivery.oracle.com

2. Download PeopleSoft Human Capital Management 9.2 installation software.

3. As a psadm1 user, stage the software in /opt/oracle/psft/psapp/, and unzip it in /opt/oracle/psft/psapp/software/hcm9.2 software.

4. Install the PeopleSoft application files as psadm1 user using this command:

```
# setup.sh -tempdir /tmp
```

5. Provide the following input when prompted:

- Database platform: Oracle

- Database: UNICODE

- PeopleSoft Server: Database Server

- PS_APP_HOME/opt/oracle/psft/psapp/hcm9.2

This will run for 5 minutes and the PeopleSoft application files will be installed under *PS_APP_HOME*.

Task 6: Creating a New PeopleSoft HCM 9.2 Application Database

On Oracle Database Appliance, it is recommended to first create an empty RAC-enabled database using oakcli, and then use the PeopleSoft PeopleTools set to complete the installation of the PeopleSoft PeopleTools schemas, and PeopleSoft application schemas. The PeopleSoft PeopleTools setup scripts use file system path names in the tablespace creation SQL statements. When instructed to edit these scripts, you will need to modify them to use ASM instead. For details, please refer to [PeopleTools Installation for Oracle guide](#).

Execute the following steps to create and set up a PeopleSoft application database on Oracle Database Appliance:

1. From node1, execute the following command:

```
# oakcli create database –db HCMDB –oh $ORACLE_HOME
```

Note: You need to set the ORACLE_HOME environment variable according to your environment.

For more details on database creation on ODA, please refer to [Managing Oracle Database on Oracle Database Appliance](#). This setup uses the small database template.

2. Change the value of NLS_LENGTH_SEMANTICS to char, because the HCMDB database is an UNICODE database.

For details, refer to "ORA-12899: value too large for column," My Oracle Support, [Document 656182.1](#)

3. Change the system password to manager and sys user password to welcome1 in HCMDB database as sys user.

4. Copy the following files on node1 from $PS_HOME/script/unix to /home/psadm1:

- dbowner.sql

- psroles.sql

- utlspace.sql

Note: PS_HOME should be mounted as nfs mount point on node1.

5. Copy hcddl.sql from $PS_APP_HOME/scripts/unix to /home/psadm1 on node1.

6. Edit /home/psadm1/utlspace.sql and change the datafile location to '+DATA' for PSTEMP and PSDEFAULT tablespace.

   Also, precede the catproc, catalog and catblock sql scripts with a comment character, as they already were executed during HCMDB database creation.

7. Execute the following commands to run utlspace.sql:

   ```
   cd to /home/psadm1

   sqlplus sys/welcome1@HCMDB as sysdba

   @ utlspace.sql
   ```

   Review the logs. You should not see any error.

8. To create the specific tablespaces (for HRMS hcddl.sql), modify hcddl.sql.

   Edit /home/psadm1/hcddl.sql and change the datafile location to '+DATA' for all the tablespaces. To avoid space extension problem against the tablespace during the application load, you need to set autoextend.

9. Execute the following commands to run the script:

   ```
   sqlplus sys/welcome1@HCMDB as sysdba

   @ hcddl.sql
   ```

   Review the logs. You should not see any error.

10. Create dbowner on RAC Database HCMDB as an oracle user with the following commands:

    ```
    sqlplus system/manager

    @dbowner.sql
    ```

    Review dbowner.log and verify that there are no errors. Also, verify that PS user has been created in HCMDB.

11. Create PeopleSoft Database Roles with the following commands:

    ```
    sqlplus system/manager

    @psroles.sql
    ```

    Review psroles.log and verify that the required roles have been created.

12. Set the required environment variables for running the Database Configuration Wizard on ODA_BASE node1 as oracle user with the following commands:

```
source $PS_HOME/psconfig.sh

source $BEA_HOME/tuxedo/tux.env
```

13. Start Database Configuration Wizard in console mode as oracle user with the following command:

```
$PS_HOME/setup/PsMpDbInstall/setup.sh
```

Provide required input when prompted. Continue when the Database Configuration Wizard completes successfully.

Note: Select "Use existing ID" for new SID setup and choose HCM system database.

