Parallel Concurrent Processing Setup

Edit the applications context file by using context editor and set the value of APPLDCP=ON and "Concurrent Manager TWO_TASK" value to instance alias. e.g. In our environment we have two instances, (instance1 and instance2), we will set "Concurrent Manager TWO_TASK" to "instance1″ on "host2″ and to "instance2″ on "host3″.

grep -i s_cp_twotask $CONTEXT_FILE

Concurrent Manager TWO_TASK – RACDB_BALANCE

1. Execute AutoConfig by running $INST_TOP/admin/scripts/adautocfg.sh on all concurrent nodes.

2. Source the application environment.

3. Check the configuration files tnsnames.ora and listener.ora located at $INST_TOP/ora/10.1.2/network/admin. Ensure that you have information of all the other concurrent nodes for FNDSM and FNDFS entries.

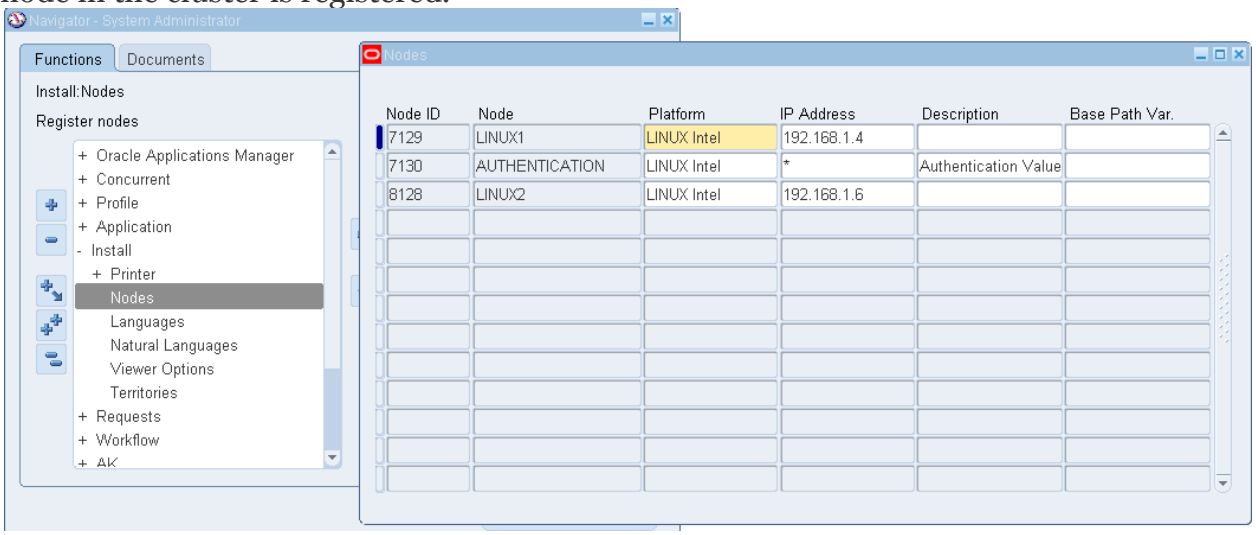
```
FNDSM_RACERP1.oracle.com_RACDB=
        (DESCRIPTION=
                (ADDRESS=(PROTOCOL=tcp)(HOST=racerp1-vip.oracle.com)(PORT=1636))
            (CONNECT_DATA=
                (SID=FNDSM)
            )
        )


FNDSM_RACERP2_RACDB=
        (DESCRIPTION=
                (ADDRESS=(PROTOCOL=tcp)(HOST=racerp2-vip.oracle.com)(PORT=1636))
            (CONNECT_DATA=
                (SID=FNDSM)
            )
        )

FNDSM_RACERP2.oracle.com_RACDB=
        (DESCRIPTION=
                (ADDRESS=(PROTOCOL=tcp)(HOST=racerp2-vip.oracle.com)(PORT=1636))
            (CONNECT_DATA=
                (SID=FNDSM)
            )
        )
```

