Ackwarius

Open Source OS cluster for RedHat Linux

Setup & Configuration

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Disclaimer

Ackwarius is an Open Source Cluster created through Shell Scripts for RedHat Linux. Although author or developer or designer of Ackwarius has taken maximum possible scenarios and covered all the functionalities as per the best of his knowledge however he is not responsible for any impact in any organisation where Ackwarius is deployed and used. Author or Developer or Designer takes no responsibility of the scenarios covered or not covered by Ackwarius. The scenario might be different depending upon various factors like environment, network setup, infrastructure, storage devices, network devices, etc.

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1. Pre-requisites

Following are the pre-requisites for Ackwarius.

Please note that there should be a separate node for Heartbeat / Monitoring which should be in different subnet than the nodes participating in a cluster.

a. Hostnames of all servers including the Heartbeat node should not have "_" (underscore).

b. Create a 5GB filesystem for cluster configuration named as "/clus_logs".

c. Add user "uxadm" to manage the cluster
   [- Cluster management will be done by this user. Please make sure the spelling is correct as it is hardcoded in the scripts.]

   #useradd -c "Cluster Manager" uxadm

d. Set password for user "uxadm"

   #passwd uxadm

e. Set permission & ownership of "/clus_logs"

   #chmod 755 /clus_logs
   #chown uxadm:uxadm /clus_logs

f. Enable password-less login for all the nodes in the cluster including the HB node for "uxadm"

   #su - uxadm
   #mkdir .ssh
   #ssh-keygen -t rsa

g. Allow crontab access to "uxadm"
   [- This should be done via root]

   #vi /etc/cron.allow

h. Create the clustered filesystem using LVM - NOT ON HB NODE

[- Make sure the disk is sharable across the nodes in the cluster. Run the LVM commands ONLY on one server in the cluster. PV, VG and LV definitions will be populated automatically on second server]

```
#pvcreate /dev/sdX
#vgcreate /dev/sdX <vgname>
#lvcreate -L 50G -n <lvname> <vgname>
#mkfs.ext4 /dev/<vgname>/<lvname>
```

[- Create the mount point directory on both the cluster nodes]

```
#mkdir <mount-point name>
```

2. Setup & Configuration

a. Download the file “ackwarius.tar” from Github. Untar it and place it accordingly on servers in the cluster and the Heartbeat node.

[- There will be two tar files
nodes.tar - it should be placed on the servers participating in the cluster at /clus_logs filesystem
HB.tar - It should be placed on Heartbeat node at /clus_logs filesystem]

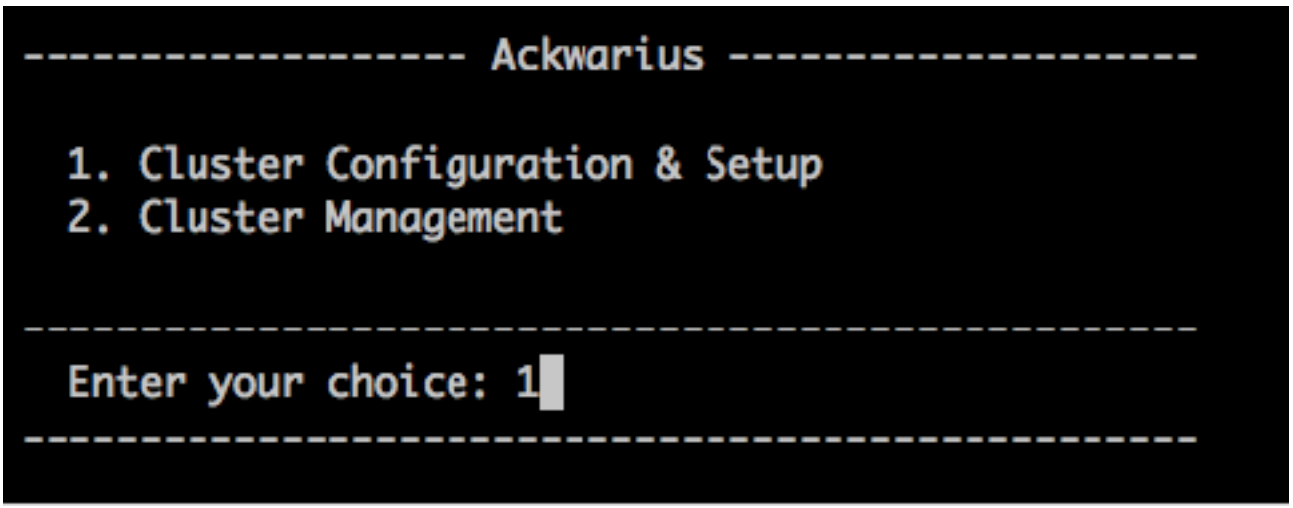
b. Untar the files on respective nodes

```
#cd /clus_logs
#tar -xvf nodes.tar     #RUN ONLY ON SERVERS NOT ON HB NODE
#tar -xvf HB.tar        #RUN ONLY ON HB NODE
```

