



Message Transfer Agent

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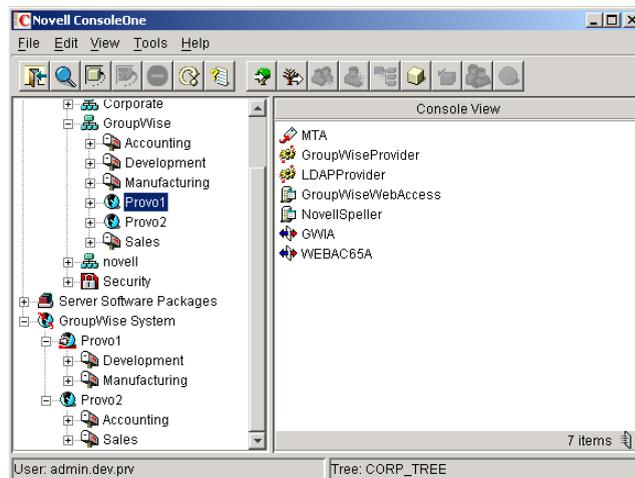
Understanding Message Transfer between Domains and Post Offices

A domain organizes post offices into a logical grouping for addressing, routing, and administration purposes in your GroupWise® system. Messages are transferred between post offices and domains by the Message Transfer Agent (MTA). The following topics help you understand domains and the functions of the MTA:

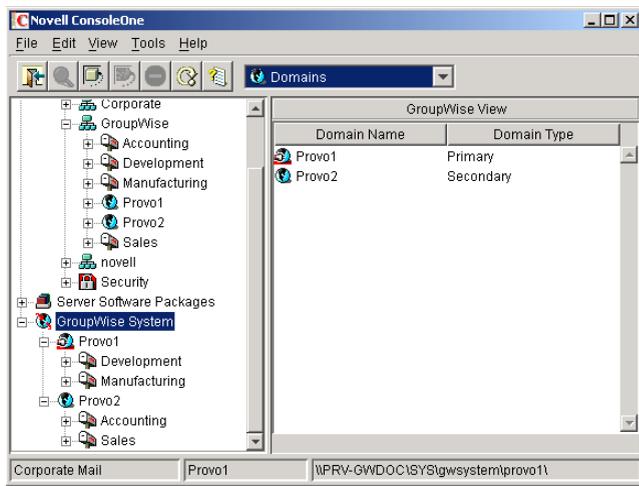
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Domain Representation in ConsoleOne

In ConsoleOne®, domains are container objects that contain an MTA object, as well as other domain-related objects, as shown below:



Although each post office is linked to a domain, it does not display as subordinate to the domain in the Console View. However, using the GroupWise View, you can display post offices as subordinate to the domains to which they are linked in your GroupWise system.



Domain Directory Structure

Physically, a domain consists of a set of directories that house all the information stored in the domain. See “[Domain Directory](#)” in *GroupWise 6.5 Troubleshooting 3: Message Flow and Directory Structure*.

Information Stored in the Domain

The following types of information are stored in the domain:

- ◆ “[Domain Database](#)” on page 558
- ◆ “[Agent Input/Output Queues in the Domain](#)” on page 559
- ◆ “[Gateways](#)” on page 559

No messages are stored in the domain, so GroupWise client users do not need access to the domain directory. The only person who needs file access to the domain directory is the GroupWise administrator.

Domain Database

The domain database ([wpdomain.db](#)) contains all administrative information for the domain, including:

- ◆ Address information about all GroupWise objects (such as users, resources, post offices, and gateways in the domain)
- ◆ System configuration and linking information for the domain’s MTA
- ◆ Address and message routing information to other domains

The first domain you create is the primary domain. In the primary domain, the [wpdomain.db](#) file contains all administrative information for your entire GroupWise system (all its domains, post offices, users, and so on). Because the [wpdomain.db](#) file in the primary domain is so crucial, you should back it up regularly and keep it secure. See “[Backing Up a Domain](#)” on page 375.

You can re-create your entire GroupWise system from the primary domain [wpdomain.db](#) file; however, if the primary domain [wpdomain.db](#) file becomes unusable, you can no longer make administrative updates to your GroupWise system.

In a secondary domain, the [wpdomain.db](#) file contains administrative information about that secondary domain only.

Agent Input/Output Queues in the Domain

Each domain contains agent input/output queues where messages are deposited and picked up for processing by the MTA.

For a mapped or UNC link between domains, the MTA requires read/write access rights to its input/output queues in the other domains. For a TCP/IP link, no access rights are required because messages are communicated by way of TCP/IP.

For illustrations of the processes presented below, see “[Message Flow between Domains and Post Offices](#)” on page 560.

MTA Input Queue in the Domain

The MTA input queue in the local domain (*domain\wpcsin*) is where MTAs for other domains deposit user messages for the local MTA to route to local post offices or to route to other domains. Thus the MTA input queue in the local domain is the output queue for the MTAs in many other domains.

The MTA does not have an output queue for user messages in the local domain. Because its primary task is routing messages, the local MTA has output queues in all post offices in the domain. See “[POA Input Queue in the Post Office](#)” on page 421. The local MTA also has output queues in all domains to which it is directly linked.

MTA Output Queue in the Domain

The MTA output queue in the local domain (*domain\wpcout\ads*) is where the MTA deposits administrative messages from other domains for the MTA admin thread to pick up.

MTA Admin Thread Input Queue in the Domain

The MTA admin thread input queue (*domain\wpcout\ads*) is, of course, the same as the MTA output queue in the local domain. The MTA admin thread picks up administrative messages deposited in the queue by the MTA and updates the domain database.

MTA Admin Thread Output Queue in the Domain

The MTA admin thread output queue (*domain\wpcsin*) is the same as the MTA input queue in the local domain. The MTA admin thread deposits administrative messages in the queue for replication to other domains.

Gateways

Gateways are installed and configured at the domain level of your GroupWise system. For a list of gateways, see [GroupWise 6.x Gateways \(http://www.novell.com/documentation/gw6xgate/index.html\)](http://www.novell.com/documentation/gw6xgate/index.html). GroupWise 5.5 gateways can be used with GroupWise 6.5.

Role of the Message Transfer Agent

You must run an MTA for each domain. The MTA:

- ◆ Routes messages between post offices in the local domain.
- ◆ Routes messages between domains.
- ◆ Routes messages to and from gateways installed in the local domain.

- ◆ Routes messages between GroupWise systems across the Internet if appropriate DNS lookup capabilities have been set up. See [“Using Dynamic Internet Links”](#) in [“Connecting to GroupWise 5.x and 6.x Systems”](#) in the *GroupWise 6.5 Multi-System Administration Guide*.
- ◆ Schedules routing of messages across expensive links. See [“Scheduling Direct Domain Links”](#) on page 593.
- ◆ Controls the size of messages that can pass across links. See [“Restricting Message Size between Domains”](#) on page 588.
- ◆ Updates the domain database (`wpdomain.db`) whenever GroupWise users, resources, post offices, or other GroupWise objects are added, modified, or deleted.
- ◆ Replicates updates to all domains and post offices throughout your GroupWise system. This keeps the Address Book up to date for all GroupWise users.
- ◆ Synchronizes GroupWise user information with Novell® eDirectory™ user information. This handles updates made in ConsoleOne without the GroupWise Administrator snap-in running. See [“Using eDirectory User Synchronization”](#) on page 598.
- ◆ Synchronizes GroupWise object information throughout your GroupWise system as needed.
- ◆ Detects and repairs invalid information in the domain database (`wpdomain.db`).
- ◆ Provides improved performance for GroupWise Remote client users. See [“Enabling Live Remote”](#) on page 589.
- ◆ Provides logging and statistics about GroupWise message flow. See [“Enabling MTA Message Logging”](#) on page 603.

Link Configuration between Domains and Post Offices

In GroupWise, a link is defined as the information required to route messages between domains, post offices, and gateways in a GroupWise system. Links are created and configured when new domains, post offices, and gateways are created.

For more specific information about how domains are linked to each other, and about how domains and post offices are linked, see [Chapter 10, “Managing the Links between Domains and Post Offices,”](#) on page 131.

Message Flow between Domains and Post Offices

When messages travel beyond the local post office, a variety of link configuration alternatives are possible.

- ◆ [“Message Flow between Post Offices in the Same Domain”](#) on page 560
- ◆ [“Message Flow between Different Domains”](#) on page 561

Message Flow between Post Offices in the Same Domain

To compare the types of links between a domain and its post offices and to see what happens to message flow within the domain when the domain is closed, view the following message flow diagrams:

- ◆ [“TCP/IP Link Open: Transfer between Post Offices Successful”](#)
- ◆ [“TCP/IP Link Closed: Transfer between Post Offices Delayed”](#)

- ◆ “Mapped/UNC Link Open: Transfer between Post Offices Successful”
- ◆ “Mapped/UNC Link Closed: Transfer between Post Offices Delayed”

All of these diagrams are found in “Message Delivery to a Different Post Office” in *GroupWise 6.5 Troubleshooting 3: Message Flow and Directory Structure*.

Message Flow between Different Domains

To compare mapped and UNC links with TCP/IP links and to see what happens to message flow when the destination domain is closed, view the following message flow diagrams:

- ◆ “TCP/IP Link Open: Transfer between Domains Successful”
- ◆ “TCP/IP Link Closed: Transfer between Domains Delayed”
- ◆ “Mapped/UNC Link Open: Transfer between Domains Successful”
- ◆ “Mapped/UNC Link Closed: Transfer between Domains Delayed”

All of these diagrams are found in “Message Delivery to a Different Domain” in *GroupWise 6.5 Troubleshooting 3: Message Flow and Directory Structure*.

Cross-Platform Issues between Domains and Post Offices

Domains can be located on the following platforms:

- ◆ Novell NetWare®
- ◆ Windows NT/2000
- ◆ Linux (GroupWise 6.5 for Linux)
- ◆ UNIX (GroupWise 5.x)

The GroupWise agents can run on the following platforms:

- ◆ Novell NetWare
- ◆ Windows NT/2000
- ◆ Linux (GroupWise 6.5 for Linux)
- ◆ UNIX (GroupWise 5.x)

In general, GroupWise is most efficient if you match the agent platform with the network operating system. Ideally, the MTA as well as the domain and post offices should be on the same platform. However, those with mixed networks may wonder what combinations are possible. You have several alternatives.

- ◆ “MTA Platform Dependencies Because of Direct Access Requirements to Post Offices” on page 562
- ◆ “MTA/Post Office Platform Independence through TCP/IP Links” on page 562
- ◆ “MTA Platform Dependencies Because of Direct Access Requirements to the Domain” on page 562
- ◆ “MTA/Domain Platform Independence through TCP/IP Links” on page 563
- ◆ “MTA/Domain Platform Independence through the Transfer Pull Configuration” on page 563

MTA Platform Dependencies Because of Direct Access Requirements to Post Offices

The MTA must always have direct access to the domain directory. In addition, if using mapped or UNC links to post offices, the MTA must have direct access to each post office directory as well. If the MTA is installed on a remote server, it must be able to log in to servers where the post offices are located.

The table below summarizes the various combinations of MTA and post office platforms, and indicates which combinations work for direct access and which ones do not:

	NetWare MTA	Windows MTA	Linux MTA	UNIX MTA
Post Office on NetWare	Yes	Yes	No ³	Not supported ²
Post Office on Windows	No ¹	Yes	No ³	Not supported ²
Post Office on Linux	No ³	No ³	No ³	No ³
Post Office on UNIX	Not supported ²	Not supported ²	No ³	Supported for GroupWise 5.x
Post Office on Macintosh	No ⁴	No ⁴	No ⁴	No ⁴

¹ The NetWare[®] MTA cannot service a domain or post office on a Windows server because Windows does not support the required cross-platform connection.

² For these combinations, an NFS connection would be required, which is not a supported configuration for the agents. However, the agents often can work adequately in this configuration.

³ TCP/IP links are required between the MTA and the POA in GroupWise 6.5 for Linux. Direct access to post offices is not available.

⁴ Domains and post offices cannot be created on Macintosh computers.

MTA/Post Office Platform Independence through TCP/IP Links

To overcome platform dependencies for post offices, create a TCP/IP link for any post office located on a platform where the domain MTA cannot gain direct access. See [“Using TCP/IP Links between a Domain and its Post Offices” on page 583](#).

MTA Platform Dependencies Because of Direct Access Requirements to the Domain

If using mapped or UNC links between domains, the source domain MTA must have direct access to its input queues in the destination domain directory. If the MTA is installed on a remote server, it must be able to log in to the server where its domain located.

The table below summarizes the various combinations of the platform of MTA for the source domain and the platform where the destination domain is located, and indicates which combinations work for direct access and which ones do not:

	NetWare MTA for Source Domain	Windows MTA for Source Domain	Linux MTA for Source Domain	UNIX MTA for Source Domain
Destination Domain on NetWare	Yes	Yes	No ³	Not supported ²
Destination Domain on Windows	No ¹	Yes	No ³	Not supported ²
Destination Domain on Linux	No ³	No ³	No ³	No ³
Destination Domain on UNIX	Not supported ²	Not supported ²	No ³	Supported with GroupWise 5.x
Destination Domain on Macintosh	No ⁴	No ⁴	No ⁴	No ⁴

¹ The NetWare MTA cannot write message files into its output queue in a destination domain on a Windows server because Windows does not support the required cross-platform connection.

² For these combinations, an NFS connection would be required, which is not a supported configuration for the agents.

³ TCP/IP links are required between MTAs in GroupWise 6.5 for Linux. Direct access to other domains is not available.

⁴ Domains cannot be created on Macintosh computers.

MTA/Domain Platform Independence through TCP/IP Links

To overcome platform dependencies between domains, use TCP/IP links between domains. See [“Using TCP/IP Links between Domains” on page 579](#).

MTA/Domain Platform Independence through the Transfer Pull Configuration

If TCP/IP is not available, another alternative for overcoming platform dependencies is a transfer pull configuration.

By default the MTA "pushes" message files out to destination domains by writing them into its output queue in each destination domain. One situation where this method will not work is for the NetWare MTA on a NetWare server to write message files to its input queue in a destination domain located on a Windows server.

As an alternative, you can have the Windows MTA for the destination domain "pull" the message files from the source domain on the NetWare server. This is called a transfer pull configuration. See [“Using a Transfer Pull Configuration” on page 596](#) for setup instructions. See also [“Alternate Link Configuration: Transfer Pull”](#) in [“Message Delivery to a Different Domain”](#) in *GroupWise 6.5 Troubleshooting 3: Message Flow and Directory Structure*.

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Installing and Starting the MTA

Detailed instructions for installing and starting the MTA for the first domain of a new GroupWise® system are provided in “[Installing a Basic GroupWise System](#)” in the *GroupWise 6.5 Installation Guide*. Additional agent installation and startup instructions and worksheets are available in “[Installing GroupWise Agents](#)” in the *GroupWise 6.5 Installation Guide*.

IMPORTANT: If you are installing and running the MTA in a clustered GroupWise system, see the appropriate section of the *GroupWise 6.5 Interoperability Guide* before you install the MTA:

- “[Deciding How to Install and Configure the Agents in a Cluster](#)” in “[Novell Cluster Services](#)”
- “[Deciding How to Install and Configure the Agents in a Cluster](#)” in “[Microsoft Clustering Services](#)”

This section presents some additional MTA installation and startup information that may be useful as you install and start additional MTAs throughout your GroupWise system.

- ♦ “[Installing the MTA Software](#)” on page 565
- ♦ “[Starting the MTA](#)” on page 568
- ♦ “[Uninstalling the MTA Software](#)” on page 573

Installing the MTA Software

Select the platform where you have installed the MTA:

- ♦ “[Fine-Tuning Your NetWare MTA Installation](#)” on page 565
- ♦ “[Fine-Tuning Your Linux MTA Installation](#)” on page 567
- ♦ “[Fine-Tuning Your Windows MTA Installation](#)” on page 567

Fine-Tuning Your NetWare MTA Installation

After initial installation, you can fine-tune your NetWare® MTA installation for improved performance:

- ♦ “[Recommended NetWare Server Parameters for the NetWare MTA](#)” on page 565
- ♦ “[Estimating NetWare MTA Memory Requirements](#)” on page 566

Recommended NetWare Server Parameters for the NetWare MTA

The default Maximum Packet Receive Buffers setting on a NetWare server is inadequate for the NetWare MTA in configurations that include numerous TCP/IP and remote file connections. Set Maximum Packet Receive Buffers to at least 2500 for the NetWare MTA in such configurations.

If you are also running the NetWare POA on the same server, see “[Recommended NetWare Server Parameters for the NetWare POA](#)” on page 427.

Estimating NetWare MTA Memory Requirements

The amount of memory required for the NetWare MTA is influenced by many factors, including:

- ◆ Number of post offices and domains
- ◆ Volume of message traffic between post offices and domains
- ◆ Volume of large messages (for example, large attachments, remote updates, and so on)
- ◆ TCP/IP or mapped/UNC links between MTAs

The table below provides approximate memory requirements for various MTA activities. Actual numbers may vary somewhat from release to release, but the numbers provided do illustrate what activities require relatively more or less memory and what configuration options require more memory than others. This information can be used to produce a rough estimate of the memory required for your particular MTA configuration. Always remember this basic rule when it comes to planning for memory: More is better.

MTA Component	Approx. Memory	References
Agent Engine (gwenn4.nlm) ¹	5500 KB	(required)
MTA (gwmtn.nlm)	469 KB	(required)
Main thread, UI, CSS, logging, statistics	140 KB	(required)
Dispatcher thread	500 KB	(required)
Scanner threads (each) ²	40 KB	(required) See “Adjusting the Number of MTA Scanner Threads for the Domain and Post Offices” on page 638. See also <code>/fast0</code> and <code>/fast4</code> .
Router threads (each)	40 KB	(required) See “Optimizing the Routing Queue” on page 639. See also <code>/maxrouters</code> and <code>/maxidlerouters</code> .
Routing queue		(required)
Queue entry size	60 KB	
Queue base size	1920 KB	
Direct connections (1 per domain/post office)	10 KB	(required for direct connections) See “Using Mapped or UNC Links between Domains” on page 582.
TCP master receiver	200 KB	(required for TCP/IP connections) See “Using TCP/IP Links between Domains” on page 579. See also <code>/tcpport</code> .

MTA Component	Approx. Memory	References
IP sender threads (each)	15 KB	1 required for TCP/IP connections; up to 4 available)
IP receiver threads (each) ³	15 KB	(required for TCP/IP connections) See “Adjusting the Number of MTA TCP/IP Connections” on page 635. See also /tcpinbound .
Admin thread Idle	20 KB	(required for domain database update and repair)
Processing	125 KB	See “Displaying MTA Admin Thread Status” on page 613. See also /noada .
eDirectory user synchronization (when active)	35 KB	(required for eDirectory user synchronization) See “Using eDirectory User Synchronization” on page 598. See also /nondssync .

¹ The Agent Engine ([gwenn4.nlm](#)) needs to be loaded only once per server, no matter how many agents (POAs and/or MTAs) are running on that server, as long as they are running in the same address space.

² By default, there are 2 scanner threads, for a default total of 80 KB. For TCP/IP connections, additional scanner threads are created for each location to which the MTA connects.

³ By default, there are 40 receiver threads, for a default total of 600 KB for inbound connections.

The table below provides some very general memory figures for running both GroupWise agents on the same server.

Concurrent Users	Actual Memory Usage at Peak Time
100 active users (100-250 users in post office)	50 MB
250 active users (250-500 users in post office)	110 MB
500 active users (500-1000 users in post office)	125 MB
1000 active users (1000-2500 users in post office)	150 MB

Fine-Tuning Your Linux MTA Installation

After initial installation on Linux, no fine-tuning is necessary. The MTA runs very efficiently in a standard Linux installation.

Fine-Tuning Your Windows MTA Installation

After initial installation, you can fine-tune your Windows MTA installation for improved performance:

- ◆ [“Recommended Windows Parameters for the Windows MTA” on page 568](#)
- ◆ [“Estimating Windows MTA Memory Requirements” on page 568](#)

Recommended Windows Parameters for the Windows MTA

If you are running the Windows MTA for a domain or post offices located on a NetWare server, you might need to increase Maximum File Locks Per Connection from its default setting.

Estimating Windows MTA Memory Requirements

Although the Windows MTA memory requirements differ slightly from the NetWare MTA, you can use the figures provided for the NetWare MTA to see what MTA processes are most memory intensive. See [“Estimating NetWare MTA Memory Requirements” on page 566](#).

Starting the MTA

Select the platform where you are starting the MTA:

- ♦ [“Starting the NetWare MTA” on page 568](#)
- ♦ [“Starting the Linux MTA” on page 570](#)
- ♦ [“Starting the Windows MTA” on page 571](#)

Starting the NetWare MTA

You can start the NetWare MTA in several ways:

- ♦ [“Manually on the Command Line” on page 568](#)
- ♦ [“With a Startup File” on page 569](#)
- ♦ [“Automatically in the autoexec.ncf File” on page 570](#)

Manually on the Command Line

To start a new NetWare MTA on the command line:

- 1** Go to the console of the NetWare server where the NetWare MTA is installed.

or

Use Remote Console to access the server:

1a Press Alt+F1 to display the options.

1b Choose Select a Screen to View.

1c Choose System Console.

- 2** Enter the command to load the MTA NLM.

Syntax: `load gwmta.nlm /home [svr\] [vol:] \domain_dir`

Example:

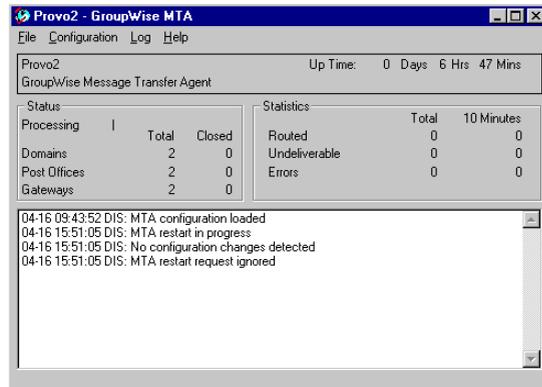
```
load gwmta.nlm /home-server2\mail:\provo2
```

The `/home` startup switch is required to start the NetWare MTA.

If the domain or post offices are located on different servers from where the NetWare MTA is running, the `/dn` switch or the `/user` and `/password` switches are also required so the NetWare MTA can log in to those servers. For an alternative to direct access for post offices, see [“Using TCP/IP Links between a Domain and its Post Offices” on page 583](#).

If the domain is located on a different server from where the NetWare MTA is running, use the `/work` switch to specify a local directory for the MTA holding queues. The default location is the domain directory, which is not appropriate when the domain is located on a different server from where the NetWare MTA is running.

The NetWare MTA agent console will appear and display normal startup status messages. See [Chapter 44, “Monitoring the MTA,”](#) on page 605.



If the NetWare MTA agent console does not appear, see [“Message Transfer Agent Problems”](#) in *GroupWise 6.5 Troubleshooting 2: Solutions to Common Problems*.

When you start the NetWare MTA as described above, it is configured according to the MTA settings specified in ConsoleOne®. You can go to ConsoleOne and modify MTA functioning as needed. See [“Configuring the MTA in ConsoleOne”](#) on page 577.

With a Startup File

Another way to start the NetWare MTA is to use a startup file. You could use a startup file with the NetWare MTA for the following reasons:

- ♦ Overriding MTA settings defined in ConsoleOne
- ♦ Controlling the MTA locally without using ConsoleOne
- ♦ Adjusting specialized MTA functions that are not controllable from ConsoleOne

When you run the Agent Installation program, an initial MTA startup file is created in the agent installation directory. It is named using the first 8 characters of the domain name with a `.mta` extension. This initial startup file includes the `/home` startup switch set to the location of the domain directory.

If the domain or any of its post offices are located on a different server from where the NetWare MTA is running, you must edit the startup file and provide settings for the `/user` and `/password` switches so the NetWare MTA can log in to those servers. For an alternative to direct access for post offices, see [“Using TCP/IP Links between a Domain and its Post Offices”](#) on page 583. For an alternative to direct access for other domains, see [“Using TCP/IP Links between Domains”](#) on page 579.

If the domain serviced by the NetWare MTA is located on a different server from where the NetWare MTA is running, use the `/work` switch to specify a local directory for the MTA holding queues. The default location is the domain directory, which is not appropriate when the domain is located on a different server from where the NetWare MTA is running.

The MTA startup file can be modified to use other startup switches as needed. Startup switches specified on the command line override those in the startup file. Startup switches in the startup file override corresponding settings in ConsoleOne. See [Chapter 46, “Using MTA Startup Switches,” on page 643](#).

When you use a startup file, you must include it on the command line when you load the NetWare MTA. For example:

Syntax: `load gwmta.nlm @MTA_startup_file`

Example: `load gwmta.nlm @provo2.mta`

In addition to the initial MTA startup file, the Agent Installation program also provides a [grpwise.ncf](#) file to load the agents. If you will run only the NetWare MTA, you should edit the `grpwise.ncf` file to remove the command to load the POA.

Automatically in the `autoexec.ncf` File

After the NetWare MTA is running smoothly, you should modify the NetWare startup file, `autoexec.ncf`, to load the NetWare MTA and required NLM programs automatically whenever you restart the server

IMPORTANT: If you are running the MTA in a Novell cluster, see [“Configuring the GroupWise Volume Resource to Load and Unload the Agents”](#) in [“Novell Cluster Services”](#) in the [GroupWise 6.5 Interoperability Guide](#) for alternative instructions.