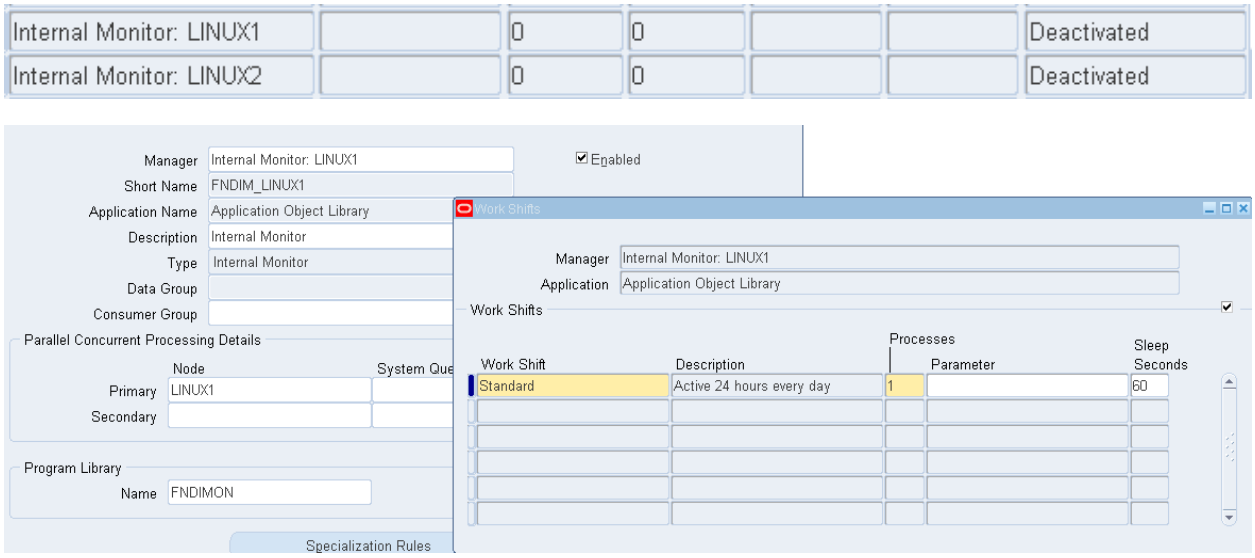
4. Restart the application listener process on each application tier node.

5. Log on to Oracle E-Business Suite Release 12 as SYSADMIN, and choose the System Administrator Responsibility. Navigate to Install > Nodes screen and ensure that each node in the cluster is registered.

