5. Knowledge Base

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Video Recorded Sessions

- Zoom recorded session - https://oradocs-prodapp.cec.ocp.oraclecloud.com/documents/folder/F724C2382F7E0F69288BDCB068884CABCD2D6F8BA3EC/_Knowledge_shared_by_Zoom/updated

Label SRGIMG resubmission and replace faulty node

- To resubmit SRGIMG
    1. When SRGIMG failed, review the result in detail first before resubmit
    2. Use ifarm command to resubmit the regress and rest of the tasks that was blocked by the SRGIMG failure as part of regress

       $ ifarm run -task regress,promote,postbuild,postpublish,depvalidate,farmsubmit -srg srgimage -silent -execuser aparpati -label OSS_MAIN_LINUX.X64_250802

       Label: OSS_MAIN_LINUX.X64_250802 The following tasks will be submitted now in IFARM

       ---

       regress,promote,postbuild,postpublish,depvalidate,farmsubmit

       ---

       LogDir :- /net/dbdevfssifarm1.dev3farm1phx.databasede3phx.oraclevcn.com/ifarm_base/linux/log/OSS_MAIN_LINUX.X64_250802

       WrkDir :- /net/dbdevfssifarm1.dev3farm1phx.databasede3phx.oraclevcn.com/ifarm_base/linux/wrk/OSS_MAIN_LINUX.X64_250802

       Submission of Compound task regress,promote,postbuild,postpublish,depvalidate,farmsubmit for OSS_MAIN_LINUX.X64_250802 Queued

       NOTE: It may take upto 5 mins for scheduler to accept your submission, status display will change to SUBMITTED as soon as job is accepted

- To replace faulty node
    1. Log onto: root@nshqap01celadm06.us.oracle.com; cd /root/srg_sched;
    2. modify what is in ‘pool’ file which gets used and moved to ‘inuse’ file while test suite is running.
    3. You can add any new hostname but need to sure that particular host preconf.csv exits under /net/10.32.19.91/export/exadata_images/dpant/preconf-srg.csv file for ‘srgimage’ test suite to work as expected.
    4. Review the "pool" file and identify a node that has been commented out to swap

       [root@nshqap01celadm06 srg_sched]# more pool
       # compute nodes start
       #scaqah08adm03.us.oracle.com
       #scaqat17adm06.us.oracle.com - ROCE TEMP BACKUP
       #scaqat17adm05.us.oracle.com
       #scaqah08adm01.us.oracle.com - XEN BACKUP
       #scaqai14adm01.us.oracle.com - ROCE BACKUP
       scaqah08adm02.us.oracle.com
       scaqai14adm02.us.oracle.com
       # compute nodes end

cells start
#scaqat17celadm08.us.oracle.com - using for triaging
#scaqat17celadm09.us.oracle.com
#scaqah08celadm05.us.oracle.com - X7-2 - stopped working
#scaqat17celadm07.us.oracle.com
scaqai14celadm07.us.oracle.com
scaqah08celadm06.us.oracle.com
cells end

Run Integration Job Submissions

- Run Integration Architecture - RunIntegration Overview
- Steps to Submit Job From a User Transaction - User runintegration jobs Guide
    - The image should be built already in the view before the above steps.
- Steps to Submit Jobs for SE Label Testing - Monthly SE Integration Testing Steps

LRG Job Submission for Real Hardware

- Submitting Jobs for Image Changes in LRGs - Submit OSS_MAIN Real Hardware LRG Instruction

Enable tsagimage user for New Hardware to use with Deployment scripts

- Enabling through Exaboard - How to enable tsagimage key
- Enabling through ilom - Add tsagimage user to node-ilom for runIntegration environment

ExaScraper

- Exascraper Architecture - Exadata Error Scraper
- Running ExaScraper on Real Hardware - exa_errors_scraper.sh usage

Oracle Exadata Exascale Documentation

- Exascale User Guide - http://st-doc.us.oracle.com/id_common/review/docbuilder/html/F17209_01/toc.htm

Real Hardware LRG Configuration Details

- lrgrhexaprovcluster - Exascale and Cloud Provisioning Testing on Hardware
- lrgexaprovcluster_onprem_multi_vm - Exascale Provisioning with Exascale Volume Testing on Hardware
- lrgrhexcupgrade - Exascale and Cloud Upgrade Testing on Hardware
- lrgrhexcupgrade_online - Exascale and Cloud Online Upgrade Testing on Hardware
- lrgrhx9upgrade - Failure Testing on X9-2 Quarter Rack
- 50VM Density LRGs - Exadata, Exascale and ASMonEDV
- lrgexaprovcluster_livemig - Exascale Provisioning Live Migration Testing on Hardware
- lrgrhexadata_elu - Exadata Live-Update Testing on Real Hardware
- lrgrhexascale_elu - Exascale Live-Update Testing on Real Hardware
- lrgrhx10exadata_elu - Exadata Live-Update Testing on Real Hardware
- lrgrhx7imonec - Failure Testing on X7-2 Quarter Rack