1 Edit the `autoexec.ncf` file in the NetWare `sys:\system` directory.

2 Add the following command to load the agents:

```
grpwise.ncf
```

or

To start the agents in protected mode, add the following command:

```
protect grpwise.ncf
```

3 Save the `autoexec.ncf` file.

4 If possible, restart the server to verify that the NLM programs and the NetWare MTA are loading properly.

Starting the Linux MTA

You can start the Linux MTA in several ways:

- ◆ [“Manually with a User Interface” on page 570](#)
- ◆ [“Manually As a Daemon” on page 571](#)
- ◆ [“Automatically at System Startup” on page 571](#)

Manually with a User Interface

1 Make sure you are logged in as root.

2 Change to the GroupWise agent bin directory.

```
cd /opt/novell/groupwise/agents/bin
```

3 Enter the following command to start the MTA:

Syntax:

```
./gwmnta --show --home domain_directory &
```

Example:

```
./gwmnta --show --home /gwsystem/domlnx &
```

The MTA startup file is created by the Installation Advisor in the `/opt/novell/groupwise/agents/share` directory and is named after the domain that the MTA services. Because the Installation Advisor prompted you for the domain name and directory, it can set the `--home` startup switch in the MTA startup file. In the `bin` directory where the MTA executable is located, you could start the MTA with a command similar to the following example:

```
./gwmnta --show @../share/lnxdom.poa
```

Manually As a Daemon

- 1** Make sure you are logged in as root.
- 2** Change to the `/etc/init.d` directory.
- 3** To start the Linux MTA (and perhaps the POA as well, depending on the configuration of the server), enter the following command:

```
./grpwise start
```

- 4** To confirm that the agents have started, enter the following command:

```
ps -eaf | grep gw
```

This lists all GroupWise agent process IDs.

Automatically at System Startup

If you selected Launch GroupWise Agents on System Startup in the Agent Installation program, the Agent Installation program configured your system so that the agents would start automatically each time you restart your server. The Agent Installation program always creates a `grpwise` startup script in `/etc/init.d` for starting the agents. To enable automatic startup, the Agent Installation program also creates symbolic links named `S99grpwise` in the `rc3.d` and `rc5.d` directories so that the agents load on restart into level 3 or 5, depending on the configuration of your Linux system.

When the `grpwise` script runs and starts the agents, it reads the agent startup files in `/opt/novell/groupwise/agents/share` to check for configuration information provided by startup switches. Because the `--show` switch cannot be used in the startup files, the agents never run with agent console interfaces when started automatically when the server restarts.

During agent installation, if you specified only a domain and no post offices, only an MTA startup file was created and the `grpwise` startup script starts only the MTA.

Starting the Windows MTA

You can start the Windows MTA in several ways:

- ◆ “Manually from the Windows Desktop” on page 572
- ◆ “With a Startup File” on page 572
- ◆ “Automatically in the Windows Startup Group” on page 572
- ◆ “Automatically as a Windows Service” on page 572

Manually from the Windows Desktop

In Windows, click Start > Programs > GroupWise Agents, then start the Windows MTA.

The Windows MTA agent console should appear and display normal startup status messages. See [Chapter 44, “Monitoring the MTA,” on page 605](#).

If the Windows MTA agent console does not appear, see [“Message Transfer Agent Problems” in GroupWise 6.5 Troubleshooting 2: Solutions to Common Problems](#).

When you start the Windows MTA as described above, it is configured according to the MTA settings specified in ConsoleOne. You can go to ConsoleOne and modify MTA functioning as needed. See [“Configuring the MTA in ConsoleOne” on page 577](#).

With a Startup File

Another way to start the Windows MTA is to use a startup file. You could use a startup file to configure the MTA for the following reasons:

- ◆ Overriding MTA settings defined in ConsoleOne
- ◆ Controlling the MTA locally without using ConsoleOne
- ◆ Adjusting specialized MTA functions that are not controllable from ConsoleOne

When you run the Agent Installation program, an initial MTA startup file is created in the agent installation directory. It is named using the first 8 characters of the domain name with a .mta extension. This initial startup file includes the /home startup switch set to the location of the domain directory.

The MTA startup file can be modified to use other startup switches as needed. Startup switches in the startup file override corresponding settings in ConsoleOne. See [Chapter 46, “Using MTA Startup Switches,” on page 643](#).

Automatically in the Windows Startup Group

After the Windows MTA is running smoothly, you should add it to the Windows Startup group to start the Windows MTA automatically whenever you restart your Windows server.

- 1** In Windows NT, click Start > Settings > Taskbar > Start Menu Programs > Add.

or

In Windows 2000, click Start > Settings > Taskbar & Start Menu > Advanced > Add.

- 2** Browse to the directory where you installed the Windows MTA.
- 3** Double-click GWMTA.EXE, then add the startup file to the command line.

Example: gwmta.exe @provo2.mta

- 4** Click Next.
- 5** Select the Startup folder, provide a name for the shortcut, then click Finish.
- 6** If possible, restart the server to verify that the Windows MTA starts when you log in.

Automatically as a Windows Service

To start the GroupWise Windows MTA as a service for the first time after installation:

- 1** From the Windows desktop, click Start > Settings > Control Panel.

- 2 Double-click Services, select the MTA service (named after the domain), then click Start.

To make sure the MTA starts automatically each time you restart the server:

- 1 Click Start > Settings > Control Panel.
- 2 Double-click Services, select the MTA service (named after the domain), then click Startup.
- 3 Select Automatic, then click OK.

Thereafter, you will be able to manage the Windows agents just as you would any other services.

Uninstalling the MTA Software

If you move the MTA to a different server, you can uninstall the POA software from the old location to regain disk space as long as the MTA is not running on the server. Select the platform where you have been running the MTA:

- ♦ [“Uninstalling the NetWare or Windows MTA” on page 573](#)
- ♦ [“Uninstalling the Linux MTA” on page 573](#)

Uninstalling the NetWare or Windows MTA

- 1 Stop the MTA.
- 2 Run `install.exe` in the `\agents` subdirectory of the GroupWise software distribution directory or *GroupWise 6.5 Administrator CD*.
- 3 In the Install/Uninstall dialog box, click Uninstall to remove the MTA software from the server.

Windows Note: If the Windows MTA was running as a service, the Agent Installation program removes the service, registry entry, and Start menu icon from Windows.

Uninstalling the Linux MTA

- 1 Make sure you are logged in as root.
- 2 Stop the MTA.
- 3 Enter the following command to determine the specific version of the MTA that is running on the server:

```
rpm -qa | grep groupwise
```

- 4 Enter the following command to uninstall the MTA:

```
rpm -e novell-groupwise-agents-version-date
```

where *version* is the version number (for example, 6.5.1) and *date* is the date when the agent RPM was created (for example, 0428 for April 28).

This process removes all files and directories associated with the MTA.

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Configuring the MTA

As your GroupWise® system grows and evolves, you will probably need to modify MTA configuration to meet changing system needs. The following topics help you configure the MTA:

- ◆ “Performing Basic MTA Configuration” on page 575
 - Creating an MTA Object in eDirectory
 - Configuring the MTA in ConsoleOne
 - Changing the Link Protocol between Domains
 - Changing the Link Protocol between a Domain and Its Post Offices
 - Moving the MTA to a Different Server
 - Adjusting the MTA for a New Location of a Domain or Post Office
 - Adjusting the MTA Logging Level and Other Log Settings
- ◆ “Configuring User Access through the Domain” on page 588
 - Restricting Message Size between Domains
 - Enabling Live Remote
 - Enhancing Domain Security with SSL Connections to the MTA
- ◆ “Configuring Specialized Routing” on page 591
 - Using Routing Domains
 - Scheduling Direct Domain Links
 - Using a Transfer Pull Configuration
- ◆ “Configuring Domain Maintenance” on page 598
 - Using eDirectory User Synchronization
 - Enabling MTA Message Logging

Performing Basic MTA Configuration

MTA configuration information is stored as properties of its MTA object in eDirectory. The following topics help you modify the MTA object in ConsoleOne and change MTA configuration to meet changing system configurations:

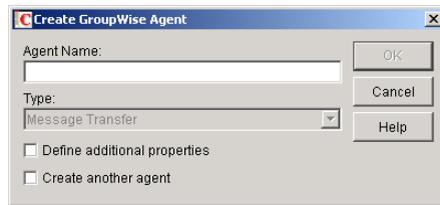
- ◆ “Creating an MTA Object in eDirectory” on page 575
- ◆ “Configuring the MTA in ConsoleOne” on page 577
- ◆ “Changing the Link Protocol between Domains” on page 579
- ◆ “Changing the Link Protocol between a Domain and Its Post Offices” on page 583
- ◆ “Moving the MTA to a Different Server” on page 586
- ◆ “Adjusting the MTA for a New Location of a Domain or Post Office” on page 587

Creating an MTA Object in eDirectory

When you create a new domain, an MTA object is automatically created for it. If the original MTA object for a domain gets accidentally deleted, you can create a new one for it. Do not attempt to create more than one MTA object for a domain.

To create a new MTA object in Novell® eDirectory™:

- 1 In ConsoleOne®, browse to and right-click the Domain object for which you need to create an MTA object, then click New.
- 2 Double-click GroupWise Agent to display the Create GroupWise Agent dialog box.



- 3 Type a unique name for the new MTA. The name can include as many as 8 characters. Do not use any of the following invalid characters in the name:

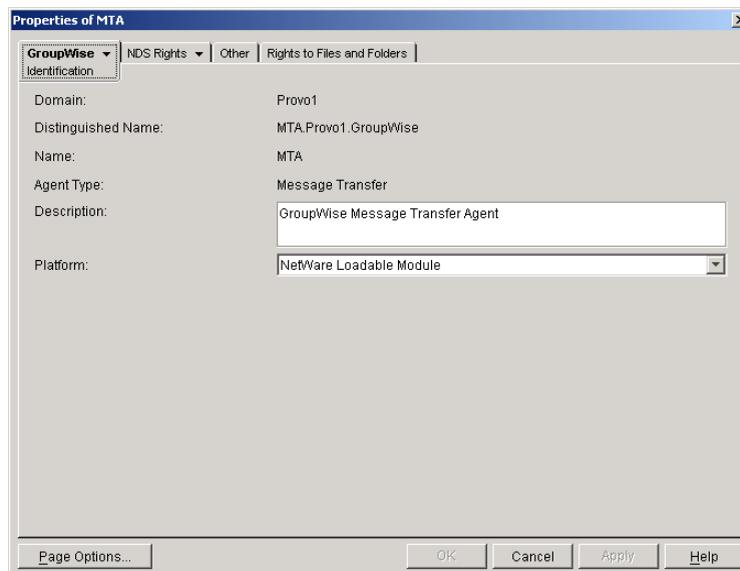
ASCII characters 0-13	Comma ,
Asterisk *	Double quote "
At sign @	Extended characters
Braces { }	Parentheses ()
Colon :	Period .

The Type field is automatically set to Message Transfer.

- 4 Select Define Additional Properties.
- 5 Click OK.

The MTA object is automatically placed within the Domain object.

- 6 Review the information displayed for the first four fields on the Identification page to ensure that you are creating the correct type of Agent object in the correct location.



- 7 In the Description field, type one or more lines of text describing the MTA. This description will display on the MTA agent console as the MTA runs.

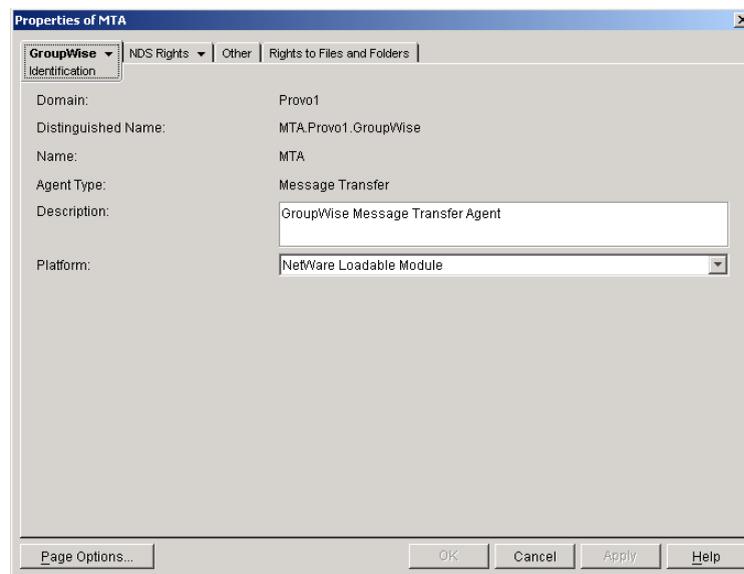
If multiple administrators work at the server where the MTA will run, the description could include a note about who to contact before stopping the MTA. When running multiple MTAs on the same server, the description should uniquely identify each one. See [Chapter 44, “Monitoring the MTA,”](#) on page 605.

- 8 In the Platform field, select the platform (NetWare Loadable Module or Windows) where the MTA will run.
- 9 Continue with [“Configuring the MTA in ConsoleOne”](#) on page 577.

Configuring the MTA in ConsoleOne

The advantage to configuring the MTA in ConsoleOne, as opposed to using startup switches in an MTA startup file, is that the MTA configuration settings are stored in eDirectory.

- 1 In ConsoleOne, expand the eDirectory container where the Domain object is located.
- 2 Expand the Domain object.
- 3 Right-click the MTA object, then click Properties.



The table below summarizes the MTA configuration settings in the MTA object properties pages and how they correspond to MTA startup switches (as described in [Chapter 46, “Using MTA Startup Switches,”](#) on page 643):

ConsoleOne Properties Pages and Settings	Corresponding Tasks and Startup Switches
--	--

Information Page	
------------------	--

ConsoleOne Properties Pages and Settings	Corresponding Tasks and Startup Switches
Domain Distinguished Name Name Type Description Platform	See “Creating an MTA Object in eDirectory” on page 575.
Agent Settings Page	
Scan Cycle Scan High	See “Adjusting MTA Polling of Input Queues in the Domain, Post Offices, and Gateways” on page 636. See also /cyhi and /cylo .
Attach Retry	See “Adjusting MTA Polling of Closed Locations” on page 640.
Enable Automatic Database Recovery	See /norecover .
Use 2nd High Priority Scanner Use 2nd Mail Priority Scanner	See “Adjusting the Number of MTA Scanner Threads for the Domain and Post Offices” on page 638. See also /fast0 and /fast4 .
SNMP Community "Get" String	See “Using SNMP Monitoring Programs” on page 627.
HTTP User Name HTTP Password	See “Setting Up the MTA Web Console” on page 617. See also /httpuser and /httppassword .
Network Address Page	
TCP/IP Address IPX/SPX Address	See “Using TCP/IP Links between Domains” on page 579 and “Using TCP/IP Links between a Domain and its Post Offices” on page 583. See also /tcpport .
Message Transfer	See “Using TCP/IP Links between Domains” on page 579. See also /msgtranssl .
HTTP	See “Setting Up the MTA Web Console” on page 617. See also /httpssl .
Log Settings Page	
Log File Path Logging Level Max Log File Age Max Log Disk Space	See “Using MTA Log Files” on page 625. See also /log , /logdays , /logdiskoff , /loglevel , and /logmax .
Message Log Settings Page	
Message Logging Level Message Log File Path	See “Enabling MTA Message Logging” on page 603. See also /messagelogsettings , /messagelogpath , /messagelogdays , and /messagelogmaxsize .
Scheduled Events Page	
eDirectory User Synchronization Event	See “Using eDirectory User Synchronization” on page 598. See also /mondssync .

ConsoleOne Properties Pages and Settings	Corresponding Tasks and Startup Switches
Routing Options Page	
Default Routing Domain Force All Messages to Default Routing Domain	See “Using Routing Domains” on page 591. See also <code>/defaultroutingdomain</code> .
Allow MTA to Send Directly to Other GroupWise Systems	See “Using Dynamic Internet Links” in “Connecting to GroupWise 5.x and 6.x Systems” in the <i>GroupWise 6.5 Multi-System Administration Guide</i> . See also <code>/nodns</code> .
MTA SSL Page	
Certificate File SSL Key File Password	See “Enhancing Domain Security with SSL Connections to the MTA” on page 589. See also <code>/certfile</code> , <code>/keyfile</code> and <code>/keypassword</code> .

After you install the MTA software, you can further configure the MTA using a startup file. To survey the many ways the MTA can be configured, see [Chapter 46, “Using MTA Startup Switches,”](#) on page 643.

Changing the Link Protocol between Domains

How MTAs for different domains communicate with each other is determined by the link protocol in use between the domains. Typically, inbound and outbound links for a domain use the same link protocol, but this is not required. For a review of link protocols, see [“Link Protocols for Direct Links”](#) on page 134.

If you originally set up an MTA using one link protocol and need to change to a different one, some reconfiguration of the MTA is necessary.

- ◆ [“Using TCP/IP Links between Domains”](#) on page 579
- ◆ [“Using Mapped or UNC Links between Domains”](#) on page 582
- ◆ [“Using Gateway Links between Domains”](#) on page 583

NOTE: The Linux MTA does not support mapped or UNC links between domains. TCP/IP links are required.

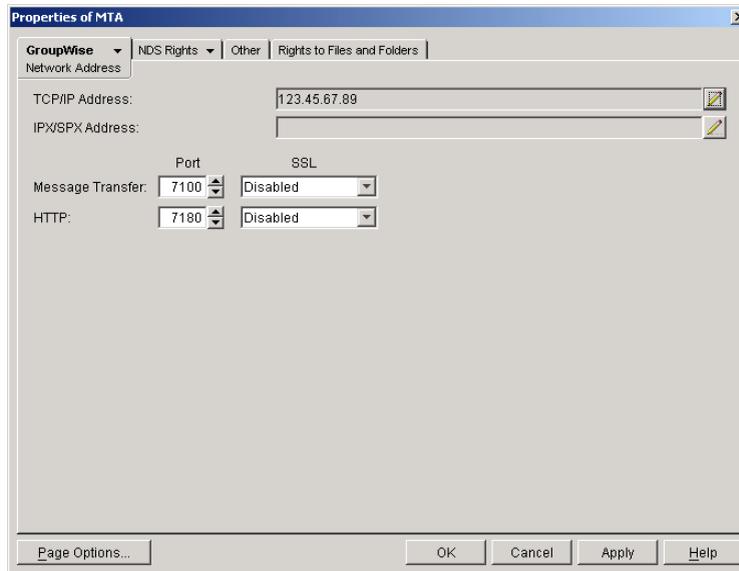
Using TCP/IP Links between Domains

To set up TCP/IP links between domains, you must perform the following two tasks:

- ◆ [“Configuring the MTA for TCP/IP”](#) on page 579
- ◆ [“Changing the Link Protocol between Domains to TCP/IP”](#) on page 581

Configuring the MTA for TCP/IP

- 1** Make sure TCP/IP is properly set up on the server where the MTA is running.
- 2** In ConsoleOne, browse to and right-click the MTA object, then click Properties.
- 3** Click GroupWise > Network Address to display the Network Address page.



- 4 On the Network Address page, click the pencil icon for the TCP/IP Address field to display the Edit Network Address dialog box.



- 5 Select IP Address, then provide the IP address, in dotted decimal format, of the server where the MTA is running.

or

Select DNS Host Name, then provide the DNS hostname of the server where the MTA is running.

IMPORTANT: The MTA must run on a server that has a static IP address. DHCP cannot be used to dynamically assign an IP address for it.

Specifying the DNS hostname rather than the IP address makes it easier to move the MTA from one server to another, should the need arise at a later time. You can assign a new IP address to the hostname in DNS, without needing to change the MTA configuration information in ConsoleOne.

- 6 Click OK.
- 7 To use a TCP port number other than the default port of 7100, type the port number in the Message Transfer Port field.
If multiple MTAs will run on the same server, each MTA must have a unique TCP port number.
- 8 If needed, select Enabled in the SSL drop-down list for the message transfer port. For more information, see [“Enhancing Domain Security with SSL Connections to the MTA” on page 589](#).
- 9 Click OK to save the network address and return to the main ConsoleOne window.
ConsoleOne then notifies the MTA to restart enabled for TCP/IP.

Corresponding Startup Switches

You could also use the `/tcpport` switch in the MTA startup file to provide the message transfer port number.

MTA Web Console

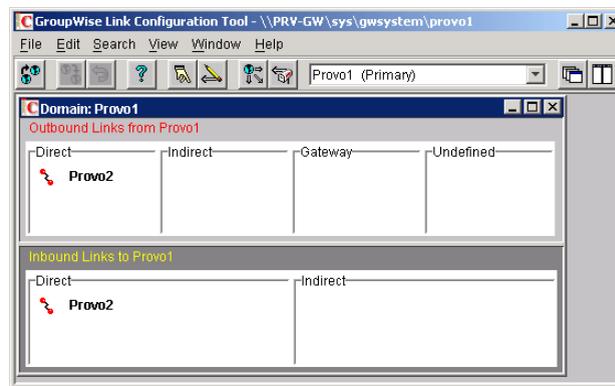
You can view the MTA TCP/IP information on the **Configuration** page under the TCP/IP Settings heading.

Changing the Link Protocol between Domains to TCP/IP

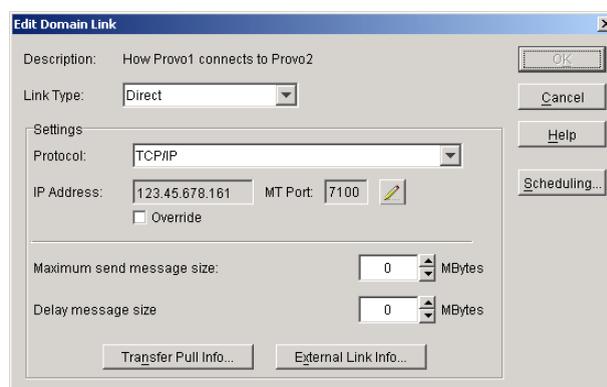
Make sure you have configured the MTA for TCP/IP at both ends of each link.

To change the link between the domains from mapped or UNC to TCP/IP:

- 1 In ConsoleOne, click Tools > GroupWise Utilities > Link Configuration.
- 2 Click View > Domain Links to display domain links.



- 3 Select the MTA's local domain in the drop-down list.
Outbound and inbound links for the selected domain are listed.
- 4 Double-click a domain in the Outbound Links list.



- 5 Set Link Type to Direct.
- 6 Set Protocol to TCP/IP.
Make sure the information displayed in the IP Address and MT Port fields matches the information for the MTA for the domain to which you are linking.
- 7 Click OK.

- 8 Repeat [Step 4](#) through [Step 7](#) for each domain in the Outbound Links list where you want the MTA to use a TCP/IP link.

Selecting multiple domains is also allowed.

- 9 Double-click a domain in the Inbound Links list.
- 10 Set Link Type to Direct.
- 11 Set Protocol to TCP/IP.

Make sure the information displayed in the IP Address and MT Port fields matches the information you supplied in [“Configuring the MTA for TCP/IP” on page 579](#).

- 12 Click OK.
- 13 Repeat [Step 9](#) through [Step 12](#) for each domain in the Inbound Links list where you want the MTA to use a TCP/IP link.
Selecting multiple domains is also allowed.
- 14 Click File > Exit > Yes to save the link changes.
ConsoleOne then notifies the MTA to restart with the new link configuration.

For a sample message flow for this configuration, see [“TCP/IP Link Open: Transfer between Domains Successful”](#) in [“Message Delivery to a Different Domain”](#) in *GroupWise 6.5 Troubleshooting 3: Message Flow and Directory Structure*.

Using Mapped or UNC Links between Domains

To change to a mapped or UNC link between domains:

- 1 In ConsoleOne, click Tools > GroupWise Utilities > Link Configuration.
- 2 Click View > Domain Links to display domain links.
- 3 Select the MTA’s local domain in the drop-down list.
Outbound and inbound links for the selected domain are listed.
- 4 Double-click a domain in the Outbound Links list.
- 5 Set Link Type to Direct.
- 6 Set Protocol to Mapped or UNC.
- 7 Enter the full path, in the appropriate format, of the directory where the other domain is located.
- 8 Click OK.
- 9 Repeat [Step 4](#) through [Step 8](#) for each domain in the Outbound Links list where you want the MTA to use a mapped or UNC link.
Selecting multiple domains is also allowed.
- 10 Double-click a domain in the Inbound Links list.
- 11 Set Link Type to Direct.
- 12 Set Protocol to Mapped or UNC.
- 13 Enter the full path, in the appropriate format, of the directory where the local domain is located.
- 14 Click OK.

- 15** Repeat **Step 10** through **Step 14** for each domain in the Inbound Links list where you want the MTA to use a mapped link.

Selecting multiple domains is also allowed.

- 16** Click File > Exit > Yes to save the link changes.

ConsoleOne then notifies the MTA to restart with the new link configuration.

For a sample message flow for this configuration, see “[Mapped/UNC Link Open: Transfer between Domains Successful](#)” in “[Message Delivery to a Different Domain](#)” in *GroupWise 6.5 Troubleshooting 3: Message Flow and Directory Structure*.

Using Gateway Links between Domains

You can use GroupWise gateways to link domains within your GroupWise system.

- ◆ “[Using the Async Gateway to Link Domains](#)” on page 583
- ◆ “[Using the Internet Agent to Link Domains](#)” on page 583

Using the Async Gateway to Link Domains

You can use the Async Gateway to link a domain into your GroupWise system using a modem. For setup instructions, see the Async Gateway documentation at [GroupWise 6.5 Documentation \(http://www.novell.com/documentation/gw65/index.html\)](http://www.novell.com/documentation/gw65/index.html).

Using the Internet Agent to Link Domains

You can use the Internet Agent to link a domain into your GroupWise system across the Internet. When you use the Internet Agent as the transport mechanism between domains, it encapsulates GroupWise messages (both e-mail messages and administrative messages) within SMTP messages in order to transport them across the Internet. For setup instructions, see “[Linking Domains](#)” on page 762

NOTE: A simpler alternative to a gateway link for spanning the Internet is to use MTA to MTA links, as described for linking separate GroupWise systems in “[Using Dynamic Internet Links](#)” in the *GroupWise 6.5 Multi-System Administration Guide*. The same configuration that can link two separate GroupWise systems can be employed to link a domain within the same GroupWise system.