14. Copy *PS_HOME*/scripts/grant.sql to /home/oracle and replace <CONNECTID> with people.

15. Execute grant.sql to give select privilege on PeopleSoft security tables to connect ID user with the following command:

```
sqlplus sysadm/SYSADM@HCMDB

@/home/oracle/grant.sql;

exit;
```

16. Verify the PeopleSoft HCM 9.2 application database configuration with the following commands:

```
sqlplus sysadm/SYSADM@HCMDB

select toolsrel,ownerid,database_options,owneracct from
sysadm.PSSTATUS;

exit;
```

17. Check the operator id and operator password with the following commands.

The password should be encrypted.

```
sqlplus sysadm/SYSADM@HCMDB

select OPRID,SYMBOLICID,OPERPSWD from sysadm.PSOPRDEFN where
OPRID='PS';

select * from sysadm.PSACCESSPRFL;

exit;
```

18. For a middle tier connection from the PeopleSoft system to the database, create a service under the RAC HCMDB database which will be used for connection, with the following commands:

```
srvctl add service -d HCMDB -s HCMDB -r "HCMDB1,HCMDB2"

srvctl start service -d HCMDB -s HCMDB

srvctl status service -d HCMDB -s HCMDB
```

19. Execute the following statement to add the service name in psdbowner:

```
sqlplus sysadm/SYSADM@HCMDB

Insert into ps.psdbowner values ('HCMDB','SYSADM');
```

```
commit;

exit;
```

20. Check the status of PSDBOWNER with the following commands:

```
sqlplus sysadm/SYSADM@HCMDB

Select * from ps.psdbowner;

commit;

exit;
```

Task 7: Creating and Configuring the PeopleSoft Application Server Domain

1. Log in as psadm2 user and execute the following commands to create and configure the PeopleSoft application server domain, APPDOM:

```
$PS_HOME/bin/psadmin -c create -d APPDOM -t small -s
HCMDB%ORACLE%PS%PS%AppDom%.%people%people%_____%_____%NOENCRYPT

$PS_HOME/bin/psadmin -c configure -d APPDOM -u
{PUBSUB}=Yes%{QUICKSRV}=N%{QUERYSRV}=N%{JOLT}=Yes%{JRAD}=N%{WSL}=
N%{DBGSRV}=N%{RENSRV}=Yes%{MCF}=Yes%{PPM}=N%{ANALYTICSRV}=Yes%{DO
MAIN_GW}=N%{VERITY_TYPE3}=N
```

2. Start and stop the APPDOM with these commands:

```
$PS_HOME/bin/psadmin -c start -d APPDOM

$PS_HOME/bin/psadmin -c shutdown -d APPDOM
```

3. Register the PeopleSoft application server domain APPDOM with Oracle grid infrastructure using XAG with these commands:

```
$XAG_HOME/bin/agctl add peoplesoft_app_server PSOFT_APP_DOMAIN \
 --ps_home /opt/oracle/psft/pt/tools \
 --ps_cfg_home /cfghome/8.53 \
 --tuxdir /opt/oracle/psft/pt/bea/tuxedo \
 --server_domain APPDOM  \
 --nodes odanode1,odanode2 \
 --network 1 --ip 192.168.1.19 --user psadm2 --group oinstall \
 --databases ora.hcmdb.db \
 --oracle_home /u01/app/oracle/product/11.2.0.3/dbhome_1 \
 --environment_vars PMID=192.168.1.19
```

4. Change the JOLT listener address to the virtual IP using the PSADMIN utility.

5. Start the PeopleSoft Application Server virtual IP with the following commands:

```
crsctl status resource  xag.PSOFT_APP_DOMAIN-vip.vip

crsctl start resource xag.PSOFT_APP_DOMAIN-vip.vip –n odanode1
```

6. To start the PeopleSoft application server on virtual IP, refer to "Configure Tuxedo Domain for Clustered Hardware - Use of PMID setting - Tuxedo 8.1 and higher," My Oracle Support, Document 643295.1.

