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Shared application tier file systems – Add a Node

In this Installation, we shall use our earlier setup of shared application file system and shall add a new node. Also, at the end we shall change the parameters in context files so that web services are run on linux1, concurrent processing server on linux25 and form services are run on linux2

Please refer my earlier post setting up Shared Application file system:
http://www.appsdba.info/docs/oracle_apps/advance/Muliti-Node_sfs.pdf

Using a shared application tier file system has several benefits:

- Machines can easily be added to an existing system
- Disk space requirements are greatly reduced.
- Administrative tasks need only be carried out once, on any node
- An Applications patch only needs to be applied once, minimizing downtime
- It is easier to add nodes, to cater for more users and provide greater resilience

Assumptions:
linux1(192.168.0.109) – DB, Application tier components (web services) – on NFS Mount
linux2(192.168.0.120) – Application tier components (form services) - on NFS Mount
/d01/shared_mount – shared HDD using NFS
linux25(192.168.0.101) – Node to be added – concurrent processing services

web services   form services   concurrent processing srv

Node to be added

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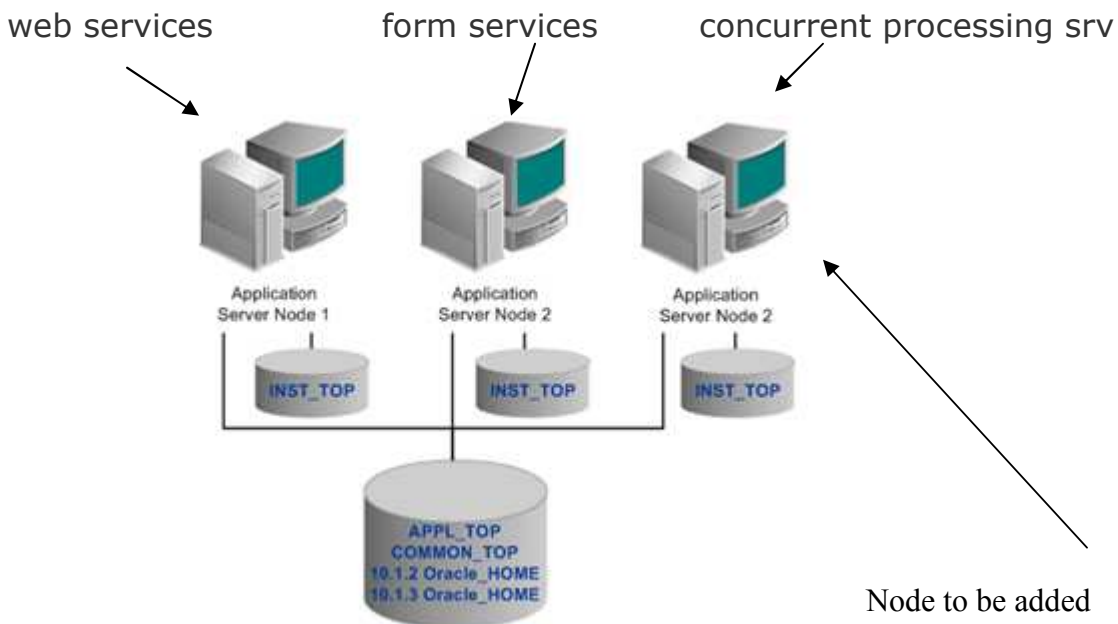
Node to be added – linux25

Step 1: Run rapid clone on the existing node (on linux1)

$ cd $INST_TOP/admin/scripts
$ perl adpreclone.pl appsTier

Step 2: Mount the shared filesystem that you are going to add and the following Shared Top's must be visible from all application nodes involved in configuration.

groupadd dba
useradd appltest –g dba

Check whether same users and ids are same
cat /etc/passwd
appltest:x:510:500::/home/appltest:/bin/bash

mkdir -p /d01/shared_mount/TEST/apps/apps_st/comn
mkdir -p /d01/shared_mount/TEST/apps/apps_st/appl
mkdir -p /d01/shared_mount/TEST/apps/tech_st/10.1.2
mkdir -p /d01/shared_mount/TEST/apps/tech_st/10.1.3

mount 192.168.0.109:/d01/shared_mount/TEST/apps/apps_st/comn /d01/shared_mount/TEST/apps/apps_st/comn
mount 192.168.0.109:/d01/shared_mount/TEST/apps/apps_st/appl /d01/shared_mount/TEST/apps/apps_st/appl
mount 192.168.0.109:/d01/shared_mount/TEST/apps/tech_st/10.1.2 /d01/shared_mount/TEST/apps/tech_st/10.1.2
mount 192.168.0.109:/d01/shared_mount/TEST/apps/tech_st/10.1.3 /d01/shared_mount/TEST/apps/tech_st/10.1.3

Check the mount points and check whether appltest user has write permission on these folders

Step 3: Copy the context file from existing node to new node which is now going to participate in Shared Application Tier file system if the file is not accessible from new node.