Changing the Link Protocol between a Domain and Its Post Offices

How messages are transferred between the MTA for the domain and the POA for each post office is determined by the link protocol in use between the domain and each post office. For a review of link protocols, see “[Link Protocols for Direct Links](#)” on page 134.

If you need to change from one link protocol to another, some reconfiguration of the MTA and its link to each post office is necessary.

- ◆ “[Using TCP/IP Links between a Domain and its Post Offices](#)” on page 583
- ◆ “[Using Mapped or UNC Links between a Domain and its Post Offices](#)” on page 586

NOTE: The Linux MTA requires TCP/IP links between a domain and its post offices.

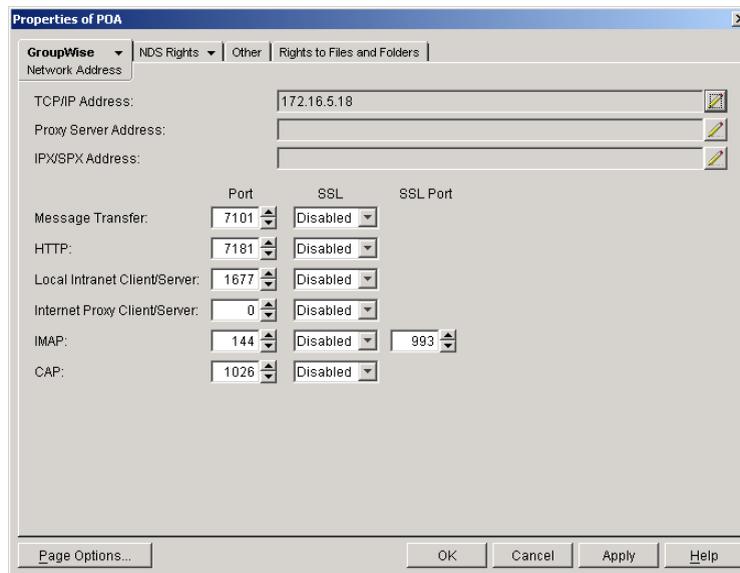
Using TCP/IP Links between a Domain and its Post Offices

To change from mapped or UNC links to TCP/IP links between a domain and its post offices, you must perform the following two tasks:

- ◆ “[Configuring the Agents for TCP/IP](#)” on page 584
- ◆ “[Changing the Link Protocol between a Domain and its Post Offices to TCP/IP](#)” on page 585

Configuring the Agents for TCP/IP

- 1 If the MTA for the domain is not yet set up for TCP/IP communication, see [“Configuring the MTA for TCP/IP” on page 579](#).
- 2 If any post offices do not yet have a POA set up for TCP/IP communication, see [“Using Client/Server Access to the Post Office” on page 447](#) to set up the initial TCP/IP information.
- 3 In ConsoleOne, expand the Post Office object to display the POA object(s) in the post office.
Only one POA per post office needs to communicate with the MTA. If the post office has multiple POAs, have a POA that performs message file processing communicate with the MTA for best performance. For information about message file processing, see [“Role of the Post Office Agent” on page 423](#).
- 4 Right-click the POA object, then click Properties.
- 5 Click GroupWise > Network Address to display the Network Address page.



- 6 On the Network Address page, click the pencil icon for the TCP/IP Address field to display the Edit Network Address dialog box.



- 7 In the Message Transfer Port field, specify a unique TCP port on which the POA will listen for incoming messages from the MTA.

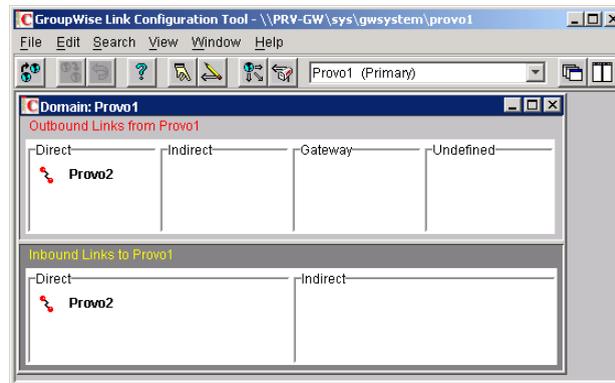
The default is 7101.

- 8 If needed, select Enabled in the SSL drop-down list for the message transfer port. For more information, see [“Enhancing Domain Security with SSL Connections to the MTA” on page 589](#).

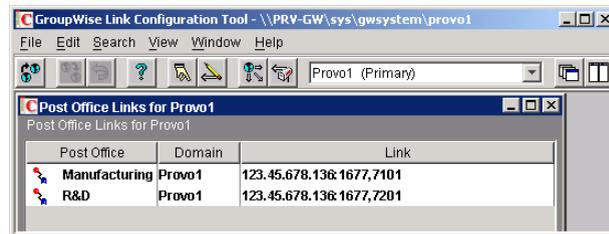
- Click OK to save the TCP/IP information and return to the main ConsoleOne window. ConsoleOne then notifies the POA to restart with message transfer processing enabled.

Changing the Link Protocol between a Domain and its Post Offices to TCP/IP

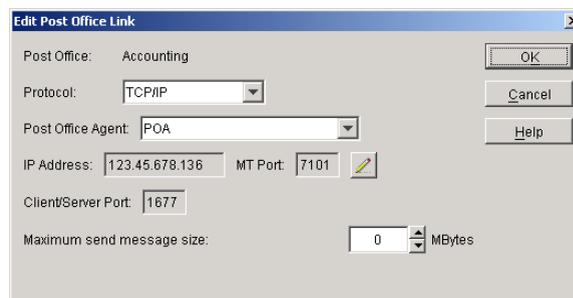
- In ConsoleOne, click Tools > GroupWise Utilities > Link Configuration.



- In the drop-down list, select the domain where you want TCP/IP links to post offices.
- Click View > Post Office Links to display post office links.



- Double-click a Post Office object.
- In the Protocol field, select TCP/IP.



- Make sure the information displayed in the Edit Post Office Link dialog box matches the information provided in the Edit Network Address dialog box in “[Configuring the Agents for TCP/IP](#)” on page 584.
- Click OK.
- Repeat [Step 4](#) through [Step 7](#) for each post office in the domain where you want to use TCP/IP links.

9 To exit the Link Configuration tool and save your changes, click File > Exit > Yes.

ConsoleOne then notifies the MTA and POAs to restart using the new link protocol.

For a sample message flow for this configuration, see [“TCP/IP Link Open: Transfer between Post Offices Successful”](#) in [“Message Delivery to a Different Post Office”](#) in *GroupWise 6.5 Troubleshooting 3: Message Flow and Directory Structure*.

Using Mapped or UNC Links between a Domain and its Post Offices

To change from a TCP/IP link to a mapped or UNC link between a domain and its post offices:

- 1** In ConsoleOne, click Tools > GroupWise Utilities > Link Configuration.
- 2** In the drop-down list, select the domain where the post offices reside.
- 3** Click View Post Office Links to display post office links.
- 4** Double-click a Post Office object.
- 5** In the Protocol field, select Mapped or UNC.
- 6** Provide the location of the post office in the format appropriate to the selected protocol.
- 7** Click OK.
- 8** Repeat [Step 4](#) through [Step 7](#) for each post office in the domain.
- 9** To exit the Link Configuration tool and save your changes, click File > Exit > Yes.

ConsoleOne then notifies the POA and MTA to restart using the new link protocol.

For a sample message flow for this configuration, see [“Mapped/UNC Link Open: Transfer between Post Offices Successful”](#) in [“Message Delivery to a Different Post Office”](#) in *GroupWise 6.5 Troubleshooting 3: Message Flow and Directory Structure*.

Moving the MTA to a Different Server

As your GroupWise system grows and evolves, you might need to move an MTA from one server to another. For example, you might decide to run the MTA on a different platform, or perhaps you want to move it to a server that has more disk space for the mslocal directory.

- 1** Stop the existing MTA.
- 2** Copy the entire mslocal subdirectory structure to wherever you want it on the new server. It might contain messages that have not yet been delivered.
- 3** When moving the MTA, pay special attention to the following details:
 - ◆ In the MTA startup file, set the `/work` switch to the location of the mslocal directory on the new server.
 - ◆ If the original MTA was configured for TCP/IP links between domains, you must reconfigure the MTA object with the IP address and port number for the MTA on the new server. See [“Using TCP/IP Links between Domains”](#) on page 579.
 - ◆ For the NetWare[®] MTA, if it was originally on the same server where its domain and post offices are located and you are moving it to a different server, you must add the `/dn` switch or the `/user` and `/password` switches to the MTA startup file to give the NetWare MTA access to the server where the domain and post offices are located.
- 4** Install the MTA on the new server. See [“Installing GroupWise Agents”](#) in the *GroupWise 6.5 Installation Guide*.

- 5** Start the new MTA. See [“Starting the MTA” on page 568](#).
- 6** Observe the new MTA to see that it is running smoothly. See [Chapter 44, “Monitoring the MTA,” on page 605](#).
- 7** If you are no longer using the old server for any GroupWise agents, you can remove them to reclaim the disk space. See [“Uninstalling the MTA Software” on page 573](#).

Adjusting the MTA for a New Location of a Domain or Post Office

MTA configuration must be adjusted if you make the following changes to your GroupWise system configuration:

- ◆ [“New Domain Location” on page 587](#)
- ◆ [“New Post Office Location” on page 587](#)

New Domain Location

If you move a domain from one server to another, you need to edit the MTA startup file to provide the new location of the domain directory.

- 1** Stop the MTA for the old domain location if it is still running.
- 2** Use an ASCII text editor to edit the MTA startup file.
 - ◆ On NetWare and Windows, only the first 8 characters of the domain name are used in the filename. The startup file is typically located in the directory where the MTA software is installed.
 - ◆ On Linux, the full domain name is used in the filename. However, all letters are lowercase and any spaces in the domain name are removed. The startup file is located in the `/opt/novell/groupwise/agents/share` directory.
- 3** Adjust the setting of the `/home` switch to point to the new location of the domain directory.
- 4** Save the MTA startup file.
- 5** Start the MTA for the new domain location. See [“Starting the MTA” on page 568](#).

New Post Office Location

If you move a post office, you need to adjust the link information for that post office.

- 1** Click Tools > GroupWise Utilities > Link Configuration.
- 2** In the drop-down list, select the domain where a post office has moved.
- 3** Click View > Post Office Links to display post office links.
- 4** Double-click the post office that has been moved.
- 5** Provide its new location in the appropriate format.
- 6** Click OK.
- 7** Click File > Exit > Yes to save the link changes.

ConsoleOne then notifies the MTA to restart with the new link configuration.

Adjusting the MTA Logging Level and Other Log Settings

When installing or troubleshooting the MTA, a logging level of Verbose can be useful. However, when the MTA is running smoothly, you can set the logging level down to Normal to conserve disk space occupied by log files. See [“Using MTA Log Files” on page 625](#).

Configuring User Access through the Domain

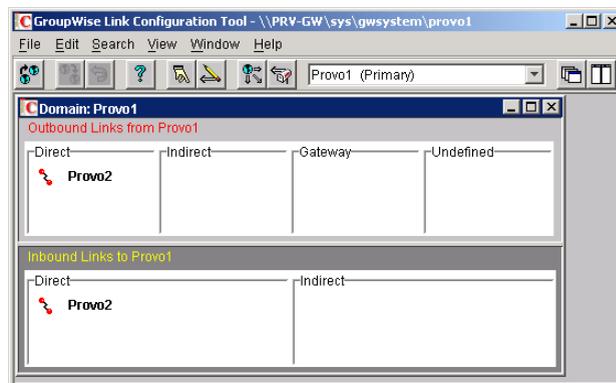
Although users do not access the domain as they use the GroupWise client, their messages often pass through domains while traveling from one post office to another.

- ◆ [“Restricting Message Size between Domains” on page 588](#)
- ◆ [“Enabling Live Remote” on page 589](#)
- ◆ [“Enhancing Domain Security with SSL Connections to the MTA” on page 589](#)

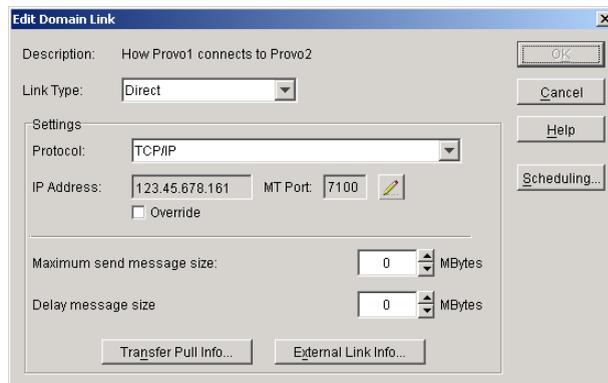
Restricting Message Size between Domains

You can configure the MTA to restrict the size of messages that users are permitted to send outside the domain.

- 1 In ConsoleOne, click Tools > GroupWise Utilities > Link Configuration.



- 2 Double-click the domain where you want to restrict message size.



- 3 In the Maximum Send Message Size field, specify in megabytes the size of the largest message you want users to be able to send outside the post office.

- 4 If you want to delay large messages, specify the size in megabytes for message files the MTA can process immediately in the Delay Message Size field.

If a message file exceeds the delay message size, the message file is moved into the low priority (6) message queue, where only one MTA thread is allocated to process very large messages. This arrangement allows typical messages to be processed promptly, while delaying large messages that exceed the specified size. The result is that large messages do not slow down processing of typical messages.

- 5 Click OK.
- 6 To exit the Link Configuration Tool and save your changes, click File > Exit > Yes.

ConsoleOne then notifies the MTA to restart using the new message size limits.

If a user's message is not sent out of the domain because of this restriction, the user receives an e-mail message with a subject line of:

Delivery disallowed

plus the subject of the original message. This message provides information to the user about why and where the message was disallowed. However, the message is still delivered to recipients in the sender's own domain.

There are additional ways to restrict the size of messages that users can send, as described in [“Restricting the Size of Messages That Users Can Send” on page 175](#).

Enabling Live Remote

You can configure the MTA to redirect GroupWise Remote client requests to other MTAs and POAs. The GroupWise client can establish a client/server connection to an MTA across the Internet, eliminating the queuing and polling process used by earlier Remote clients. The result is significantly improved performance for Remote client users.

To configure the MTA to redirect Remote client requests, add the [/liveremote](#), [/lrconn](#) and [/lrwaitdata](#) switches to the MTA startup file.

You can monitor the live remote connections from the MTA agent console. See [“Displaying Live Remote Status” on page 613](#).

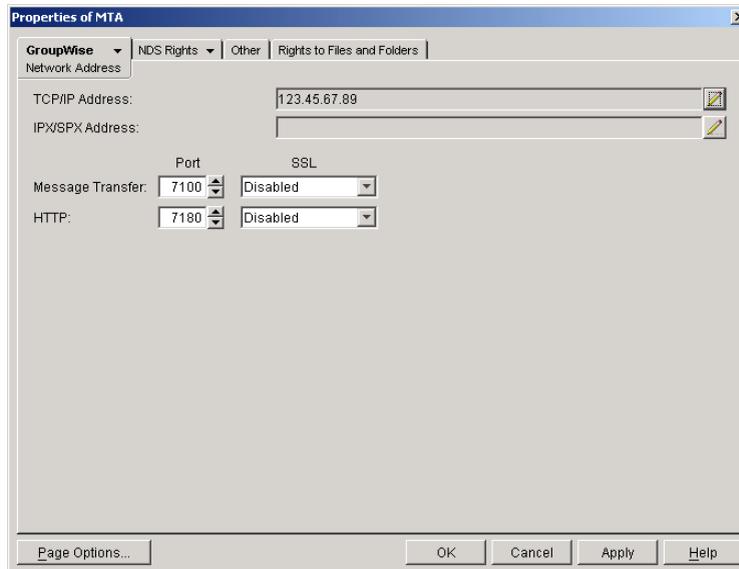
As an alternative to live remote connections from outside your firewall, you could set up proxy servers for the POAs, so that Remote client users connect to their mailboxes through the proxy servers rather than through MTAs. Full SSL security is provided through the proxy servers. See [“Securing Client/Server Access through a Proxy Server” on page 456](#).

Enhancing Domain Security with SSL Connections to the MTA

Secure Sockets Layer (SSL) ensures secure communication between the MTA and other programs by encrypting the complete communication flow between the programs. For background information about SSL and how to set it up on your system, see [Chapter 80, “Encryption and Certificates,” on page 1039](#).

To configure the MTA to use SSL:

- 1 In ConsoleOne, browse to and right-click the MTA object, then click Properties.
- 2 Click GroupWise > Network Address to display the Network Address page.



- 3** To use SSL connections between the MTA and the POAs for its post offices, select Enabled in the Message Transfer SSL drop-down list.

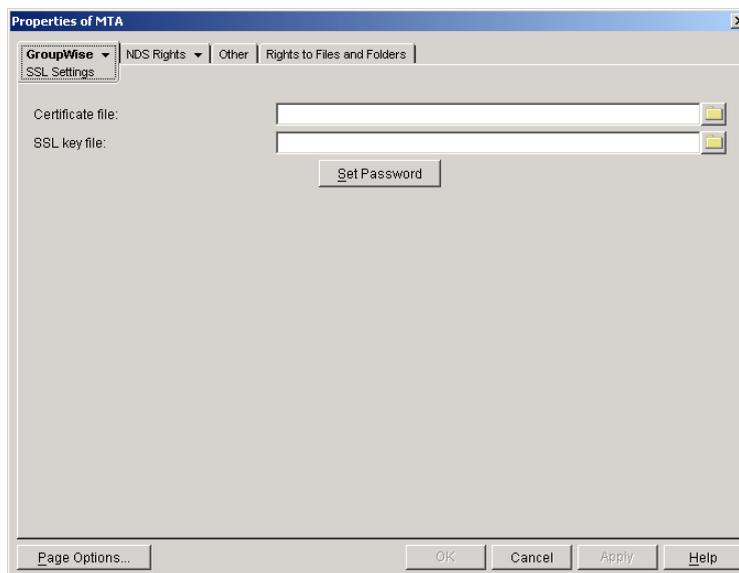
The MTA must use a TCP/IP connection to each POA in order to enable SSL for the connection. See [“Using TCP/IP Links between a Domain and its Post Offices”](#) on page 583.

Each POA must also have SSL enabled for the connection to be secure. See [“Enhancing Post Office Security with SSL Connections to the POA”](#) on page 458.

- 4** To use SSL connections between the MTA and the MTA Web console displayed in your Web browser, select Enabled in the HTTP SSL drop-down list.

To set up the MTA Web console, see [“Setting Up the MTA Web Console”](#) on page 617.

- 5** Click Apply to save the settings on the Network Address page.
- 6** Click GroupWise > SSL Settings to display the SSL Settings page.



For background information about certificate files and SSL key files, see [Chapter 80, “Encryption and Certificates,”](#) on page 1039.

- 7** In the Certificate File field, browse to and select the public certificate file provided to you by your CA.
- 8** In the SSL Key File field:
 - 8a** Browse to and select your private key file.
 - 8b** Click Set Password.
 - 8c** Provide the password that was used to encrypt the private key file when it was created.
 - 8d** Click Set Password.
- 9** Click OK to save the SSL settings.

ConsoleOne then notifies the MTA to restart using the new message size limits.

Corresponding Startup Switches

You could also use the `/certfile`, `/keyfile`, `/keypassword`, `/httpsll`, and `/msgtranssl` switches in the MTA startup file to configure the MTA to use SSL.

MTA Web Console

You can list which connections the MTA is using SSL for from the [Links](#) page. Click View TCP/IP Connections to display the list of TCP/IP links.

Configuring Specialized Routing

As you create each new domain in your GroupWise system, you link it to another domain. You can view and modify the links between domains using the Link Configuration Tool. See [Chapter 10, “Managing the Links between Domains and Post Offices,”](#) on page 131. The following topics help you configure the MTA to customize routing through your GroupWise system:

- ◆ [“Using Routing Domains”](#) on page 591
- ◆ [“Scheduling Direct Domain Links”](#) on page 593
- ◆ [“Using a Transfer Pull Configuration”](#) on page 596

Using Routing Domains

As an alternative to configuring individual links between individual domains throughout your GroupWise system, you can establish a system of one or more routing domains under the following circumstances.

- ◆ Domains must connect to the routing domains with TCP/IP links.
- ◆ GroupWise 5.5 and 6.x domains can be part of the routing domain system. Domains and MTAs that are still at a 5.2 or earlier version cannot participate and must use links as provided in the Link Configuration Tool.

A routing domain can serve as a hub in the following situations:

- ◆ Messages that would otherwise be undeliverable can be automatically sent to a single routing domain. This routing domain could be set up to perform DNS lookups and route messages out across the Internet. See [“Using Dynamic Internet Links”](#) in [“Connecting to GroupWise 5.x and 6.x Systems”](#) in the *GroupWise 6.5 Multi-System Administration Guide*.

- ◆ All messages from a domain can be automatically routed through another domain, regardless of the final destination of the messages. This provides additional control of message flow through your GroupWise system.

You can set up routing domains on two levels:

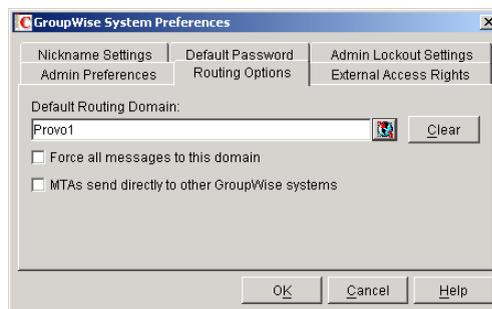
- ◆ “Selecting a System Default Routing Domain” on page 592
- ◆ “Selecting a Specific Routing Domain for an Individual Domain” on page 593

Selecting a System Default Routing Domain

You can establish a single default routing domain for your entire GroupWise system. This provides a centralized routing point for all messages. It takes precedence over specific links established when domains were created or links modified with the Link Configuration Tool.

To set up a system default routing domain:

- 1 In ConsoleOne, click Tools > GroupWise System Operations > System Preferences > Routing to display the Routing tab.



- 2 In the Default Routing Domain field, browse to and select the domain you want to serve as the default routing domain for your entire GroupWise system.
- 3 If you want all GroupWise messages to pass through the default routing domain regardless of the destination of the message, select Force All Messages to This Domain.

or

If you want only undeliverable GroupWise messages to be routed to the default routing domain, deselect Force All Messages to This Domain.

If you do not force all messages to the system default routing domain, then you have the option of allowing selected MTAs to provide routing domain services in addition to the system default routing domain.

- 4 Select MTAs Send Directly to Other GroupWise Systems if you want all MTAs in your GroupWise system to perform DNS lookups and route messages out across the Internet.

or

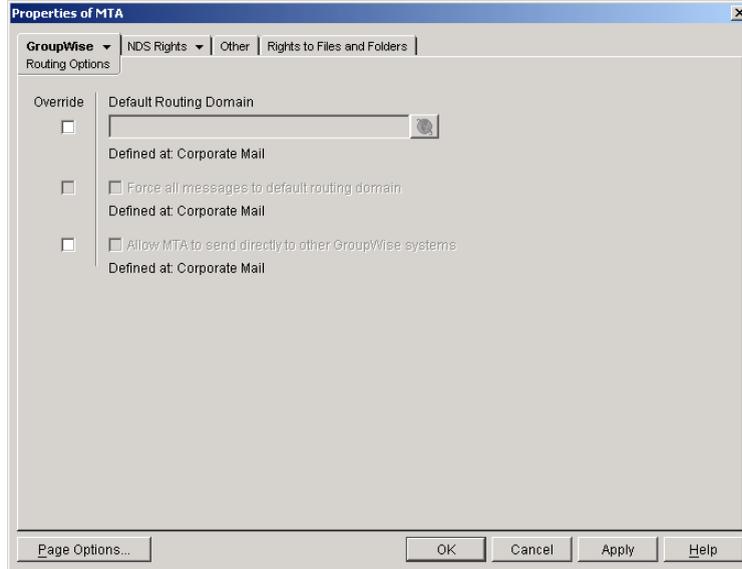
Deselect MTAs Send Directly to Other GroupWise systems if you want to individually designate which MTAs should perform eDirectory lookups and route messages out across the Internet.

- 5 Click OK to save the routing options you have specified for the system default routing domain.

Selecting a Specific Routing Domain for an Individual Domain

As long as you are not forcing all messages to the system default routing domain, you can override the system default routing information for an individual domain.

- 1 In ConsoleOne, browse to and right-click the MTA object, then click Properties.
- 2 Click GroupWise > Routing Options to display the Routing Options page.



System default routing information displays if it has been set up. See [“Selecting a System Default Routing Domain”](#) on page 592.

- 3 Select Override beside the default information you want to change for the selected domain.
- 4 Set the routing options as needed for the selected domain.
- 5 Click OK to save the specialized routing information for the selected domain.

ConsoleOne then notifies the MTA to restart so the routing information can be put into effect.

MTA Web Console

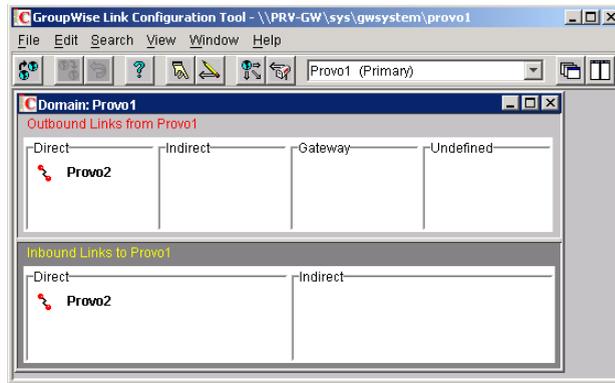
You can check routing information on the [Configuration](#) page under the General Settings heading.

