**Multipath Configuration settings for the VMware setup**

*First, Check controller states and preferred path from the SAS Raid Controller Module CLI or Storage Configuration Manager.*

**Instructions while using CLI**

1. Check the controllers are in bound state by issuing the following commands

```
<CLI> list controller
Current Machine Local Time: 10/02/2009 09:11:55 AM

 _____________________________________________
| Ctlr# | Controller |  Status    | Ports | LUNs |
|_______|____________|____________|_______|______|
|   0   |    Ctlr0   |   PRIMARY  |   1   | 186  |
|   1   |    Ctlr1   | SECONDARY  |   1   | 186  |
|_______|____________|____________|_______|______|
```

2. Check your preferred path by issuing the following command

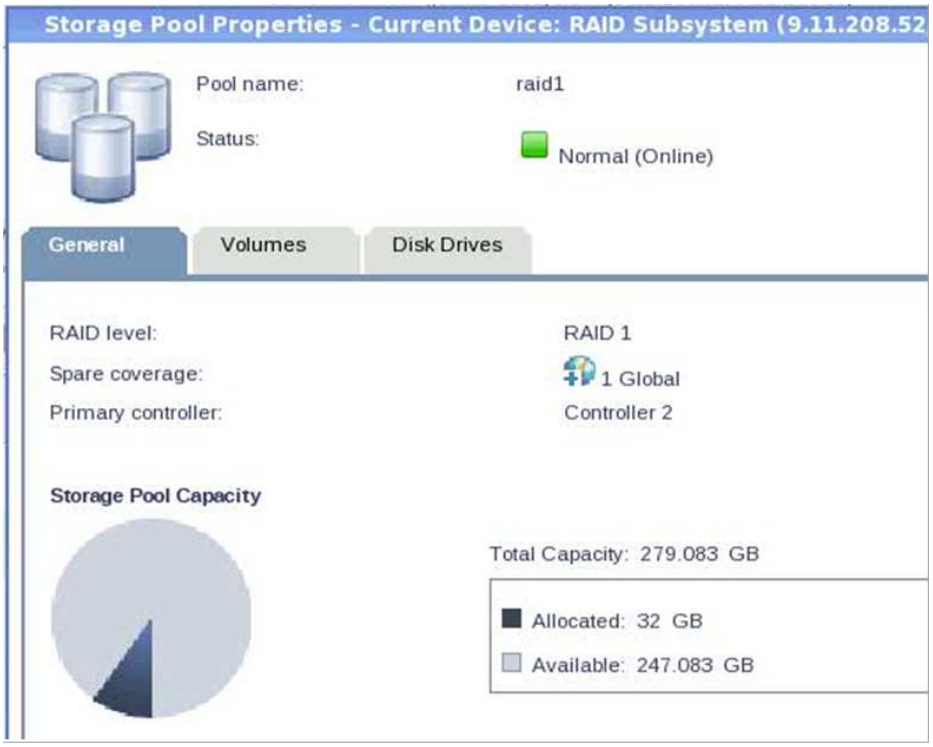
```
<CLI> list pool
Current Machine Local Time: 10/02/2009 09:12:01 AM

 ____________________________________________________________________________
|Pool#|ID| Name|RaidType|OwnerCtlr|TotalCap|AvailCap|Status|State|Degraded|
|_____|__|_____|________|_________|________|________|______|_____|________|
|  0  | 2|raid5|    5   | Slot 0  |  3832GB|   366GB|Viable| ONV |   No   |
|  1  | 1|raid1|    1   | Slot 1  |   279GB|   247GB|Viable| ONV |   No   |
|____ |__|_____|________|_________|________|________|______|_____|________|
```

In this example “raid1” pool has preferred path set to controller 1 as indicated by slot 1.

All the volumes (LUNs) belonging to raid1 will have a preferred path to controller 1 (same as bay 4 or I/O module 4). Similarly “raid5” pool has preferred path set to controller 0 as indicated by slot 0.

