

# Installing, configuring and testing Exchange 2007 CCR on Mailbox Server (Part 1)

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*Henrik Walther*

**Exchange Server 2007 introduces a number of new features, one of which is the Cluster Continuous Replication (CCR) feature. This feature requires the new Exchange Server 2007 log file transfer and replay features, plus a combination of them with Windows 2003 built-in features (2 cluster nodes active / passive). This feature in Windows 2003 has many advantages, but it also has some disadvantages that still have an error point when referring to Exchange databases.**

## Prerequisites

To follow the steps throughout this series, you need to do the following:

1. Windows 2003 Active Directory forest has at least one Domain Controller.
2. Two versions of Windows 2003 Server R2 Enterprise or Windows 2003 Server SP1 Enterprise.
3. A Windows file sharing Witness (Microsoft recommends that the Exchange 2007 Hub Transport Server in Exchange 2007 exists)

## Note

Remember to apply the upgrade mentioned in the MS KB 921181 link to both servers that will work as nodes in the Exchange Server 2007 Clustered Mailbox installation. This upgrade adds a new file sharing validation feature to the current Majority Node Set (MNS) model. This file sharing validation feature allows you to use an external file share for the cluster as a traditional 'vote' for the purpose of indicating the status of the cluster in the deployment of the two-rule model. The MNS node, which is a procedure to use for continuous cluster copy functionality (abbreviated as CCR) in Exchange Server 2007.

In addition to the above prerequisites, you should have some knowledge about the general requirements below:

1. When dealing with CCR environments, you must or may only use one database on one storage group.
2. You cannot create a public folder database in a CCR environment if there are already many bibliographic databases in your organization.
3. You can create up to 50 storage groups and 50 databases on a CCR cluster. Be aware that you should only create one database on each storage group.
4. The cluster in Exchange 2007 installed cannot have Exchange Server 200x, or any version of Microsoft SQL Server. Not supported for running Exchange 2007 in a cluster with any other applications.

## **Warning**

Since Exchange Server 2007 Beta does not support in a production environment, unless you participate in a fast deployment program (RDP) or a new technology testing program (TAP), you must install the cluster mailbox in the domain under test. to try on.

## **Configure network settings for Cluster nodes**

When you launch servers to make nodes in a cluster, start by naming machines such as **E2K7Node1** and **E2K7Node2** or whatever name you want to use (these names don't need to be real). What to do with the Exchange server name that your clients will be configured to connect to later. Name the network connections **Public** and **Private** corresponding to the internal network and the external network (remember to do this for both nodes).

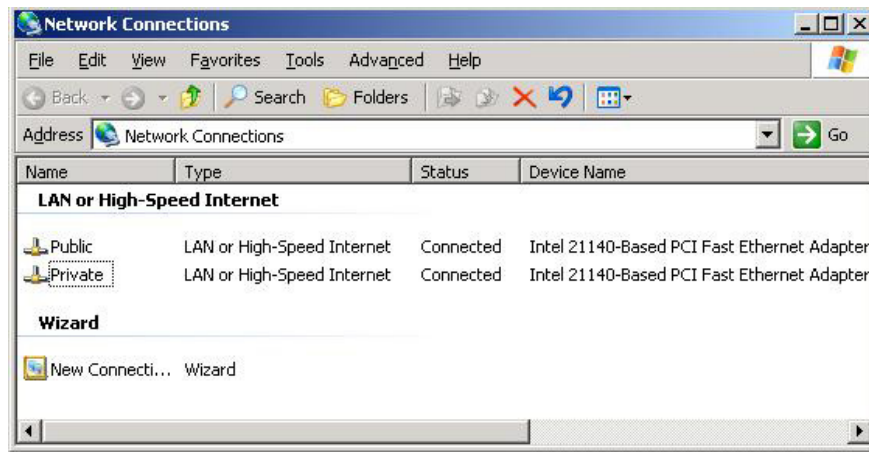


Figure 1: Network connections

Click **Advanced > Advanced Settings** , if that's not the case, make sure **Public** is listed first in the connection order list, then **Private** and finally **Remote Access Connections** .

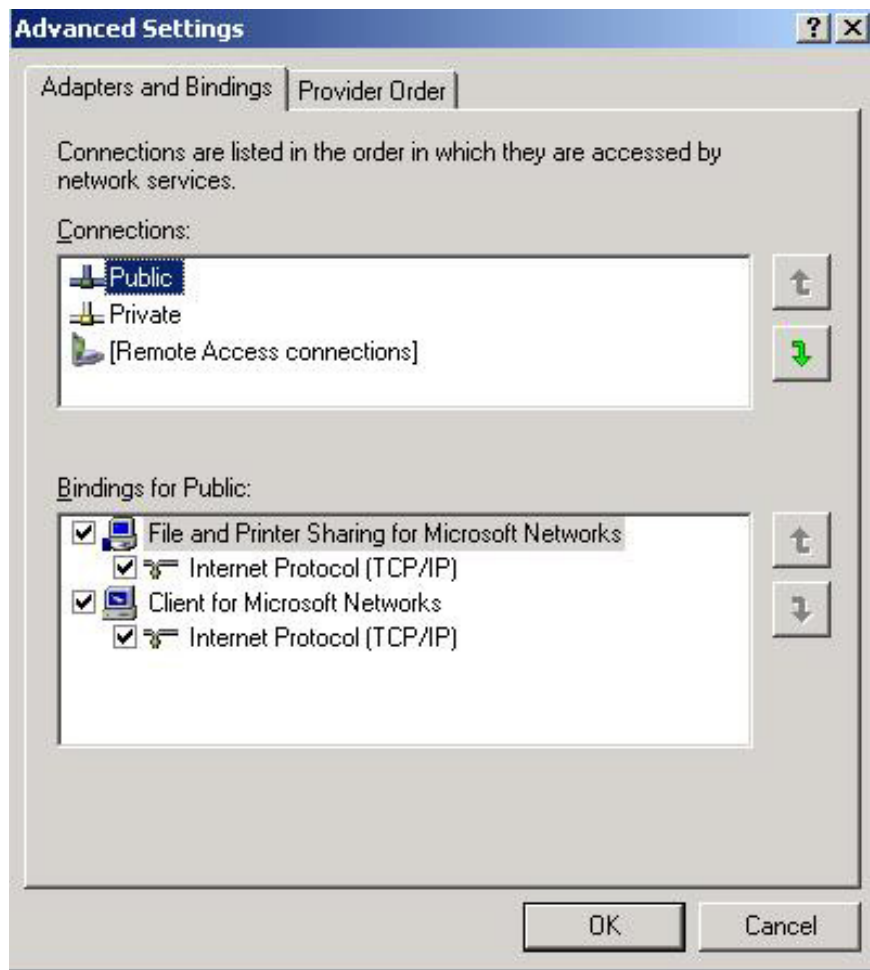


Figure 2: Connection order

You also need to make sure that **File and Printer Sharing for Microsoft Networks** is not marked for Private network connection.