Scheduling Direct Domain Links

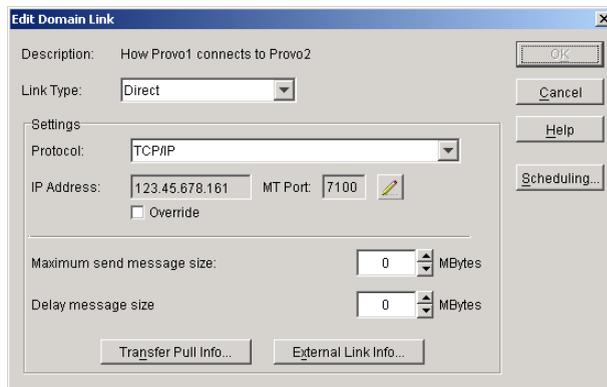
When domains link across an expensive medium such as long-distance phone lines, you can reduce the cost of the link by controlling when it is open. You can choose to have some types of messages wait in the message queues for the lowest phone rate. You can collect messages in the message queues until a specified time or size limit is reached, then open the link, rather than opening the link for each message as it arrives in the queue. You can design as many link profiles as you need, to schedule the transfer of various types of GroupWise messages in the most efficient and cost-effective manner.

To create a schedule for a link between domains:

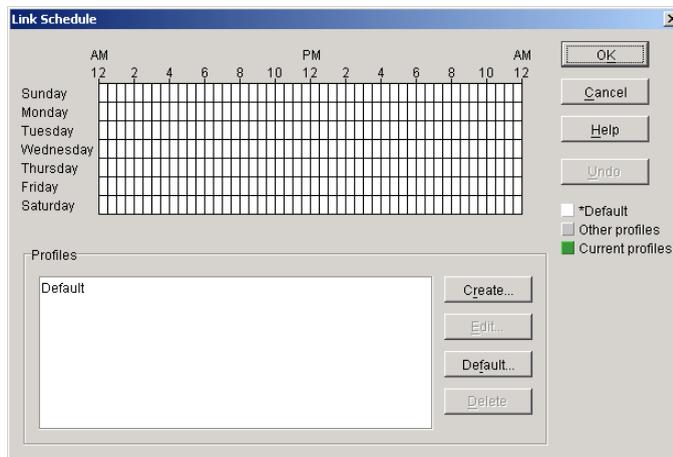
- 1 In ConsoleOne, click Tools > GroupWise Utilities > Link Configuration.
- 2 In the drop-down list, select the domain to schedule a link for.
- 3 Click View > Domain Links to display domain links.



- 4** Double-click the domain you want to create a link schedule for. Only direct links can be scheduled.



- 5** Click Scheduling.



The link schedule grid displays the current schedule for the selected direct link. The grid consists of half-hour time slots showing the link profile assigned to each time slot. Available link profiles are listed below the link schedule grid.

Each link profile defines the following values to set the conditions under which the link opens:

- ◆ Which message queues to monitor
- ◆ Maximum wait time for any message in any monitored queue

- ◆ Maximum number of waiting messages allowed in all monitored queues
- ◆ Maximum total size of waiting messages allowed in all monitored queues

The default profile shows as white in the link schedule grid. The default profile is in effect at all times when no other profile has been selected. Any other defined profiles show as gray. The currently selected link profile shows as green.

6 To create a new link profile, click Create.

or

To edit an existing link profile, select it in the profile list, then click Edit.

or

To edit the default link profile, click Default.

7 If you are creating a new link profile, provide a unique name for the link profile in the Name field.

If you are editing an existing link profile, you cannot change the name.

8 In the Description field, provide whatever additional information is necessary to describe the purpose of the link profile.

9 Use the scroll bar in the Time Threshold box to select which queues to monitor and process when this link profile is in effect.

Queue	Purpose
0	Busy Search requests
1	Requests from GroupWise Remote users
2	High priority user messages; administrative messages
3	High priority status messages
4	Normal priority user messages
5	Normal priority status messages
6	Low priority user messages
7	Low priority status messages

The contents of deselected queues are not monitored but are processed when the link opens.

- 10** For each selected queue, specify the maximum number of minutes a message must wait in each queue before the link opens.
If you want the link to open immediately when a message arrives in the queue, specify 0 (zero).
- 11** In the Messages field, specify the total number of messages waiting in all selected queues that will trigger the link to open.
- 12** In the KBytes field, specify the total size in kilobytes of all messages waiting in all selected queues that will trigger the link to open.
- 13** Click OK to save the link profile and return to the Link Scheduling dialog box.
- 14** Select the new or modified link profile in the profile list.
- 15** Click a time slot or drag to select a range of time slots.
Time slots assigned to the selected link profile display as green.
- 16** Select all the time slots you want governed by the selected link profile.
- 17** Select a different link profile to assign to time slots.
or
Create or edit another link profile.
or
Click OK to save the schedule for the current link.
- 18** When the schedule is saved, click OK to close the Edit Domain Link dialog box.
- 19** To exit the Link Configuration Tool, click File > Exit > Yes.
ConsoleOne then notifies the MTA to restart using the new link schedule.

Using a Transfer Pull Configuration

Typically for a mapped or UNC link, the MTA for the sending domain writes (or "pushes") message files into the input queue subdirectories of the receiving domain. However, it is possible to change this configuration so the MTA for the receiving domain picks up (or "pulls") message files from the sending domain.

The transfer pull directory is a location in the sending domain where the MTA for the receiving domain can pick up message files (that is, "pull" them from the sending domain). It represents the only configuration where an MTA processes messages outside its own domain directory structure.

NOTE: The transfer pull configuration does not apply to the Linux MTA because the Linux MTA does not use mapped or UNC links.

To set up a transfer pull configuration between domains:

- 1** Manually create a transfer directory with input queue subdirectories from which outgoing message files will be pulled.

The transfer directory must contain a wpsin subdirectory, with standard priority 0 through 7 subdirectories beneath. For an example, see [“Alternate Link Configuration: Transfer Pull”](#) in *“Message Delivery to a Different Domain”* in *GroupWise 6.5 Troubleshooting 3: Message Flow and Directory Structure*. The transfer directory must be placed where both the sending and receiving MTAs have rights.

- 2** In ConsoleOne, modify the outgoing link from the sending domain so the MTA for the sending domain writes message files to the transfer directory, rather than directly to the receiving domain. See [“Modifying the Outgoing Transfer Pull Link” on page 597](#).
- 3** In ConsoleOne, modify the incoming link to the receiving domain so the MTA for the receiving domain actively pulls message files from the transfer directory, rather than waiting for them to be delivered. See [“Modifying the Incoming Transfer Pull Link” on page 597](#).
- 4** Stop and restart the MTAs for both domains.

Modifying the Outgoing Transfer Pull Link

- 1** In ConsoleOne, connect to the sending domain:
 - 1a** Click Tools > GroupWise System Operations > Select Domain.
 - 1b** Browse to and select the domain database (wpdomain.db) in the sending domain.
 - 1c** Click Open.
 - 1d** Click OK.
- 2** Click Tools > GroupWise Utilities > Link Configuration.
- 3** In the drop-down list, select the sending domain.
- 4** Click View > Domain Links to view outbound and inbound links for the sending domain.
- 5** In the Outbound Links from *sending_domain_name* list box, double-click the receiving domain.
- 6** If you are using a UNC path, click Override to display the Path field.
- 7** In the Path or UNC Override field (depending on the selected protocol), specify the full path to the transfer directory you created.

You can use a UNC path for the NetWare and Windows MTA; you can use a mapped drive path for the Windows MTA only.
- 8** Click OK.
- 9** Click File > Exit > Yes to save the link changes for the sending domain and return to the main ConsoleOne window.
- 10** Continue with [“Modifying the Incoming Transfer Pull Link” on page 597](#).

Modifying the Incoming Transfer Pull Link

- 1** In ConsoleOne, connect to the receiving domain:
 - 1a** Click Tools > GroupWise System Operations > Select Domain
 - 1b** Browse to and select the domain database (wpdomain.db) in the receiving domain.
 - 1c** Click Open.
 - 1d** Click OK.
- 2** Click Tools > GroupWise Utilities > Link Configuration.
- 3** In the drop-down list, select the receiving domain.
- 4** Click View Domain Links to view outbound and inbound links for the receiving domain.
- 5** In the Outbound Links from *receiving_domain_name* list box, double-click the sending domain.

- 6** Verify that the information displayed in the Edit Domain Link dialog box is correct.
- 7** Click Transfer Pull Info.
- 8** Specify the full path to the transfer directory you created.
You can use a UNC path for the NetWare and Windows MTA; you can use a mapped drive path for the Windows MTA only.
- 9** Specify the number of seconds after which the MTA will check the transfer directory for message files to pull.
- 10** Specify the command needed to reestablish the connection with the transfer directory, if that connection should be broken for any reason.
- 11** Click OK until you return to the Link Configuration dialog box.
- 12** Click File > Exit > Yes to save the link changes for the receiving domain and return to the main ConsoleOne window.
- 13** Stop and restart the MTAs for both domains.

Configuring Domain Maintenance

You can configure the MTA to synchronize user information in the GroupWise Address Book with user information in eDirectory. You can also configure it to gather information about all messages that pass through the domain for tracking purposes.

- ◆ [“Using eDirectory User Synchronization” on page 598](#)
- ◆ [“Enabling MTA Message Logging” on page 603](#)

Using eDirectory User Synchronization

As long as GroupWise administration is performed with the GroupWise Administrator snap-in to ConsoleOne running, user information is automatically synchronized between GroupWise and eDirectory. However, four situations can cause this automatic synchronization to be insufficient:

- ◆ An administrator modifies user information in ConsoleOne without having the GroupWise Administrator snap-in running.
- ◆ The user information was changed using NetWare® Administrator without the GroupWise Administrator snap-in running.
- ◆ The user information was changed using NetAdmin, the DOS-based NetWare Administrator program.
- ◆ The user information was changed using the NWDS API.

In these situations, user information in eDirectory would no longer match corresponding user information in GroupWise. (User objects are the only GroupWise objects that can be modified without the GroupWise Administrator snap-in running. Modification of all other GroupWise objects requires the presence of the GroupWise Administrator snap-in.)

This section covers the following aspects of eDirectory user synchronization:

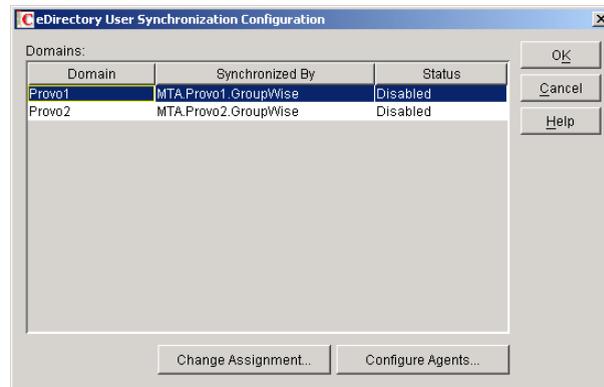
- ◆ [“Enabling eDirectory User Synchronization” on page 599](#)
- ◆ [“Assigning an eDirectory-Enabled MTA to Synchronize Other Domains” on page 601](#)
- ◆ [“Scheduling eDirectory User Synchronization” on page 602](#)

Enabling eDirectory User Synchronization

By default, eDirectory user synchronization is disabled. The MTA still performs all its other functions, but any changes made to user information in eDirectory without the GroupWise Administrator snap-in running will not appear in GroupWise until eDirectory user synchronization has been performed.

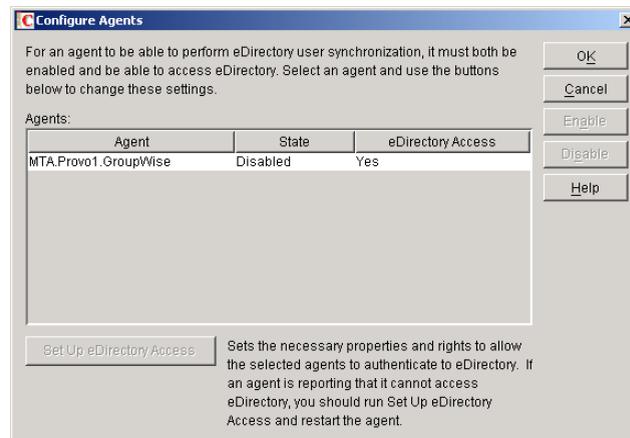
Although all MTAs could be enabled to perform eDirectory user synchronization, the minimum requirement is that at least one MTA be configured that way. If your GroupWise system spans multiple trees, at least one MTA in each tree must be configured to perform eDirectory user synchronization.

- 1 In ConsoleOne, click Tools > GroupWise System Operations > eDirectory User Synchronization to display the eDirectory User Synchronization Configuration dialog box.



The eDirectory User Synchronization Configuration dialog box lists all domains in your GroupWise system, the MTA currently assigned to provide eDirectory user synchronization for each domain, and the current status of that agent's ability to perform eDirectory user synchronization.

- 2 Click Configure Agents.



Only domains with NetWare MTAs or Linux MTAs should be listed, because eDirectory user synchronization is not supported by the Windows MTA.

If domains on Windows servers are listed:

- 2a** Cancel out of the eDirectory user synchronization dialog boxes.

- 2b** Browse to and right-click a misconfigured MTA, then click Properties.
- 2c** In the Platform field, select the platform where the MTA is running.
- 2d** Click OK to save the correct platform information.
- 2e** Return to Tools > GroupWise System Operations > eDirectory User Configuration > Configure Agents.
- 3** Select the NetWare MTA that you want to perform eDirectory user synchronization.
- 4** If the eDirectory Access column for that NetWare displays Yes, click Enable.
or
If the eDirectory Access column for that NetWare MTA displays No:
 - 4a** Click Set Up eDirectory Access.
 - 4b** Browse to and select the NetWare server where the MTA runs.
 - 4c** Click OK.

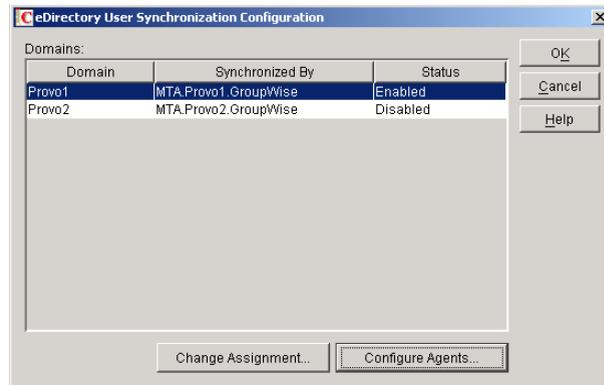
The eDirectory Access column for that NetWare MTA should now display Yes so that you can enable it.
- 5** Select a Linux MTA that you want to perform eDirectory user synchronization.
- 6** If the eDirectory Access column for that Linux MTA displays Yes, click Enable.
or
If the eDirectory Access column for that Linux MTA displays No:
 - 6a** Click Set Up eDirectory Access.
 - 6b** In the Available LDAP Servers list, select the LDAP server that you want the MTA to log into in order to gain access to eDirectory, then click Set Preferred.
 - 6c** In the LDAP User Name field, browse to and select the user that the MTA can use to log in as.

The selected user must have rights to browse properties of User objects.

Click Set Password, provide the password associated with the user selected above, then click Set Password.
 - 6d** Click OK to save the LDAP information.

The eDirectory Access column for that Linux MTA should now display Yes so that you can enable it.
- 7** If your GroupWise system spans multiple trees, repeat **Step 3** through **Step 6** as needed to enable eDirectory user synchronization for at least one MTA in each tree.
- 8** Click OK to return to the eDirectory User Synchronization Configuration dialog box.

Each domain for which you have configured the MTA for eDirectory user synchronization should now display Enabled in the Status column.



- 9 If all domains are now enabled, click OK to return to main ConsoleOne window, then continue with [“Scheduling eDirectory User Synchronization” on page 602.](#)

or

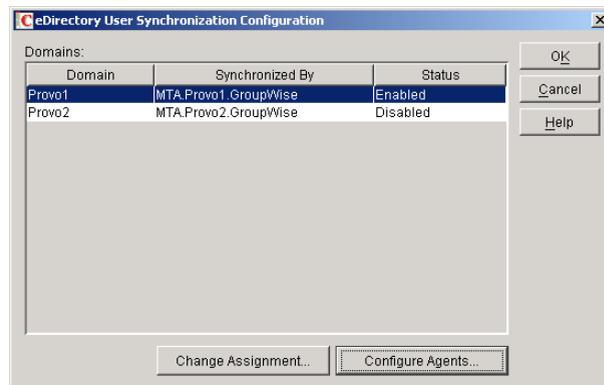
If some domains are still disabled, continue with [“Assigning an eDirectory-Enabled MTA to Synchronize Other Domains” on page 601.](#)

Assigning an eDirectory-Enabled MTA to Synchronize Other Domains

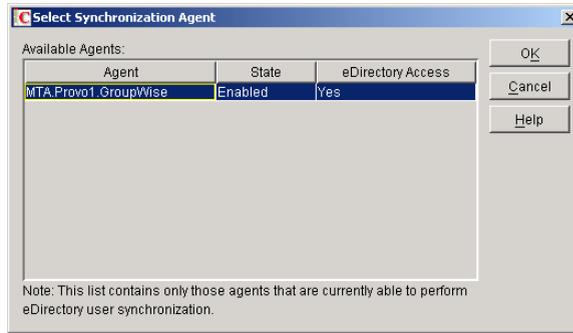
After at least one MTA is performing eDirectory user synchronization, other MTAs not performing eDirectory user synchronization themselves can have an eDirectory-enabled MTA gather the eDirectory information for them.

In the eDirectory User Synchronization Configuration dialog box,

- 1 Click a domain that still displays Disabled in the Status column.



- 2 Select an agent, then click Change Assignment.



- 3 Select the MTA you want to perform eDirectory user synchronization for the selected domain, then click Select.

The domain should now display Enabled in the Status column of the eDirectory User Synchronization Configuration dialog box.

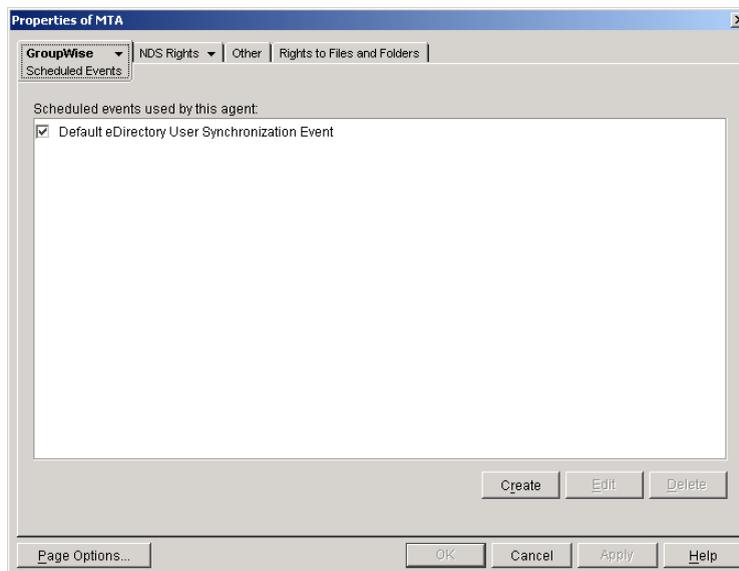
- 4 Repeat Step 1 through Step 3 until all domains in your GroupWise system are enabled for eDirectory user synchronization.
- 5 Click OK to return to the main ConsoleOne window.

Scheduling eDirectory User Synchronization

After eDirectory user synchronization is enabled, you can perform eDirectory user synchronization at any time from the NetWare MTA agent console. See [“Performing eDirectory User Synchronization” on page 615](#). In addition, you must create one or more eDirectory user synchronization events to cause eDirectory user synchronization to be performed on a regular basis.

To schedule an eDirectory user synchronization event:

- 1 In ConsoleOne, browse to and right-click the MTA object, then click Properties.
- 2 Click GroupWise > Scheduled Events to display the Scheduled Events page.

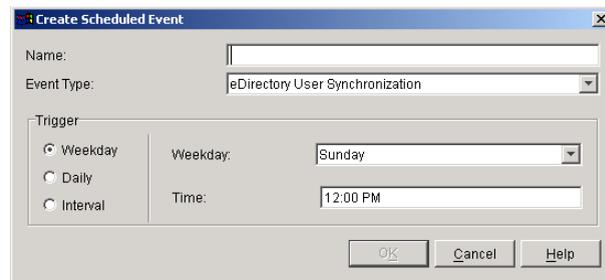


The Scheduled Events page lists a pool of MTA events available to all MTAs in your GroupWise system if any events have already been created.

3 Select an existing eDirectory user synchronization event, then click Edit.

or

Click Create, then type a name for the event.



4 Set Type to eDirectory User Synchronization.

5 In the Trigger box, specify when you want the eDirectory user synchronization event to take place.

You can have the synchronization event take place once a week, once a day, or at any other regular interval, at whatever time you choose.

6 Specify the time of day when you want eDirectory user synchronization to take place.

7 Click OK twice to close the scheduled event dialog boxes and save the eDirectory user synchronization event.

ConsoleOne then notifies the MTA to restart so the eDirectory user synchronization event can be put into effect.

Enabling MTA Message Logging

Message logging is turned off by default, because it causes the MTA to use additional CPU and disk resources. However, gathering information about message traffic on your GroupWise system lets you perform many valuable tasks, including:

- ◆ Tracking messages
- ◆ Gathering statistics to help optimize your GroupWise system
- ◆ Billing customers for messages delivered
- ◆ Tracking messages from the MTA Web console and from GroupWise Monitor

When you enable MTA message logging, the MTA stores data about GroupWise message traffic as it processes messages. The stored data is then available for use by the MTA Web console Message Tracking feature and by the GroupWise Monitor Message Tracking Report option. In addition, third-party programs can produce customized billing, tracking, and statistical reports based on the information stored in the database.

To enable MTA message logging:

1 In ConsoleOne, browse to and right-click the MTA object, then click Properties.

2 Click GroupWise > Message Log Settings.

3 Select a logging level to turn message logging on.

4 Specify the full path of the file where the MTA will record the logging information.

- 5** Specify the number of days to retain reports on disk. Reports will be automatically deleted after the specified time has passed.
- 6** Click OK to save the MTA message log settings.

ConsoleOne then notifies the MTA to restart so the new settings can be put into effect.

Corresponding Startup Switches

You could also use the [/messagelogsettings](#), [/messagelogpath](#), [/messagelogdays](#), and [/messagelogmaxsize](#) switches in the MTA startup file to configure MTA message logging.

MTA Web Console

For instructions on tracking messages after message logging is enabled, see [“Tracking Messages” on page 623](#) and [“Message Tracking Report” on page 934](#).

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Monitoring the MTA

By monitoring the MTA, you can determine whether or not its current configuration is meeting the needs of your GroupWise® system. You have a variety of resources to help you monitor the operation of the MTA:

- ◆ “Using the MTA Agent Console” on page 605
- ◆ “Using the MTA Web Console” on page 617
- ◆ “Using MTA Log Files” on page 625
- ◆ “Using GroupWise Monitor” on page 626
- ◆ “Using NetWare 6.5 Remote Manager” on page 626
- ◆ “Using SNMP Monitoring Programs” on page 627
- ◆ “Notifying the Domain Administrator” on page 632
- ◆ “Using the MTA Error Message Documentation” on page 632
- ◆ “Employing MTA Troubleshooting Techniques” on page 633
- ◆ “Using Platform-Specific MTA Monitoring Tools” on page 633
- ◆ “Using MTA Message Logging” on page 633

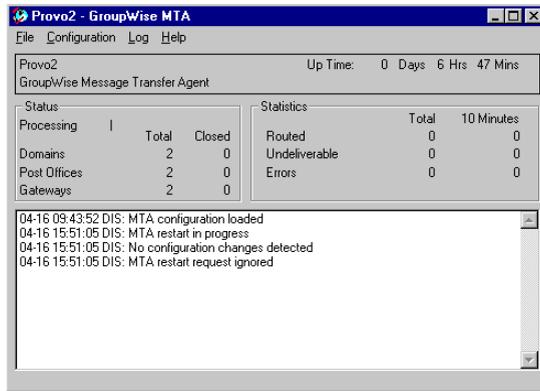
Using the MTA Agent Console

The following topics help you monitor and control the MTA from the MTA agent console:

- ◆ “Monitoring the MTA from the MTA Agent Console” on page 605
- ◆ “Controlling the MTA from the MTA Agent Console” on page 608

Monitoring the MTA from the MTA Agent Console

The MTA agent console provides information, status, and message statistics about the MTA to help you assess its current functioning.



Linux Note: You must use the --show startup switch in order to display the Linux MTA agent console. See [“Starting the Linux MTA” on page 570](#).

Windows Note: You can suppress the Windows MTA agent console by running the Windows MTA as a service. See [“Starting the Windows MTA” on page 571](#).

The MTA agent console consists of several components:

- ◆ [“MTA Information Box” on page 606](#)
- ◆ [“MTA Status Box” on page 607](#)
- ◆ [“MTA Statistics Box” on page 607](#)
- ◆ [“MTA Alert Box” on page 607](#)
- ◆ [“MTA Admin Thread Status Box” on page 608](#)

Do not exit the MTA agent console unless you want to stop the MTA.

NetWare Note: At a NetWare[®] server console, you can use Alt+Esc to change screens. In a remote console window, you can use Alt+F1 to select a screen to view. Use these keystrokes to change screens without stopping the MTA. You can use these keystrokes to display the MTA agent console if it is not immediately visible on the NetWare console.