7. Start the PeopleSoft application server domain as a root user with the following command:

```
$XAG_HOME/bin/agctl start peoplesoft_app_server PSOFT_APP_DOMAIN
--node odanode1
```

8. Check the status of the PeopleSoft application server with the following command:

```
$XAG_HOME/bin/agctl status peoplesoft_app_server
```

Task 8: Creating and Configuring the PeopleSoft Process Scheduler Domain

1. Log in as psadm2 user and execute the following commands to create and configure a master process scheduler (also referred to as batch server), PRCSDOM:

```
$PS_HOME/bin/psadmin -p create -d PRCSDOM -t unix –ps
HCMDB,ORACLE,PSUNX,PS,PS,people,people,,.,.,.,_____,NOENCRYPT

$PS_HOME/bin/psadmin -p configure -d PRCSDOM -u
{MSTRSRV}=Yes%{APPENG}=Yes%
```

2. Start and stop the PRCSDOM with the following commands:

```
$PS_HOME/bin/psadmin -p start -d PRCSDOM

$PS_HOME/bin/psadmin -p stop  -d PRCSDOM
```

3. Register the PeopleSoft process scheduler domain PRCSDOM with Oracle grid infrastructure using XAG with the following commands:

```
$XAG_HOME/bin/agctl add peoplesoft_batch_server PSOFT_PS_DOMAIN \

 --ps_home /opt/oracle/psft/pt/tools \

 --ps_cfg_home /cfghome/8.53  \

 --tuxdir /opt/oracle/psft/pt/bea/tuxedo \

 --scheduler_database PRCSDOM  \

 --nodes odanode1,odanode2 \

 --network 1 --ip 192.168.1.19 --user psadm2 --group oinstall \

 --databases ora.hcmdb.db \
```

```
  --oracle_home /u01/app/oracle/product/11.2.0.3/dbhome_1 \
  --environment_vars PMID=192.168.1.19
```

4. To start the PeopleSoft process scheduler on virtual IP, refer to "Configure Tuxedo Domain for Clustered Hardware - Use of PMID setting - Tuxedo 8.1 and higher," My Oracle Support, Document 643295.1.

5. Start the PeopleSoft process scheduler domain PRCSDOM as a root user with the following command:

```
$XAG_HOME/bin/agctl start peoplesoft_batch_server PSOFT_PS_DOMAIN
--node odanode1
```

6. Check the status of PeopleSoft process scheduler domain PRCSDOM as a root user with the following command:

```
$XAG_HOME/bin/agctl status peoplesoft_batch_server
PSOFT_PS_DOMAIN
```

Task 9: Creating and Configuring the PeopleSoft PIA Server Domain

1. Log in as psadm2 user and use the PSADMIN utility to create the PIA domain.

   In PSADMIN, select Web (PIA) Server, Create a domain, Create a domain. This section uses PIA1 as the domain name.

   For details, see PeopleTools: System and Server Administration, "Using the Web (PIA) Server Menu."

2. Start and check the status of PeopleSoft PIA server with the following commands:

```
psadmin -w start  -d PIA1
psadmin -w status -d PIA1
```

3. Enter this URL in a browser to access the Oracle WebLogic Admin console:

   http://<odanode1>:9999/console

4. In the Admin Console, navigate to *<Domain Name>*, Environment, Servers.

5. On the Summary of Servers page, select PIA1, Configuration (General Tab).

6. To update the IP address for PIA1, update the Listen Address field with the IP address of the virtual IP where the PIA1 will listen.

7. Click Save and Activate Changes.

8. Stop the PIA1 domain as psadm2 user with this command:

```
psadmin -w shutdown -d PIA1
```

9. Login as psadm2 user and change directory to $PIA_HOME/bin

10. Make a backup copy of SetEnv.sh

11. Edit SetEnv.sh and and set ADMINSERVER_HOSTNAME=<PIA Virtual IP>

12. Register the PeopleSoft PIA domain PIA1 with Oracle grid infrastructure using XAG:

```
$XAG_HOME/xag/bin/agctl add peoplesoft_pia_server
PSOFT_PIA1_DOMAIN  \
 --ps_home /opt/oracle/psft/pt/tools \
 --ps_cfg_home /cfghome/8.53  \
 --tuxdir /opt/oracle/psft/pt/bea/tuxedo \
 --server_domain PIA1 \
 --pia_home /cfghome/8.53 \
 --nodes odanode1,odanode2  \
 --network 1 --ip 192.168.1.21 \
 --user psadm2 --group oinstall  \
 --databases ora.hcmdb.db  \
 --oracle_home /u01/app/oracle/product/11.2.0.3/dbhome_1
```