On linux25
a> scp linux1:/d01/oracle/TEST/inst/apps/TEST_linux1/appl/admin/TEST_linux1.xml .

b> Source the application environment file

c> $ cd $COMMON_TOP/clone/bin
$ perl adclonectx.pl addnode contextfile=/home/appltest/TEST_linux1.xml
/d01/shared_mount/TEST/apps/apps_st/comn/clone/bin
Enter the APPS password : apps

Log file located at
/d01/shared_mount/TEST/apps/apps_st/comn/clone/bin/CloneContext_08102032.log

Provide the values required for creation of the new APPL_TOP Context file.

Target hostname (virtual or normal) [linux25]:

It is recommended that your inputs are validated by the program.
However you might choose not to validate your inputs under following circumstances:
     -If cloning a context on source system for a remote system.
     -If cloning a context on a machine where the ports are taken and you do not want to shutdown the services at this point.
     -If cloning a context but the database it needs to connect is not available.

Do you want the inputs to be validated (y/n) [n] ?:y

Target system service groups - enable Web Entry Point Services [enabled] [enabled]:

Target system service groups - enable Web Application Services [enabled] [enabled]:

Target system service groups - enable Batch Processing Services [enabled] [enabled]:

Target system service groups - enable Other Service Group [disabled] [disabled]:enabled

Do you want to preserve the Display set to linux1:0.0 (y/n) [y] ?:n

Target system Display [linux25:0.0]:
Database port is 1531

Do you want the the target system to have the same port values as the source system (y/n) [y] ?:
Complete port information available at
/d01/shared_mount/TEST/apps/apps_st/comn/clone/bin/out/TEST_linux25/portpool.lst

UTL_FILE_DIR on database tier consists of the following directories.

1. /usr/tmp
2. /usr/tmp
3. /d01/oracle/TEST/db/tech_st/10.2.0/appsutil/outbound/TEST_linux1
4. /usr/tmp
Choose a value which will be set as APPLPTMP value on the target node [1]:3

Creating the new APPL_TOP Context file from :
 /d01/shared_mount/TEST/apps/apps_st/appl/ad/12.0.0/admin/template/adxmlctx.tmp

The new APPL_TOP context file has been created :
 /d01/oracle/TEST/inst/apps/TEST_linux25/appl/admin/TEST_linux25.xml

Log file located at
/d01/shared_mount/TEST/apps/apps_st/comn/clone/bin/CloneContext_08102050.log
contextfile=/d01/oracle/TEST/inst/apps/TEST_linux25/appl/admin/TEST_linux25.xml
Check logfile
/d01/shared_mount/TEST/apps/apps_st/comn/clone/bin/CloneContext_08102050.log for details.

The new context file will be generated for the new node. Run the AutoConfig utlity to generate Instance Home for this node and update the required tables in the database.

d> perl $AD_TOP/bin/adconfig.pl
contextfile=/d01/oracle/TEST/inst/apps/TEST_linux25/appl/admin/TEST_linux25.xml
Enter the APPS user password:
AutoConfig is configuring the Applications environment...

AutoConfig will consider the custom templates if present.
     Using CONFIG_HOME location   : /d01/oracle/TEST/inst/apps/TEST_linux25
     Classpath   :
/d01/shared_mount/TEST/apps/apps_st/comn/java/lib/appsborg2.zip:/d01/shared_mount/TEST/apps/apps_st/comn/java/classes

     Using Context file   :
/d01/oracle/TEST/inst/apps/TEST_linux25/appl/admin/TEST_linux25.xml

e> At this point all the 3 nodes are running Web, Forms, Concurrent Processing services running. But lets modify the setup so that we get the below services in each node

Node	Service
linux1	Web
linux2	Forms
linux25	Concurrent Processing

Note: db shall run on linux1 and admin server will run in all nodes

On linux1 – web service

Disable concurrent processing services and form services on linux1 and run autoconfig

Variable Name	Variable Value
s_isAdConc	NO
s_isAdConcDev	NO
s_batch_status	disabled
s_tnsstatus	disabled
s_isForms	No
s_isFormsDev	No
s_formsstatus	disabled

Run autoconfig
cd $ADMIN_SCRIPTS_HOME
sh adautoconfig.sh

On linux2 – forms service

Disable concurrent processing services and web services on linux2 and run autoconfig

Variable Name	Variable Value
s_isAdConc	NO
s_isAdConcDev	NO
s_batch_status	disabled
s_tnsstatus	disabled
s_isAdWeb	No
s_isAdWebDev	No
Web Entry Point Services	disabled
Oracle HTTP Server	disabled
s_web_applications_status	disabled

Run autoconfig
cd $ADMIN_SCRIPTS_HOME
sh adautoconfig.sh

On linux25 – concurrent processing service

Disable forms services and web services on linux25 and run autoconfig

Variable Name	Variable Value
s_isForms	No
s_isFormsDev	No
s_formsstatus	disabled
s_isAdWeb	No
s_isAdWebDev	No
Web Entry Point Services	disabled
Oracle HTTP Server	disabled
s_web_applications_status	disabled

Run autoconfig
cd $ADMIN_SCRIPTS_HOME
sh adautoconfig.sh

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References:

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http://appsfusion.blogspot.com/2008/01/step-by-step-installation-of-shared.html
http://appsfusion.blogspot.com/2008/01/steps-to-add-node-to-shared-applicaton.html

Note:384248.1 – Sharing The Application Tier File System in Oracle E-Business Suite Release 12
Note:380489.1 - Using Load-Balancers with Oracle E-Business Suite Release 12