Internet Agent

XI

Configuring Internet Addressing

45

By default, GroupWise® uses a proprietary address format consisting of a user's ID, post office, and domain (*userID.post_office.domain*). However, when you install the GroupWise Internet Agent, GroupWise also supports native Internet-style addressing consisting of a username and Internet domain name (for example, *userID@Internet_domain_name*).

Internet-style addressing is the preferred addressing format if you are connected to the Internet, because with Internet-style addressing, users have the same address within the GroupWise system as they do outside the GroupWise system. For example, if John Smith's address at Novell® is jsmith@novell.com, this address can be used by users within the GroupWise system and users external to the system.

To set up Internet addressing, you do the following:

- Define Internet domain names for your GroupWise system. You can have one or more domain names (for example, novell.com, gw.novell.com, and support.novell.com).
- Set up the default Internet address format for use when displaying user addresses in the GroupWise Address Book and sent messages. There are six formats that can be assigned at the system, domain, post office, or user level. In addition, there is a free-form format that can be used at the user level.
- Designate the address formats that can be used to address messages to your GroupWise users. There are five possible formats to choose from. You can allow all five formats, or only one.
- Specify the default Internet Agent to be used when sending messages from your GroupWise system to the Internet. This becomes your system's default Internet Agent for outbound messages sent from all domains; however, if you have multiple Internet Agents, you can override this setting by assigning Internet Agents at the domain level.

The following sections help you plan and set up Internet addressing:

45.1 Planning Internet Addressing

The following sections help you prepare to set up Internet-style addressing for your GroupWise system:

45.1.1 Internet Agent Requirement

Internet addressing requires you to have the GroupWise Internet Agent installed in your GroupWise system. The Internet Agent connects your GroupWise system to the Internet. To install the Internet Agent, see "Installing the GroupWise Internet Agent" in the *GroupWise 7 Installation Guide*.

45.1.2 Internet Agents Used for Outbound Messages

Each domain in your GroupWise system must be assigned an Internet Agent for outbound messages. A domain's assigned Internet Agent handles all outbound messages sent by the domain's users.

If your GroupWise system includes only one Internet Agent, that Internet Agent must be assigned to all domains and is used for all outbound messages.

If your GroupWise system includes multiple Internet Agents, you must decide which Internet Agent you want to be responsible for outbound messages for each domain. You must select one Internet Agent as your system's default Internet Agent, but you can override the default at each domain.

45.1.3 Internet Domain Names

You must associate at least one Internet domain (novell.com, gw.novell.com, support.novell.com, or so forth) with your GroupWise system. These Internet domains need to exist in the domain name service (DNS).

After you have associated Internet domains with your GroupWise system, all users in your system can be addressed using any of the domains (for example, jsmith@novell.com, jsmith@gw.novell.com, and jsmith@support.novell.com). The addresses can be used both internally and externally.

Preferred Internet Domain Name

You must assign each GroupWise user a preferred Internet domain. GroupWise uses the preferred Internet domain name when constructing the e-mail address that are displayed in the GroupWise Address Book and in the To field of sent messages.

To make this process easier, GroupWise lets you assign a preferred Internet domain to be used as the default for your GroupWise system (for example, novell.com). The system's preferred Internet domain is applied to all users in your GroupWise system. However, you can override the system's preferred Internet domain at the domain, post office, or user level, meaning that different users within your GroupWise system can be assigned different preferred Internet domains. For example, users in one domain can be assigned gw.novell.com as their preferred Internet domain while users in another domain are assigned support.novell.com.

45.1.4 Preferred Address Format

You must choose a preferred address format for your GroupWise users. GroupWise uses the preferred address format, along with the preferred Internet domain, to construct the e-mail addresses that are published in the GroupWise Address Book and in the To field of sent messages.