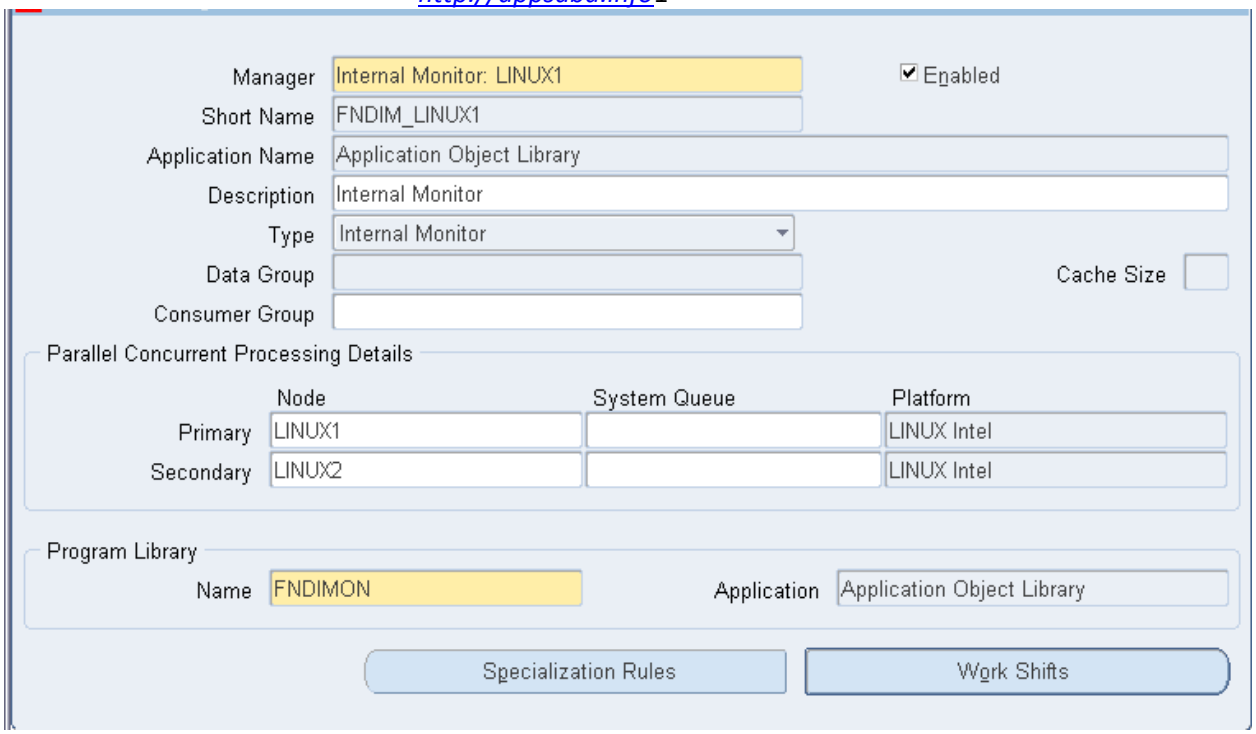


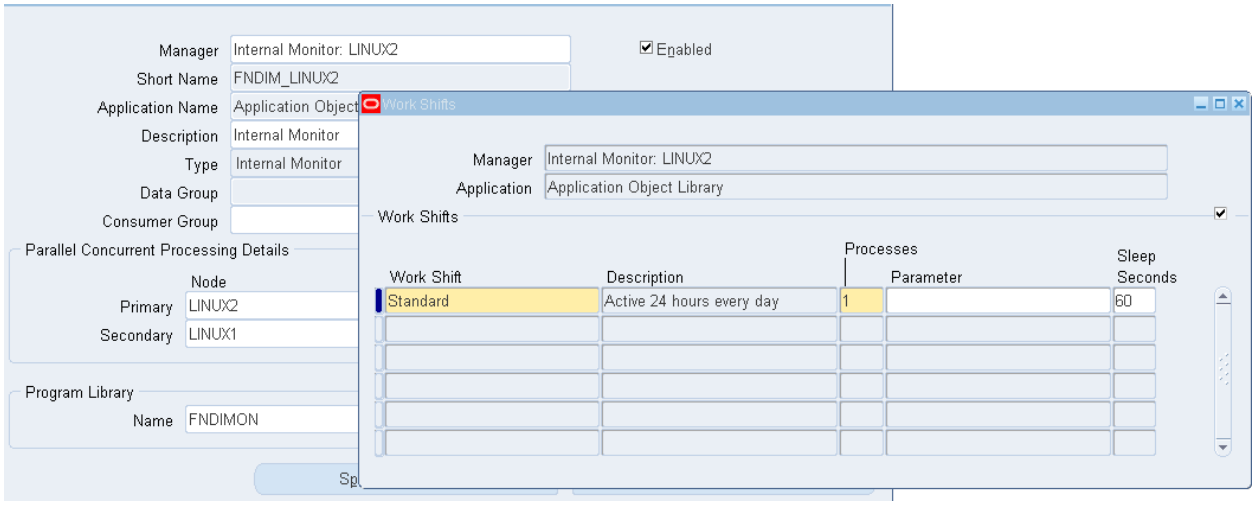
6. Verify whether the Internal Monitor for each node is defined properly with correct primary and secondary node specification and work shift details. Also ensure the Internal Monitor manager is activated by going to Concurrent -> Manager -> Administrator and activating the manager. (For example, Internal Monitor: Host2 must have primary node as host2 and secondary node as host3).

Went to the concurrent - > manager - > administrator screen and activated the above 2 managers.