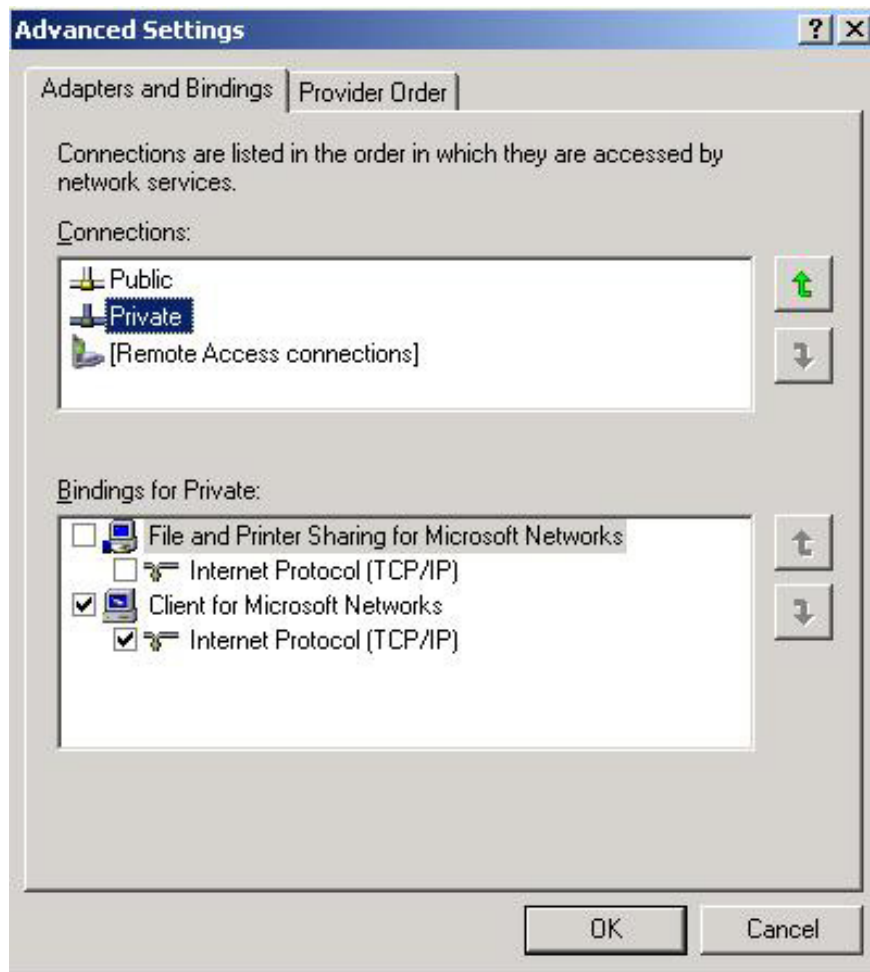


Figure 3: Disable File and Printer Sharing for Microsoft Networks

Configure **Public network** with the corresponding network settings you use in your test environment.

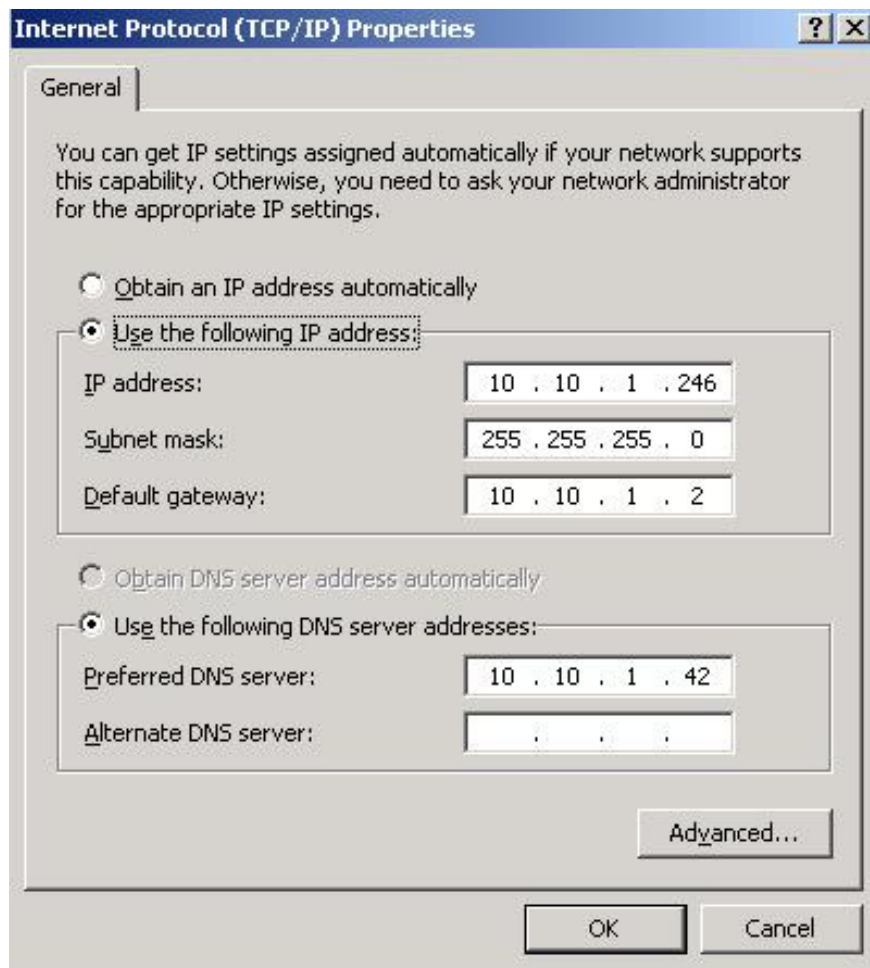


Figure 4: Configuring Public network

**Private network** configuration with IP address and a subnet mask. There is no longer any requirement because this network is only used for communication (heartbeat) between nodes in a cluster.