GroupWise supports the following address formats:

userID.post_office.domain@internet_domain_name

userID.post_office@internet_domain_name
userID@internet_domain_name
firstname.lastname@internet_domain_name
lastname.firstname@internet_domain_name
firstinital lastname@internet_domain_name

As with the preferred Internet domain, you must assign a preferred address format to be used as the default for your GroupWise system. The system's preferred address format is applied to all users in your GroupWise system. However, you can override the system's preferred address format at the domain, post office, and user/resource level.

The following sections explain some of the advantages and disadvantages of each address format:

- "userID.post_office.domain@internet_domain_name" on page 705
- "userID.post_office@internet_domain_name" on page 705
- "userID@internet_domain_name" on page 705
- "firstname.lastname@internet_domain_name" on page 706
- "lastname.firstname@internet_domain_name" on page 706
- "firstinitial lastname@internet_domain_name" on page 706

userID.post_office.domain@internet_domain_name

Advantages

- Reliable format. GroupWise guarantees that each address is unique.
- Identical usernames can be used in different post offices.

Disadvantages

- Addresses tend to be long and hard to remember.
- Addresses might change over time as users are moved from one post office to another.

userID.post_office@internet_domain_name

Advantages

- Guarantees uniqueness if all your post offices have unique names.
- Identical usernames can be placed in different post offices.

Disadvantages

- Addresses tend to be long and hard to remember.
- Addresses might change over time as users are moved from one post office to another.

userID@internet_domain_name

Advantages

- Addresses are short and easy to remember.

- Backwards-compatible with previous versions of GroupWise. (Users won't need to update their business cards.)
- Addresses do not change as users are moved.

Disadvantages

- When you first enable this address format, you might have duplicate user IDs in your GroupWise system. However, in the future, ConsoleOne® prevents you from creating duplicate user IDs within the same Internet domain name. The same user ID can be used in different Internet domains without problem.

firstname.lastname@internet_domain_name

Advantages

- Addresses are intuitive and easy to remember.
- Addresses do not change as users are moved.

Disadvantages

- When you first enable this address format, you might have duplicate first and last names in your GroupWise system. However, in the future, ConsoleOne prevents you from creating users with the same first and last names within the same Internet domain name. The same first name and last name combination can be used in different Internet domains without problem.
- The probability of conflicts increases if any user's first and last names match any GroupWise domain or post office name, if any two users have the same first and last names, or if any two users have the opposite first and last names (such as James Dean and Dean James).

lastname.firstname@internet_domain_name

Advantages

- Addresses are intuitive and easy to remember.
- Addresses do not change as users are moved.

Disadvantages

- When you first enable this address format, you might have duplicate first and last names in your GroupWise system. However, in the future, ConsoleOne prevents you from creating users with the same first and last names within the same Internet domain name. The same last name and first name combination can be used in different Internet domains without a problem.
- The probability of conflicts increases if any user's first and last names match any GroupWise domain or post office name, if any two users have the same first and last names, or if any two users have the opposite first and last names (such as James Dean and Dean James).

firstinitial lastname@internet_domain_name

Advantages

- Addresses are intuitive and easy to remember.

- Addresses do not change as users are moved.

Disadvantages

- When you first enable this address format, you might have duplicate first initial and last names in your GroupWise system. However, in the future, ConsoleOne prevents you from creating users with the same first initials and last names within the same Internet domain name. The same first initial and last name combination can be used in different Internet domains without problem
- The probability of conflicts increases when using first initials instead of complete first names.

45.1.5 Allowed Address Formats

The preferred Internet domain and preferred address format apply to user addresses as displayed in the GroupWise Address Book or in the address displayed on sent messages.

