

ELM Enterprise Manager™ 3.0

Installation of ELM Server in a Windows 2000 Cluster

Copyright © 1997 - 2002 TNT Software
All rights reserved

Clustering the ELM Server

The ELM Server includes a cluster-aware resource DLL (EEMCLR.DLL, ELMCLR.DLL or EPMCLR.DLL, depending on which ELM Server you are running), enabling you to cluster an ELM Server on a Windows 2000 Advanced Server. The ELM Server can be clustered in an Active/Passive configuration only, where the ELM Server runs only on one node at a given time.

There are specific configurations that must be used when installing the ELM Server in a cluster:

- The ELM Server requires the following dependency items in its cluster resource group: Disk Resource, IP Address Resource, Network Name Resource.
- The ELM Server binaries and other files must be installed onto the Disk Resource (disk in shared storage).
- The ELM Server resource will use the Network Name resource as the ELM Server name and the IP Address resource at its public IP address. Use this network name when connecting to a clustered ELM Server from an ELM Console. This is also the name of the ELM Server that Service Agents will report to.
- If the ELM Server's database is also a resource in the ELM Server's resource group, you should make the ELM Server resource dependent on the database resource.
- When an ELM Console is connected to an ELM Server in a cluster, and that ELM Server fails over to another node, the ELM Console will disconnect from the ELM Server, but by design will not automatically reconnect once the ELM Server is instantiated on the other node. You will therefore need to manually reconnect to the ELM Server from within the ELM Console. You can do this by right-clicking on the ELM Server and selecting Connect.

The basic steps involved in clustering the ELM Server are:

- Either create a new cluster resource group, or plan to use an existing cluster resource group. This is the ELM Server resource group.
 - Install the ELM Server on one node, with the binaries on the drive representing the Disk Resource in the ELM Server resource group.
 - Move the ELM Server resource group to the other node.
 - Install the ELM Server on the second node using the same installation settings (components, install path, service account, license key, web viewer, database, etc.) as the first node.
 - Add the ELM Server service as a resource to the ELM Server resource group.
 - Bring the ELM Server resource online.
- » To Install the ELM Server in a cluster:
1. Using Cluster Administrator or the CLUSTER.EXE command line utility, create the ELM Server resource group and add a Disk Resource, an IP Address Resource and a Network Name Resource. You'll want to size the Disk Resource accordingly, depending on whether or not you are using an ELM Server database that will also reside on this Disk Resource. For details on how to do this, please refer to the Windows 2000 Help File, Microsoft TechNet and MSDN. If you are planning on adding the ELM Server resource to an existing resource group, you do not need to create a new group. Figure 1 illustrates an example of an ELM Server Resource Group before an ELM Server is added as a resource.

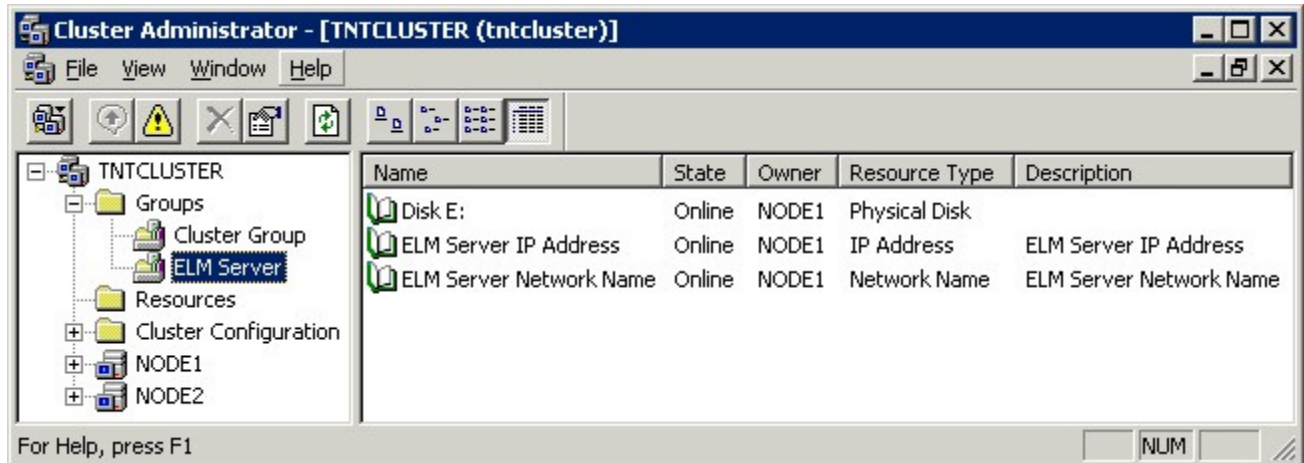


Figure 1 - ELM Server Resource Group (Prior to Adding ELM Server as Resource)