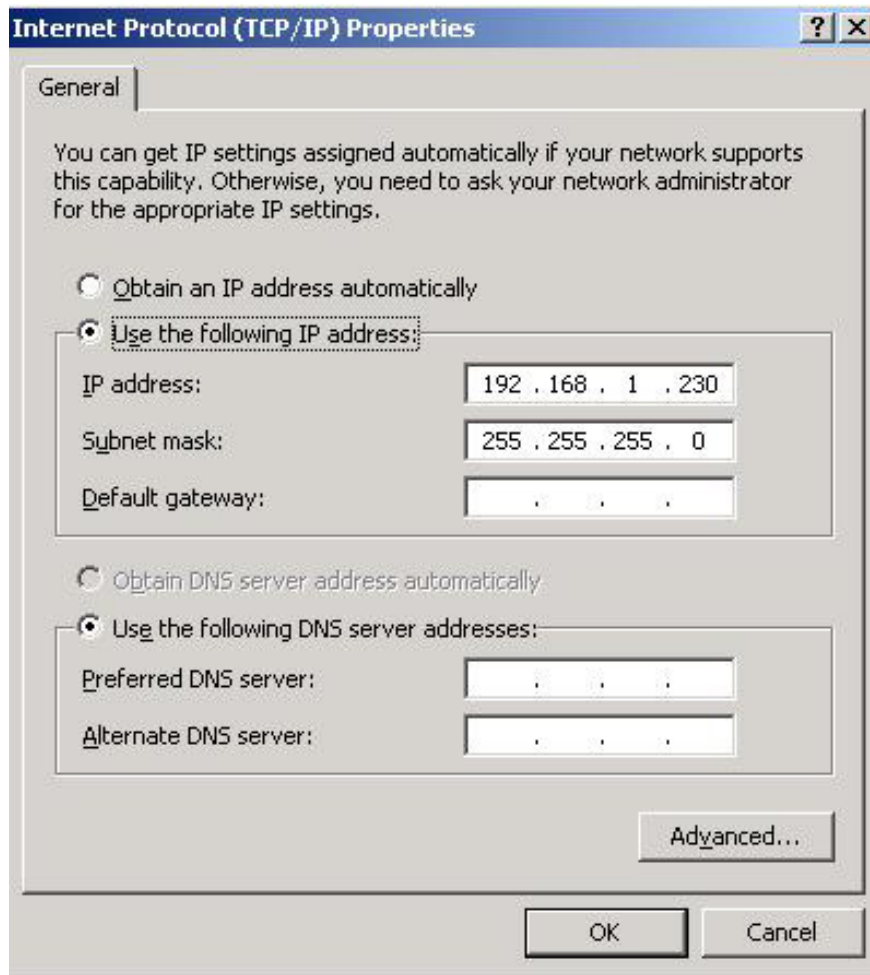


Figure 5: Configuring Private network

Now click **Advanced** and then select the **DNS** tab. Here, you should uncheck both **Register this connection's addresses in DNS** and **Use this connection's DNS suffix** .

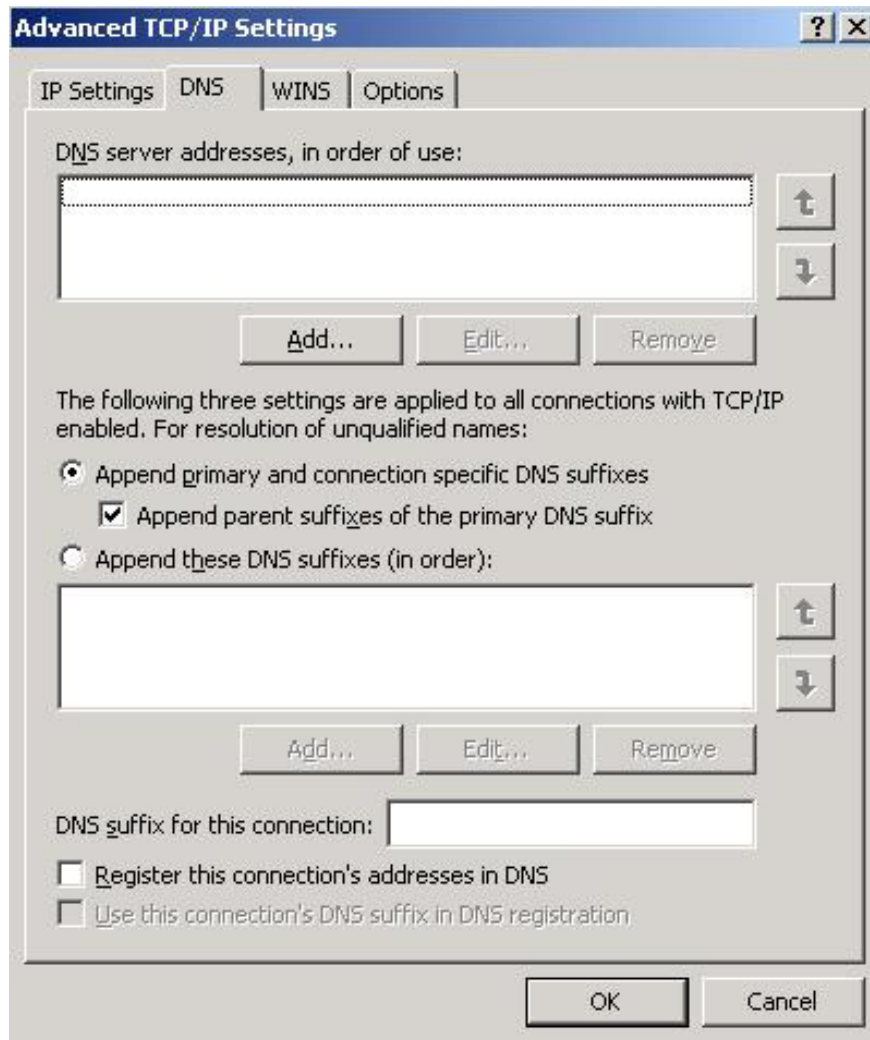


Figure 6: Configuring DNS settings for Private network

Click on the **WINS** tab, uncheck **Enable LMHOSTS lookup** and select **Disable NetBIOS over TCP / IP** .