The allowed address formats, on the other hand, determine which address formats are accepted by the Internet Agent. There are five possible allowed formats:

userID.post_office@internet_domain_name
userID@internet_domain_name
firstname.lastname@internet_domain_name
lastname.firstname@internet_domain_name
firstinital lastname@internet_domain_name

If you select all five formats, the Internet Agent accepts messages addressed to users in any of the formats. For example, John Peterson would receive messages sent using any of the following addresses:

jpeterson.research@novell.com
jpeterson@novell.com
john.peterson@novell.com
peterson.john@novell.com
jpeterson@novell.com

You must designate the allowed address formats to be used as the default formats for your GroupWise system. The system's allowed address formats are applied to all users in your GroupWise system. However, you can override the system's allowed address formats at the domain, post office, and user/resource level.

For example, assume you have two John Petersons with userIDs of jpeterson and japeterson. The *userID.post_office* and *userID* address formats do not cause message delivery problems, but the *firstname.lastname*, *lastname.firstname*, and *firstinitial lastname* address formats do. To overcome this problem, you could disallow the three problem formats for these users at the user level.

45.1.6 Override Options

In spite of the best planning, some e-mail addresses do not fit the rules and are not processed correctly. You can handle such addresses by overriding the regular address processing, as described in Section 45.2.3, "Overriding Internet Addressing Defaults," on page 710.

45.2 Setting Up Internet Addressing

The following sections help you to set up Internet addressing:

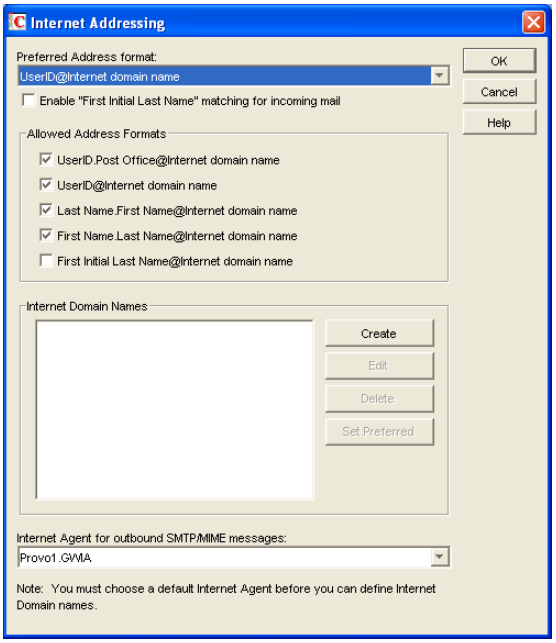
- Section 45.2.1, “Installing the Internet Agent,” on page 708
- Section 45.2.2, “Enabling Internet Addressing,” on page 708
- Section 45.2.3, “Overriding Internet Addressing Defaults,” on page 710

45.2.1 Installing the Internet Agent

Before you can set up Internet addressing, you must install the GroupWise Internet Agent. If you have not already installed the agent, see “Installing the GroupWise Internet Agent” in the *GroupWise 7 Installation Guide*.

45.2.2 Enabling Internet Addressing

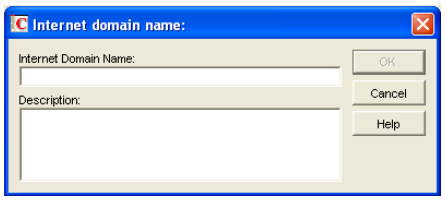
1 In ConsoleOne, click *Tools* > *GroupWise System Operations* > *Internet Addressing*.



2 In the *Internet Agent for Outbound SMTP/MIME Messages* list, select the Internet Agent to use as the default Internet Agent for your system.

By default, each domain uses this Internet Agent for outbound messages sent by users in the domain. If you have multiple Internet Agents in your GroupWise system, you can override the default setting at the domain level. For more information, see “Domain Overrides” on page 710.