Linux Note: On a Linux server, you can minimize the MTA agent console, but do not close it unless you want to stop the MTA.

Windows Note: On a Windows server, you can minimize the MTA agent console window, but do not close it unless you want to stop the MTA.

MTA Information Box

The MTA Information box identifies the MTA whose MTA agent console you are viewing, which is especially helpful when multiple MTAs are running on the same server.

Domain: Displays the name of the domain serviced by this MTA.

Description: Displays the description provided in the Description field in the MTA Information page in ConsoleOne[®]. If multiple administrators work at the server where the MTA runs, the description could include a note about who to contact before stopping the MTA.

Up Time: Displays the length of time the MTA has been running.

MTA Web Console

The [Status](#) page also displays this information.

MTA Status Box

The MTA Status box displays the current status of the MTA and its backlog.

Processing: Displays a rotating bar when the MTA is running. If the bar is not rotating, the MTA has stopped. For assistance, see [“Message Transfer Agent Problems”](#) in *GroupWise 6.5 Troubleshooting 2: Solutions to Common Problems*.

Domains: Displays the total number of domains the MTA links to and the number that are currently closed.

Post Offices: Displays the total number of post offices in the domain and the number that are currently closed.

Gateways: Displays the total number of gateways in the domain and the number that are currently closed.

If you have closed domains, post offices, or gateways, see [“MTA Status Box Shows a Closed Location”](#) in [“Message Transfer Agent Problems”](#) in *GroupWise 6.5 Troubleshooting 2: Solutions to Common Problems* for assistance.

MTA Web Console

The **Status** page also displays this information. In addition, you can display detailed information about specific queue contents.

MTA Statistics Box

The MTA Statistics box displays the total statistics for the current up time, and 10-minute statistics for all messages the MTA has routed.

Routed: Displays the number of messages successfully routed to the domains, post offices, and gateways serviced by the MTA.

Undeliverable: Displays the number of messages that could not be delivered to a domain, post office, or gateway. For assistance, see [“MTA Statistics Box Shows Undeliverable Messages”](#) in [“Message Transfer Agent Problems”](#) in *GroupWise 6.5 Troubleshooting 2: Solutions to Common Problems*.

Errors: Displays the number of errors the MTA encounters while processing messages in its input queues. For assistance, see [“MTA Statistics Box Shows Errors”](#) in [“Message Transfer Agent Problems”](#) in *GroupWise 6.5 Troubleshooting 2: Solutions to Common Problems*.

MTA Web Console

The **Status** page also displays this information.

MTA Alert Box

The MTA Alert box displays important messages that could require an administrator’s attention.

Informational Status Messages

When you first start the MTA, you typically see a message informing you the MTA configuration has been loaded.

Error Messages

If the MTA encounters a problem that disrupts the flow of GroupWise messages, it displays an error message in the alert box. For assistance, see [“Message Transfer Agent Error Messages”](#) in *GroupWise 6.5 Troubleshooting 1: Error Messages*.

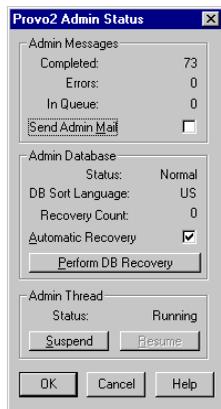
MTA Web Console

The [Status](#) page also displays this information. In addition, you can view and search MTA log files on the [Log Files](#) page.

MTA Admin Thread Status Box

The MTA admin thread updates the domain database (wpdomain.db) when domains, post offices, users, and other types of object information are added, modified, or removed, and repairs it when damage is detected.

To display the MTA Admin Thread Status box from the MTA agent console, click Configuration > Admin Status.



The following tasks pertain specifically to the MTA admin thread:

- ◆ [“Suspending/Resuming the MTA Admin Thread”](#) on page 611
- ◆ [“Displaying MTA Admin Thread Status”](#) on page 613
- ◆ [“Recovering the Domain Database Automatically or Immediately”](#) on page 614
- ◆ [“Performing eDirectory User Synchronization”](#) on page 615

MTA Web Console

You can display MTA admin thread status on the [Configuration](#) page. Under the General Settings heading, click Admin Task Processing. You can also change the admin settings for the current MTA session.

Controlling the MTA from the MTA Agent Console

You can perform the following tasks to monitor and control the MTA from the MTA agent console at the server where the MTA is running:

- ◆ [“Stopping the MTA”](#) on page 609
- ◆ [“Restarting the MTA”](#) on page 610
- ◆ [“Suspending/Resuming MTA Processing for a Location”](#) on page 610

- ◆ “Suspending/Resuming the MTA Admin Thread” on page 611
- ◆ “Displaying the MTA Software Date” on page 611
- ◆ “Displaying the Current MTA Settings” on page 611
- ◆ “Displaying MTA Status Information” on page 612
- ◆ “Displaying MTA Admin Thread Status” on page 613
- ◆ “Recovering the Domain Database Automatically or Immediately” on page 614
- ◆ “Performing eDirectory User Synchronization” on page 615
- ◆ “Browsing the Current MTA Log File” on page 615
- ◆ “Viewing a Selected MTA Log File” on page 615
- ◆ “Cycling the MTA Log File” on page 616
- ◆ “Adjusting MTA Log Settings” on page 616
- ◆ “Editing the MTA Startup File” on page 616
- ◆ “Accessing Online Help for the MTA” on page 616

Stopping the MTA

You might need to stop and restart the MTA for the following reasons:

- ◆ Updating the agent software
- ◆ Troubleshooting message flow problems
- ◆ Backing up the domain database
- ◆ Rebuilding the domain database

To stop the MTA from the MTA agent console:

- 1** Click File > Exit > Yes to stop the MTA.

NetWare Note: Use Exit (F7). If the MTA does not respond to Exit, you can use the unload command to stop the MTA. However, this might not allow the MTA to shut down gracefully. In addition, the unload command would stop all MTAs running on the server.

Linux Note: If the Linux MTA does not respond to Exit, you can kill the MTA process, as described below, but include the -9 option.

Windows Note: If the Windows MTA does not respond to Exit, you can close the MTA agent console to stop the MTA or use the Task Manager to terminate the MTA task.

- 2** Restart the MTA. See “Starting the MTA” on page 568.

To stop the MTA on Linux when it is running in the background as a daemon:

- 1** Make sure you are logged in as root.
- 2** If you started the Linux MTA using the grpwise script:
 - 2a** Change to the /etc/init.d directory.
 - 2b** Enter the following command:


```
./grpwise stop
```
 - 2c** Skip to [Step 4](#)
- 3** If you started the Linux MTA manually (not using the grpwise script):

3a Determine the process IDs (PIDs) of the MTA:

```
ps -eaf | grep gwmta
```

The PIDs for all gwmta processes are listed.

You can also obtain this information from the **Environment** page of the MTA Web console.

3b Kill the first MTA process listed:

Syntax:

```
kill PID
```

Example:

```
kill 1483
```

It might take a few seconds for all MTA processes to terminate.

4 Use the ps command to verify that the MTA has stopped.

```
ps -eaf | grep gwmta
```

Restarting the MTA

Restarting the MTA from the MTA agent console causes it to reread the configuration information provided in ConsoleOne. However, the MTA does not reread its startup file when you restart it from the MTA agent console.

1 At the server where the MTA is running, display the MTA agent console.

2 Click File > Restart > Yes to restart the MTA.

NetWare Note: Use Restart (F6).

If you want the MTA to reread its startup file, you must stop it, then restart it.

MTA Web Console

You can restart the MTA from the **Status** page. Click Restart MTA in the upper right corner of the page.

Suspending/Resuming MTA Processing for a Location

You can cause the MTA to stop processing messages for a location without stopping the MTA completely. For example, you could suspend message processing for a post office while backing up the post office.

To suspend the MTA for a location:

1 At the server where the MTA is running, display the MTA agent console.

2 Click Configuration > Status.

3 Click the location (or multiple locations) to suspend, then click Suspend.

NetWare Note: Use Options (F10) > Configuration Status. Select the location, then click Suspend.

Routing of all messages to and from the location will remain suspended until you resume processing.

To resume the MTA for a location:

1 At the server where the MTA is running, display the MTA agent console.

2 Click Configuration > Status.

3 Click the location (or multiple locations) to resume, then click Resume.

NetWare Note: Use Options (F10) > Configuration Status. Select the location, then click Resume.

MTA Web Console

You can suspend and resume processing for a specific location on the [Links](#) page. Select one or more locations, then click Suspend or Resume as needed.

Suspending/Resuming the MTA Admin Thread

You can cause the MTA to stop updating the domain database (wpdomain.db) without stopping the MTA completely. For example, you could suspend the MTA admin thread while backing up the domain database.

To suspend the MTA admin thread:

1 At the server where the MTA is running, display the MTA agent console.

2 Click Configuration > Admin Status > Suspend.

NetWare Note: Use Options > Admin Status > Suspend.

The MTA admin thread will no longer access the domain database until you resume processing.

To resume the MTA admin thread:

1 At the server where the MTA is running, display the MTA agent console.

2 Click Configuration > Admin Status > Resume.

NetWare Note: Use Options (F10) > Admin Status > Resume.

MTA Web Console

You can suspend and resume the MTA admin thread from the [Configuration](#) page. Under the General Settings heading, click Admin Task Processing > Suspend or Resume > Submit.

Displaying the MTA Software Date

It is important to keep the MTA software up-to-date. You can display the date of the MTA software from the MTA agent console.

1 At the server where the MTA is running, display the MTA agent console.

2 Click Help > About MTA.

NetWare Note: To check the date of the MTA NLM, you can list the [gwmta.nlm](#) file in the agent installation directory (typically, the sys:\system directory) or use the `modules gwmta.nlm` command at the server console prompt.

MTA Web Console

You also check the MTA software date on the [Environment](#) page.

Displaying the Current MTA Settings

You can list the current configuration settings of the MTA at the MTA agent console.

To display the current MTA settings:

1 At the server where the MTA is running, display the MTA agent console.

- 2 Click Configuration > Agent Settings.

NetWare Note: Use View Log File (F9) to check the MTA settings recorded at the top of the log file.

For information about the MTA settings, see [Chapter 46, “Using MTA Startup Switches,” on page 643](#).

MTA Web Console

You check the current MTA settings on the [Configuration](#) page.

Displaying MTA Status Information

The MTA agent console displays essential information about the functioning of the MTA. More detailed information is also available.

To display detailed MTA configuration information:

- 1 At the server where the MTA is running, display the MTA agent console.
- 2 Click Configuration > Status to display a list of the locations to which the MTA is connected.

NetWare Note: Use Options (F10) > Configuration Status.

The following information is provided:

Location Name: Displays the name of the location serviced by the MTA.

Location Type: Indicates whether the location is a domain, post office, or gateway.

Connection Status: Indicates whether the MTA has been successful in locating and opening the database in the location.

- ◆ **Open:** The MTA can access the database or communicate with the agent at the location.
- ◆ **Closed:** The MTA cannot access the database or communicate with the agent at the location. For assistance, see [“MTA Configuration Status Isn't Open”](#) in [“Message Transfer Agent Problems”](#) in *GroupWise 6.5 Troubleshooting 2: Solutions to Common Problems*.
- ◆ **Suspended:** The MTA is not processing messages for the location because it has been suspended. See [“Suspending/Resuming MTA Processing for a Location”](#) on page 610.
- ◆ **Open Pending:** Post offices in the domain are in the process of opening and the MTA is clearing its holding queues. After this is accomplished, the MTA begins processing current messages and the status changes to Open.

Home: Displays the full path to the database that the MTA services in the listed location. For a TCP/IP connection, it displays the IP address of the server that the MTA connects to in order to service the database.

- 3 Select a location, then click Details to display the above information plus the following additional details:

Hold: Displays the full path to the location of the **mslocal** directory structure used by the MTA to hold messages for closed locations.

Pull: Displays the transfer pull directory, if any. See [“Using a Transfer Pull Configuration”](#) on page 596.

Version: Provides the version (6.x/5.x/4.x) of the database at the location.

Last Closed/Opened: Provides the date and time when the location was last closed and opened.

Last Closure Reason: Indicates why a closed location is closed. To look up last closure reasons, see “[Message Transfer Agent Error Messages](#)” in *GroupWise 6.5 Troubleshooting 1: Error Messages*.

Messages Written/Read: Provides statistics about throughput since the MTA was last started.

Applications: Displays the programs the MTA can deliver messages to. Depending on the configuration of your GroupWise system, you might see GroupWise agents or GroupWise 4.1 servers listed.

TCP/IP: Lists the IP port the MTA listens on.

MTA Web Console

You can check the current MTA status on the [Links](#) page at the MTA Web console. Click a direct link to view its message queues.

Displaying Live Remote Status

You can monitor the live remote connections the MTA is servicing for Remote client users. For information about live remote processing, see “[Enabling Live Remote](#)” on page 589.

- 1 At the server where the MTA is running, display the MTA agent console.
- 2 Click Configuration > Live Remote Status.

NetWare Note: Use Options (F10) > Live Remote Status.

The status information lists the GroupWise Remote client users who are connected to the MTA, along with the post offices and domains the MTA communicates with.

Displaying MTA Admin Thread Status

Status information for the MTA admin thread is displayed in a separate dialog box, rather than on the main MTA agent console.

To display MTA admin thread status information:

- 1 At the server where the MTA is running, display the MTA agent console.
- 2 Click Configuration > Admin Status.

NetWare Note: Use Options (F10) > Admin Status.

The following status information is displayed:

Admin Message Box

The Admin Message box provides the following information about the workload of the MTA admin thread:

Completed: Number of administrative message successfully processed.

Errors: Number of administrative messages not processed due to errors.

In Queue: Number of administrative messages waiting in the queue to be processed.

Send Admin Mail: Select this option to send a message to the administrator whenever a critical error occurs. See “[Notifying the Domain Administrator](#)” on page 632.

Admin Database Box

The Admin Database box provides the following information about the domain database:

Status: Displays one of the following statuses:

- ◆ **Normal:** The MTA admin thread is able to access the domain database normally.
- ◆ **Recovering:** The MTA admin thread is recovering the domain database.
- ◆ **DB Error:** The MTA admin thread has detected a critical database error. The domain database (**wpdomain.db**) cannot be recovered. Rebuild the domain database in ConsoleOne. See [“Rebuilding Domain or Post Office Databases” on page 349](#).

The MTA admin thread will not process any more administrative messages until the database status has returned to Normal.

- ◆ **Unknown:** The MTA admin thread cannot determine the status of the domain database. Exit the MTA, then restart it, checking for errors on startup.

DB Sort Language: Displays the language code for the language that determines the sort order of lists displayed in ConsoleOne and the GroupWise system Address Book.

Recovery Count: Displays the number of recoveries performed on the domain database for the current MTA session.

Admin Thread Box

The Admin Thread box provides the following information about the MTA admin thread:

Status: Displays one of the following statuses:

- ◆ **Running:** The MTA admin thread is active.
- ◆ **Suspended:** The MTA admin thread is not processing administrative messages.
- ◆ **Starting:** The MTA admin thread is initializing.
- ◆ **Terminated:** The MTA admin thread is not running.

MTA Web Console

You can display MTA admin thread status from the [Configuration](#) page. Under the General Settings heading, click Admin Task Processing.

Recovering the Domain Database Automatically or Immediately

The MTA admin thread can recover the domain database (**wpdomain.db**) when it detects a problem.

To enable/disable automatic domain database recovery:

- 1** At the server where the MTA is running, display the MTA agent console.
- 2** Click Configuration > Admin Status > Automatic Recovery to toggle this feature on or off for the current MTA session.

NetWare Note: Use Options (F10) > Admin Status > Automatic Recovery.

To recover the domain database immediately:

- 1** At the server where the MTA is running, display the MTA agent console.
- 2** Click Configuration > Admin Status > Perform DB Recovery.

NetWare Note: Use Options (F10) > Admin Status > Perform DB Recovery.

For additional database repair procedures, see [Chapter 26, “Maintaining Domain and Post Office Databases,” on page 345](#).

MTA Web Console

You can recover the post office database from the [Configuration](#) page. Under the General Settings heading, click Admin Task Processing. Select Automatic Recovery or Perform DB Recovery as needed.

Performing eDirectory User Synchronization

You can configure the MTA to perform Novell® eDirectory™ user synchronization at regular intervals. See [“Using eDirectory User Synchronization” on page 598](#). You can also start eDirectory user synchronization manually from the NetWare MTA agent console.

To start eDirectory user synchronization immediately:

- 1 At the server where the NetWare MTA is running, display the MTA agent console.
- 2 Press F4.

MTA Web Console

You can see when the next eDirectory user synchronization even will occur at the bottom of the [Configuration](#) page.

Browsing the Current MTA Log File

The MTA displays only the most urgent messages in the alert box. Additional information is written to the MTA log file. The amount of information depends on the current log settings for the MTA. See [“Using MTA Log Files” on page 625](#).

The information automatically scrolls up the screen as additional information is written. You can stop the automatic scrolling so you can manually scroll back through earlier information.

To browse the current MTA log file and control scrolling:

- 1 At the server where the MTA is running, display the MTA agent console.
- 2 Click Log > Active Log.
NetWare Note: Use View Log File (F9).
- 3 Deselect Automatic Scrolling to manually scroll back through parts of the log that have already scrolled out of the box.
- 4 Click Freeze to stop the MTA from logging information to the active log box.
- 5 Click Thaw when you want the MTA to resume logging information to the active log box.

For explanations of messages in the MTA log file, see [“Message Transfer Agent Error Messages” in *GroupWise 6.5 Troubleshooting 1: Error Messages*](#).

MTA Web Console

You can browse and search MTA log files on the [Log Files](#) page.

Viewing a Selected MTA Log File

Reviewing log files is an important way to monitor the functioning of the MTA.

- 1 At the server where the MTA is running, display the MTA agent console.
- 2 Click Log > View Log Files.
- 3 Select a log file, then click View.

NetWare Note: Use Options (F10) > View Log Files.

For explanations of messages in the MTA log file, see “[Message Transfer Agent Error Messages](#)” in *GroupWise 6.5 Troubleshooting 1: Error Messages*.

MTA Web Console

You can view and search MTA log files on the [Log Files](#) page.

Cycling the MTA Log File

You can have the MTA start a new log file as needed.

- 1 At the server where the MTA is running, display the MTA agent console.
- 2 Click Log > Cycle Log.

NetWare Note: Use Options (F10) > Cycle Log File.

Adjusting MTA Log Settings

Default log settings are established when you start the MTA. However, they can be adjusted for the current MTA session from the MTA agent console.

- 1 At the server where the MTA is running, display the MTA agent console.
- 2 Click Log > Log Settings.

NetWare Note: Use Options (F10) > Log Settings.

- 3 Adjust the values as needed for the current MTA session.

See “[Using MTA Log Files](#)” on page 625.

MTA Web Console

You can adjust MTA log settings from the [Configuration](#) page. Click the Event Log Settings heading.

Editing the MTA Startup File

You can change the configuration of the MTA by editing the MTA startup file from the MTA agent console.

- 1 At the server where the MTA is running, display the MTA agent console.
- 2 Click Configuration > Edit Startup File.

NetWare Note: Use Options > Actions > Edit Startup File.

- 3 Make the necessary changes, then save and exit the startup file.
- 4 Stop and restart the MTA.

Accessing Online Help for the MTA

Click Help on the menu bar for information about the MTA agent console. Click the Help button in any dialog box for additional information.

NetWare Note: Press F1 for information in any dialog box or menu.

Using the MTA Web Console

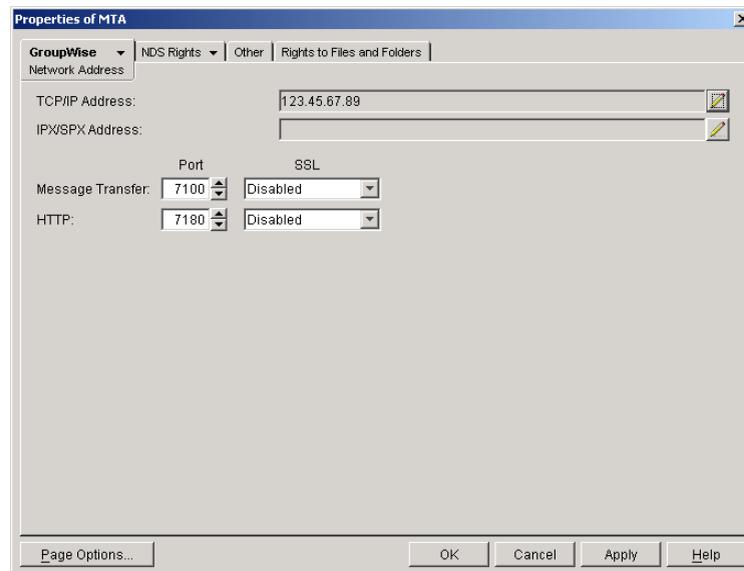
The MTA Web console enables you to monitor the MTA from any location where you have access to a Web browser and the Internet. This provides substantially more flexible access than the MTA agent console, which can only be accessed from the server where the MTA is running.

- ◆ [“Setting Up the MTA Web Console” on page 617](#)
- ◆ [“Accessing the MTA Web Console” on page 619](#)
- ◆ [“Monitoring the MTA from the MTA Web Console” on page 619](#)

Setting Up the MTA Web Console

The default HTTP port for the MTA Web console is established during MTA installation. You can change the port number and increase security after installation in ConsoleOne.

- 1** In ConsoleOne, browse to and right-click the MTA object, then click Properties.
- 2** Click GroupWise > Network Address to display the Network Address page.



If you configured the MTA for TCP/IP links during installation, the TCP/IP Address field should display the MTA server’s network address. If it does not, follow the instructions in [“Using TCP/IP Links between Domains” on page 579](#). The MTA must be configured for TCP/IP in order to provide the MTA Web console.

- 3** Make a note of the IP address or DNS hostname in the TCP/IP Address field. You will need this information to access the MTA Web console.

The HTTP Port field displays the default port number of 7180.

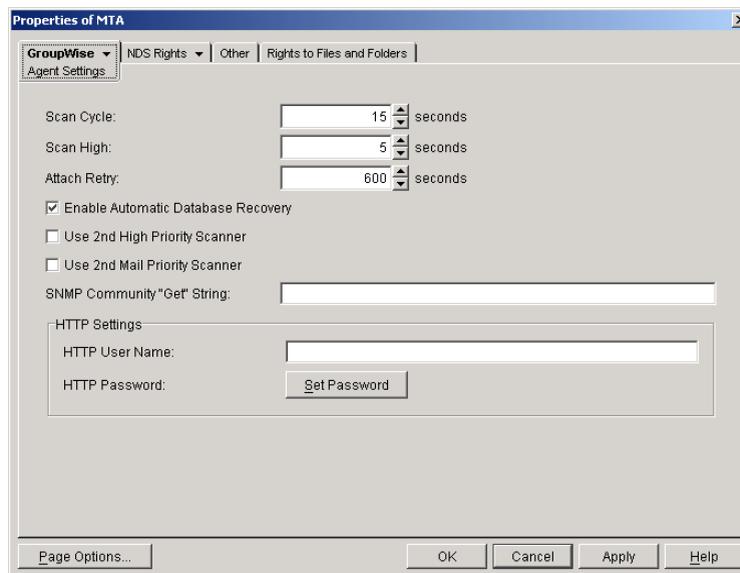
- 4** If the default HTTP port number is already in use on the MTA server, specify a unique port number.
- 5** Make a note of the HTTP port number. You will need this information to access the POA Web console.
- 6** If you want to use an SSL connection for the MTA Web console, select Enabled in the HTTP SSL drop-down list.

For additional instructions about using SSL connections, see [Chapter 80, “Encryption and Certificates,”](#) on page 1039.

- 7 Click Apply to save your changes on the Network Address page.

If you want to limit access to the MTA Web console, you can provide a username and password.

- 8 Click GroupWise > Agent Settings to display the Agent Settings page.



- 9 In the HTTP Settings box:

- 9a In the HTTP User Name field, specify a unique username.

- 9b Click Set Password.

- 9c Type the password twice for verification.

- 9d Click Set Password.

Unless you are using an SSL connection, do not use an eDirectory username and password because the information passes over the insecure connection between your Web browser and the MTA.

For convenience, use the same username and password for all agents that you plan to monitor from GroupWise Monitor. This saves you from having to provide the username and password information as Monitor accesses each agent.

- 10 Click OK to save the MTA Web console settings.

ConsoleOne then notifies the MTA to restart so the new settings can be put into effect.

Corresponding Startup Switches

You could also use the `/httpport`, `/httpuser`, and `/httppassword` startup switches in the MTA startup file to enable the MTA Web console. In addition, you can use the `/httprefresh` switch to control how often the MTA refreshes the information provided to your Web browser.

Accessing the MTA Web Console

To monitor the MTA from your Web browser, view the MTA Web console by supplying the network address and port number as provided in ConsoleOne. For example:

http://123.456.78.90:7100
http://123.456.78.90:7180
http://server1:7100
https://server2:7180

When viewing the MTA Web console, you can specify either the message transfer port or the HTTP port.

GroupWise 6.5.0 MTA - Provo1
[Status](#) | [Configuration](#) | [Environment](#) | [Log Files](#) | [Links](#) | [Message Tracking](#) | [Help](#) [Restart MTA](#)

Up Time: 0 Days 18 Hrs 31 Mins

	Total	Closed
Domains	2	0
Post Offices	2	1
Gateways	2	0

Messages Processed

	Total	Last 10 minutes
Routed	668	0
Undeliverable	390	0
Errors	0	0

Queue Information

Router	0
--------	---

Closed Links

Manufacturing	Link or transport down
---------------	------------------------

Alerts

01-29 15:09:53 Manufacturing: Post office now closed
01-29 15:11:58 SNMP Get: Requested parameters obtained 0

Monitoring the MTA from the MTA Web Console

The MTA Web console provides several pages of information to help you monitor the performance of the MTA. The bar at the top of the MTA Web console displays the name of the MTA and its domain. Below this bar appears the MTA Web console menu that lists the pages of information available in the MTA Web console. Online help throughout the MTA Web console helps you interpret the information being displayed and use the links provided.