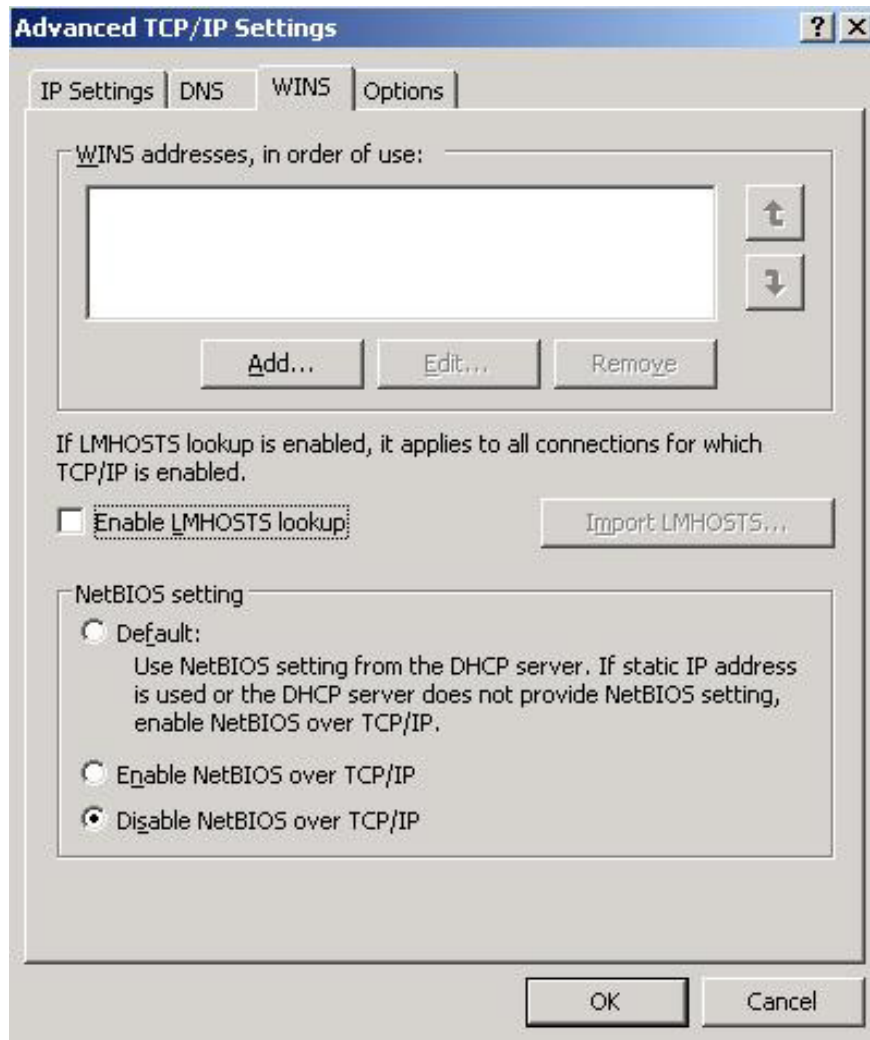


Figure 7: Configuring WINS settings for Private network

Click **OK** 3 times and close the network connection window.

Now add both Windows 2003 servers as a member server in the Active Directory domain test.

### **Create and configure Windows 2003 Server Cluster**

We already have two servers ready to work as nodes in a Windows 2003 cluster, now create a Windows 2003 Server Cluster. To do so, log into **E2K7Node1** with the domain administrator account, then click **Start** > **Administrative Tools** > **Cluster Administrator** , and select **Create new cluster** in the select list box. Click **OK** .



Figure 8: Create a new cluster

**Note**  
You can also open a command **prompt** and type in the **Cluster.exe / create / wizard** command to open the Cluster Wizard utility.

Click **Next** .



Figure 9: Cluster Wizard

Specify the domain name as well as the cluster name (the name for the Windows 2003 cluster, not the name of the Exchange cluster for the clients to connect to), and then click **Next** .

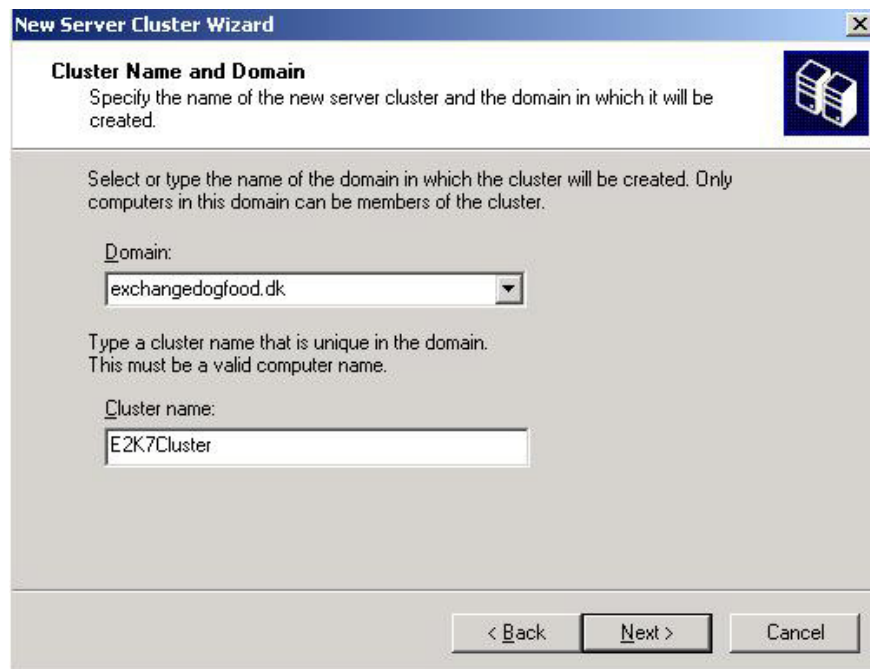


Figure 10: Cluster Name and Domain

Enter the name of the Windows 2003 server that will make the first node in the cluster, in this case **E2K7Node1**, then click **Next**.



Figure 11: Add the first button

Allow the cluster wizard to determine the cluster configuration and click **Next**.

**Note**

You can ignore the two warnings in Figure 12, because the nodes in the cluster cluster (CCR) on the mailbox server installation will not share with small systems.