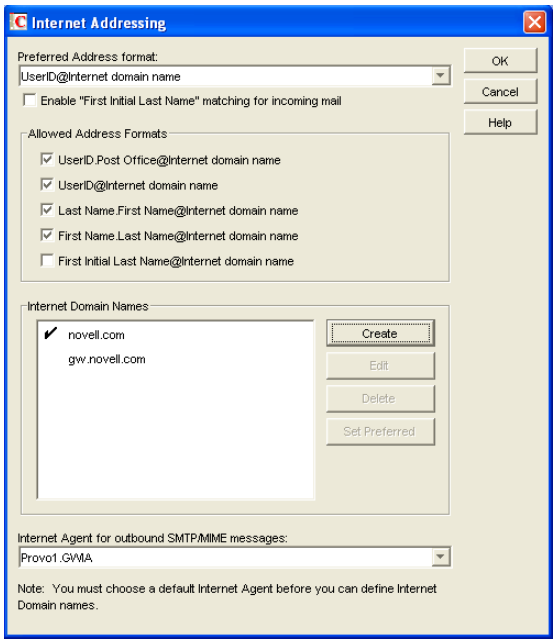
3 To define an Internet domain, click *Create* to display the Internet Domain Name dialog box.



4 Specify the Internet domain you want to define in your GroupWise system, then click *OK* to add it to the list of Internet domains.

5 Repeat Step 3 and Step 4 for each Internet domain you want to define.

When you finish, all Internet domains you want to define should be listed in the *Internet Domain Names* box.



The preferred Internet domain is indicated by a check mark. This is the Internet domain name that is used when GroupWise constructs a user's preferred e-mail address. A preferred e-mail address is the address that is published in the GroupWise Address Book and in the To field of sent messages. You can override the preferred Internet domain name at the domain, post office, and user/resource levels. For more information, see Section 45.2.3, "Overriding Internet Addressing Defaults," on page 710.

6 If the Internet domain you want to be the default preferred domain for your GroupWise system is not already selected, select the desired Internet domain, then click *Set Preferred Name*.

7 In the Preferred Address Format list, select your system's default Internet address format.

This is the format that is used when displaying addresses in the GroupWise Address Book and in a message's From field if it is not overridden at a lower level. For a list of the available addressing formats and their respective advantages and disadvantages, see Section 45.1.4, "Preferred Address Format," on page 704.

You can override the preferred address format at the domain, post office, and user/resource levels. For more information, see Section 45.2.3, "Overriding Internet Addressing Defaults," on page 710.

8 If desired, turn on the *Enable "First Initial Last Name" Matching for Incoming Mail* option.

This option allows the Internet Agent to resolve addresses for incoming messages by performing first initial last name lookups on the username portion of the address. When doing so, the Internet Agent uses the first letter of the username as the first initial and the remainder of the username as the last name. It then resolves the address to any GroupWise users whose Last Name field (in their eDirectory User object properties) contains the last name and whose Given Name field starts with the first initial.

For example, if the recipient's address is jpeterson@novell.com, the first initial would be J and the last name would be Peterson. The address would resolve to the user whose Last Name field is Peterson and Given Name field starts with J. If more than one user's given name starts with J (for example, John and Janice), the message is undeliverable.

This option is useful if you want to be able to use the UserID@Internet_domain_name format but your userIDs do not really reflect your users' actual names (for example, John Peterson's user ID is 46789 so his address is 46789@novell.com). In this case, you could publish users' addresses as the first initial last name (for example, jpeterson@novell.com) and enable this option so that the Internet Agent resolves the addresses to the appropriate users.

9 In the *Allowed Address Formats* list, select the address formats that you want to be supported for incoming messages. GroupWise delivers a message to the recipient if any of the allowed formats have been used in the address.

You can override the allowed address formats at the domain, post office, and user/resource levels. For more information, see Section 45.2.3, "Overriding Internet Addressing Defaults," on page 710.

10 Click OK to save your changes.

If you changed the preferred address format, you are prompted to update the Internet e-mail address (User object > *General* > *Identification* > *E-Mail Address*) for all affected users. The Internet e-mail address is the address returned in response to LDAP queries to eDirectory™. It is recommended that you allow this update; however, performing it for the entire GroupWise system might take a while.

At this point, Internet addressing is enabled.