Monitoring MTA Status

When you first access the MTA Web console, the Status page is displayed. Online help throughout the MTA Web console helps you interpret the information being displayed and use the links provided.

GroupWise 6.5.0 MTA - Provo1		
Status Configuration Environment Log Files Links Message Tracking Help		
Restart MTA		
Up Time: 0 Days 18 Hrs 31 Mins		
	Total	Closed
Domains	2	0
Post Offices	2	1
Gateways	2	0
Messages Processed		
	Total	Last 10 minutes
Routed	668	0
Undeliverable	390	0
Errors	0	0
Queue Information		
Router	0	
Closed Links		
Manufacturing	Link or transport down	
Alerts		
01-29 15:09:53 Manufacturing: Post office now closed		
01-29 15:11:58 SNMP Get: Requested parameters obtained 0		

Click the Router link to display details about the MTA routing queue ([gwinprog](#)). You can quickly determine how many messages are awaiting processing, how large they are, and how long they have been waiting in the routing queue.

Click a closed location to display is holding queue to see how many messages are waiting for transfer.

Checking the MTA Operating System Environment

On the MTA Web console menu, click Environment to display information about the operating system where the MTA is running. On a NetWare server, the following information is displayed:

GroupWise 6.5.0 MTA - Provo1	
Status Configuration Environment Log Files Links Message Tracking Help	
Loaded Module Data	
Report Date: 1-29-2003 at 16:34	
Server Configuration	
Server	PRV-GWDOC5B
Company	Novell
OS Revision	NetWare 5.60.01
OS Date	January 15, 2002
Supported Connections	63
Connections in Use	35
Receive Buffer Max	10000 (Recommended 2500)
Module Information	
GroupWise Engine (release version)	
GWENN4.NLM	
Version	6.05
Memory Allocated	10624
Build Date	1-16-2003
GroupWise MTA (release version)	
GWMTA.NLM	
Version	6.05
Memory Allocated	14792
Build Date	1-16-2003
GroupWise Post Office Agent (Release version)	
GWPOA.NLM	
Version	6.05
Memory Allocated	14856
Build Date	1-16-2003
Novell Standard C Runtime Library for NLMs [optimized, 1B20]	
CLIB.NLM	
Version	5.90 e

On a Linux server, the following information is displayed:

GroupWise 6.5.1 MTA - Provo3	
Status Configuration Environment Log Files Links Message Tracking Help	
Server Configuration	
Server	jbd-lnx
OS Revision	Linux Release 2.4.19-4GB
Main Thread Process ID	1884
Build Dates	
GroupWise Agent Build Date	04-29-04
GroupWise Resource Build Date	04-30-04

On a Windows server, the following information is displayed:

GroupWise 6.5.0 MTA - Provo2	
Status Configuration Environment Log Files Links Message Tracking Help	
OS Data	
Windows NT (TM) Version 4.0 (Build 1381) Service Pack 6	
Build Dates	
GroupWise Agent Build Date	01-16-03
GroupWise Engine Build Date	01-16-03
GroupWise Resource Build Date	01-16-03

Viewing and Searching MTA Log Files

On the MTA Web console menu, click Log Files to display and search MTA log files.

GroupWise 6.5.0 MTA - Provo2																																											
Status Configuration Environment Log Files Links Message Tracking Help																																											
View Event Log Settings																																											
Event Log Filter																																											
Events containing																																											
<input type="text"/>																																											
Message type																																											
<input type="checkbox"/> Message logging	<input type="checkbox"/> Routing																																										
<input type="checkbox"/> Event logging	<input type="checkbox"/> Admin																																										
<input type="checkbox"/> Dispatcher	<input type="checkbox"/> Scanner																																										
<input type="checkbox"/> Message transfer																																											
Event logs: <input type="checkbox"/> Select all																																											
<table border="1"> <tbody> <tr><td>0126rmta.001</td><td>01-27-03 00:00:02</td><td>302934</td></tr> <tr><td>0127rmta.001</td><td>01-28-03 00:00:02</td><td>292645</td></tr> <tr><td>0128rmta.001</td><td>01-28-03 16:39:24</td><td>216472</td></tr> <tr><td>0128rmta.002</td><td>01-28-03 16:51:50</td><td>9784</td></tr> <tr><td>0128rmta.003</td><td>01-28-03 17:48:14</td><td>23164</td></tr> <tr><td>0128rmta.004</td><td>01-28-03 17:49:12</td><td>15945</td></tr> <tr><td>0128rmta.005</td><td>01-28-03 17:51:06</td><td>44154</td></tr> <tr><td>0128rmta.006</td><td>01-28-03 17:52:26</td><td>4681</td></tr> <tr><td>0128rmta.007</td><td>01-29-03 00:00:02</td><td>7282</td></tr> <tr><td>0129rmta.001</td><td>01-29-03 10:34:12</td><td>11240</td></tr> <tr><td>0129rmta.002</td><td>01-29-03 10:35:56</td><td>5210</td></tr> <tr><td>0129rmta.003</td><td>01-29-03 11:01:40</td><td>6181</td></tr> <tr><td>0129rmta.004</td><td>01-29-03 11:04:10</td><td>3765</td></tr> <tr><td>* 0129rmta.005</td><td>01-29-03 11:04:10</td><td>0</td></tr> </tbody> </table>		0126rmta.001	01-27-03 00:00:02	302934	0127rmta.001	01-28-03 00:00:02	292645	0128rmta.001	01-28-03 16:39:24	216472	0128rmta.002	01-28-03 16:51:50	9784	0128rmta.003	01-28-03 17:48:14	23164	0128rmta.004	01-28-03 17:49:12	15945	0128rmta.005	01-28-03 17:51:06	44154	0128rmta.006	01-28-03 17:52:26	4681	0128rmta.007	01-29-03 00:00:02	7282	0129rmta.001	01-29-03 10:34:12	11240	0129rmta.002	01-29-03 10:35:56	5210	0129rmta.003	01-29-03 11:01:40	6181	0129rmta.004	01-29-03 11:04:10	3765	* 0129rmta.005	01-29-03 11:04:10	0
0126rmta.001	01-27-03 00:00:02	302934																																									
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0128rmta.001	01-28-03 16:39:24	216472																																									
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0129rmta.003	01-29-03 11:01:40	6181																																									
0129rmta.004	01-29-03 11:04:10	3765																																									
* 0129rmta.005	01-29-03 11:04:10	0																																									
<input type="button" value="View Events"/>																																											

To view a particular log file, select the log file, then click View Events.

To search all log files for a particular string, type the string in the Events Containing field, select Select All, then click View Events. You can also manually select multiple log files to search.

In the Message type list, you can select one or more types of MTA processing to search for:

Message Logging (MLG): The message logging threads write information into the message log file if message logging has been turned on. See [“Enabling MTA Message Logging” on page 603](#).

Event Logging (LOG): The event logging thread writes information into the event log files that you can search on this page. See [“Using MTA Log Files” on page 625](#).

Dispatcher (DIS): The dispatcher thread starts other MTA threads as needed to meet the demands being put on the MTA at any given time.

Message Transfer (MTP): The message transfer threads communicate with other MTAs and with POAs in the local domain to transfer messages to domains and post offices to which the local MTA is linked by way of TCP/IP. See “Using TCP/IP Links between Domains” on page 579 and “Using TCP/IP Links between a Domain and its Post Offices” on page 583.

Router (RTR): The router threads process messages in the routing queue and prepare them for transfer to the next hop in the link path to their destinations. See “Optimizing the Routing Queue” on page 639.

Admin (ADM): The admin thread updates the domain database (wpdomain.db) whenever administrative information changes. See “MTA Admin Thread Status Box” on page 608.

Scanner (SCA): The scanner threads check for incoming messages when UNC or mapped links are in use. See “Adjusting the Number of MTA Scanner Threads for the Domain and Post Offices” on page 638.

The results of the search are displayed on a separate page which can be printed.

Monitoring the Routing Queue

On the MTA Web console menu, click Status, then click Router to display the contents of the routing queue. Typically, no message files are waiting unless the MTA is down or backlogged.

GroupWise 6.5.0 MTA - Provo2

Status | Configuration | Environment | Log Files | Links | Message Tracking | Help

d:\gwssystem\provo2\mslocal\gwinprog

gwinprog

Queue	Count	KBytes	Oldest	Newest
0	0	0	-	-
1	0	0	-	-
2	0	0	-	-
3	0	0	-	-
4	0	0	-	-
5	0	0	-	-
6	0	0	-	-
7	0	0	-	-

You can click any queue to view the message files it contains.

Monitoring Links

On the MTA Web console menu, click Links to monitor the direct links between the MTA and other locations.

GroupWise 6.5.0 MTA - Provo2

Status | Configuration | Environment | Log Files | Links | Message Tracking | Help

Last updated 01-29-03 13:05:33

[View Link Configuration](#)
[View TCP/IP Connections](#)
[View Gateways](#)

Direct Link	Type	Status	Messages Queued	Oldest
<input type="checkbox"/> Accounting	Post Office	Closed	100	26:15:49
<input type="checkbox"/> Provo2	Domain	Open	0	-
<input type="checkbox"/> GWIA	Gateway	Open	0	-
<input type="checkbox"/> Sales	Post Office	Open	0	-
<input type="checkbox"/> WEBAC65A	Gateway	Open	0	-
<input type="checkbox"/> Provo1	Domain	Open	0	-

Click a location to view its holding queue. Click View Link Configuration to determine the address of each location and access the agent Web consoles of other domains and of post offices that belong to the local domain. Click View TCP/IP Connections to view incoming and outgoing TCP/IP links. Click View Gateways to restrict the list to just gateways.

Tracking Messages

Before you can track messages at the MTA Web console, you must enable message logging for MTAs throughout your system. See [“Enabling MTA Message Logging” on page 603](#). When you enable MTA message logging, the MTA stores data about GroupWise message traffic as it processes messages. The stored data is then available for use from the MTA Web console.

To track a specific message, have the sender check the Sent Item Properties for the message in the GroupWise client. The Mail Envelope Properties field displays the message ID of the message; for example, 3AD5EDEB.31D : 3 : 12763. To track all messages sent by a particular user, make a note of the user’s GroupWise user ID.

On the MTA Web console menu, click Message Tracking.



GroupWise 6.5.0 MTA - Provo2
Status | Configuration | Environment | Log Files | Links | **Message Tracking** | Help
View [Message Log Settings](#)
View [Log Files](#)

Message Tracking

Filename

Message ID

Originator

Fill in *one* of the fields, depending on what you want to track, then click Submit. The results of the search are displayed on a separate page which can be printed.

Controlling the MTA from the MTA Web Console

At the MTA Web console, you can change some MTA log settings for the current MTA session. You can also stop and start some specific MTA threads.

- ◆ [“Changing MTA Configuration Settings” on page 623](#)
- ◆ [“Controlling the MTA Admin Thread” on page 624](#)
- ◆ [“Controlling Links to Other Locations” on page 624](#)

Changing MTA Configuration Settings

On the MTA Web console menu, click Configuration. Online help on the Configuration page helps you interpret the configuration information being displayed.

GroupWise 6.5.0 MTA - Provo2	
Status Configuration Environment Log Files Links Message Tracking Help	
GroupWise MTA Configuration Settings	
General Settings:	
Domain Directory:	d:\gwsystem\provo2
Work Directory:	d:\gwsystem\provo2\mslocal
Preferred GWIA:	Provo1.GWIA
Default Route:	Provo1
Force Route:	No
Known IDomains:	*Corporate.com
Allow Direct Send to Other Systems:	No
Error Mail to Administrator:	No
Display the Active Log Window Initially:	No
eDirectory Authenticated:	Yes JBoogaard.DOCDEV.PRIV.Novell
eDirectory User Synchronization:	Yes
Admin Task Processing:	Yes
Database Recovery:	Yes
Simple Network Management Protocol (SNMP):	Disabled
TCP/IP Settings:	
Maximum Inbound TCP/IP Connections:	40
TCP Port for Incoming Connections:	7100
TCP Port for HTTP Connections:	7180
HTTP Refresh Rate:	60 secs
TCP/IP Connection Timeout:	5
TCP/IP Data Timeout:	20
Event Log Settings:	
Log Level:	Normal
Disk Logging:	Yes
Log Directory:	d:\gwsystem\provo2\mslocal
Maximum Log File Age:	7 Days
Maximum Log Disk Space:	1024 Kilobytes

Click the Event Log Settings heading to change the MTA log settings for the current MTA session.

Controlling the MTA Admin Thread

On the Configuration page, click Admin Task Processing.

GroupWise 6.5.0 POA - Development.Provo1	
Status Configuration Environment Log Files Scheduled Events MTP Status Help	
Admin Task Status	
Admin Messages	
Completed	83
Errors	0
In Queue	0
Send Admin Mail	<input checked="" type="checkbox"/>
Admin Database	
Status	Normal
DB Sort Language	US
Recovery Count	0
Automatic Recovery	<input checked="" type="checkbox"/>
Perform DB Recovery	<input type="checkbox"/>
Admin Thread	
Status	Running
Suspend	<input type="button" value="C"/>
Resume	<input type="button" value="C"/>
<input type="button" value="Submit"/> <input type="button" value="Reset"/>	

Modify the functioning of the MTA admin thread as needed, then click Submit. The changes remain in effect for the current MTA session.

Controlling Links to Other Locations

On the MTA Web console menu, click Links.

GroupWise 6.5.0 MTA - Provo2

[Status](#) | [Configuration](#) | [Environment](#) | [Log Files](#) | [Links](#) | [Message Tracking](#) | [Help](#)

Last updated 01-29-03 13:05:33 [View Link Configuration](#)
[View TCP/IP Connections](#)
[View Gateways](#)

Direct Link	Type	Status	Messages Queued	Oldest
<input type="checkbox"/> Accounting	Post Office	Closed	100	26:15:49
<input type="checkbox"/> Provo2	Domain	Open	0	-
<input type="checkbox"/> GWIA	Gateway	Open	0	-
<input type="checkbox"/> Sales	Post Office	Open	0	-
<input type="checkbox"/> WEBAC65A	Gateway	Open	0	-
<input type="checkbox"/> Provo1	Domain	Open	0	-

Select one or more locations, then click Suspend or Resume as needed.

Using MTA Log Files

Error messages and other information about MTA functioning are written to log files as well as displaying on the MTA agent console. Log files can provide a wealth of information for resolving problems with MTA functioning or message flow. This section covers the following subjects to help you get the most from MTA log files:

- ◆ [“Configuring MTA Log Settings and Switches” on page 625](#)
- ◆ [“Viewing MTA Log Files” on page 626](#)
- ◆ [“Interpreting MTA Log File Information” on page 626](#)

Configuring MTA Log Settings and Switches

The following aspects of logging are configurable:

- ◆ Log File Path ([/log](#))
- ◆ Disk Logging ([/logdiskoff](#))
- ◆ Logging Level ([/loglevel](#))
- ◆ Maximum Log File Age ([/logdays](#))
- ◆ Maximum Log File Size ([/logmax](#))

You can configure the log settings in the following ways:

- ◆ Using ConsoleOne to establish defaults (see [“Adjusting the MTA Logging Level and Other Log Settings” on page 588](#))
- ◆ Using startup switches to override ConsoleOne settings (see [“Using MTA Startup Switches” on page 643](#))
- ◆ Using the MTA agent console to override other MTA settings for the current session (see [“Adjusting MTA Log Settings” on page 616](#))
- ◆ Using the MTA Web console to override other MTA settings for the current MTA session (see [“Controlling the MTA from the MTA Web Console” on page 623](#))

Viewing MTA Log Files

You can view the contents of the MTA log file from the MTA agent console and Web console. See the following tasks:

- ◆ [“Browsing the Current MTA Log File” on page 615](#)
- ◆ [“Viewing a Selected MTA Log File” on page 615](#)
- ◆ [“Cycling the MTA Log File” on page 616](#)
- ◆ [“Viewing and Searching MTA Log Files” on page 621](#)

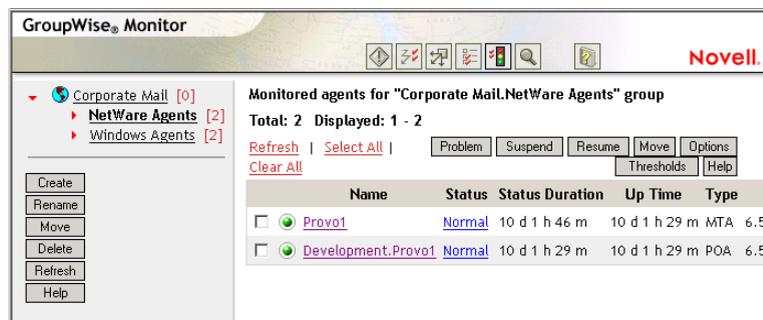
Interpreting MTA Log File Information

On startup, the MTA records the MTA settings currently in effect. Thereafter, it logs events that take place, including errors. To look up error messages that appear in MTA log files, see [“Message Transfer Agent Error Messages” in *GroupWise 6.5 Troubleshooting 1: Error Messages*](#).

Because the MTA consists of multiple threads, you might find it useful to retrieve the log file into an editor and sort it on the thread ID that follows the date and time information. Sorting will group all messages together for the same MTA thread. At the MTA Web console, you can search through multiple log files. See [“Viewing and Searching MTA Log Files” on page 621](#). You can also use the search capability of the MTA Web console to gather information about a specific MTA thread. See [“Viewing and Searching MTA Log Files” on page 621](#).

Using GroupWise Monitor

GroupWise Monitor is a monitoring and management tool that allows you to monitor GroupWise agents and gateways from any location where you are connected to the Internet and have access to a Web browser. The MTA Web console can be accessed from GroupWise Monitor, enabling you to monitor all MTAs in your GroupWise system from one convenient location. In addition, GroupWise Monitor can notify you when agent problems arise.



For installation and setup instructions, see [“Installing GroupWise Monitor”](#) in the [GroupWise 6.5 Installation Guide](#). For usage instructions, see [“Monitor” on page 901](#).

Using NetWare 6.5 Remote Manager

If the MTA is running on a NetWare 6.5 server, you can use the IP Address Management feature in NetWare Remote Manager (NetWare Remote Manager > Manage Server > IP Address Management) to view the IP address and port configuration for the MTA. This is also true for other GroupWise agents (POA, Internet Agent, and WebAccess Agent) running on NetWare 6.5 servers.

IMPORTANT: If the MTA is running in protected mode, it will not display in NetWare Remote Manager.

You access NetWare Remote Manager by entering the following URL in a Web browser:

```
http://server_address:8008
```

For example:

```
http://137.65.123.11:8008
```

For more information about using NetWare Remote Manager, see the [NetWare 6.5 documentation](http://www.novell.com/documentation/nw65) (<http://www.novell.com/documentation/nw65>).

Using SNMP Monitoring Programs

You can monitor the MTA from the Management and Monitoring component of Novell ZENworks® for Servers, ManageWise®, or another SNMP management and monitoring program. When properly configured, the MTA sends SNMP traps to network management consoles for display along with other SNMP monitored programs.

Although the MTA is SNMP-enabled by default, the server where the MTA is installed must be properly configured to support SNMP, and the MTA object in eDirectory must be properly configured as well. To set up SNMP services for your server, complete the following tasks:

- ◆ “Setting Up SNMP Services for the MTA” on page 627
- ◆ “Copying and Compiling the MTA MIB File” on page 630
- ◆ “Customizing Your ManageWise Installation to Monitor the MTA” on page 631
- ◆ “Configuring the MTA for SNMP Monitoring” on page 631

Setting Up SNMP Services for the MTA

Select the instructions for the platform where the MTA runs:

- ◆ “Setting Up SNMP Services for the NetWare MTA” on page 627
- ◆ “Setting Up SNMP Services for the Linux MTA” on page 628
- ◆ “Setting Up SNMP Services for the Windows MTA” on page 628

Setting Up SNMP Services for the NetWare MTA

The NetWare MTA supports SNMP through the SNMP services loaded on the NetWare server. SNMP services are provided through the SNMP NLM. The SNMP NLM initiates and responds to requests for monitoring information and generates trap messages.

If the SNMP NLM is not loaded before the NetWare MTA, the MTA still loads and functions normally, but SNMP support is disabled. The MTA does not attempt to auto-load snmp.nlm.

To load the SNMP NLM manually:

- 1** Go to the console of each NetWare server where you want to implement SNMP services. These servers should already have the GroupWise agents installed.
- 2** Type the command to load the SNMP NLM:

Syntax:

```
load snmp v control=x monitor=y trap=z
```

where *v* represents Verbose, meaning to display informational messages, and *x*, *y* and *z* are replaced with your system SNMP community strings for SNMP SETs, GETs and TRAPs).

Example:

```
load snmp v control=private monitor=public trap=all
```

The configuration for the SNMP NLM is found in `snmp.cfg` and `traptarg.cfg` in the `sys:\etc` directory. View the contents of these files for more information.

The TCP/IP NLM automatically loads `snmp.nlm`, using default values for the community strings. If your system uses different community string values, load `snmp.nlm` before `tcpip.nlm`.

- 3 If the SNMP NLM is already loaded, you can add the control and trap parameters by typing the following at the console prompt:

```
snmp control= trap=
```

To automatically load these commands, include them in the `autoexec.ncf` file.

For more information about implementing SNMP services, see your NetWare documentation.

- 4 Skip to [“Copying and Compiling the MTA MIB File” on page 630](#).

Setting Up SNMP Services for the Linux MTA

The Linux MTA is compatible with NET-SNMP. An older version of SNMP called UCD-SNMP cannot be used with the Linux MTA. NET-SNMP comes standard with the versions of Red Hat Linux supported for GroupWise 6.5 for Linux, but it does not come standard with the supported versions of SUSE Linux. If you are using SUSE Linux, you must update to NET-SNMP in order to use SNMP to monitor the Linux MTA.

- 1 Make sure you are logged in as root.
- 2 If NET-SNMP is not already set up on your Linux server, use the following command to configure SNMP:

```
snmpconf -g basic_setup
```

The `snmpconf` command creates the `snmpd.conf` file in one of the following directories, depending on your version of Linux:

```
/usr/share/snmp  
/usr/local/share/snmp  
~/.snmp
```

- 3 Locate the `snmpd.conf` file on your Linux server.
- 4 In a text editor, open the `snmpd.conf` file and add the following line:

```
dlmod Gwsnmp /opt/novell/gw/agents/lib/libgwsnmp.so
```
- 5 Save the `snmpd.conf` file and exit the text editor.
- 6 Restart the SNMP daemon (`snmpd`) to put the changes into effect.
- 7 Skip to [“Copying and Compiling the MTA MIB File” on page 630](#).

Setting Up SNMP Services for the Windows MTA

SNMP support is provided for up to eight Windows MTAs on the same Windows server. Upon startup, each instance of the MTA is dynamically assigned a row in its SNMP table. View the contents of the MTA MIB for a description of the SNMP variables in the table.

To set up SNMP services for the Windows MTA, complete the following tasks:

- ◆ [“Installing Windows SNMP Support” on page 629](#)
- ◆ [“Installing GroupWise Agent SNMP Support” on page 629](#)

Installing Windows SNMP Support

For Windows NT 3.51 and 4.0 and for Windows 2000, the SNMP service is usually not included during the initial operating system installation. The SNMP service can be easily added at any time. To add or configure the SNMP service, you must be logged in as a member of the Administrator group.

To add the SNMP service to a Windows NT server:

- 1** From the Control Panel, double-click Network.
- 2** For Windows NT 4.0, click Services > Add, then select SNMP Service.

or

For Windows NT 3.51, click Add Software, select TCP/IP Protocol and Related Components, then select SNMP Service.

- 3** Follow the on-screen prompts. You will need your original Windows NT disk.
You are given the opportunity to configure the SNMP service. The only required information for GroupWise is the Trap Destination and Community Name.
- 4** After the installation is complete, reboot the server.
For more information about configuring the SNMP service, see your Windows NT documentation.

To add the SNMP service to a Windows 2000 server:

- 1** From the Control Panel, double-click Add/Remove Programs.
- 2** Click Add/Remove Windows Components.
- 3** Select Management and Monitoring Tools.
- 4** Click Details, then select Simple Network Management Protocol.

Continue with [“Installing GroupWise Agent SNMP Support” on page 629](#).

Installing GroupWise Agent SNMP Support

The GroupWise Agent Installation program includes an option for installing SNMP support. However, if the server where you installed the agents did not yet have SNMP set up, that installation option was not available. Now that you have set up SNMP, you can install GroupWise agent SNMP support.

At the Windows server where you want to install the GroupWise agent SNMP support:

- 1** Run setup.exe at the root of the *GroupWise 6.5 Administrator* CD, then click Install Products > GroupWise Agents > Install GroupWise Agents.
or
Run install.exe from the agents subdirectory on the *GroupWise 6.5 Administrator* CD or in your software distribution directory if you have updated it with the latest GroupWise software.

- 2** In the Installation Path dialog box, browse to and select the path where the agent software is installed, then select Install and Configure SNMP for GroupWise Agents.
- 3** To shorten the install time, deselect Install GroupWise Agent Software.
- 4** Continue through the rest of the installation process as prompted by the Agent Installation program.
The Agent Installation program copies the SNMP support files to the agent installation directory, makes the appropriate Windows registry entries, and restarts the Windows SNMP service.
- 5** Continue with “[Copying and Compiling the MTA MIB File](#)” on page 630.

