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Standard Operating Procedure

*Docker Storage Setup*

## PURPOSE

The purpose of this standard operating procedure (SOP) is to provide a detailed step-by-step procedure to fix docker storage issue. **In Prod environment, only evacuate nodes when traffic is removed.**

## PROCEDURE

1. Unschedule node with the storage issue from master node

oadm manage-node <node name> --schedulable=false

If prod:

Check /var/log/messages for errors

Check “docker info, lvs” for free space and then unschedule

1. Check the node is in “Ready,SchedulingDisabled” state

oc get node <node name>

1. Evacuate the node.

oadm manage-node <node name> --evacuate --grace-period=900

1. Check pod was evacuated

oadm manage-node <node name> --list-pods

1. Login to the Node
2. As root, isable cronjob CheckServices.ksh to stop docker from starting automatically

crontab -e

1. Run docker storage set up as user with root privileges and restart docker service.
   1. Stop Docker Service

systemctl stop docker

* 1. To see if a process has been stopped

systemctl status docker

* 1. Check docker volume

lvdisplay  
vgdisplay

* 1. Delete docker volume

vgremove docker-vg

If this step works, then move to step e.

If this step does not work (i.e. message states that it is running on another device), do

ps –ef | grep docker

To see what is running. If nothing important is running, then do a soft reboot:

init 6

And do repeat from Step 5

* 1. Check the volumes

lsblk

Check which volume has docker-vg:

[svc-aws-ose@node01-dev2-red ~]$ lsblk

NAME MAJ:MIN RM SIZE RO TYPE MOUNTPOINT

nvme0n1 259:4 0 25G 0 disk

├─nvme0n1p1 259:3 0 1M 0 part

└─nvme0n1p2 259:6 0 25G 0 part /

nvme1n1 259:0 0 40G 0 disk

└─log\_vg-log\_lv 253:0 0 40G 0 lvm /var/log

nvme2n1 259:1 0 100G 0 disk

└─origin\_vg-origin\_lv 253:1 0 100G 0 lvm /var/lib/o

nvme3n1 259:2 0 100G 0 disk

└─nvme3n1p1 259:5 0 100G 0 part

├─docker--vg-docker--pool\_tmeta 253:2 0 104M 0 lvm

│ └─docker--vg-docker--pool 253:4 0 39.8G 0 lvm

* 1. Delete the respective docker volume

fdisk /dev/<docker volume>

i.e.

fdisk /dev/nvme3n1

To delete:  
d

To save:  
w

* 1. Validate the partition deletion

lsblk

To save:

partprobe

* 1. Perform docker partition clean-up

wipefs -a /dev/<docker volume>

i.e.

wipefs -a /dev/nvme3n1

* 1. Clean-up docker folders

rm -rf /var/lib/docker/\*

* 1. Remove /etc/sysconfig/docker-storage

rm /etc/sysconfig/docker-storage

* 1. Run docker storage setup

docker-storage-setup

* 1. Check the partition

lsblk

Check if docker-vg shows up

vgs

* 1. Start docker

systemctl start docker

* 1. Check docker status  
     systemctl status docker
  2. Check docker storage usage

docker info

1. Reenable cronjob CheckServices.ksh
2. Schedule the node in master node

sudo oadm manage-node <node name> --schedulable

1. Double check if the nodes are ready

oc get nodes

## VALIDATION

Follow the validation steps in “Procedure”.

**Document Version Control**

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