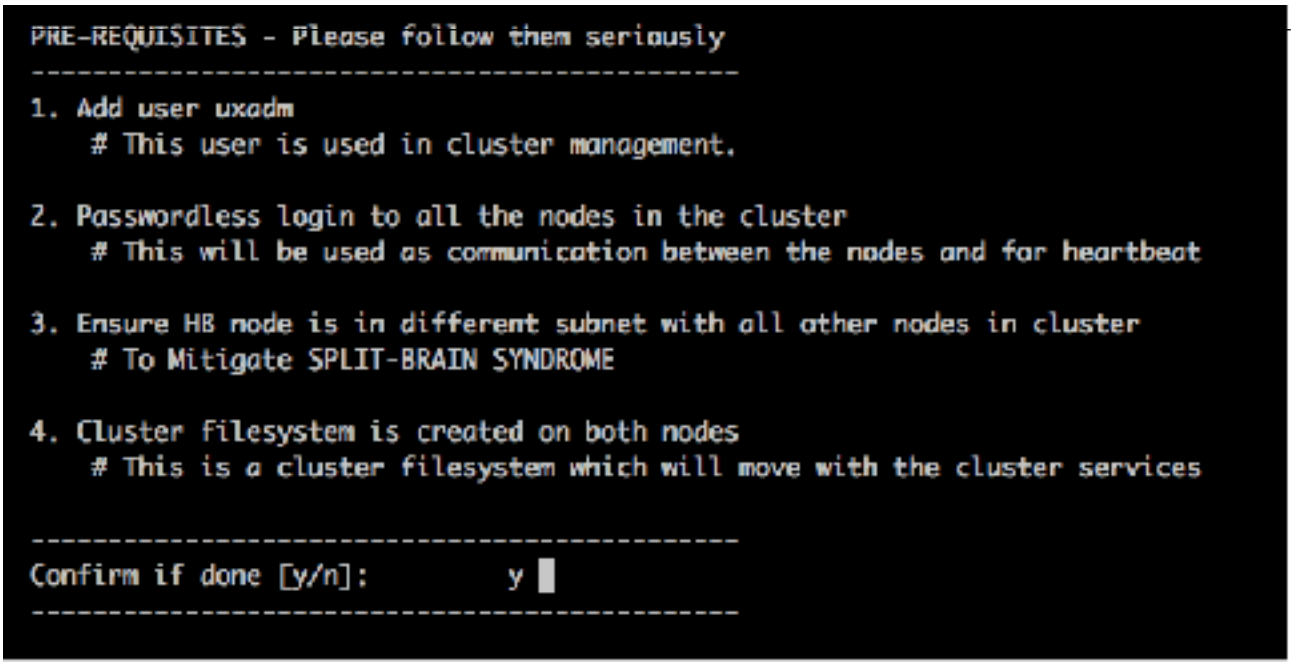

**Below commands are for Servers participating in cluster and NOT for Heartbeat node/server.
RUN IT ON BOTH CLUSTER SERVERS.**