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Name	Node	Actual	Target	Running	Pending	Status
Internal Manager	LINUX1	1	1		0	
Conflict Resolution Manager	LINUX1	1	1		0	
Output Post Processor	LINUX1	1	1			
Internal Monitor: LINUX1	LINUX1	1	1			
Internal Monitor: LINUX2	LINUX2	1	1			
Scheduler/Prereleaser Manag	LINUX1	1	1			
Service Manager: LINUX1	LINUX1	1	1			
Service Manager: LINUX2	LINUX2	1	1			
Session History Cleanup	LINUX1	1	1	0	0	
UWQ Worklist Items Release	LINUX1	1	1	0	0	
Inventory Manager	LINUX2	1	1	0	0	

7. Set the $APPLCSF environment variable on all the CP nodes pointing to a log directory on a shared file system.

Change to be made in the context file. Initially it was :

$ORACLE_SID $> grep -i applcsf $CONTEXT_FILE
/ORACLE_HOME/inst/apps/SID_HOST/logs/appl/conc

Changed it to :

$ORACLE_SID $ > grep -i applcsf $CONTEXT_FILE
/ORACLE_HOME/inst/apps/$ORACLE_SID /logs/appl/conc

Do not run autoconfig yet, you have to make more changes in the below step. We will run autoconfig after that.

These changes need to be on just the conc manager tiers.

8. Set the $APPLPTMP environment variable on all the CP nodes to the value of the UTL_FILE_DIR entry in init.ora on the database nodes. This value should be pointing

to a directory on a shared file system.

Initially, APPLTMP was set as '/usr/tmp'.

We need this to be on a file system, that is shared across all the CM nodes and is also writable by the owner of the oracle db.

Now we will need this to be the first entry in the "utl_file_dir" parameter in the db.

Use grid to have this change done, to the "utl_file_dir" parameter for database. This would need a bounce of db.

Also, modify the CONTEXT FILE on all the apps tier , to have APPLPTMP and APPLTMP point to shared mount point and run autoconfig.

$ORACLE_SID $> grep -i s_applptmp $CONTEXT_FILE
/usr/tmp

$ORACLE_SID $> grep -i s_appltmp $CONTEXT_FILE
/ORACLE_HOME/inst/apps/$ORACLE_SID /appltmp

Both of the above were changed to

$ORACLE_SID $> grep -i s_applptmp $CONTEXT_FILE
/ORACLE_HOME/inst/apps/temp

$ORACLE_SID $ > grep -i s_appltmp $CONTEXT_FILE
/ORACLE_HOME/inst/apps/temp

These changes need to be on just the conc manager tiers.

9. Set profile option ' Concurrent: PCP Instance Check' to OFF if database instance-sensitive failover is not required. By setting it to 'ON', Concurrent Managers will fail over to a secondary Application tier node if the database instance they are connected to fails.

Set Up Transaction Managers

1. Shut down the application services (servers) on all nodes.

_lm_global_posts=TRUE
_immediate_commit_propagation=TRUE

alter system set "_lm_global_posts"=true scope=spfile

alter system set "_immediate_commit_propagation"=true scope=spfile;

srvctl stop database -d RACDB

srvctl start database -d RACDB

_lm_global_posts if TRUE deliver global posts to remote nodes

_immediate_commit_propagation if TRUE, propagate commit SCN immediately

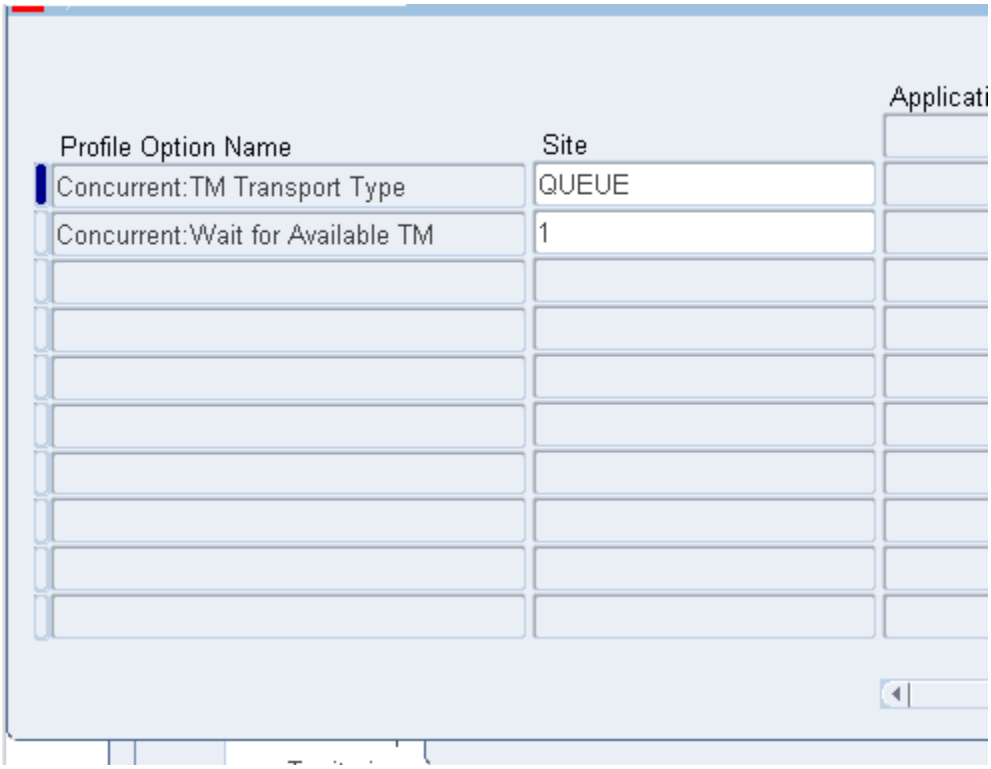
These parameters are used for read consistency.