Real Hardware Management

Cell Management with cellcli

CellCLI> list cell attributes rsStatus, msStatus, cellsrvStatus detail

CellCLI> alter cell shutdown services all

CellCLI> alter cell startup services all

CellCLI> alter cell stop services rs

CellCLI> alter cell startup services rs

CellCLI> alter cell restart services rs

CellCLI> alter cell stop services ms

CellCLI> alter cell startup services ms

CellCLI> alter cell restart services ms

Check OS/Linux's service status

[root@scaqan19adm03 ~]# service iptables status
Redirecting to /bin/systemctl status iptables.service

iptables.service - IPv4 firewall with iptables
Loaded: loaded (/usr/lib/systemd/system/iptables.service; disabled; vendor preset: disabled)
Active: inactive (dead)

[root@scaqae09adm02 ~]# systemctl is-enabled iptables
disabled
[root@scaqae09adm02 ~]#

[root@scaqae09celadm02 ~]# systemctl is-enabled iptables
disabled

List alerthistory

dbmcli -e list alerthistory

cellcli -e list alerthistory

List cell/db node detail

dbmcli -e list dbserver detail

cellcli -e list cell detail

When disk fails - to use FORCE option

CellCLI> alter physicaldisk FLASH_1_1 reenable force;

Downgrade BIOS/ILOM firmware

Pre-req step for cell nodes – shutdown cell services (this is not required for compute node)

1. login as root to the cell node and run cellcli -e alter cell shutdown services all
2. If there is issue in shutting down the cell services, then we need to stop the celld service service celld stop

Steps:

a. Perform following step for all nodes in the quarter rack. Go to cell node or compute node as root
b. run this command /opt/oracle.cellos/CheckHWnFWProfile -action updatefw -mode exact -component ILOM
c. wait for it to complete and it will go through a node reboot
d. after the node reboot, run this command /opt/oracle.cellos/CheckHWnFWProfile -action check -mode exact
e. look for "success" from the above command to make sure firmware downgrade is completed properly

Infinibandhca firmware downgrade

a) Create an OSS MAIN view.
b) cd oss/test/tsage/sosd;cp2local tsag_image_functions.sh .
c) cp /net/maa-pe-kvm-sca-03vm001.us.oracle.com/scratch/exadata_dev_image_oeda/dpant/firmware/tsag_image_functions.sh .
d) cp /net/maa-pe-kvm-sca-03vm001.us.oracle.com/scratch/exadata_dev_image_oeda/dpant/firmware/fw.sh .
e) sh fw.sh <comma-separated list of hosts>

Real Hardware LRG Tips

How to run ESCLI after LRG completes

Goto 1st compute cluster node and login as root (root@scaqae14dv0501)

Run

/opt/oracle/dbserver/dbms/bin/escli --wallet /etc/oracle/cell/network-config/eswallet --ctrl 10.31.26.250:5052

Re-running each OEDA step

Goto compute host node (scaqae14adm05)

Run

/EXAVMIMAGES/oeda/linux-x64/install.sh -cf exascale_provisioning_kvm_cloudservice.xml -s <1~15>

DBCA log location

Goto: root@scaqae14dv0501

cd /u01/app/oracle/cfgtoollogs/dbca

Prov LRG DB/GI label config file

sca-exa-tftp-1:/export/exadata_images/dpant/pt_exc_db_gi_label

(Login as self then SUDO to update)

Provisioning LRG - setup CloudService Mode

in the view pls run:

a) cd oss/test/tsage/sosd

b) sh doimageoeda.sh -xml /net/10.32.19.91/export/exadata_images/dpant/exascale_provisioning_kvm_cloudservice.xml -remote -skip_ahf

Testing a Dev txn with OEDA provisioning

sh doimageoeda.sh -xml $T_WORK/exascale_provisioning_kvm_cloudservice.xml -remote -skip_ahf -cloudservice -oeda_default create_guests -oeda_repo /export/exadata_images/dpant/exascale/oeda_zips -txn_name xiaohshe_keepalived_startup_fix

Key File Store Server

sca-exa-tftp-1

Imaging

Diagnostic ISO

Login is root / sos1exadata

How to reset disk when there are more than 512 secure delete occurred so disk gets locked

In an OSS_MAIN view

cd $ADE_VIEW_ROOT/oss/test/tsage/sosd/

-xml option
sh tsagrh_reset_disks.sh -xml <full xml file path>
sh tsagrh_reset_disks.sh -xml /net/10.32.19.91/export/exadata_images/dpant/exascale/exascale_kvm_upgrade.xml