Copying and Compiling the MTA MIB File

An SNMP-enabled MTA returns information contained in a Management Information Base (MIB). The MIB is an ASCII data structure that defines the information gathered. It also defines the properties that can be monitored and managed on the SNMP-enabled MTA.

Before you can monitor an SNMP-enabled MTA, you must compile the gwmta.mib file using your SNMP management program. For NetWare or Windows, the GroupWise MIBs are located on the *GroupWise 6.5 Administrator* CD in the \agents\snmp directory or in the *software_distribution_directory\agents\snmp* directory if you have updated it with the latest GroupWise software. For Linux, the GroupWise MIBs are located on the *GroupWise 6.5 for Linux Administrator* CD in the /agents/snmp directory.

- 1** Copy the gwmta.mib file from the \agents\snmp directory to the location required by your SNMP management program.
For example, ManageWise users would copy the gwmta.mib file to the \mw\nms\snmpmibs\current directory. ZENworks Server Management users can access the gwmta.mib file in the software distribution directory.
- 2** Compile or import the gwmta.mib file as required by your SNMP management program.
For example, to compile the gwmta.mib file for ZENworks Server Management:
 - 2a** In ConsoleOne, right-click the Site Server object, then click Properties > MIB Pool.
 - 2b** Click Modify Pool > Add.
 - 2c** Browse to and select the gwmta.mib file, then click OK.
 - 2d** Click Compile.
 - 2e** Make sure that the server where the MTA is running is configured to send SNMP traps to the ZENworks Server Management Site Server.
 - ◆ On a NetWare server, add the IP address or hostname of the ZENworks Server Management Site Server to the traptarg.cfg file in the sys:\etc directory.
 - ◆ On a Windows server, add the IP address or hostname of the ZENworks Server Management Site Server to the list of trap destinations.
From the Windows NT Control Panel, double-click Network, or, from the Windows 2000 Control Panel, double-click Administrative Tools. Then click Services > SNMP Service > Properties > Traps.

Refer to your SNMP management program documentation for further instructions.

- 3 If you are using Novell ManageWise, continue with “[Customizing Your ManageWise Installation to Monitor the MTA](#)” on page 631.

or

If you are not using ManageWise, skip to “[Configuring the MTA for SNMP Monitoring](#)” on page 631.

Customizing Your ManageWise Installation to Monitor the MTA

The GroupWise agent installation includes files that help ManageWise monitor the GroupWise agents more effectively.

- ◆ “[GroupWise MIB Files](#)” on page 631
- ◆ “[GroupWise Agent Alarm Help File](#)” on page 631

These capabilities are available only with ManageWise, not with ZENworks Server Management.

GroupWise MIB Files

The GroupWise MIB files include the standard SNMP management information. In addition, the files include annotations that enhance the Alert functions of ManageWise.

For example, the Summary provides more detailed information than the Description does in other SNMP management programs. The ManageWise annotations are embedded in comments; therefore, they have no affect on other SNMP management programs.

GroupWise Agent Alarm Help File

When GroupWise alarms appear in ManageWise, you can double-click the alarm to display the alarm information contained in the Agent Alarm help file. To enable this feature, copy the gwalarm.hlp file from the \agents\snmp directory to the \mw\nms\help directory on your ManageWise station. This help file explains the alarms each agent might produce by giving a description, cause, and action for each alarm.

Configuring the MTA for SNMP Monitoring

In order for SNMP monitoring programs to monitor the MTA, the MTA must be configured with a network address and SNMP community string.

- 1 In ConsoleOne, browse to and right-click the MTA object, then click Properties.
- 2 Click GroupWise > Network Address to display the Network Address page.
- 3 Click the pencil icon to provide the TCP/IP address or IPX™/SPX™ address of the server where the MTA runs, then click Apply.
- 4 Click GroupWise > Agent Settings.
- 5 Provide your system SNMP community GET string, then click OK.

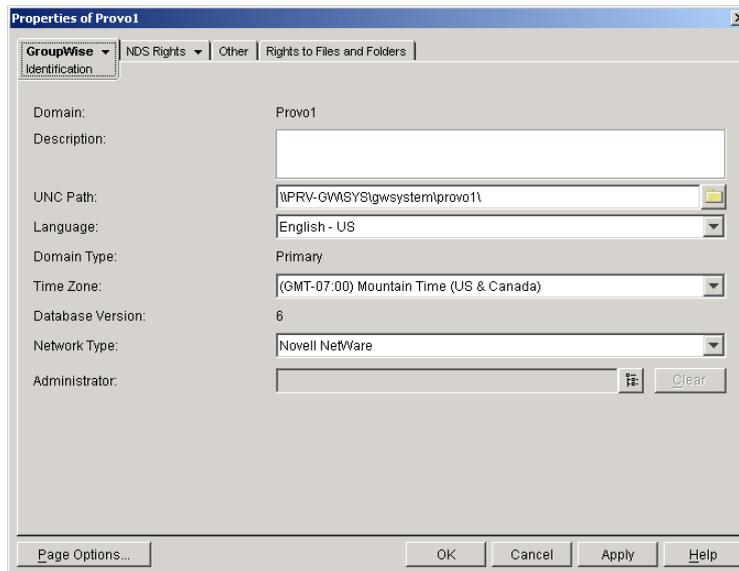
ConsoleOne then notifies the POA to restart so the new settings can be put into effect.

The MTA should now be visible to your SNMP monitoring program.

Notifying the Domain Administrator

If you want to be notified with an e-mail message whenever the MTA encounters a critical error, you can designate yourself as an administrator of the domain for which the MTA is running.

- 1 In ConsoleOne, browse to and right-click the Domain object, then click Properties to display the Identification page.



- 2 In the Administrator field, browse to and select your GroupWise user ID.

A domain can have a single administrator, or you can create a group to function as administrators.

- 3 Click OK to save the administrator information.

The selected user or group will then begin receiving e-mail messages whenever the MTA for the domain encounters a critical error.

Corresponding Startup Switches

By default, the MTA will generate error mail if an administrator has been assigned for the domain. Error mail can be turned off using the `/noerrormail` switch.

POA Web Console

Another way to receive e-mail notification of POA problems is to use GroupWise Monitor to access the POA Web console. See [“Configuring E-Mail Notification” on page 918](#).

Using the MTA Error Message Documentation

MTA error messages are documented with the source and explanation of the error, possible causes of the error, and actions to take to resolve the error. See [“Message Transfer Agent Error Messages” in *GroupWise 6.5 Troubleshooting 1: Error Messages*](#).

Employing MTA Troubleshooting Techniques

If you are having a problem with the MTA but not receiving a specific error message, or if the suggested actions for the specific error did not resolve the problem, you can review more general troubleshooting strategies for dealing with MTA problems. See [“Message Transfer Agent Problems”](#) in [“Strategies for Agent Problems”](#) in *GroupWise 6.5 Troubleshooting 2: Solutions to Common Problems*.

You can also use GroupWise Monitor to troubleshoot message transfer problems. See [“Monitor”](#) on page 901.

Using Platform-Specific MTA Monitoring Tools

Each operating system where the MTA runs provides tools for monitoring programs.

- ♦ [“NetWare Monitoring Tools”](#) on page 633
- ♦ [“Linux Monitoring Tools”](#) on page 633
- ♦ [“Windows Monitoring Tools”](#) on page 633

NetWare Monitoring Tools

If you are running the MTA on NetWare servers, you can use the NetWare Monitor NLM to monitor the effects of the MTA on the NetWare server. NetWare 6.x provides monitoring tools that you can use from your Web browser. Processor, resource, and memory utilization can be compared to other non-GroupWise NLM programs to determine if the MTA NLM program is monopolizing resources. See your NetWare documentation for additional monitoring suggestions.

Linux Monitoring Tools

If you are running the MTA on Linux servers, you can use SNMP tools like `snmpget` and `snmpwalk` that allow you to retrieve the data about all the services registered with the SNMP service. These tools are part of the NET-SNMP package. See your Linux documentation for additional monitoring suggestions.

Windows Monitoring Tools

If you are running the MTA on Windows servers, you can use the Performance Monitor in Windows Administrator Tools to gather similar information. See your Windows documentation for additional monitoring suggestions.

Using MTA Message Logging

For extremely detailed monitoring of message flow, you can configure the MTA to gather a variety of statistics. See [“Enabling MTA Message Logging”](#) on page 603.

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Optimizing the MTA

You can adjust how the MTA functions to optimize its performance. Before attempting optimization, you should run the MTA long enough to observe its efficiency and its impact on other network applications running on the same server. See [Chapter 44, “Monitoring the MTA,” on page 605](#).

Also, remember that optimizing your network hardware and operating system can make a difference in MTA performance.

The following topics help you optimize the MTA:

- ◆ [“Optimizing TCP/IP Links” on page 635](#)
- ◆ [“Optimizing Mapped/UNC Links” on page 636](#)
- ◆ [“Optimizing the Routing Queue” on page 639](#)
- ◆ [“Adjusting MTA Polling of Closed Locations” on page 640](#)

Optimizing TCP/IP Links

Using startup switches in the MTA startup file, you can fine-tune the performance of TCP/IP links.

- ◆ [“Adjusting the Number of MTA TCP/IP Connections” on page 635](#)
- ◆ [“Adjusting the MTA Wait Intervals for Slow TCP/IP Connections” on page 636](#)

Adjusting the Number of MTA TCP/IP Connections

When using TCP/IP links between domains, you can control the number of inbound connections the MTA can establish for receiving messages.

Use the `/tcpinbound` switch in the MTA startup file to increase the maximum number of inbound connections the MTA can establish from the default of 40 to whatever setting meets the needs of your system. There is no maximum setting.

If the MTA is receiving more requests than it can accept, the sending MTAs must wait until a connection becomes available, which slows down message transfer. Each connection requires only about 20 KB. For example, if you configure the MTA to accept 600 connections, it would require approximately 12 MB of RAM. Although there is no maximum setting for inbound connections, this setting is adequate to handle very heavy usage. Use lower settings to conserve RAM or for lighter usage.

MTA Web Console

You can check the maximum number of TCP/IP connections that the MTA can start on the [Configuration](#) page under the TCP/IP Settings heading.

Adjusting the MTA Wait Intervals for Slow TCP/IP Connections

When using TCP/IP links, you can control how long the MTA waits for responses.

By default, the MTA waits 5 seconds for a response when trying to contact another MTA or a POA across a TCP/IP link. If no response is received from the other MTA or the POA, the sending MTA tries again three more times. If all four attempts fail, the MTA reports an error, then waits 10 minutes before it tries again.

When the MTA attempts to send messages to another MTA or a POA across a TCP/IP link, the sending MTA tries for 20 seconds before reporting an error.

On some networks, these wait intervals might not be sufficient, and the MTA might report an error when, by waiting longer, the needed connection or data transfer would be able to take place.

Use the `/tcpwaitconnect` switch in the MTA startup file to increase the number of seconds the MTA waits for a response from another MTA or a POA across a TCP/IP link.

Use the `/tcpwaitdata` switch in the MTA startup file to increase the number of seconds the MTA attempts to send messages to another MTA or a POA across a TCP/IP link.

MTA Web Console

You can check the current wait intervals on the [Configuration](#) page under the TCP/IP Settings heading.

Optimizing Mapped/UNC Links

If you must use mapped or UNC links, you can fine-tune how the MTA polls its input queues.

- ◆ [“Using TCP/IP Links between Locations” on page 636](#)
- ◆ [“Adjusting MTA Polling of Input Queues in the Domain, Post Offices, and Gateways” on page 636](#)
- ◆ [“Adjusting the Number of MTA Scanner Threads for the Domain and Post Offices” on page 638](#)

NOTE: The Linux MTA does not use mapped or UNC links.

Using TCP/IP Links between Locations

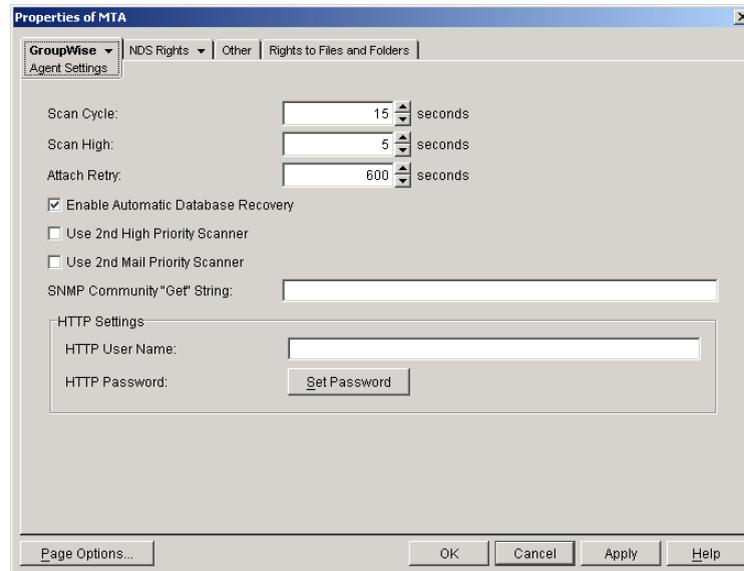
TCP/IP links between domains or between a domain and its post offices are faster than mapped or UNC links because the MTA is immediately notified whenever a new message arrives. This eliminates the latency involved in scanning input directories for messages to process. To change from mapped or UNC links to TCP/IP links, see [“Using TCP/IP Links between Domains” on page 579](#) and [“Using TCP/IP Links between a Domain and its Post Offices” on page 583](#)

Adjusting MTA Polling of Input Queues in the Domain, Post Offices, and Gateways

When using mapped or UNC links between the local domain and its post offices and other domains, the MTA can create a lot of network traffic just scanning its input queues, especially if the message load is light. This can be minimized by setting the scan cycle to a higher number. On the other hand, if the scan cycle is set too high, important messages might have to wait in the input queues to be picked up by the MTA. The MTA’s scan cycle settings also control how often it communicates with gateways installed in the domain.

By default, when using mapped or UNC links, the MTA scans its high priority queues every 5 seconds and its regular and low priority queues every 15 seconds. You can adjust the scan cycle settings to meet the needs of your GroupWise® system.

- 1 In ConsoleOne®, browse to and right-click the MTA object, then click Properties.
- 2 Click GroupWise > Agent Settings to display the Agent Settings page.



- 3 Decrease the number of seconds in the Scan Cycle field if you want the MTA to scan the regular and low priority queues (2-7) more often.
or
Increase the number of seconds in Scan Cycle field if you want the MTA to scan the regular and low priority queues (2-7) less often.
- 4 Decrease the number of seconds in the Scan High field if you want the MTA to scan the high priority queues (0-1) more often.
or
Increase the number of seconds in the Scan High field if you want the MTA to scan high priority queues (0-1) less often.

For the locations and specific uses of the MTA input queues, see “[Message Transfer/Storage Directories](#)” in *GroupWise 6.5 Troubleshooting 3: Message Flow and Directory Structure*.

- 5 Click OK to save the new scan cycle settings.

ConsoleOne then notifies the MTA to restart so the new settings can be put into effect.

Corresponding Startup Switches

You could also use the `/cylo` and `/cyhi` switches in the MTA startup file to adjust the MTA scan cycle.

MTA Web Console

You can check the current MTA scan cycle on the [Configuration](#) page under the Performance Settings heading.

Adjusting the Number of MTA Scanner Threads for the Domain and Post Offices

When using mapped or UNC links, the MTA automatically starts one high priority scanner thread for the priority 0 and 1 subdirectories of its input queues. It also starts a second scanner thread for the priority 2-7 subdirectories. This default configuration can create a bottleneck under some circumstances:

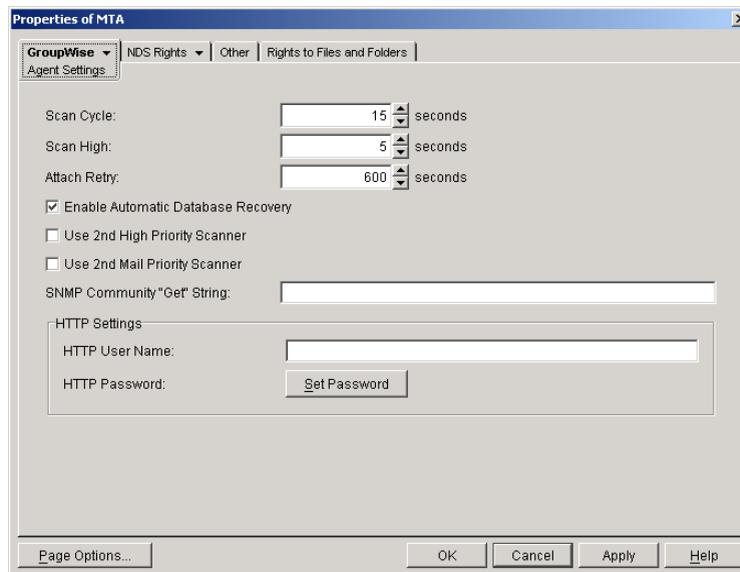
- ◆ The priority 0 subdirectory is used for Busy Search requests from GroupWise client users. The priority 1 subdirectory is used by GroupWise Remote users. If your GroupWise system serves a large number of very active GroupWise Remote users, the MTA can stay busy processing requests from Remote users, causing other users to experience a delay in response to a Busy Search request.
- ◆ The priority 2 subdirectory is used for administrative messages and high priority user messages. Priority 3-7 subdirectories are used for regular and low priority messages and status messages. Certain administrative activities, such as moving a large number of users or purging trash, can create numerous administrative messages in the priority 2 subdirectory, causing users to experience a delay in receiving high priority as well as regular messages.

For the locations of the MTA input queues, see [“Message Transfer/Storage Directories”](#) in *GroupWise 6.5 Troubleshooting 3: Message Flow and Directory Structure*.

You can configure the MTA so that it starts separate scanner threads to service the priority 1 and 2 subdirectories and/or separate scanner threads for the 2-3 and 4-7 subdirectories.

IMPORTANT: Do not try to run more than one MTA for the same domain.

- 1 In ConsoleOne, browse to and right-click the MTA object, then click Properties.
- 2 Click GroupWise > Agent Settings to display the Agent Settings page.



- 3 Select Use 2nd High Priority Scanner to provide separate MTA scanner threads for Busy Searches and GroupWise Remote users.
- 4 Select Use 2nd Mail Priority Scanner to provide separate MTA scanner threads for administrative messages and high priority user messages vs. regular and low priority messages.

These settings can be used separately (creating three MTA scanner threads) or together (creating four MTA scanner threads).

Primary Use	Priority Directory	Default Operation	2nd High Priority Scanner	2nd Mail Priority Scanner	Both Second Priority Scanners
Busy searches	wpcsin\0	High priority scanner thread	High priority scanner thread one	High priority scanner thread	High priority scanner thread one
GroupWise Remote user requests	wpcsin\1		High priority scanner thread two		High priority scanner thread two
Administrative requests and high priority messages	wpcsin\2	Mail priority scanner thread	Mail priority scanner thread	Mail priority scanner thread one	Mail priority scanner thread one
High priority statuses	wpcsin\3				
Normal priority messages	wpcsin\4			Mail priority scanner thread two	Mail priority scanner thread two
Normal priority statuses	wpcsin\5				
Low priority messages	wpcsin\6				
Low priority statuses	wpcsin\7				
Total Scanner Threads in Use:		2	3	3	4

5 Click OK to save the new scanner thread settings.

ConsoleOne then notifies the MTA to restart so the new setting can be put into effect.

Corresponding Startup Switches

You could also use the `/fast0` and `/fast4` switches in the MTA startup file to adjust the allocation of MTA scanner threads.

MTA Web Console

You can check the current MTA scan cycle on the [Configuration](#) page under the Performance Settings heading.

Optimizing the Routing Queue

Using startup switches in the MTA startup file, you can fine-tune MTA processing in of the routing queue. When the MTA starts, it starts one or more router threads to process its routing queue (`gwinprog`). As messages arrive in the routing queue, it starts additional routers as needed, within parameters you can set.

- ◆ [“Adjusting the Maximum Number of Active Router Threads” on page 640](#)
- ◆ [“Adjusting the Maximum Number of Idle Router Threads” on page 640](#)

MTA Web Console

You can view the current contents of the routing queue from the [Configuration](#) page. Click Router under the Queue Information heading.

Adjusting the Maximum Number of Active Router Threads

By default, the MTA will continue to start additional router threads to process messages in the routing queue as long as message traffic demands it, until as many as 16 router threads are running. Use the `/maxrouters` switch in the MTA startup file to control the number of router threads the MTA can start.

Set `/maxrouters` to a lower number to conserve resources and keep the MTA from starting more than the specified maximum number of router threads.

Adjusting the Maximum Number of Idle Router Threads

By default, after the MTA starts a router thread, it keeps it running, up to the maximum number specified by the `/maxrouters` switch. In a system where short bursts of heavy message traffic are followed by extended lulls, idle router threads could be consuming resources that would be better used by other processes. Use the `/maxidlerouters` switch in the MTA startup file to determine how many idle router threads are allowed to remain running. The default is 16 idle router threads.

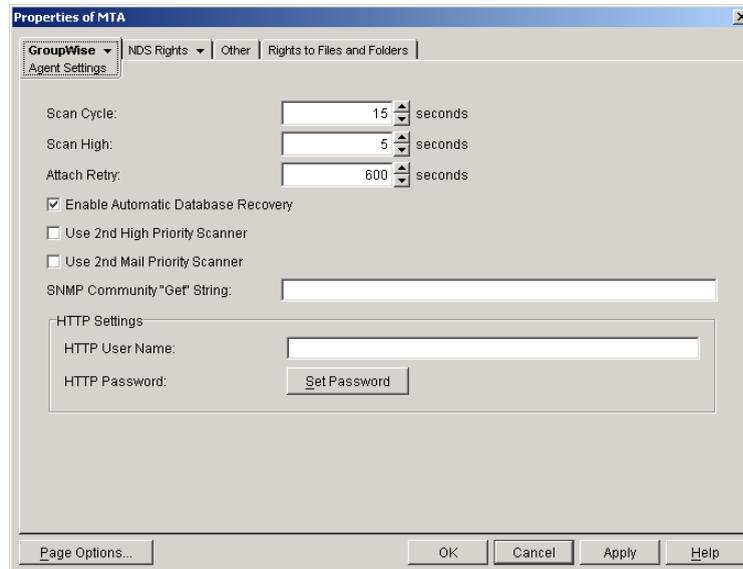
Set `/maxidlerouters` to a lower number if you want the MTA to terminate idle router threads more quickly. Set `/maxidlerouters` to a higher number if you want the MTA to keep more idle router threads ready to process incoming message traffic.

Adjusting MTA Polling of Closed Locations

When a location becomes closed (unavailable), the MTA waits before attempting to recontact that location. If the MTA waits only a short period of time, the MTA can waste time and create network traffic by trying to reestablish a connection with a closed location. On the other hand, you do not want the MTA to ignore an available location by waiting too long.

By default, the MTA waits 600 seconds (10 minutes) between its attempts to contact a closed location. You can adjust the time interval the MTA waits to meet the needs of your GroupWise system.

- 1 In ConsoleOne, browse to and right-click the MTA object, then click Properties.
- 2 Click GroupWise > Agent Settings to display the Agent Settings page.



- 3 Decrease the number of seconds in the Attach Retry field if you want the MTA to try to contact closed locations more often.

or

Increase the number of seconds in Attach Retry field if you want the MTA to try to contact closed locations less often.

- 4 Click OK to save the new Attach Retry setting.

ConsoleOne then notifies the MTA to restart so the new setting can be put into effect.

For a TCP/IP link, a location is considered open if the MTA receives a response from the receiving agent within the currently configured wait intervals. See [“Adjusting the MTA Wait Intervals for Slow TCP/IP Connections” on page 636](#). Otherwise, the location is considered closed.

For a mapped or UNC link, a location is considered open if the MTA can perform the following actions:

- ◆ Create a temporary directory in the MTA input queue (*domain\wpcsin* and *post_office\wpcsin* directories)
- ◆ Create a temporary file in that new directory
- ◆ Delete the temporary file
- ◆ Delete the temporary directory

For more information about the MTA input queues, see [“Message Transfer/Storage Directories” in *GroupWise 6.5 Troubleshooting 3: Message Flow and Directory Structure*](#).

46 Using MTA Startup Switches

You can override settings provided in ConsoleOne[®] by using startup switches. You can override startup switches provided in the startup file by using startup switches on the command line. For more information about starting the MTA, see [“Starting the MTA” on page 568](#).

The table below summarizes MTA startup switches for all platforms and how they correspond to configuration settings in ConsoleOne.

