[root@ipew1aprov rhel6\_x86\_64]# ./cluster\_server/installvcs -fencing

Symantec Cluster Server 6.1 Configure Program

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in FAR Sections 12.212 and DFARS Section 227.7202.

Logs are being written to /var/tmp/installvcs-201406031436ibx while installvcs is in progress.

Enter the name of one system in the VCS cluster for which you would like to configure I/O fencing: ipew1aprov

Checking communication on ipew1aprov .................................................................................................. Done

Checking release compatibility on ipew1aprov .......................................................................................... Done

Checking VCS installation on ipew1aprov .................................................................................. Version 6.1.0.000

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Cluster information verification:

Cluster Name: ipew1provcluster

Cluster ID Number: 61353

Systems: ipew1aprov ipew1bprov

Would you like to configure I/O fencing on the cluster? [y,n,q] (y)

Checking communication on ipew1aprov .................................................................................................. Done

Checking release compatibility on ipew1aprov .......................................................................................... Done

Checking VCS installation on ipew1aprov .................................................................................. Version 6.1.0.000

Checking communication on ipew1bprov .................................................................................................. Done

Checking release compatibility on ipew1bprov .......................................................................................... Done

Checking VCS installation on ipew1bprov .................................................................................. Version 6.1.0.000

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Fencing configuration

1) Configure Coordination Point client based fencing

2) Configure disk based fencing

3) Configure fencing in disabled mode

4) Replace/Add/Remove coordination points

5) Refresh keys/registrations on the existing coordination points

6) Set the order of existing coordination points

Select the fencing mechanism to be configured in this Application Cluster: [1-6,q,?] 2

This I/O fencing configuration option requires a restart of VCS. Installer will stop VCS at a later stage in this run. Note that the service groups

will be online only on the systems that are in the 'AutoStartList' after restarting VCS. Do you want to continue? [y,n,q,b,?] y

Do you have SCSI3 PR enabled disks? [y,n,q,b,?] (y)

Since you have selected to configure disk based fencing, you need to provide the existing disk group to be used as coordinator or create a new disk

group for it.

Select one of the options below for fencing disk group:

1) Create a new disk group

b) Back to previous menu

Enter the choice for a disk group: [1-1,b,q] 1

List of available disks to create a new disk group

A new disk group cannot be created as the number of available free VxVM CDS disks is 0 which is less than three. If there are disks available which

are not under VxVM control, use the command vxdisksetup or use the installer to initialize them as VxVM disks.

Do you want to initialize more disks as VxVM disks? [y,n,q,b] (y)

List of disks which can be initialized as VxVM disks:

1) vmdk0\_0

2) vmdk0\_1

3) vmdk0\_2

b) Back to previous menu

Enter the disk options, separated by spaces: [1-3,b,q] 1 2 3

Intializing disk vmdk0\_0 on ipew1aprov ................................................................................................ Done

Intializing disk vmdk0\_1 on ipew1aprov ................................................................................................ Done

Intializing disk vmdk0\_2 on ipew1aprov ................................................................................................ Done

1) vmdk0\_0

2) vmdk0\_1

3) vmdk0\_2

b) Back to previous menu

Select odd number of disks and at least three disks to form a disk group. Enter the disk options, separated by spaces: [1-3,b,q] 3

The total number of disks should be odd and no less than three. Input again

1) vmdk0\_0

2) vmdk0\_1

3) vmdk0\_2

b) Back to previous menu

Select odd number of disks and at least three disks to form a disk group. Enter the disk options, separated by spaces: [1-3,b,q] 3

The total number of disks should be odd and no less than three. Input again

1) vmdk0\_0

2) vmdk0\_1

3) vmdk0\_2

b) Back to previous menu

Select odd number of disks and at least three disks to form a disk group. Enter the disk options, separated by spaces: [1-3,b,q] 3 1 2 3

The total number of disks should be odd and no less than three. Input again

1) vmdk0\_0

2) vmdk0\_1

3) vmdk0\_2

b) Back to previous menu

Select odd number of disks and at least three disks to form a disk group. Enter the disk options, separated by spaces: [1-3,b,q] 1-3

Invalid input. Please retry.

Select odd number of disks and at least three disks to form a disk group. Enter the disk options, separated by spaces: [1-3,b,q] 3 1-3

Invalid input. Please retry.

Select odd number of disks and at least three disks to form a disk group. Enter the disk options, separated by spaces: [1-3,b,q] 3

The total number of disks should be odd and no less than three. Input again

1) vmdk0\_0

2) vmdk0\_1

3) vmdk0\_2

b) Back to previous menu

Select odd number of disks and at least three disks to form a disk group. Enter the disk options, separated by spaces: [1-3,b,q] 1 2 3

Enter the new disk group name: [b] iofence\_DG

Created disk group iofence\_DG

Before you continue with configuration, Symantec recommends that you run the vxfentsthdw utility (I/O fencing test hardware utility), in a separate

console, to test whether the shared storage supports I/O fencing. You can access the utility at '/opt/VRTSvcs/vxfen/bin/vxfentsthdw'.