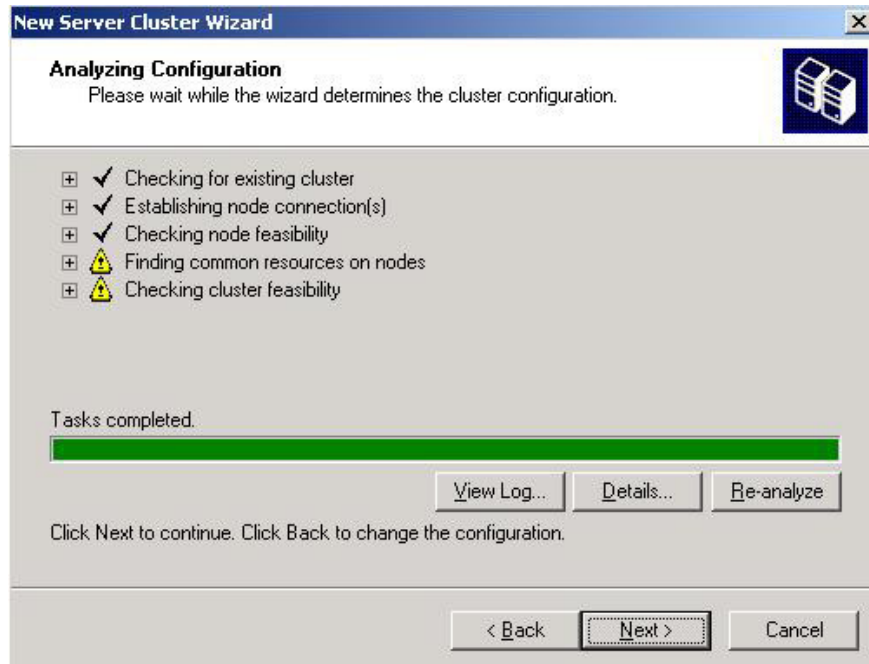


Figure 12: Analyzing Cluster Configuration - Analyzing Cluster Configuration

Enter the IP address that the cluster management tools will use to connect to the cluster, in this case 10.10.1.216, then click **Next** .

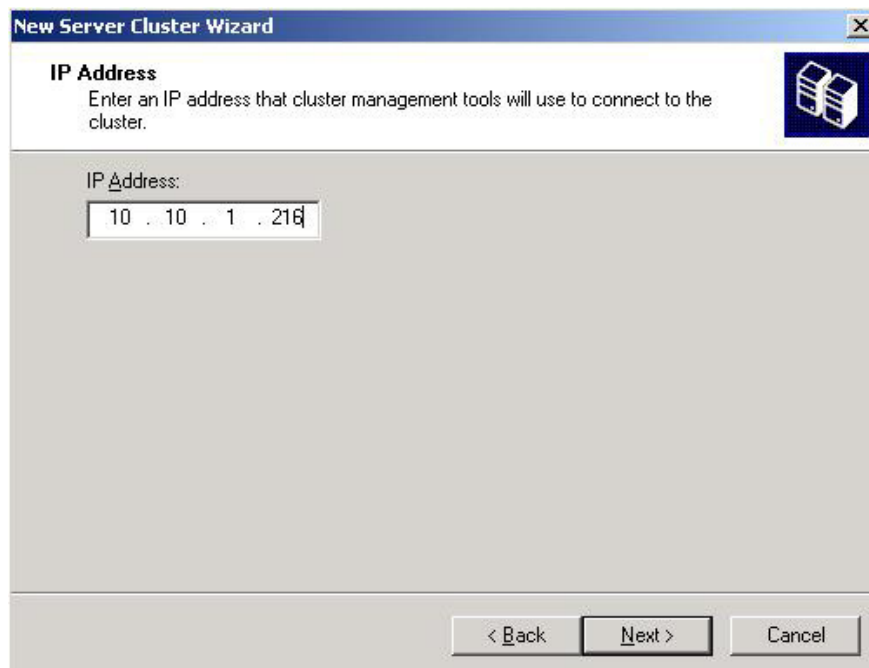


Figure 13: Specify the IP address that the cluster management tools will connect to  
Enter the required information of the cluster service account (Cluster Service Account), click **Next** .

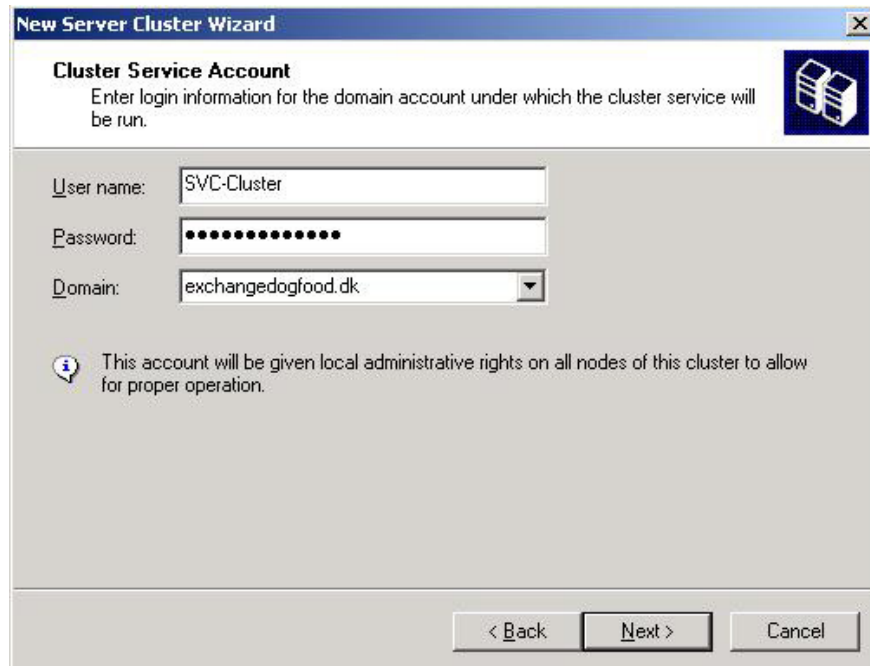


Figure 14: Enter the required information for the Cluster Service Account

Click **Quorum** and select **Majority Node Set** as a resource type, then click **OK** and **Next** .