4. Start the instances on all database nodes, one by one.

5. Start up the application services (servers) on all nodes.

6. Log on to Oracle E-Business Suite Release 12 using SYSADMIN login and System Administrator Responsibility.

Navigate to Profile > System and change the profile option ‘Concurrent: TM Transport Type' to ‘QUEUE' and verify the transaction manager works across the RAC instance.



7. Navigate to Concurrent > Manager > Define screen, and set up the primary and secondary node names for transaction managers.

8. Restart the concurrent managers.

9. If any of the transaction managers have a deactivated status, activate them using Concurrent > Manager > Administrator.

Set Up Load Balancing on Concurrent Processing Nodes

1. Edit the applications context file through Oracle Applications Manager interface and set the value of Concurrent Manager TWO_TASK (s_cp_twotask) to load balancing alias (_balance>).

Change need to be made in CONTEXT_FILE.

Initially it was:
$ORACLE_SID $ > grep -i s_cp_twotask $CONTEXT_FILE
$ORACLE_SID

It was changed to :

$ORACLE_SID $> grep -i s_cp_twotask $CONTEXT_FILE
$ORACLE_SID _TWO TASK

These changes need to be on just the conc manager tiers (host2 and host3).
2. Execute AutoConfig by running $INST_TOP/admin/scripts/adautocfg.sh on all concurrent nodes.

Concurrent Manager Setup and Configuration Requirements in an 11i RAC Environment (Doc ID 241370.1)