As per the 'vxfentsthdw' run you performed, do you want to continue with this disk group? [y,n,q] (y)

Using disk group iofence\_DG

Enter disk policy for the disk(s) (raw/dmp): [b,q,?]

Enter disk policy for the disk(s) (raw/dmp): [b,q,?] dmp

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I/O fencing configuration verification

Disk Group: iofence\_DG

Fencing disk policy: dmp

Is this information correct? [y,n,q] (y)

Installer will stop VCS before applying fencing configuration. To make sure VCS shuts down successfully, unfreeze any frozen service group and

unmount the mounted file systems in the cluster.

Are you ready to stop VCS and apply fencing configuration on all nodes at this time? [y,n,q] (y)

Stopping VCS on ipew1aprov ............................................................................................................ Done

Stopping VCS on ipew1bprov ............................................................................................................ Done

Starting Fencing on ipew1aprov ........................................................................................................ Done

Starting Fencing on ipew1bprov ........................................................................................................ Done

Updating main.cf with fencing ......................................................................................................... Done

Starting VCS on ipew1aprov ............................................................................................................ Done

Starting VCS on ipew1bprov ............................................................................................................ Done

The Coordination Point Agent monitors the registrations on the coordination points.

Do you want to configure Coordination Point Agent on the client cluster? [y,n,q] (y)

Enter a non-existing name for the service group for Coordination Point Agent: [b] (vxfen)

Additionally the Coordination Point Agent can also monitor changes to the Coordinator Disk Group constitution such as a disk being accidently

deleted from the Coordinator Disk Group. The frequency of this detailed monitoring can be tuned with the LevelTwoMonitorFreq attribute. For example,

if you set this attribute to 5, the agent will monitor the Coordinator Disk Group constitution every five monitor cycles. If LevelTwoMonitorFreq

attribute is not set, the agent will not monitor any changes to the Coordinator Disk Group.

Do you want to set LevelTwoMonitorFreq? [y,n,q] (y)

Enter the value of the LevelTwoMonitorFreq attribute(0 to 65535): [b,q,?] (5)

Adding Coordination Point Agent via ipew1aprov ........................................................................................ Done

I/O Fencing configuration ............................................................................................................. Done

I/O Fencing configuration completed successfully

You are running this virtual machine under a VMware environment. You may access the cluster view for this virtual machine using the vSphere client.

To access the cluster view for the virtual machine using the vSphere client, log on to the vCenter Server through the vSphere client, navigate to

the virtual machine in the inventory view and click on the 'Symantec High Availability' tab.

You may also access the cluster view from a browser. To access the cluster view through a browser, open the URL below in a browser:

https://<VM\_IP\_or\_Hostname>:5634/vcs/admin/application\_health.html

installvcs log files, summary file, and response file are saved at:

/opt/VRTS/install/logs/installvcs-201406031436ibx

Would you like to view the summary file? [y,n,q] (n)

[root@ipew1aprov ~]# /opt/VRTSvcs/vxfen/bin/vxfentsthdw

Veritas vxfentsthdw version 6.1.0.000-GA Linux

The utility vxfentsthdw works on the two nodes of the cluster.

The utility verifies that the shared storage one intends to use is

configured to support I/O fencing. It issues a series of vxfenadm

commands to setup SCSI-3 registrations on the disk, verifies the

registrations on the disk, and removes the registrations from the disk.

\*\*\*\*\*\*\*\* WARNING!!!!!!!! \*\*\*\*\*\*\*\*

THIS UTILITY WILL DESTROY THE DATA ON THE DISK!!

Do you still want to continue : [y/n] (default: n) y

The logfile generated for vxfentsthdw is /var/VRTSvcs/log/vxfen/vxfentsthdw.log.11261

Enter the first node of the cluster:

ipew1aprov

Enter the second node of the cluster:

ipew1bprov

Enter the disk name to be checked for SCSI-3 PGR on node ipew1aprov in the format:

for dmp: /dev/vx/rdmp/sdx

for raw: /dev/sdx

Make sure it is the same disk as seen by nodes ipew1aprov and ipew1bprov

^C

[root@ipew1aprov ~]# vxdisk list

DEVICE TYPE DISK GROUP STATUS

sda auto:LVM - - online invalid

vmdk0\_0 auto:cdsdisk - - online

vmdk0\_1 auto:cdsdisk - - online

vmdk0\_2 auto:cdsdisk - - online

[root@ipew1aprov ~]# ls /dev/vx

clust config dmp dmpconfig dsk esd info iod netiod rdmp rdsk task taskmon trace vcevent vsevent