45.2.3 Overriding Internet Addressing Defaults

All domains, post offices, and users/resources in your GroupWise system inherit the defaults (Internet Agent for outbound messages, preferred Internet domain name, preferred address format, and allowed address formats) you established when enabling Internet addressing for your system. However, if desired, you can override these defaults for individual domains, post offices, or users/resources.

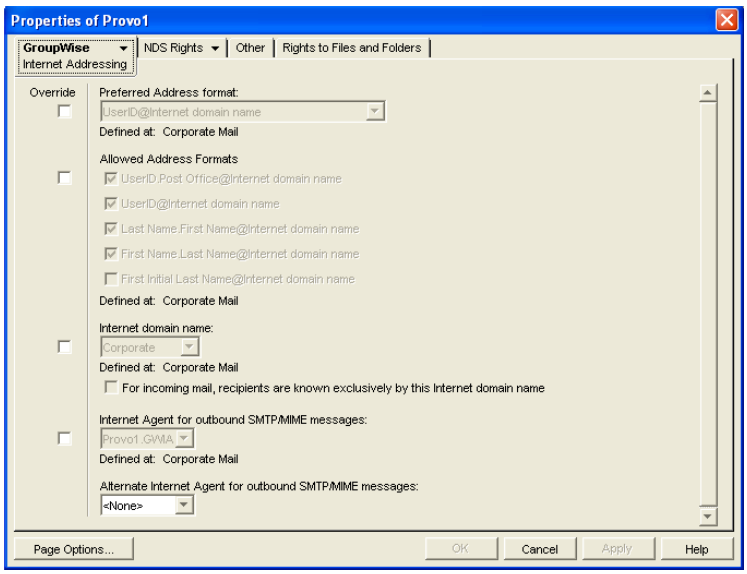
- "Domain Overrides" on page 710
- "Post Office Overrides" on page 711
- "User/Resource Overrides" on page 712

Domain Overrides

At the domain level, you can override all Internet addressing defaults assigned to your GroupWise system.

1 In ConsoleOne, right-click a Domain object, then click *Properties*.

2 Click *GroupWise > Internet Addressing*.



3 To override one of the options, select the *Override* box, then select the option you prefer for this domain.

4 Click *OK* to save the changes.

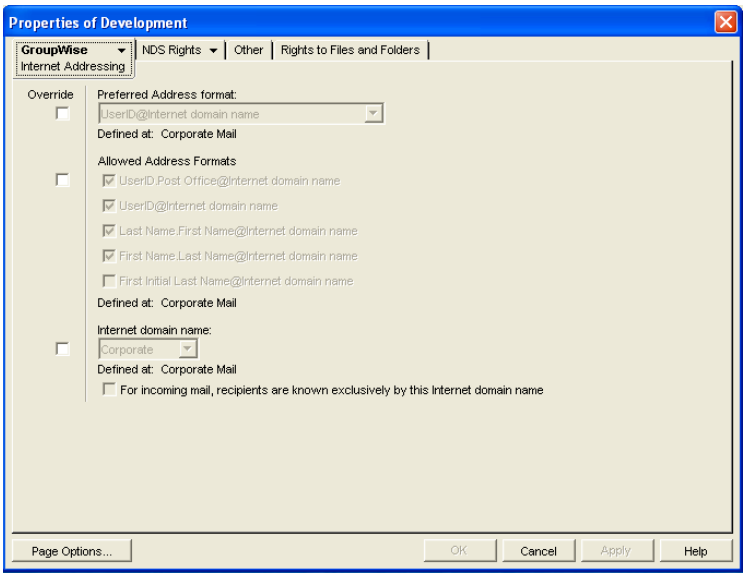
If you changed the preferred address format, you are prompted to update the Internet e-mail address (User object > *General* > *Identification* > *E-Mail Address*) for all affected users. The Internet e-mail address is the address returned in response to LDAP queries to eDirectory. We recommend that you allow this update; however, performing it for an entire GroupWise domain might take a while.