-nodelist option:
tsagrh_reset_disks.sh -nodelist <comma_separated_nodes_list>
sh tsagrh_reset_disks.sh -nodelist slcm07celadm07.us.oracle.com,slcm07celadm08.us.oracle.com,slcm07celadm09.us.oracle.com,slcm07adm06.us.oracle.com,slcm07adm05.us.oracle.com

Test image and rebuilding the code

a) Grab your transaction in the view(ade grabtrans vkravind_secure_getenv_linkerr –full)

b) cd /scratch/dpant/view_storage/dpant_exc1;ade cleanview

c) make -j8 all

d) make image_signed

e) cd oss/test/tsage/sosd; sh setupimage.sh -m scas15adm08 -preconf 10.32.19.91:/export/exadata_images/dpant/preconf-scas15.csv -ovs yes

Image triage hints

Go to an Exadata node and look under: /var/log/cellos/validations - celldstatus.* ;

How to Reimage single node

- Inside the view go to location $ADE_VIEW_ROOT/oss/test/tsage/sosd
- Run command : sh setupimage.sh -image_label <label from which imaging bits are picked> -m <nodename> -preconf <preconf_info>
- preconf_info can be found in the lrg results by searching "PRECONF=" inside the tsagimage*trc*lst file
- Example command to reimage single node : sh setupimage.sh -image_label OSS_MAIN_LINUX.X64_220508 -m scaqar04celadm10.us.oracle.com -preconf "

  10.32.19.91:/export/exadata_images/dpant/Oracle-scaqar04-preconf_8565e52b-d3bb-d724-8cb9-45d0c4be753d.csv"

VM Management

Tools to use

vm_maker —or — virsh

To list VM(domain) running

vm_maker --list-domains

virsh list

To list VM detail

vm_maker --list --domain scaqae14dv0501m.us.oracle.com --detail

Farm Related

Find Label integration farm job

farm showjobs -txn aime_OSS_PT.EXC_LINUX.X64_210419

farm showjobs -txn aime_OSS_MAIN_LINUX.X64_210721

Submitting a job without any transaction

farm submit <lrgname> -notxn

Submitting integration run

farm submit <lrgname> -integration 1

Abort a farm run originated from label integration job

farm abort -job <job_number> lrgrhexaprovcluster

NOTE: one can only do this after sudo as the job submitter (Be very cautious about issuing this command)

Build shiphome for RDBMS_MAIN and Submit a farm job from OSS_MAIN

1. From RDBMS view, run :

```
$ farm submit -build -shiphome
```

2. You will receive a mail with shiphome location once the shiphome build is completed.
3. GI_DB_LOC = .../install/shiphome/goldimage (NOTE: Verify that db_home.zip and grid_home.zip are present at this location)
4. Submit a farm run from OSS_MAIN:

```
$ farm submit lrgxxxxxxx -config "GI_DB_LOC=...../install/shiphome/goldimage"
```

New Way to Kill Job on Farm host -

1. Login as your uid, ssh suragraw@iaddbfar05.dev2farm1iad.databasede2iad.oraclevcn.com
2. Determine the process that needs to be killed -

```
[suragraw@iaddbfar05 work]$ ps -ef | grep deploy
aime1 505397 503710 0 Feb15 ? 00:00:00 /bin/sh deploy_image_oeda.sh lrgrhx10imoeda_50vm.xml /net/10.
32.19.91/export/exadata_images/dpant/lrgrhx10imoeda_50vm/lrgrhx10imoeda_50vm.xml
```

3. Kill the process using following command, this will be executed as root user.

```
/usr/local/packages/aime/ias/run_as_root "<Command>"
/usr/local/packages/aime/ias/run_as_root "kill 505397"
```

Miscellaneous

System Test Training Page

System Test Training

Collect netdiag snapshot :

/opt/oracle.SupportTools/sundiag.sh snaphot

Create PDB example

CREATE PLUGGABLE DATABASE pdb2 ADMIN USER pdb_adm IDENTIFIED BY password DEFAULT TABLESPACE users DATAFILE SIZE 1M AUTOEXTEND ON NEXT 1M;

CREATE PLUGGABLE DATABASE pdb2 ADMIN USER pdb_adm IDENTIFIED BY Password1 FILE_NAME_CONVERT=('/u01/app/oracle/oradata/cdb1/pdbseed/','/u01/app/oracle/oradata/cdb1/pdb2/') DEFAULT TABLESPACE users DATAFILE '/u01/app/oracle/oradata/cdb1/pdb2/users01.dbf' SIZE 1M AUTOEXTEND ON NEXT 1M;

ALTER PLUGGABLE DATABASE pdb2 OPEN;

show pdbs

select name, open_mode from v$pdbs where name like 'PDB1%';

Connecting to ASM instance

1. set ORACLE_HOME same as DB
2. set ORACLE_SID to something as +ASM1 or +ASM2
3. cd $ORACLE_HOME/bin ; ./sqlplus /nolog
4. SQL> connect / as sysasm
   Connected.
   SQL> show parameters