[root@ipew1aprov ~]# ls /dev/vx/rdmp/

sda sda13 sda4 sda9 vmdk0\_0s12 vmdk0\_0s3 vmdk0\_0s8 vmdk0\_1s11 vmdk0\_1s2 vmdk0\_1s7 vmdk0\_2s10 vmdk0\_2s15 vmdk0\_2s6

sda1 sda14 sda5 vmdk0\_0 vmdk0\_0s13 vmdk0\_0s4 vmdk0\_0s9 vmdk0\_1s12 vmdk0\_1s3 vmdk0\_1s8 vmdk0\_2s11 vmdk0\_2s2 vmdk0\_2s7

sda10 sda15 sda6 vmdk0\_0s1 vmdk0\_0s14 vmdk0\_0s5 vmdk0\_1 vmdk0\_1s13 vmdk0\_1s4 vmdk0\_1s9 vmdk0\_2s12 vmdk0\_2s3 vmdk0\_2s8

sda11 sda2 sda7 vmdk0\_0s10 vmdk0\_0s15 vmdk0\_0s6 vmdk0\_1s1 vmdk0\_1s14 vmdk0\_1s5 vmdk0\_2 vmdk0\_2s13 vmdk0\_2s4 vmdk0\_2s9

sda12 sda3 sda8 vmdk0\_0s11 vmdk0\_0s2 vmdk0\_0s7 vmdk0\_1s10 vmdk0\_1s15 vmdk0\_1s6 vmdk0\_2s1 vmdk0\_2s14 vmdk0\_2s5

[root@ipew1aprov ~]# /opt/VRTSvcs/vxfen/bin/vxfentsthdw

Veritas vxfentsthdw version 6.1.0.000-GA Linux

The utility vxfentsthdw works on the two nodes of the cluster.

The utility verifies that the shared storage one intends to use is

configured to support I/O fencing. It issues a series of vxfenadm

commands to setup SCSI-3 registrations on the disk, verifies the

registrations on the disk, and removes the registrations from the disk.

\*\*\*\*\*\*\*\* WARNING!!!!!!!! \*\*\*\*\*\*\*\*

THIS UTILITY WILL DESTROY THE DATA ON THE DISK!!

Do you still want to continue : [y/n] (default: n) y

The logfile generated for vxfentsthdw is /var/VRTSvcs/log/vxfen/vxfentsthdw.log.11528

Enter the first node of the cluster:

ipew1aprov

Enter the second node of the cluster:

ipew1bprov

Enter the disk name to be checked for SCSI-3 PGR on node ipew1aprov in the format:

for dmp: /dev/vx/rdmp/sdx

for raw: /dev/sdx

Make sure it is the same disk as seen by nodes ipew1aprov and ipew1bprov

/dev/vx/rdmp/vmdk0\_0

Enter the disk name to be checked for SCSI-3 PGR on node ipew1bprov in the format:

for dmp: /dev/vx/rdmp/sdx

for raw: /dev/sdx

Make sure it is the same disk as seen by nodes ipew1aprov and ipew1bprov

/dev/vx/rdmp/vmdk0\_0

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

Testing ipew1aprov /dev/vx/rdmp/vmdk0\_0 ipew1bprov /dev/vx/rdmp/vmdk0\_0

Checking disk size .........................................Disk size is 2048 MB

INFO: Disk size meets the size requirement

Evaluate the disk before testing ........................ No Pre-existing keys

RegisterIgnoreKeys on disk /dev/vx/rdmp/vmdk0\_0 from node ipew1aprov ... Passed

Verify registrations for disk /dev/vx/rdmp/vmdk0\_0 on node ipew1aprov .. Passed

RegisterIgnoreKeys on disk /dev/vx/rdmp/vmdk0\_0 from node ipew1bprov ... Passed

Verify registrations for disk /dev/vx/rdmp/vmdk0\_0 on node ipew1bprov .. Passed

Unregister keys on disk /dev/vx/rdmp/vmdk0\_0 from node ipew1aprov ...... Passed

Verify registrations for disk /dev/vx/rdmp/vmdk0\_0 on node ipew1bprov .. Passed

Unregister keys on disk /dev/vx/rdmp/vmdk0\_0 from node ipew1bprov ...... Passed

Check to verify there are no keys from node ipew1aprov ................. Passed

Check to verify there are no keys from node ipew1bprov ................. Passed

RegisterIgnoreKeys on disk /dev/vx/rdmp/vmdk0\_0 from node ipew1aprov ... Passed

Verify registrations for disk /dev/vx/rdmp/vmdk0\_0 on node ipew1aprov .. Passed

Read from disk /dev/vx/rdmp/vmdk0\_0 on node ipew1aprov ................. Passed

Write to disk /dev/vx/rdmp/vmdk0\_0 from node ipew1aprov ................ Passed

Read from disk /dev/vx/rdmp/vmdk0\_0 on node ipew1bprov ................. Passed

Write to disk /dev/vx/rdmp/vmdk0\_0 from node ipew1bprov ................ Passed

Reserve disk /dev/vx/rdmp/vmdk0\_0 from node ipew1aprov ................. Passed

Verify reservation for disk /dev/vx/rdmp/vmdk0\_0 on node ipew1aprov .... Passed

Read from disk /dev/vx/rdmp/vmdk0\_0 on node ipew1aprov ................. Passed

Read from disk /dev/vx/rdmp/vmdk0\_0 on node ipew1bprov ................. Passed

Write to disk /dev/vx/rdmp/vmdk0\_0 from node ipew1aprov ................ Passed

Expect no writes for disk /dev/vx/rdmp/vmdk0\_0 on node ipew1bprov ...... Failed

Removing test keys and temporary files, if any...