Post Office Overrides

At the post office level, you can override the preferred Internet domain name, preferred address format, and allowed address formats the post office has inherited from its domain. You cannot override the Internet Agent that is assigned to handle outbound messages.

1 In ConsoleOne, right-click a Post Office object, then click *Properties*.

2 Click *GroupWise > Internet Addressing*.



3 To override one of the options, select the *Override* box, then select the option you prefer for this post office.

   If you need additional information about any of the fields, click *Help*.

4 Click *OK* to save the changes.

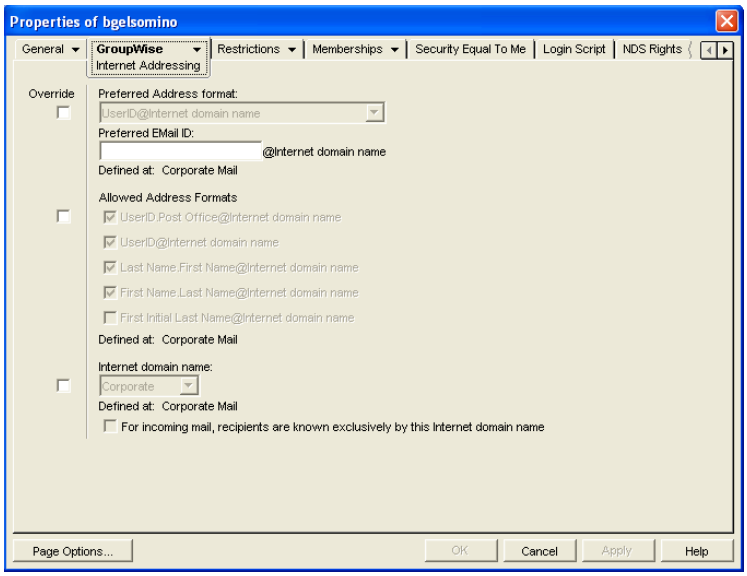
   If you changed the preferred address format, you are prompted to update the Internet e-mail address (User object > *General* > *Identification* > *E-Mail Address*) for all affected users. The Internet e-mail address is the address returned in response to LDAP queries to eDirectory. We recommend that you allow this update; however, performing it for an entire GroupWise post office might take a while.

User/Resource Overrides

At the user and resource level, you can override the preferred Internet domain, preferred address format, and allowed address formats that the user/resource has inherited from its post office. You cannot override the Internet Agent that is assigned to handle outbound messages.

1 In ConsoleOne, right-click a User or Resource object, then click *Properties*.

2 Click *GroupWise* > *Internet Addressing*.



3 To override one of the options, select the *Override* box, then select the option you prefer for this user or resource.

At the user and resource level, the preferred address format can be completely overridden by explicitly defining the user portion of the address format (*user@Internet domain name*). The user portion can include any RFC-compliant characters (no spaces, commas, and so forth).

For example, if you've selected *First Name.Last Name@Internet domain name* as your system's preferred address format and you have two John Petersons, each on a different post office in your system, you would end up two users having the same address (John.Peterson@novell.com). You could use this field to differentiate them by including their middle initials in their address (John.S.Peterson@novell.com and John.A.Peterson@novell.com).

You can use the same e-mail ID for more than one user in your GroupWise system, if each user is in a different Internet domain. Rather than requiring that each e-mail ID be unique in your GroupWise system, each combination of e-mail ID and Internet domain must be unique. This provides more flexibility for handling the situation where two people have the same name.

If you need additional information about any of the fields, click *Help*.

4 Click *OK* to save the changes.

If you changed the preferred address format for a user, you are prompted to update the user's Internet e-mail address (*General* > *Identification* > *E-Mail Address*). The Internet e-mail address is the address returned in response to LDAP queries to eDirectory. We recommend that you allow this update.