c. Run the setup using below command and follow the instructions

#/clus_logs/scripts/manage
then



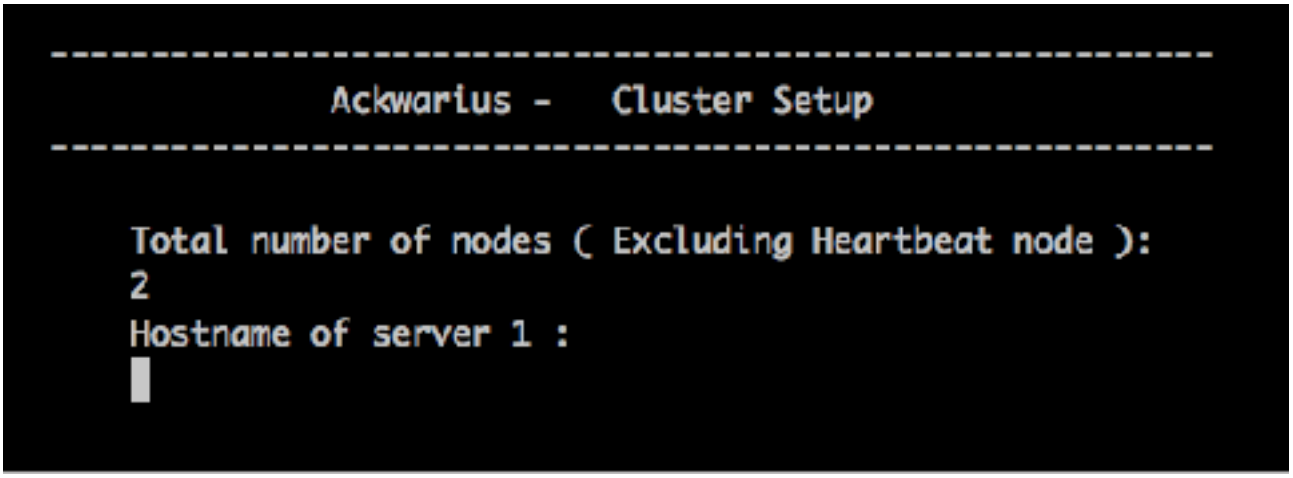
#Enter 1 to Cluster Configuration & Setup



d. Confirm if all pre-requisites are completed

Ackwarius Version 1.1

e. Give all inputs correctly and follow the instructions



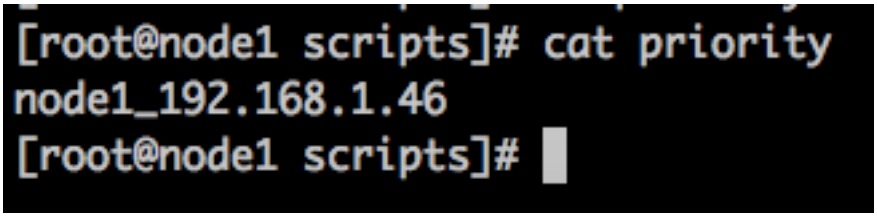
f. Once Cluster is successfully setup on both the servers, set the priority in both the servers

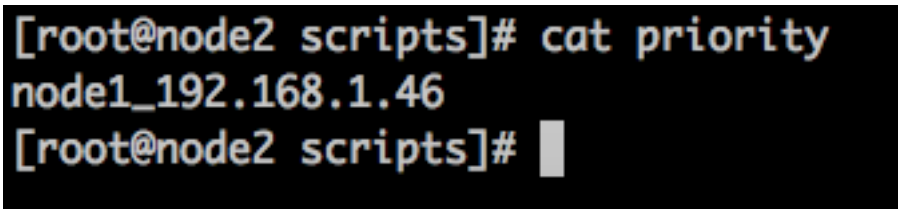
[- We are setting the priority of the node on which the cluster services will come up first once both are restarted.]

vi /clus_logs/scripts/priority

Make an entry as below. There must be same entries in both servers.