**Instructions while using Storage Configuration Manager**

1. Go to the controller tab and check to make sure both controllers are online.
2. Go to the storage pool tab and identify the preferred path by displaying the properties of the storage pool as shown below. Please note that all the volumes (LUNs) belonging to a storage pool will have the same preferred path as the storage pool. In the example given below, preferred controller ownership is indicated by “Primary Controller” and is showing controller 2 (This is equivalent to slot1 in the CLI display and same as bay 4 or I/O module 4)



**Once the preferred path for your logical units**

Second, once the preferred path for your logical units have been identified the user will need to check /change the multipath setting within VMware, follow the steps below.

1. Open the VMware Infrastructure Client.

2. Select the host that you wish you change in the left pane.

3. In the right pane, click on the Configuration tab.

4. In the Configuration window, by the Details box is a "Properties" link.

5. Click on "Properties" and it will open a Datastore properties window.

6. Select the "Manage Paths" button in the bottom right corner of the window.

7. In the "Manage Paths" window, click on the "Change" button at the top in the Policy box.

8. In the "Manage Paths - Selection Policy" window, select the radio button next to "Fixed " and click OK. If "Fixed" policy is already selected, no action is required.

9. Back out of the other Windows and click OK and Close.

You will need to make this change for all ESX hosts that you wish to have this setting.

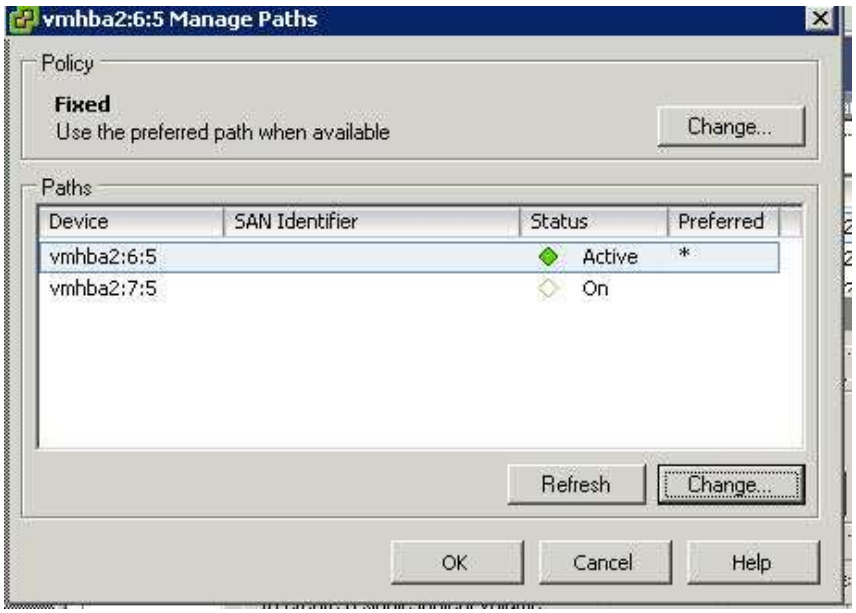
*Third, the user needs to configure the Logical Unit Numbers (LUNs) within the VMware Operating System (OS) configuration to properly failover through the VI client.*

1. Within the Infrastructure client, the user should highlight the blades with access to the SAS RAID controller modules.

2. Under configuration, select "Storage" from the side panel/menu and highlight the storage LUN to be changed.

3. Click "properties" and then select "manage paths."

You will be presented with a window as follows. As indicated in the picture below, there are two paths. Lower numbered path represents controller0 (vmhba2:6:5) and higher numbered path represents controller 1 (vmhba2:7:5). If the preferred path is same as indicated by the CLI or SCM display, no action required. Repeat the process for each of the LUNs. If the preferred path is different from what is indicated in the CLI or SCM display, then proceed to step 4.




4. Select the device path you want to change then click "change."

5. Under preference, check preferred and click OK