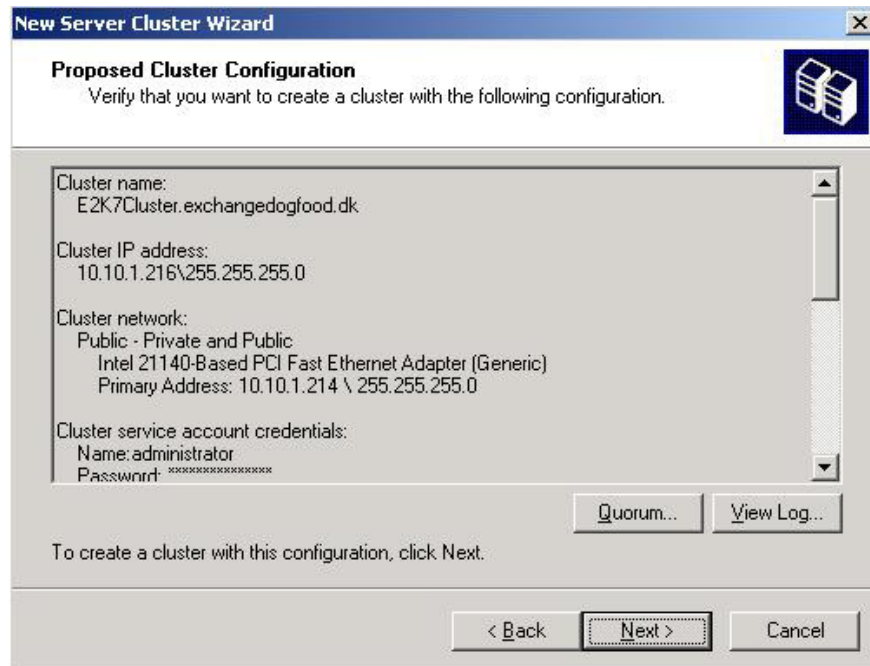


Figure 15: Cluster configuration given

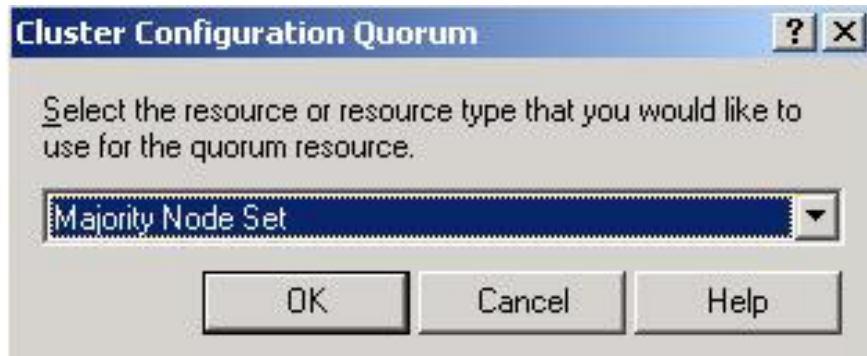


Figure 16: Setting Majority Node Set to Resource Type

Wait until the cluster is configured, then click **Next** .

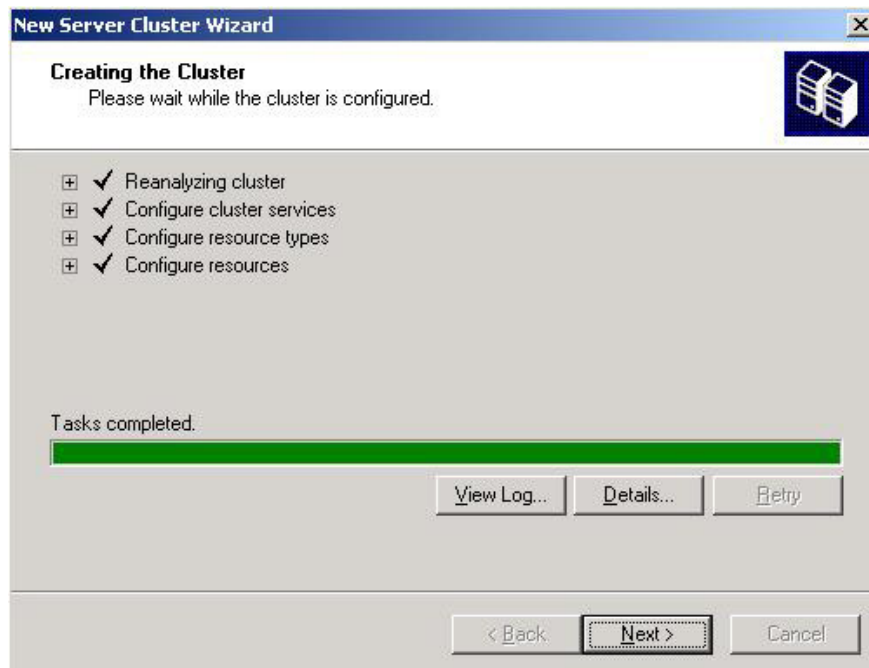


Figure 17: Creating Cluster

Once the cluster is complete, you can click **Finish** .



Figure 18: The alarm screen has completed the process

Now we are running the Windows 2003 cluster, but since there is only one node, it is not fault tolerant. So please add to the second Windows 2003 server. We can do this by right-clicking **E2K7Node1** in the left pane of Cluster Administrator, then selecting **New > Node** as shown in Figure 19 below.

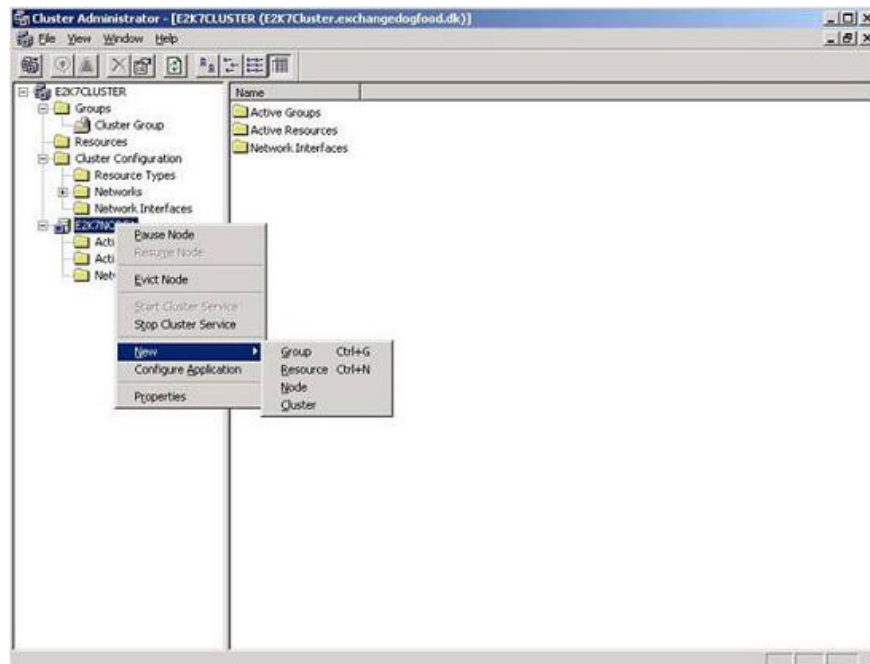


Figure 19: Adding the second node to the Cluster

The Add Nodes Wizard will launch and you can click **Next** .



Figure 20: Add Nodes Wizard

Enter the name of the server that will be the second node (in this case **E2K7Node2** ), then click **Next** .