NetWare MTA	Linux MTA	Windows MTA	ConsoleOne Settings
@filename	@filename	@filename	N/A
N/A	--activelog	/activelog	N/A
/certfile	--certfile	/certfile	Certificate File
/cyhi	--cyhi	/cyhi	Scan High
/cylo	--cylo	/cylo	Scan Cycle
/defaultroutingdomain	--defaultroutingdomain	/defaultroutingdomain	Default Routing Domain
/dn	N/A	N/A	N/A
/fast0	--fast0	/fast0	Use 2nd High Priority Scanner
/fast4	--fast4	/fast4	Use 2nd Mail Priority Scanner
/help	--help	/help	N/A
/home	--home	/home	N/A
/httppassword	--httppassword	/httppassword	HTTP Password
/httpport	--httpport	/httpport	HTTP Port
/httprefresh	--httprefresh	/httprefresh	N/A
/httpssl	--httpssl	/httpssl	HTTP
/httpuser	--httpuser	/httpuser	HTTP User Name
/keyfile	--keyfile	/keyfile	SSL Key File
/keypassword	--keypassword	/keypassword	SSL Key File Password
/language	--language	/language	N/A
/liveremote	--liveremote	/liveremote	N/A

NetWare MTA	Linux MTA	Windows MTA	ConsoleOne Settings
/log	--log	/log	Log File Path
/logdays	--logdays	/logdays	Max Log File Age
/logdiskoff	--logdiskoff	/logdiskoff	Logging Level
/loglevel	--loglevel	/loglevel	Logging Level
/logmax	--logmax	/logmax	Max Log Disk Space
/lrconn	--lrconn	/lrconn	N/A
/lrwaitdata	--lrwaitdata	/lrwaitdata	N/A
/maxidlerouters	--maxidlerouters	/maxidlerouters	N/A
/maxrouters	--maxrouters	/maxrouters	N/A
/messagelogdays	--messagelogdays	/messagelogdays	Delete Reports After
/messagelogmaxsize	--messagelogmaxsize	/messagelogmaxsize	N/A
/messagelogpath	--messagelogpath	/messagelogpath	Message Log File Path
/messagelogsettings	--messagelogsettings	/messagelogsettings	Message Logging Level
/msgtranssl	--msgtranssl	/msgtranssl	Message Transfer SSL
/noada	--noada	/noada	N/A
/nodns	--nodns	/nodns	N/A
/noerrormail	--noerrormail	/noerrormail	N/A
/nondssync	--nondssync	/nondssync	N/A
/norecover	--norecover	/norecover	N/A
/nosnmp	--nosnmp	/nosnmp	N/A
/password	N/A	N/A	N/A
/tcpinbound	--tcpinbound	/tcpinbound	N/A
/tcpport	--tcpport	/tcpport	Network Address
/tcpwaitconnect	--tcpwaitconnect	/tcpwaitconnect	N/A
/tcpwaitdata	--tcpwaitdata	/tcpwaitdata	N/A
/tracelogin	N/A	N/A	N/A
/user	N/A	N/A	N/A
/work	--work	/work	N/A

@filename

Specifies the location of the MTA startup file. On NetWare and Windows, the full path must be included if the file does not reside in the same directory with the MTA program. On Linux, the startup file always resides in the /opt/novell/groupwise/agents/share directory. The startup file must reside on the same server where the MTA is installed. For more information about the MTA startup file, see [“Starting the MTA” on page 568](#).

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	@[vol:][dir]file@\svr\vol\dir\file	@[/dir]file	@[drive:][dir]file @\svr\sharename\dir\file
Example:	load gwmta @provo2.mta load gwmta @sys:\agt\provo2.mta load gwmta @\s2\sys\agt\provo2.mta	./gwmta @../share/lxndom.mta	gwmta.exe @provo2.mta gwmta.exe @d:\agt\provo2.mta gwmta.exe @\s2\c\agt\provo2.mta

/activelog

Displays the active log window rather than the alert box when the MTA starts. See [“Monitoring the MTA from the MTA Agent Console” on page 605](#).

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	N/A	--activelog	/activelog

/certfile

Specifies the full path to the public certificate file used to provide secure SSL communication between the MTA and other programs. See [“Enhancing Domain Security with SSL Connections to the MTA” on page 589](#).

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	/certfile-[svr][vol:]\dir\file /certfile-\svr\vol\dir\file	--certfile-/dir/file	/certfile-[drive:]\dir\file /certfile-\svr\sharename\dir\file
Example:	/certfile-\ssl\gw.crt /certfile-server2\sys:\ssl\gw.crt /certfile-\server2\sys\ssl\gw.crt	--certfile /certs/gw.crt	/certfile-\ssl\gw.crt /certfile-m:\ssl\gw.crt /certfile-\server2\c\ssl\gw.crt

See also [/keyfile](#) and [/keypassword](#).

/cyhi

Sets the number of seconds in the scan cycle that the MTA uses to scan its priority 0-1 input queues. The default is 5 seconds. See [“Adjusting MTA Polling of Input Queues in the Domain, Post Offices, and Gateways” on page 636](#).

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	<code>/cyhi-seconds</code>	<code>--cyhi-seconds</code>	<code>/cyhi-seconds</code>
Example:	<code>/cyhi-3</code>	<code>--cyhi 3</code>	<code>/cyhi-3</code>

See also [/cylo](#).

/cylo

Sets the number of seconds in the scan cycle that the MTA uses to scan its priority 2-7 input queues. The default is 15 seconds. See [“Adjusting MTA Polling of Input Queues in the Domain, Post Offices, and Gateways”](#) on page 636.

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	<code>/cylo-seconds</code>	<code>--cylo-seconds</code>	<code>/cylo-seconds</code>
Example:	<code>/cylo-10</code>	<code>--cylo 10</code>	<code>/cylo-10</code>

See also [/cyhi](#).

/defaultroutingdomain

Identifies the domain name in your GroupWise[®] system to which all MTAs should send messages when they cannot resolve the available routing information to a specific *user.post_office.domain* GroupWise address. See [“Using Routing Domains”](#) on page 591.

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	<code>/defaultroutingdomain-domain</code>	<code>--defaultroutingdomain domain</code>	<code>/defaultroutingdomain-domain</code>
Example:	<code>/defaultroutingdomain-inethub</code>	<code>--defaultroutingdomain inethub</code>	<code>/defaultroutingdomain-inethub</code>

/dn

Specifies the Novell[®] eDirectory[™] distinguished name of the NetWare[®] MTA object to facilitate logging into remote servers and authenticating to eDirectory. It can be used instead of the `/user` and `/password` switches.

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	<code>/dn-distinguished_name</code>	N/A	N/A
Example:	<code>/dn-MTA.provo2.GroupWise</code>	N/A	N/A

/fast0

Causes the MTA to monitor and process the priority 0 and 1 subdirectories independently with separate scanner threads, rather than in sequence with the same scanner thread. See [“Adjusting the Number of MTA Scanner Threads for the Domain and Post Offices” on page 638](#).

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	/fast0	--fast0	/fast0

See also [/fast4](#).

/fast4

Causes the MTA to monitor and process the priority 2 and 3 subdirectories with a separate scanner thread from the priority 4 through 7 subdirectories. See [“Adjusting the Number of MTA Scanner Threads for the Domain and Post Offices” on page 638](#).

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	/fast4	--fast4	/fast4

See also [/fast0](#).

/help

Displays the MTA startup switch Help information. When this switch is used, the MTA does not start.

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	/help or /?	--help or --?	/help or /?
Example:	load gwmnta.nlm /help	./gwmnta.exe --help	gwmnta.exe /help

/home

Specifies the domain directory, where the MTA can access the domain database ([wpdomain.db](#)). There is no default location. You must use this switch in order to start the MTA. See [“Starting the MTA” on page 568](#).

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	/home-[svr][vol:]dir /home-\\svr\vol\dir	--home /dir	/home-[drive:]dir /home-\\svr\sharename\dir
Example:	/home-\provo2 /home-mail:\provo2 /home-server2\mail:\provo2 /home-\\server2\mail\provo2	--home /gwsystem/provo2	/home-\provo2 /home-m:\provo2 /home-\\server2\c\mail\provo2

/httppassword

Specifies the password for the MTA to prompt for before allowing MTA status information to be displayed in your Web browser. Do not use an existing eDirectory password because the information passes over the insecure connection between your Web browser and the MTA. See [“Using the MTA Web Console” on page 617](#).

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	<code>/httppassword-unique_password</code>	<code>--httppassword unique_password</code>	<code>/httppassword-unique_password</code>
Example:	<code>/httppassword-AgentWatch</code>	<code>--httppassword AgentWatch</code>	<code>/httppassword-AgentWatch</code>

See also [/httpuser](#), [/httpport](#), [/httprefresh](#), and [/httpsssl](#).

/httpport

Sets the HTTP port number used for the MTA to communicate with your Web browser. The default is 7180; the setting must be unique. See [“Using the MTA Web Console” on page 617](#).

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	<code>/httpport-port_number</code>	<code>--httpport port_number</code>	<code>/httpport-port_number</code>
Example:	<code>/httpport-3801</code>	<code>--httpport 3802</code>	<code>/httpport-3803</code>

See also [/httpuser](#), [/httppassword](#), [/httprefresh](#), and [/httpsssl](#).

/httprefresh

Specifies the rate at which the MTA refreshes the status information in your Web browser. The default is 60 seconds. See [“Using the MTA Web Console” on page 617](#).

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	<code>/httprefresh-seconds</code>	<code>--httprefresh seconds</code>	<code>/httprefresh-seconds</code>
Example:	<code>/httprefresh-30</code>	<code>--httprefresh 90</code>	<code>/httprefresh-120</code>

See also [/httpuser](#), [/httppassword](#), [/httpport](#), and [/httpsssl](#).

/httpsssl

Enables secure SSL communication between the MTA and the MTA Web console displayed in your Web browser. See [“Enhancing Domain Security with SSL Connections to the MTA” on page 589](#).

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	<code>/httpsssl</code>	<code>--httpsssl</code>	<code>/httpsssl</code>

See also [/certfile](#), [/keyfile](#), and [/keypassword](#).

/httpuser

Specifies the username for the MTA to prompt for before allowing MTA status information to be displayed in your Web browser. Providing a username is optional. Do not use an existing eDirectory username because the information passes over the insecure connection between your Web browser and the MTA. See [“Using the MTA Web Console” on page 617](#).

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	<code>/httpuser-unique_name</code>	<code>--httpuser unique_name</code>	<code>/httpuser-unique_name</code>
Example:	<code>/httpuser-GWWebCon</code>	<code>--httpuser GWWebCon</code>	<code>/httpuser-GWWebCon</code>

See also [/httppassword](#), [/httpport](#), and [/httprefresh](#).

/keyfile

Specifies the full path to the private file used to provide secure SSL communication between the MTA and other programs. See [“Enhancing Domain Security with SSL Connections to the MTA” on page 589](#).

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	<code>/keyfile-[svr\][vol:]\dir\file</code> <code>/keyfile-\\svr\vol\dir\file</code>	<code>--keyfile /dir/file</code>	<code>/keyfile-[drive:]\dir\file</code> <code>/keyfile-\\svr\sharename\dir\file</code>
Example:	<code>/keyfile-\\ssl\gw.key</code> <code>/keyfile-server2\sys\ssl\gw.key</code> <code>/keyfile-\\server2\sys\ssl\gw.key</code>	<code>--keyfile /ssl/gw.key</code>	<code>/keyfile-\\ssl\gw.key</code> <code>/keyfile-m:\ssl\gw.key</code> <code>/keyfile-\\server2\c\ssl\gw.key</code>

See also [/certfile](#) and [/keypassword](#).

/keypassword

Specifies the password used to encrypt the private SSL key file when it was created. See [“Enhancing Domain Security with SSL Connections to the MTA” on page 589](#).

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	<code>/keypassword-password</code>	<code>--keypassword password</code>	<code>/keypassword-password</code>
Example:	<code>/keypassword-gwssl</code>	<code>--keypassword gwssl</code>	<code>/keypassword-gwssl</code>

See also [/certfile](#) and [/keyfile](#).

/language

Specifies the language to run the MTA in, using a two-letter language code as listed below. You must install the MTA in the selected language in order for the MTA to display in the selected language.

The initial default is the language used in the domain. If that language has not been installed, the next default is the language used by the operating system. If that language has not been installed, the final default is English. You only need to use this switch if you need to override these defaults.

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	<code>/language-code</code>	<code>--language code</code>	<code>/language-code</code>
Example:	<code>/language-es</code>	<code>--language de</code>	<code>/language-fr</code>

The table below lists the valid language codes. Contact your local Novell sales office for information about language availability.

Language	Language Code	Language	Language Code
Arabic	AR	Hungarian	MA
Czechoslovakian	CS	Italian	IT
Chinese-Simplified	CS	Japanese	NI
Chinese-Traditional	CT	Korean	KR
Danish	DK	Norwegian	NO
Dutch	NL	Polish	PL
English-United States	US	Portuguese-Brazil	BR
Finnish	SU	Russian	RU
French-France	FR	Spanish	ES
German-Germany	DE	Swedish	SV
Hebrew	HE	Turkish	TR

/liveremote

Turns on re-direction of Remote client requests and provides the TCP port on which the MTA listens for Remote client requests. See [“Enabling Live Remote” on page 589](#).

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	<code>/liveremote-port_number</code>	<code>/liveremote-port_number</code>	<code>/liveremote-port_number</code>
Example:	<code>/liveremote-7111</code>	<code>/liveremote-7112</code>	<code>/liveremote-7112</code>

See also [/rconn](#) and [/rwaitdata](#).

/log

Specifies the directory where the MTA will store its log files. On NetWare and Windows, the default location is the mslocal directory in the directory specified by the `/work` switch. On Linux, the default location is the `/var/log/novell/groupwise/domain_name.mta` directory. See “Using MTA Log Files” on page 625.

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	<code>/log-[svr\][vol:]\dir</code> <code>/log-\\svr\vol\dir</code>	<code>--log /dir</code>	<code>/log-[drive:]\dir</code> <code>/log-\\svr\sharename\dir</code>
Example:	<code>/log-\agt\log</code> <code>/log-server2\mail:\agt\log</code> <code>/log-\\server2\mail\agt\log</code>	<code>--log /gwsystem/logs</code>	<code>/log-\agt\log</code> <code>/log-m:\agt\log</code> <code>/log-\\server2\c\mail\agt\log</code>

Typically you would find multiple log files in the specified directory. The first 4 characters represent the date. The next 3 characters identify the agent. A three-digit extension allows for multiple log files created on the same day. For example, a log file named 0518mta.001 would indicate that it is an MTA log file, created on May 18. If you restarted the MTA on the same day, a new log file would be started, named 0518mta.002.

See also `/loglevel`, `/logdiskoff`, `/logdays`, and `/logmax`.

/logdays

Sets the number of days you want MTA log files to remain on disk before being automatically deleted. The default log file age is 7 days. See “Using MTA Log Files” on page 625.

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	<code>/logdays-days</code>	<code>--logdays days</code>	<code>/logdays-days</code>
Example:	<code>/logdays-5</code>	<code>--logdays 10</code>	<code>/logdays-14</code>

See also `/log`, `/loglevel`, `/logdiskoff`, and `/logmax`.

/logdiskoff

Turns off disk logging for the MTA so no information about the functioning of the MTA is stored on disk. The default is for logging to be turned on. See “Using MTA Log Files” on page 625.

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	<code>/logdiskoff</code>	<code>--logdiskoff</code>	<code>/logdiskoff</code>

See also `/loglevel`.

/loglevel

Controls the amount of information logged by the MTA. Logged information is displayed in the log message box and written to the MTA log file during the current agent session. The default is Normal, which displays only the essential information suitable for a smoothly running MTA. Use Verbose to display the essential information, plus additional information helpful for troubleshooting. Verbose logging does not degrade MTA performance, but log files saved to disk consume more disk space when verbose logging is in use. See [“Using MTA Log Files” on page 625](#).

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	<code>/loglevel-<i>level</i></code>	<code>--loglevel <i>level</i></code>	<code>/loglevel-<i>level</i></code>
Example:	<code>/loglevel-verbose</code>	<code>--loglevel verbose</code>	<code>/loglevel-verbose</code>

See also [/log](#), [/logdiskoff](#), [/logdays](#), and [/logmax](#).

/logmax

Sets the maximum amount of disk space for all MTA log files. When the specified disk space is consumed, the MTA deletes existing log files, starting with the oldest. The default is 65536 KB of disk space for all MTA log files. See [“Using MTA Log Files” on page 625](#).

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	<code>/logmax-<i>kilobytes</i></code>	<code>--logmax <i>kilobytes</i></code>	<code>/logmax-<i>kilobytes</i></code>
Example:	<code>/logmax-32000</code>	<code>--logmax 130000</code>	<code>/logmax-160000</code>

See also [/log](#), [/loglevel](#), [/logdiskoff](#), and [/logdays](#).

/lrconn

Specifies the maximum number of simultaneously connected Remote client users the MTA can accept. The default is 25. See [“Enabling Live Remote” on page 589](#).

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	<code>/lrconn-<i>number</i></code>	<code>--lrconn <i>number</i></code>	<code>/lrconn-<i>number</i></code>
Example:	<code>/lrconn-50</code>	<code>--lrconn 75</code>	<code>/lrconn-100</code>

See also [/liveremote](#) and [/lrwaitdata](#).

/lrwaitdata

Specifies the number of seconds you want the MTA to wait for a response from the PO before timing out for users in Remote mode. The default is 5 minutes. See [“Enabling Live Remote” on page 589](#).

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	<code>/lrwaitdata-number</code>	<code>--lrwaitdata number</code>	<code>/lrwaitdata-number</code>
Example:	<code>/lrwaitdata-7</code>	<code>--lrwaitdata-10</code>	<code>/lrwaitdata-12</code>

See also [/liveremote](#) and [/lrconn](#).

/maxidlerouters

Specifies the maximum number of idle router threads the MTA can keep running. The default is 16; valid values range from 1 to 16. See [“Optimizing the Routing Queue” on page 639](#).

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	<code>/maxidlerouters-threads</code>	<code>--maxidlerouters threads</code>	<code>/maxidlerouters-threads</code>
Example:	<code>/maxidlerouters-5</code>	<code>--maxidlerouters 10</code>	<code>/maxidlerouters-12</code>

See also [/maxrouters](#).

/maxrouters

Specifies the maximum number of router threads the MTA can start. The default is 16; valid values range from 1 to 16. See [“Optimizing the Routing Queue” on page 639](#).

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	<code>/maxrouters-threads</code>	<code>--maxrouters threads</code>	<code>/maxrouters-threads</code>
Example:	<code>/maxrouters-10</code>	<code>--maxrouters 12</code>	<code>/maxrouters-14</code>

See also [/maxidlerouters](#).

/messagelogdays

Sets the number of days you want MTA message log files to remain on disk before being automatically deleted. The default is 7 days. See [“Enabling MTA Message Logging” on page 603](#).

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	<code>/messagelogdays-days</code>	<code>--messagelogdays days</code>	<code>/messagelogdays-days</code>
Example:	<code>/messagelogdays-5</code>	<code>--messagelogdays 10</code>	<code>/messagelogdays-14</code>

See also [/messagelogsettings](#), [/messagelogpath](#), and [/messagelogmaxsize](#).

/messagelogmaxsize

Sets the maximum size for MTA message log files. The default is 65536 KB. See “[Enabling MTA Message Logging](#)” on page 603.

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	<code>/messagelogmaxsize-kilobytes</code>	<code>--messagelogmaxsize kilobytes</code>	<code>/messagelogmaxsize-kilobytes</code>
Example:	<code>/messagelogmaxsize-32000</code>	<code>--messagelogmaxsize 130000</code>	<code>/messagelogmaxsize-160000</code>

See also [/messagelogsettings](#), [/messagelogpath](#), and [/messagelogdays](#).

/messagelogpath

Specifies the directory for the MTA message log. See “[Enabling MTA Message Logging](#)” on page 603.

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	<code>/messagelogpath-[svr][vol:]dir</code> <code>/messagelogpath-\\svr\vol\dir</code>	<code>--messagelogpath /dir</code>	<code>/messagelogpath-[drive:]dir</code> <code>/messagelogpath-\\svr\sharename\dir</code>
Example:	<code>/messagelogpath-mta\log</code> <code>/messagelogpath-svr2\mail\mta\log</code> <code>/messagelogpath-\\svr2\mail\mta\log</code>	<code>--messagelogpath /gwsys/logs</code>	<code>/messagelogpath-mta\log</code> <code>/messagelogpath-m:\mta\log</code> <code>/messagelogpath-\\svr2\c\mail\mta\log</code>

See also [/messagelogsettings](#), [/messagelogdays](#), and [/messagelogmaxsize](#).

/messagelogsettings

Enables MTA message logging. See “[Enabling MTA Message Logging](#)” on page 603.

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	<code>/messagelogsettings-codes</code>	<code>--messagelogsettings codes</code>	<code>/messagelogsettings-codes</code>
Example:	<code>/messagelogsettings-e</code>	<code>--messagelogsettings e</code>	<code>/messagelogsettings-e</code>

One code or any combination of codes can be used.

Code	Description
e	Enabled; all messages are logged by default
v	Verbose logging; all information is logged
r	Log message delivery/non-delivery reports
s	Log message statuses
o	Log other message types, such as administrative messages for database updates
c	Correlate reports with messages

See also [/messagelogpath](#), [/messagelogdays](#), and [/messagelogmaxsize](#).

/msgtranssl

Enables secure SSL communication between the MTA and the POAs in its domain. See [“Enhancing Domain Security with SSL Connections to the MTA”](#) on page 589.

NetWare MTA	Linux MTA	Windows MTA
Syntax: /msgtranssl	--msgtranssl	/msgtranssl

See also [/certfile](#), [/keyfile](#), and [/keypassword](#).

/noada

Disables the MTA admin thread. For an explanation of the MTA admin thread, see [“MTA Admin Thread Status Box”](#) on page 608.

NetWare MTA	Linux MTA	Windows MTA
Syntax: /noada	--noada	/noada

Historical Note: In GroupWise 5.2 and earlier, a separate agent, the Administration Agent (ADA), handled the functions now consolidated into the MTA admin thread. Hence the switch name, /noada.

/nodns

Disables DNS lookups for the MTA. See [“Using Dynamic Internet Links”](#) in [“Connecting to GroupWise 5.x and 6.x Systems”](#) in the *GroupWise 6.5 Multi-System Administration Guide*.

NetWare MTA	Linux MTA	Windows MTA
Syntax: /nodns	--nodns	/nodns

/noerrormail

Prevents error files from being sent to the GroupWise administrator. The default is for error mail to be sent to the administrator. See [“Notifying the Domain Administrator”](#) on page 632.

NetWare MTA	Linux MTA	Windows MTA
Syntax: /noerrormail	--noerrormail	/noerrormail

/nondssync

Disables eDirectory user synchronization. See [“Using eDirectory User Synchronization” on page 598](#).

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	/nondssync	--nondssync	N/A

/norecover

Disables automatic database recovery. The default is for automatic database recovery to be turned on. If the MTA detects a problem with the domain database ([wpdomain.db](#)) when automatic database recovery has been turned off, the MTA will notify the administrator, but it will not recover the problem database. See [Chapter 26, “Maintaining Domain and Post Office Databases,” on page 345](#).

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	/norecover	--norecover	/norecover

/nosnmp

Disables SNMP for the MTA. The default is to have SNMP enabled. See [“Using SNMP Monitoring Programs” on page 627](#).

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	/nosnmp	--nosnmp	/nosnmp

/password

Provides the password for the NetWare MTA to use when accessing domains and post offices on remote servers. See [“Starting the MTA” on page 568](#).

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	/password-NetWare_password	N/A	N/A
Example:	/password-GWise	N/A	N/A

See also [/user](#) and [/dn](#).

/tcpinbound

Sets the maximum number of inbound TCP/IP connections for the MTA. The default is 40. There is no maximum number of outbound connections. The only limit on the MTA for outbound connections is available resources. See [“Adjusting the Number of MTA TCP/IP Connections” on page 635](#).

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	<i>/tcpinbound-number</i>	<code>--tcpinbound number</code>	<i>/tcpinbound-number</i>
Example:	<i>/tcpinbound-50</i>	<code>--tcpinbound 60</code>	<i>/tcpinbound-70</i>

/tcpport

Sets the TCP port number on which the MTA listens for incoming messages. The default is 7100. See [“Using TCP/IP Links between Domains” on page 579](#).

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	<i>/tcpport-port_number</i>	<code>--tcpport port_number</code>	<i>/tcpport-port_number</i>
Example:	<i>/tcpport-7200</i>	<code>--tcpport 7200</code>	<i>/tcpport-7200</i>

/tcpwaitconnect

Sets the maximum number of seconds the MTA waits for a connection to another MTA. The default is 5. See [“Adjusting the MTA Wait Intervals for Slow TCP/IP Connections” on page 636](#).

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	<i>/tcpwaitconnect-seconds</i>	<code>--tcpwaitconnect seconds</code>	<i>/tcpwaitconnect-seconds</i>
Example:	<i>/tcpwaitconnect-10</i>	<code>--tcpwaitconnect 10</code>	<i>/tcpwaitconnect-10</i>

See also [/tcpwaitdata](#).

/tcpwaitdata

Sets the maximum number of seconds the MTA attempts to send data over a TCP/IP connection to another MTA. The default is 20. See [“Adjusting the MTA Wait Intervals for Slow TCP/IP Connections” on page 636](#).

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	<i>/tcpwaitdata-seconds</i>	<code>--tcpwaitdata seconds</code>	<i>/tcpwaitdata-seconds</i>
Example:	<i>/tcpwaitdata-30</i>	<code>--tcpwaitdata 30</code>	<i>/tcpwaitdata-30</i>

See also [/tcpwaitconnect](#).

/tracelogin

Displays NetWare MTA login messages on the NetWare[®] server console to help determine problems the MTA is having when logging in to a remote server.

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	/tracelogin-code	N/A	N/A
Example:	/tracelogin-1	N/A	N/A

Code	Description
1	Display login problems
2	Display all login messages

/user

Provides the NetWare user ID for the NetWare MTA to use when accessing domains and post offices on remote servers. See [“Creating a NetWare Account for Agent Access \(Optional\)”](#) in the *GroupWise 6.5 Installation Guide*.

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	/user-NetWare_user_ID	N/A	N/A
Example:	/user-GWAgents	N/A	N/A

See also [/password](#) and [/dn](#).

/work

Specifies the directory where the MTA creates its local working directory (**mslocal**). The default is the domain directory. However, if the domain is located on a different server from where the MTA will run, use a local directory so the MTA cannot lose its connection to its mslocal directory.

	NetWare MTA	Linux MTA	Windows MTA
Syntax:	/work-[svr^][vol:]dir /work-\\svr^vol^dir	--work /dir	/work-[drive:]dir /work-\\svr^sharename^dir
Example:	/work-gwmta /work-mail:gwmta /work-server2\mail:gwmta /work-\\server2\mail\gwmta	--work /gwmta	/work-gwmta /work-m:gwmta /work-\\server2c\mail\gwmta