2. On the node that currently owns the ELM Server resource group, execute the MSI file you downloaded. The Setup Wizard will launch.
3. Click Next to continue. The License Agreement screen will appear.
4. Select I accept the license agreement and click Next to continue. The Release Notes screen will appear.
5. Read the Release Notes and click Next to continue. The Select Features screen will appear.
6. Select the components you want to install. You must install the ELM Server component to the Disk Resource in the ELM Server resource group. Using Figure 1 as an example, an ELM Enterprise Manager Server would be installed into **E:\Program Files\TNT Software\ELM Enterprise Manager 3.0**. If you choose to install the ELM Console, it will be installed to the same location as the ELM Server. If you choose to install a Service Agent, you should install it into %systemroot%\TNTAgent (e.g., C:\Winnt\TNTAgent). The Service Agent does not failover; therefore the Service Agent does not need to and should not be installed onto the Disk Resource.
7. Click Next to continue. The User Information screen will appear. Enter the Company Name and Serial Number as it appears on your SLA. If this is an evaluation version, enter the Company Name and leave the Serial Number field set to EVALUATION. Select the option that says Anyone who uses this computer and click Next to continue. If this is an evaluation version, the expiration date will be displayed when you click Next. If this is a non-eval version, a confirmation dialog will appear when you click Next.
8. Click Next to continue, and click OK to clear the dialog message that appears. The Service Account Logon screen will be displayed.
9. In the Username field, enter the account you want to use for the service account. This account must have administrative rights on the ELM Server, on all Service Agents, and on all Windows-based Remote Agents. Enter the password for this account in the Password and Verify Password fields.
10. Click Next to continue. If the account specified in the preceding step does not already have Log on as a Service rights on the ELM Server, the Setup process will grant this right to the account.
11. If IIS and the World Wide Web Publishing Service is installed on this node, the Web Site Name screen will appear. If you wish to install the Web Viewer component, leave the Create the ELM Web Site virtual directory on this computer checkbox checked. Name the virtual directory anything you want, or accept the default name, and select the Web Site you want to use. Note: if you do not create the Web Viewer virtual directory during the initial install of ELM, you will need to create the virtual directory manually. If you decide to add the Web Viewer virtual directory to this node, you should also add it to the other node because the virtual server does not failover.
12. Click Next to continue. The Ready to Install the Application screen will appear. Click Next to continue. Setup will copy the files to the target destination, register its components, install the ELM Server service

and launch the Agent Installation Wizard.

13. Click Next to continue. Once the file copy process has completed, the Database Connection Wizard will launch.
14. Click Next to proceed past the Wizard's Welcome screen. The Database Type screen will appear. Using the Database Type dropdown, select the type of database you want to use.
15. Click Next to continue. The next screen depends on what database type you selected:
 - If you select Microsoft Access, the Microsoft Access screen will appear. Select the path and filename for the Access database you want created. By default, a database called ELM.MDB will be created in the ELMServer directory. To accept this default, click Next. When using Access as the database platform, you must store the database on the Disk Resource in the ELM Server resource group. We recommend storing the database in the ELM Server program folder, which contains the ELM Server binaries. To change the database name or location, enter the path and filename you want to use, or use the Browse button to browse for the path. Click Next to continue.
 - If you select Microsoft SQL Server, the Microsoft SQL Server screen will appear. Enter the Computer Name of the SQL Server, the database name and the username and password for an account that has database owner (dbo) rights on the SQL Server database you created. The SQL Server you use here can be a separate server, a clustered SQL Server, or a SQL Virtual Server that is in the same Resource Group as the ELM Server. Click Next to continue.
 - If you select Oracle, the Oracle Database screen will appear. Enter the name of the System DSN you created. Enter the username and password for an account that has database owner (dbo) rights on the Oracle database you created. The Oracle server you use here can be a separate server, a clustered Oracle server, or an Oracle Virtual Server that is in the same Resource Group as the ELM Server. Click Next to continue.
16. Click Finish to complete the Database Connection Wizard.
17. Click Finish to complete Setup on this node.
18. Using Cluster Administrator or CLUSTER.EXE, move the ELM Resource Group to the other node.
19. On this node, execute the Setup MSI file. The Setup Wizard will launch.
20. Click Next to continue. The License Agreement screen will appear.
21. Select I accept the license agreement and click Next to continue. The Release Notes screen will appear.
22. Click Next to continue. The Select Features screen will appear.
23. Select the same components you installed on the first node. You must install the components to the same location as the first node.
24. Click Next to continue. The User Information screen will appear. Enter the same Company Name and Serial Number you used during installation on the first node.
25. Click Next to continue, and click OK to clear the dialog message that appears. The Service Account Logon screen will be displayed. Enter the same Service Account information you used during installation on the first node.
26. Click Next to continue. If the account specified in the preceding step does not already have Log on as a Service rights on the ELM Server, the Setup process will grant this right to the account.
27. If IIS and the World Wide Web Publishing Service is installed on this node, the Web Site Name screen will appear. If you installed the Web Server virtual directory on the first node, we recommend installing it on this node, as well.
28. Click Next to continue. The Ready to Install the Application screen will appear. Click Next to continue. Setup will copy the files to the target destination, register its components, and install the ELM Server service.