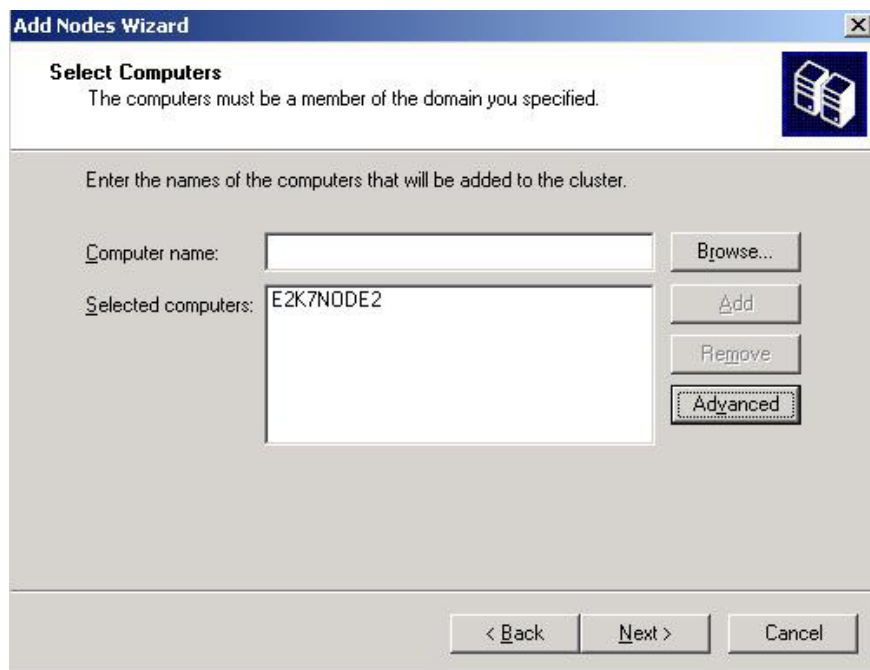


Figure 21: Enter the name of the second button

Continue for **Add Notes Wizard** to define the cluster configuration, then click **Next** .

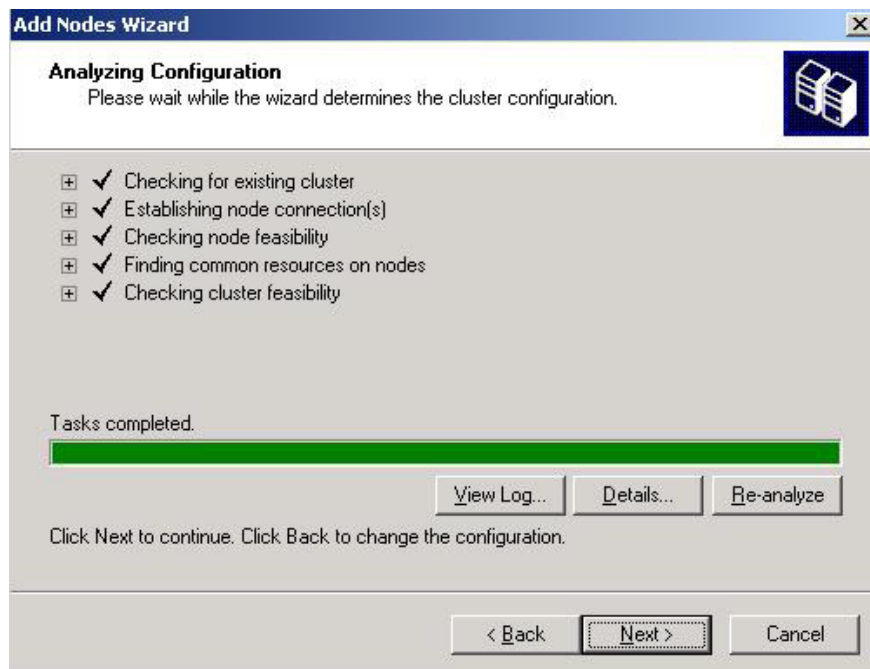


Figure 22: Analysis of Cluster configuration

Enter the password for the cluster service account (in this case, the administrator account), and then click **Next** .

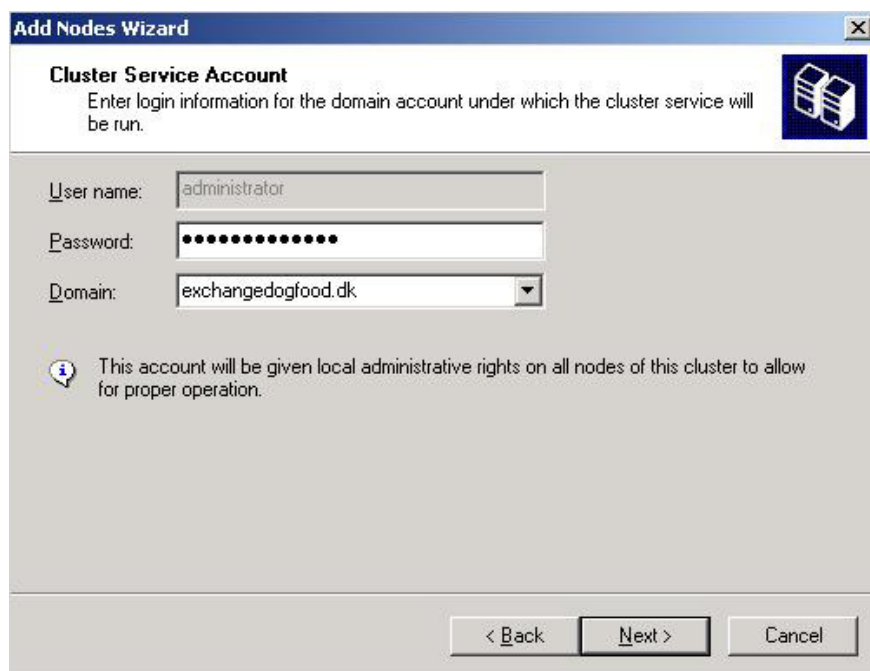


Figure 23: Enter the password for the Cluster Service Account

Once authenticated, you want to add the second node to the cluster with the configuration shown in Figure 24, click **Next** .