Concurrent – Manager – Define

Define the primary and secondary nodes for all the managers

Use Sysadmin Reponsibility

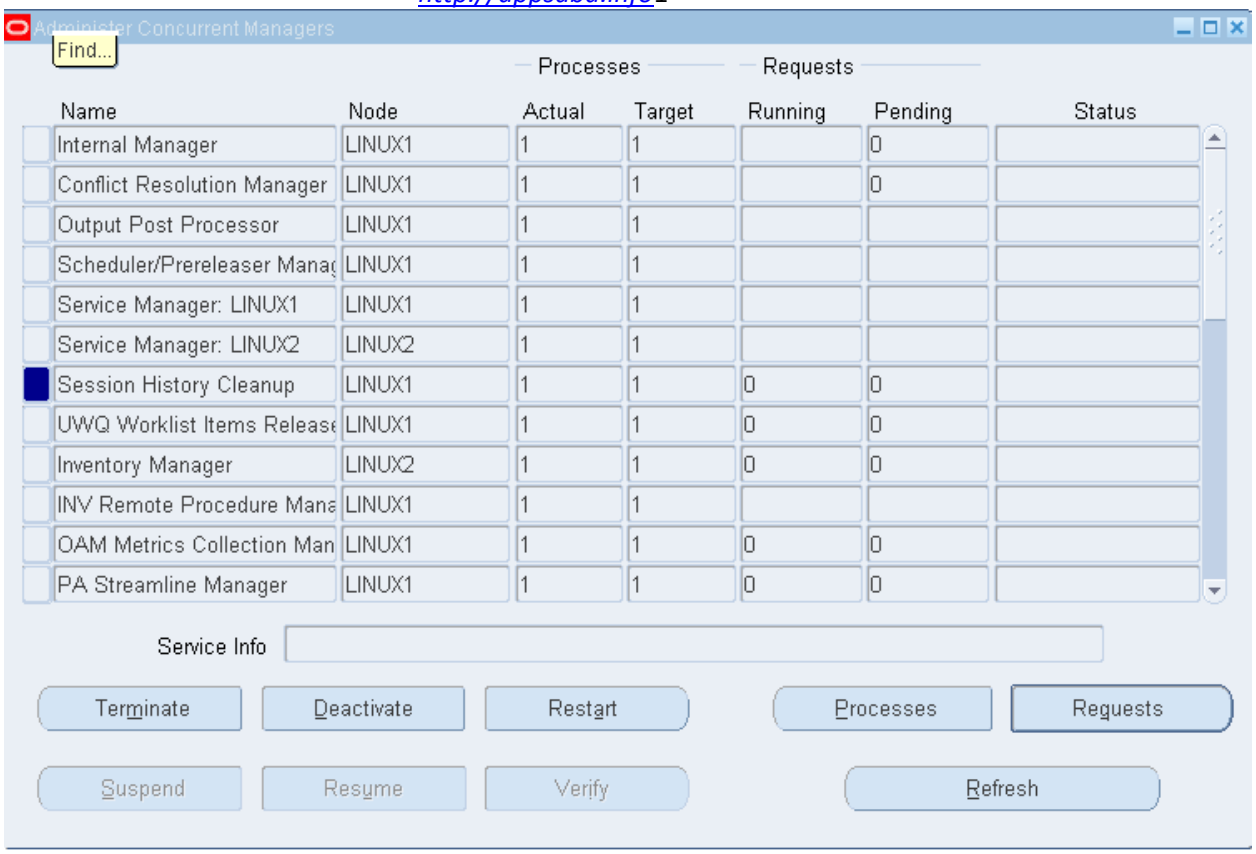
- Navigate to Install > Nodes screen
  and ensure that each node in the cluster is registered.

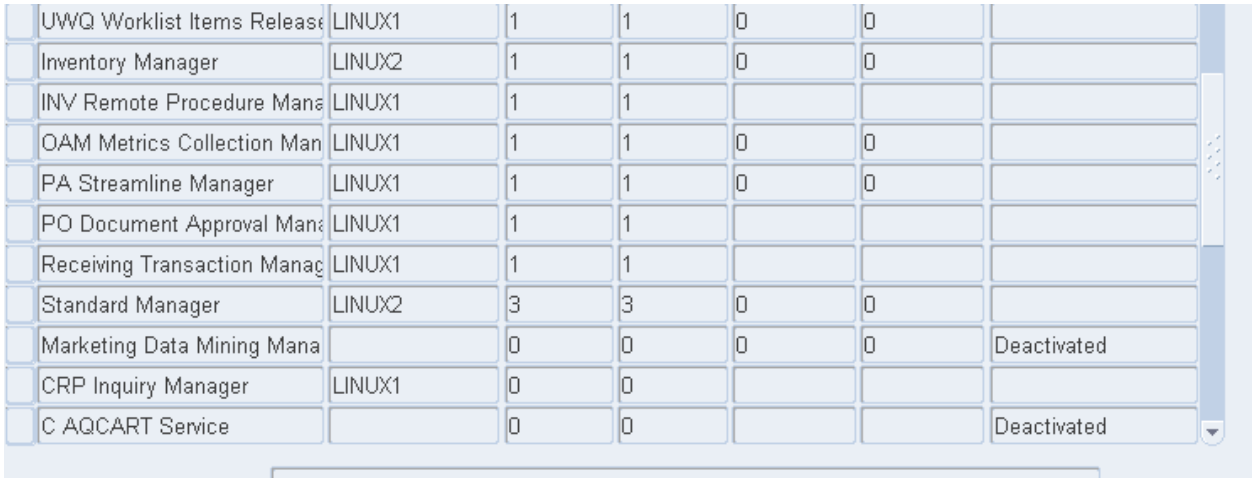
- Navigate to Concurrent > Manager > Define screen,
  and set up the primary and secondary node names for all the concurrent managers according to the desired configuration for each nodes workload.