<hostname>_<IP>

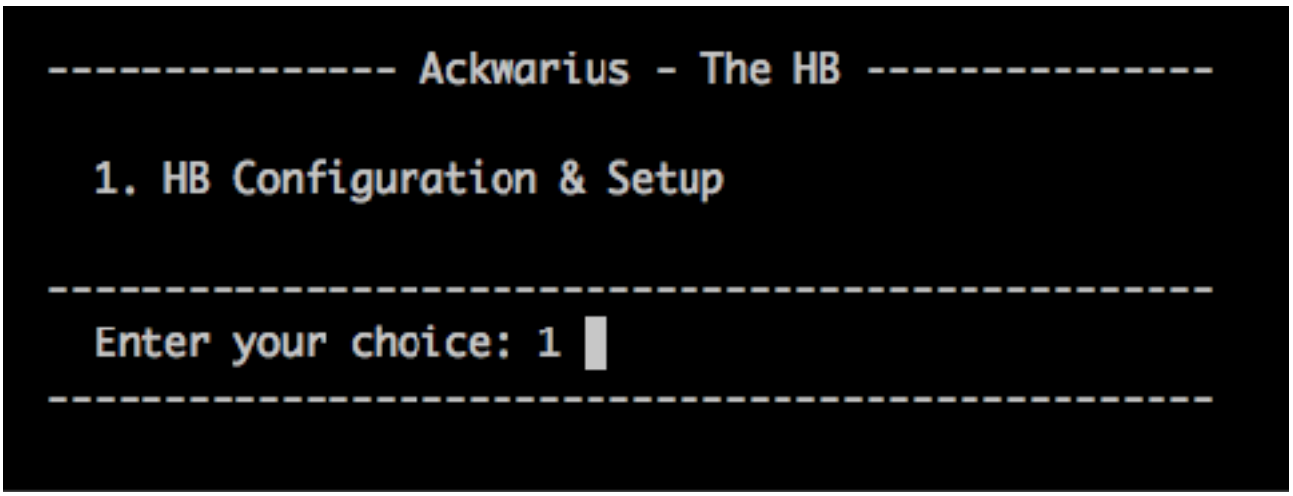




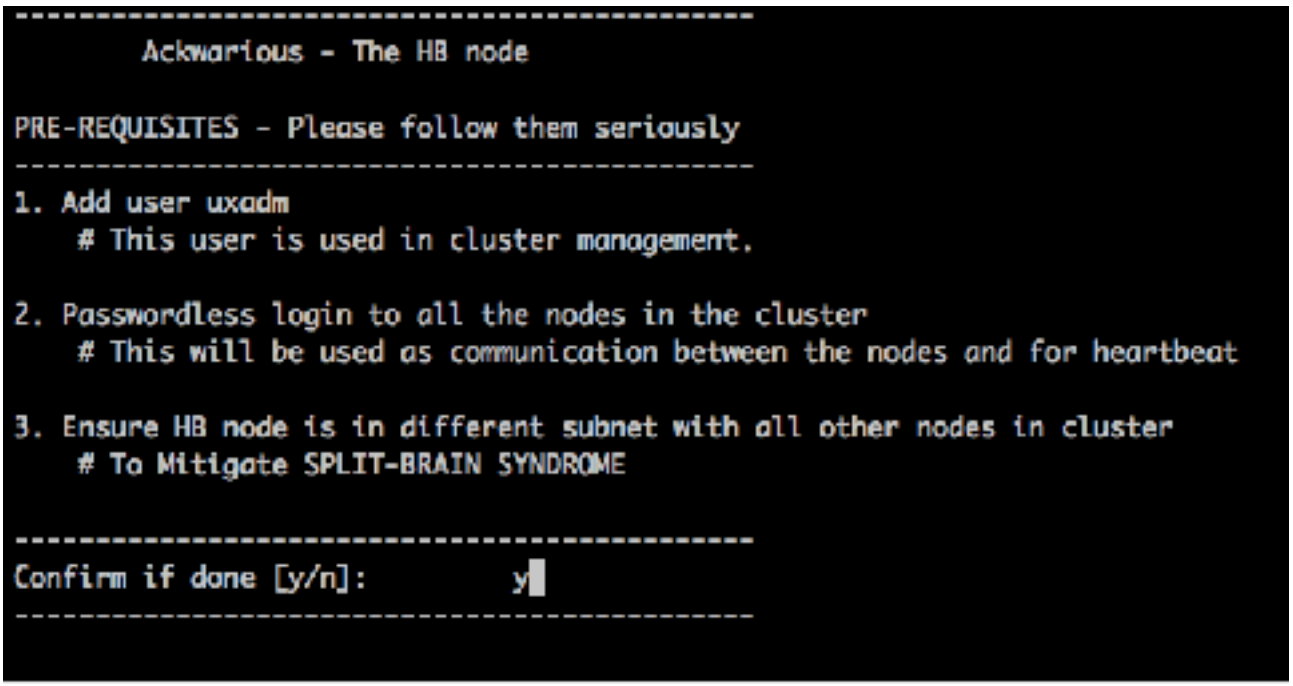
RUN below commands ONLY ON HB server

g. Run the setup using below command and follow the instructions

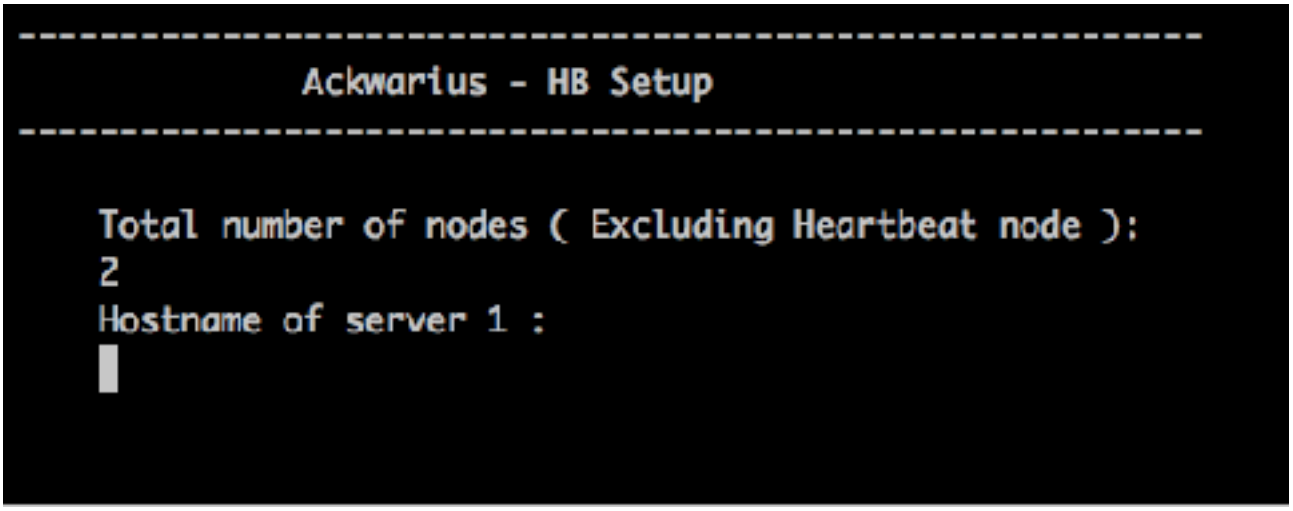
#/clus_logs/scripts/manage
then
#Enter 1 to Cluster Configuration & Setup



h. Confirm if all pre-requisites are completed

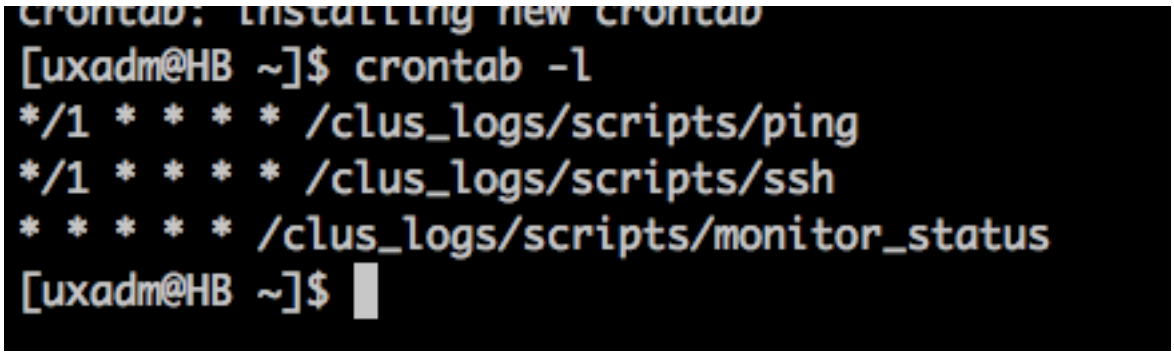


i. Give all inputs correctly and follow the instructions to complete the setup



j. Make crontab entries for “uxadm”

#su - uxadm
#crontab -e



RUN below ON SERVERS which are part of cluster . DONOT RUN ON HB NODE

k. Make crontab entries for “uxadm”

#su - uxadm
#crontab -e

```
crontab: installing new crontab
[uxadm@node1 ~]$ crontab -l
*/1 * * * * /clus_logs/scripts/ping
*/1 * * * * /clus_logs/scripts/ssh
*/1 * * * * /clus_logs/scripts/fetch_status
[uxadm@node1 ~]$
```