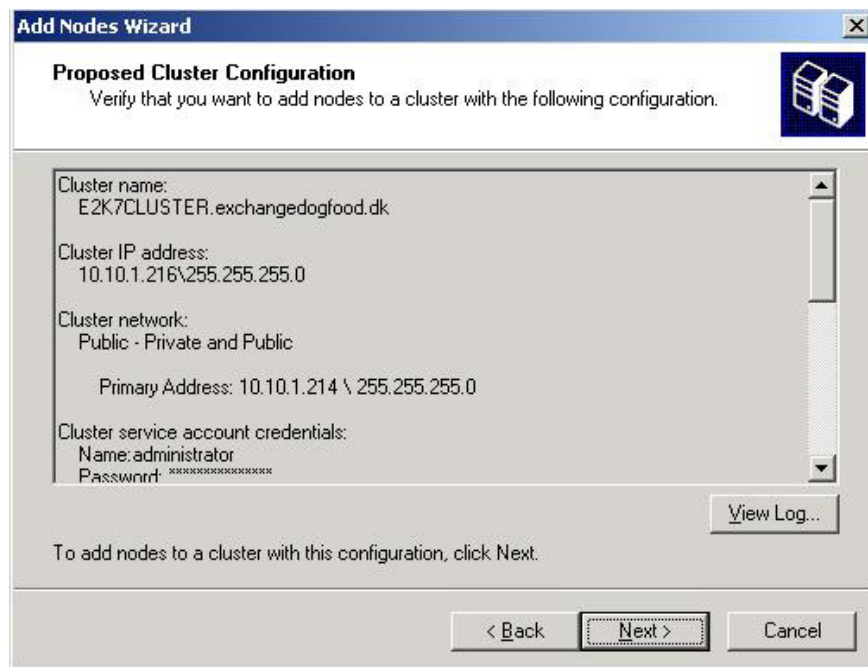


Figure 24: Recommended cluster configuration for node 2.

When the cluster is configured correctly without any errors or warnings appearing, click **Next**.

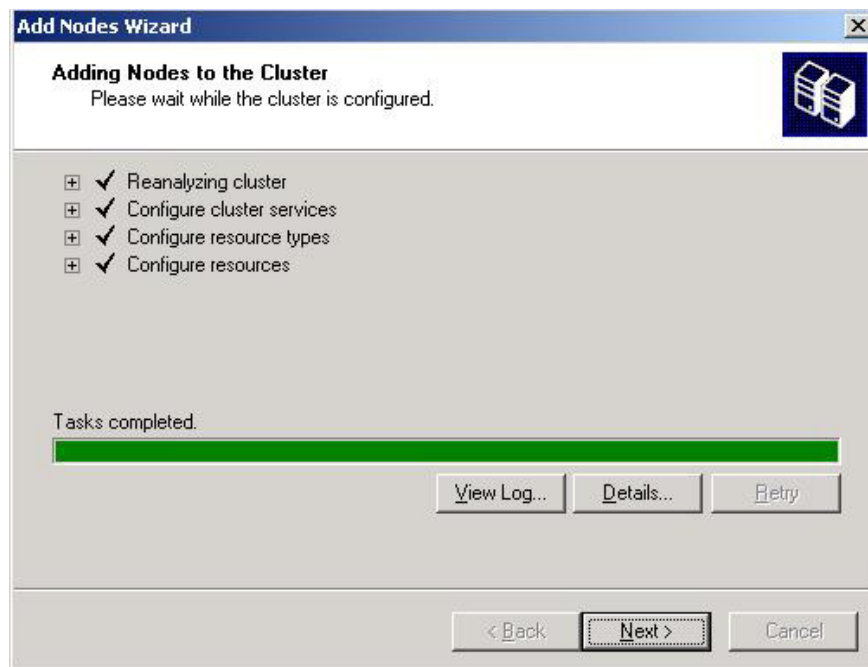


Figure 25: Cluster is configured for the second node

When the **Add Notes Wizard** has completed successfully, click **Finish**.



Figure 26: Complete the Add Nodes Wizard

The second Windows server is now part of the cluster as shown in Figure 27 below.

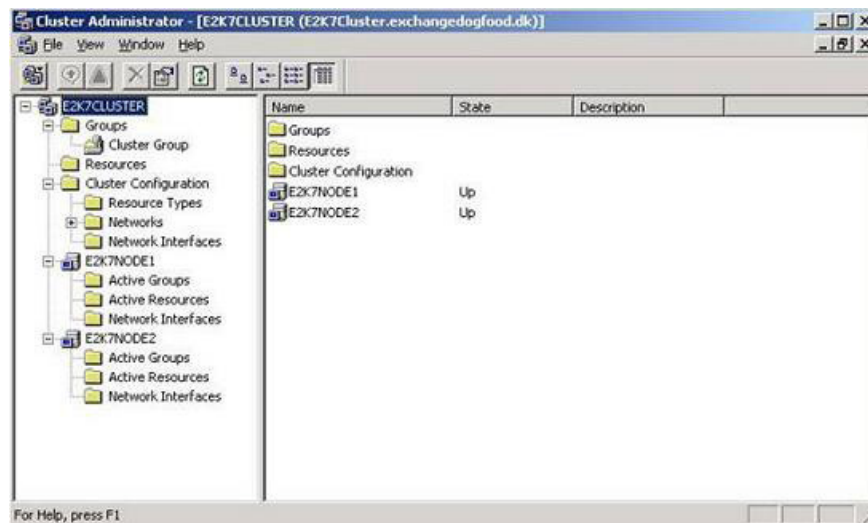
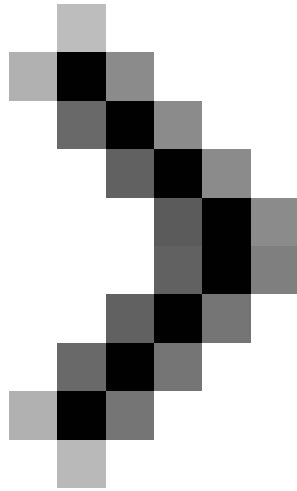
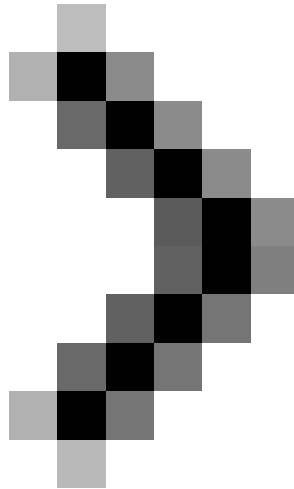


Figure 27: Cluster Administrator with two nodes

At this point, we would like to conclude the first part of this series, the second part will continue and we introduce it in a short time, please read.



## **Installing, configuring, and testing Exchange 2007 CCR on Mailbox Server (Part 2)**



### **Installing, configuring, and testing Exchange 2007 CCR on Mailbox Server (Part 3)**

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