  The Internal Concurrent Manager should be defined on the primary PCP node only.

- Verify whether the Internal Monitor for each node is defined properly with correct primary and secondary node specification and work shift details.

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http://forums.oracle.com/forums/thread.jspa?threadID=1019771

http://forums.oracle.com/forums/thread.jspa?threadID=960094

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http://oracledbascriptsfromajith.blogspot.com/2008/10/concurrent-manager-setup-pcp-in-11irac.html

Concurrent Manager Processes Load Balancing....
http://forums.oracle.com/forums/thread.jspa?threadID=1004557&tstart=0

Configuring Parallel Concurrent
http://forums.oracle.com/forums/thread.jspa?messageID=3949489#3949489

How To Ensure Load Balancing Of Concurrent Manager Processes In PCP-RAC Configuration

There are 2 types of resources in use for PCP/RAC:

1.O/S processes for manager and requests

2.Shadow processes for database connection for managers and requests.

O/S processes for managers (e.g. FNDLIBR, etc.) and request processes (ar60run, sqlplus, etc.)will run on primary node defined for manager.Shadow processes for database connection use load balanced alias (s_cp_twotask) and the load isdistributed between database nodes by sqlnet. This is controlled by sqlnet and CP code is notinvolved. This should mimic what happens to sqlplus connections using load balanced alias forRAC. The following sql can be used to check how manager connections are spread:

```
select inst_id, count(*) from gv$session where process in (select os_process_id from
fnd_concurrent_processes where process_status_code = 'A') group by inst_id;
```

Now to loadbalance the shadow concurrent manager processes please set the below :

1.Set the profile option "Concurrent: PCP Instance Check" to "OFF"

2.Set the context variable s_cp_twotask to '_806_BALANCE' (This entry can be found in the tnsnames.ora file). You have to set this in both RAC nodes.

3.Run autoconfig and after that you can check for the loadbalancing aspects

http://www.mithunashok.com/2009/12/pcp-parallel-concurrent-processing.html

Hi,

Please refer to the following documents.

Note: 388495.1 - How to Set Up Parallel Concurrent Processing (PCP) in Apps 11i?
Note: 602899.1 - Some More Facts On How to Activate Parallel Concurrent Processing
Note: 271090.1 - Parallel Concurrent Processing Failover/Failback Expectations
Note: 752604.1 - Failover Does Not Occur To The Secondary Node While The Primary Node Is Up
Note: 729883.1 - How to Create a Second OPP Concurrent Manager in a Node Different Than The Primary Node

Also, please refer to chapter 'Defining Concurrent Managers' section 'Overview of Parallel Concurrent Processing' in Oracle Applications System Administrator's Guide.

Oracle Applications Documentation
http://www.oracle.com/technology/documentation/applications.html

Regards,

select inst_id, count(*) from gv$session where process in (select os_process_id from fnd_concurrent_processes where process_status_code = 'A') group by inst_id;

http://forums.oracle.com/forums/thread.jspa?threadID=1019771

Routine &ROUTINE has attempted to start the internal concurrent manager. The ICM is already running. Contact you system administrator for further assistance.afpdlrq received an unsuccessful result from PL/SQL procedure or function FND_DCP.Request_Session_Lock.
Routine FND_DCP.REQUEST_SESSION_LOCK received a result code of 1 from the call to DBMS_LOCK.Request.
Possible DBMS_LOCK.Request resultCall to establish_icm failed
The Internal Concurrent Manager has encountered an error.

If the problem still doesn't solve, please use the steps as below to total refresh your FND_NODES configuration: -

1. Shutdown your applications

2. Run cmclean.sql (obtain the script from Oracle Metalink)

3. Run the script as below to clean the entry in FND_NODES by logging as apps in sqlplus(to remove entry from cloning)

EXEC FND_CONC_CLONE.SETUP_CLEAN;
COMMIT;
EXIT;
3. Run the autoconfig in DB Tier and Apps Tier.