29. Click Next to continue. Once the file copy process has completed, the Database Connection Wizard will launch.
30. Click Next to proceed past the Wizard's Welcome screen. Configure the same database settings that you used during installation on the first node.
31. Click Finish to complete Setup on this node.
32. Next, using Cluster Administrator, add the ELM Server to the ELM Server resource group. To do this:
 - Right-click on the ELM Server resource group and select **Configure Application**. The Cluster Application Wizard will launch.
 - Click Next to continue. The Select or Create a Virtual Server screen will appear. Choose **Use an existing virtual server** and select the ELM Resource Group from the dropdown list.
 - Click Next to continue. The Create Application Cluster Resource screen will appear. Select **Yes, create a cluster resource for my application now**.
 - Click Next to continue. On the Application Resource Type screen, select the **ELM Server** (e.g., ELM Enterprise Manager, ELM Log Manager or ELM Performance Manager) from the dropdown.
 - Click Next to continue. The Application Resource Name and Description screen will appear. In the Name field, enter the product name for the ELM Server (e.g., **ELM Enterprise Manager Server**). Enter an optional description.
 - Click the **Advanced Properties** button. Select the **Dependencies** tab, then click the **Modify** button. Add the Disk, IP and Network Name resources as dependencies. If the ELM Server's database is a SQL Server or Oracle virtual server that also exists in the ELM Server resource group, then you should also make the ELM Server resource dependent on the database virtual server.
 - Click Next to continue, then click Finish to complete creation of the ELM Server resource. Once the ELM Server resource has been created, the ELM Server service on both nodes will be set to Manual startup.
33. Bring the ELM Server resource online.

This completes the installation of the ELM Server in a cluster. We recommend testing failover prior to attaching to the ELM Server with an ELM Console. You can use the Move Group function in Cluster Administrator to manually failover the group.

» To Uninstall the ELM Server from a cluster:

1. Uninstall any Agents that are being monitored by this Server.
2. Close any open Console snap-ins that are connected to this Server.
3. Take the ELM Server resource offline, and then delete it (just the *resource* and not the *resource group*). Make sure that its Disk Resource remains online or it will not be able to remove the ELM program files or un-register the cluster resource DLL. Note: Deleting the ELM Server resource is necessary to ensure that the ELM Server's cluster resource DLL gets unregistered and uninstalled properly.
4. Go into Control Panel and double-click Add/Remove Programs.
5. Select the ELM product that is installed and click the Change button. The Installation Wizard will launch.
6. Select Remove, and click Next to continue.
7. Click Next to begin the uninstall process.
8. Click Finish to complete the uninstall process for this node.

9. Move the ELM Server resource group to the other node, and make sure that the Disk Resource remains online.
10. On the remaining node, go into Control Panel and double-click Add/Remove Programs.
11. Select the ELM product that is installed and click the Change button. The Installation Wizard will launch.
12. Select Remove, and click Next to continue.
13. Click Next to begin the uninstall process.
14. Click Finish to complete the uninstall process for this node.



Sunbelt Software

<http://www.sunbelt-software.com>

<p>North America</p> <p>101 North Garden Avenue Clearwater, FL 33755</p> <p>888-NT UTILS (688-8457) 727-562-0101 Fax: 727-562-5199</p> <p>sales@sunbelt-software.com support@sunbelt-software.com</p>	<p>France</p> <p>116-118 Avenue Paul Doumer 95500 Rueil Malmaison France</p> <p>Tel: +33 (0)1 47 77 05 00 Fax: +33 (0)1 47 77 02 99</p> <p>sales@sunbelt.fr support@sunbelt.fr</p>	<p>United Kingdom</p> <p>3rd Floor, Victoria House 63-67 Foregate Street WR1 1DX Worcester United Kingdom</p> <p>Tel: +44 (0)1905 745711 Fax: +44 (0)1905 745722</p> <p>info@sunbelt.demon.co.uk support@sunbelt.fr</p>
--	---	---