13. Start the PeopleSoft PIA server PIA1 on the virtual domain with the following command:

```
$XAG_HOME/bin/agctl start peoplesft_pia_server PSOFT_PIA1_DOMAIN
--node odanode1
```

14. Log in to PIA domain using this URL:

http://192.168.1.21:8000/ps/

Task 10: Testing PIA Failover

1. Log in as root user in odanode1 and check the status of the PeopleSoft application server with the following commands:

```
$XAG_HOME/bin/agctl status peopelsoft_app_server PSOFT_APP_DOMAIN
$XAG_HOME/bin/agctl status peopelsoft_batch_server
PSOFT_APP_DOMAIN
```

You should see that both the domains are up and running on odadnode1.

2. Relocate the PeopleSoft application server to the second node and you will see that the application server along with the batch server will relocate to odanode2:

```
$XAG_HOME/bin/agctl relocate peopelsoft_app_server
PSOFT_APP_DOMAIN –node odanode1
```

3. Check the status of the application and batch servers with these commands.

They both should be running on odanode2:

```
$XAG_HOME/bin/agctl status peopelsoft_app_server PSOFT_APP_DOMAIN
```

```
$XAG_HOME/bin/agctl status peopelsoft_batch_server
PSOFT_APP_DOMAIN
```

4. Check the status of the PeopleSoft PIA server with this command; it should be running on odanode1:

```
$XAG_HOME/bin/agctl status peoplesoft_app_server PSOFT_APP_DOMAIN
```

5. Relocate the PeopleSoft PIA server to odanode2 with this command:

```
$XAG_HOME/bin/agctl relocate peoplesoft_pia_server
PSOFT_PIA1_DOMAIN
```

6. Check the status of the PeopleSoft PIA server with this command; it should be running on odanode2:

```
$XAG_HOME/bin/agctl status peoplesoft_app_server PSOFT_APP_DOMAIN
```

Conclusion

When planning and designing any application, high availability is always critical to success. Oracle 11gR2 Grid Infrastructure Agents are very well positioned to support high availability of Oracle applications such as PeopleSoft applications and Siebel. This powerful and robust feature ensures that service providers and users will get high availability for their application deployed using XAG on Oracle Database Appliance. Starting with Oracle Database 10g Oracle mandates its users to use Oracle's Clusterware for Oracle RAC cluster management. Starting with Oracle Database 10g Release 2 there are commands to register and manage other applications through Oracle Clusterware.

This document discusses how to address high availability for PeopleSoft application, batch and PIA servers by using a step-by-step example to manage a PeopleSoft application through Oracle Clusterware XAG deployed on Oracle Database Appliance.

Appendix A: References

- Oracle Database Appliance documentation:

  http://docs.oracle.com/cd/E22693_01/index.htm

- Oracle PeopleSoft PeopleTools 8.53 Installation Guide:

  http://docs.oracle.com/cd/E38921_01/psft/acrobat/PeopleTools_8.53_Installation_for_Oracle.pdf

- Oracle Grid Infrastructure Bundled Agents

  http://www.oracle.com/technetwork/products/clusterware/overview/ogiba-reference-guide-v1-1844341.html

ORACLE

Solution-in-a-box: Best Practices for Deploying
Oracle PeopleSoft Applications with Grid
Infrastructure Bundled Agents (XAG) on Oracle
Database Appliance

June 2014

Author: Sanjay Singh, Paramdeep Saini

Contributors: Andrey Gusev,Jonathan Pham,
RAC Pack Product Team

Oracle Corporation
World Headquarters
500 Oracle Parkway
Redwood Shores, CA 94065
U.S.A.

Worldwide Inquiries:
Phone: +1.650.506.7000
Fax: +1.650.506.7200

oracle.com

Hardware and Software, Engineered to Work Together