Dell Failover Clusters With Microsoft Windows Server 2008 Operating System—Important Information

Configuring IP Addresses for Dell Failover Clusters with Direct-Attached iSCSI Storage Arrays

To successfully validate Dell failover cluster configurations based on direct-attached iSCSI storage arrays (for example, Dell PowerVault MD3200i, Dell PowerVault MD3220i, Dell PowerVault MD3000i, Dell|EMC AX-Series, or Dell|EMC CX-Series), the failover cluster requires a different subnet address for each host-to-storage iSCSI connection.

If the two IP addresses that are used for a host-to-storage iSCSI connection are configured on the same IP subnet, and if you run the **Failover Cluster Validation** wizard, the **Validate Network Communication** test fails.

Figure 1 is an example of a Dell failover cluster configuration with four different IPv4 subnets for the four NICs. If you run the **Validate Network Communication** test on this cluster configuration, the test is successful.

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Figure 1. Example of a Dell Failover Cluster Configuration With Four IPv4 Subnets for Four NICs

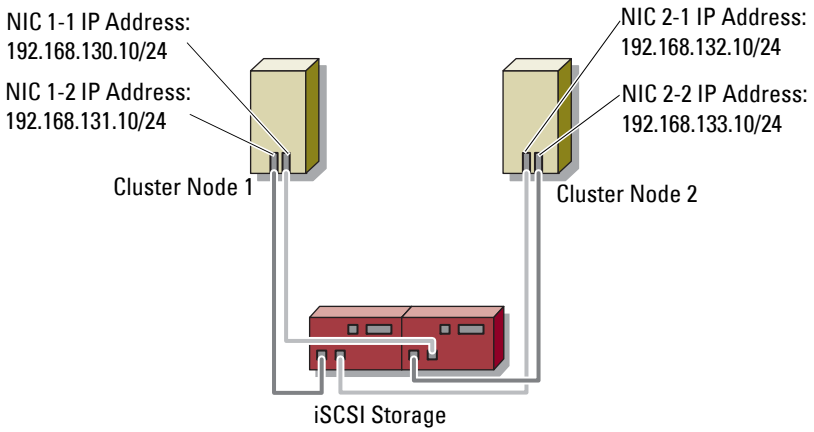
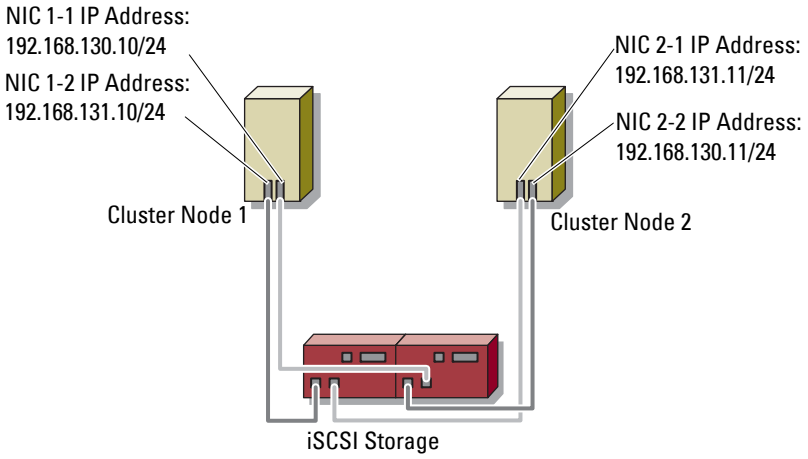


Figure 2 is an example of a misconfigured Dell failover cluster configuration. It has two IPv4 subnets for the four NICs instead of four separate subnets.

Figure 2. Example of a Dell Failover Cluster Configuration With Two Subnet Addresses for Four NICs



If you run the **Validate Network Communication** test on the failover cluster in Figure 2, the test fails and the following message is displayed:

```
Network interfaces <interface 1> and <interface 2> are on
the same cluster network, yet either address <address 2> is
not reachable from address <address 1> or the ping latency
is greater than the maximum allowed 500 milliseconds.
```

where:

- `<interface 1>` and `<interface 2>` correspond to the interfaces for **Cluster Node 1 NIC 1-1** and **Cluster Node 2 NIC 2-2** (or **Cluster Node 1 NIC 1-2** and **Cluster Node 2 NIC 2-1**)
- `<address 1>` and `<address 2>` correspond to 192.168.130.10 and 192.168.130.11 (or 192.168.131.10 and 192.168.131.11).

The **Validate Network Communication** test detects that NIC 1-1 and NIC 2-2 are on the same subnet, and incorrectly assumes that they are used for cluster communications. When the **Validate Network Communication** test tries to test the communications between the two NICs, the test fails.

Additional Information

- The requirement for one subnet per iSCSI connection applies to the following configurations:
  - iSCSI direct-attached configurations with more than two nodes
  - iSCSI direct-attached configurations using IPv6
  - iSCSI direct-attached configurations with one iSCSI connection per host

  NOTE: For iSCSI switched-attached configurations, the requirement for one subnet per iSCSI connection is not applicable.
- For information on how to configure the IP addresses for the iSCSI ports, see the iSCSI storage array documentation at **support.dell.com**.
- For more information on how to identify and correct this validate network communication error for failover clusters, see the Microsoft knowledge base article **KB951434** at **microsoft.com**.

Configuring Volume Mount Point in Dell Failover Clusters Running Windows Server 2008 Operating System

1. Initialize the logical disk created for configuring the volume mount point.
2. Add the logical disk you initialized in step 1 to the **Available Storage pool** in the cluster:
   a. Open the **Failover Cluster Management Console**.
   b. Right-click the **Storage** in the cluster.
   c. Click **Add a disk**.
   d. Select the disk and click **OK**.
3. Create the partition and mount point on the disk using the **Disk Management Console**.
4. Configure the cluster disk dependency using **Failover Cluster Management Console**.