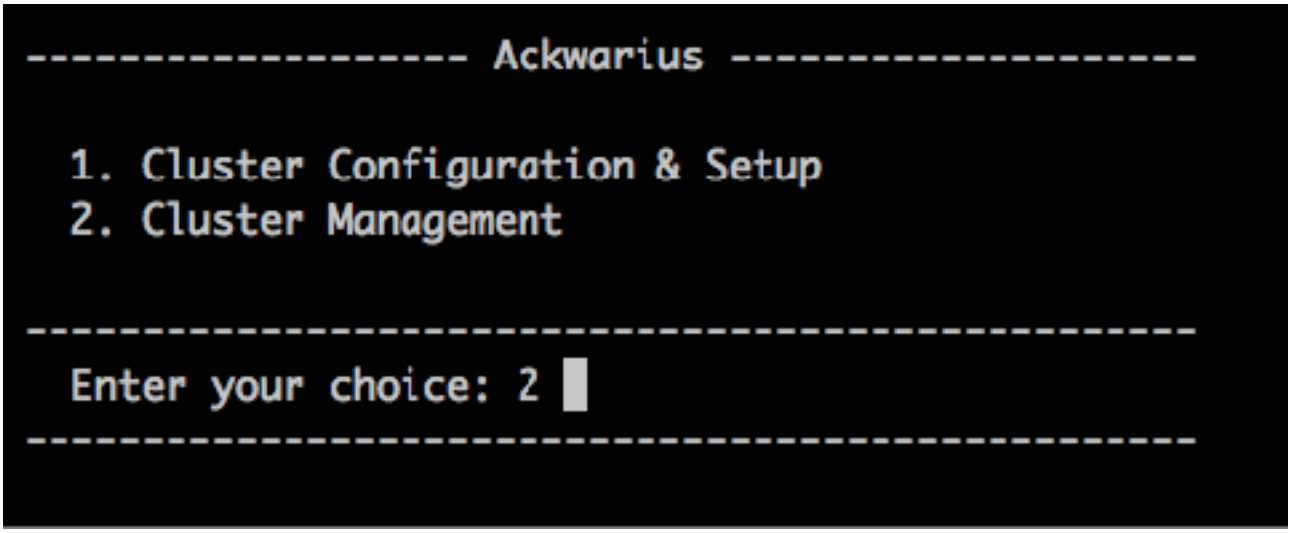
l. Make crontab entries for “root”

```
[root@node1 ~]# crontab -l
* * * * * /clus_logs/scripts/monitor
[root@node1 ~]#
```

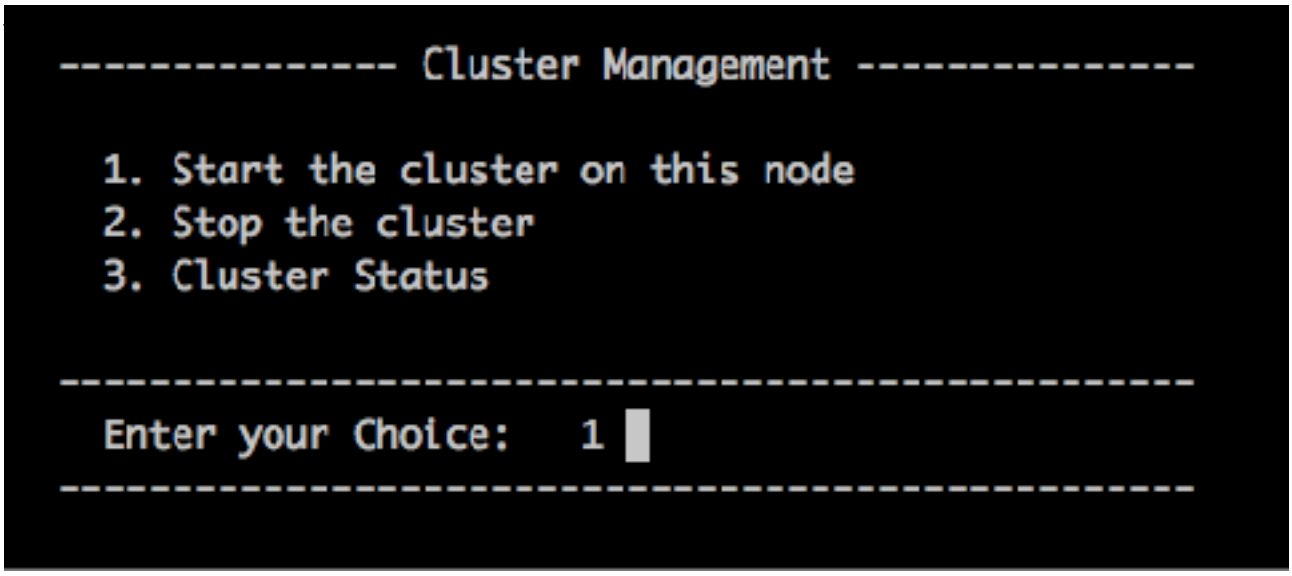

m. Start the cluster on any one of the node
[- via root]

#/clus_logs/scripts/manage

Select 2



Select 1



- - - END - - -