45.3 Transitioning from SMTP Gateway Aliases to Internet Addressing

For those who have been using SMTP gateway aliases to handle e-mail addresses that do not fit the default format expected by the Internet Agent or to customize users' Internet addresses, the Gateway Alias Migration utility can convert the usernames in those gateway aliases into preferred e-mail IDs. The Preferred E-Mail ID feature was first introduced in GroupWise 6.5 and is the suggested method for overriding the current e-mail address format, as described in Section 14.7.2, "Changing a User's

Internet Addressing Settings," on page 236. The Gateway Alias Migration utility can also update users' preferred Internet domain names based on their existing gateway aliases.

- Section 45.3.1, "Planning to Migrate Gateway Aliases," on page 714
- Section 45.3.2, "Preparing to Migrate Gateway Aliases," on page 714
- Section 45.3.3, "Performing the Gateway Alias Migration," on page 714
- Section 45.3.4, "Verifying the Gateway Alias Migration," on page 716

45.3.1 Planning to Migrate Gateway Aliases

You can migrate SMTP gateway aliases by individual user, by post office, by domain, or for your entire GroupWise system. Migrating at the post office level is recommended, although you can test the process by migrating individual users. Assess the gateway aliases in your GroupWise system and decide how you want to organize the migration process.

The Gateway Alias Migration utility runs most efficiently if you are connected to the domain that owns the users whose aliases you are migrating. This reduces network traffic between domains during the migration process.

The Gateway Alias Migration utility requires that you connect to a GroupWise 7 domain, although you can select users from 6.*x* and 5.*x* domains for migration. If you still have 4.*x* domains, you can migrate aliases by connecting to the GroupWise System object before connecting to a domain.

Determine the domains you need to connect to as you perform the migration.

45.3.2 Preparing to Migrate Gateway Aliases

Before starting the SMTP gateway alias migration process:

- Validate each domain database (`wpdomain.db`) that you will connect to in order to clean up any orphaned aliases that might exist. See Section 26.1, "Validating Domain or Post Office Databases," on page 377.
- Create a current backup of each domain database before performing the migration. See Section 31.1, "Backing Up a Domain," on page 407

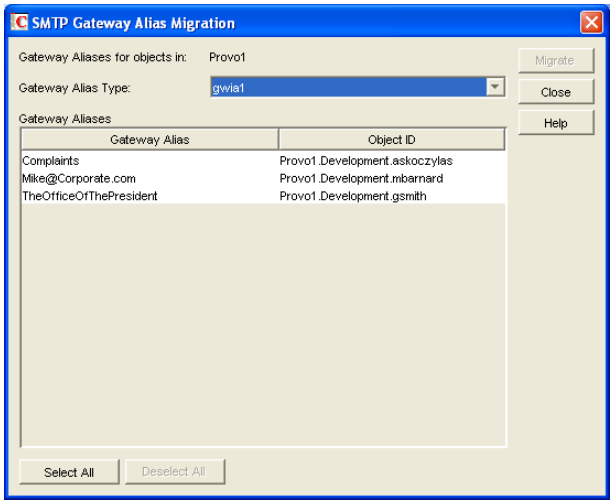
45.3.3 Performing the Gateway Alias Migration

To run the Gateway Alias Migration utility in ConsoleOne:

1. If you want to migrate all gateway aliases in your GroupWise system, connect to the primary domain in the GroupWise View.

   or

   If you want to migrate the gateway aliases in a particular domain or post office, connect to the domain where the aliases are located.
2. Browse to and select the object representing the set of gateway aliases that you want to migrate (GroupWise system, domain, post office, or user).
3. Click *Tools* > *GroupWise Utilities* > *Gateway Alias Migration*.
4. In the *SMTP Gateway Alias Type* drop-down list, select the type of alias you want to migrate.



The list of available gateway alias types is generated from the *Gateway Alias Type* fields on the Identification property pages of the Internet Agent objects in your GroupWise system.

The resulting alias list provides the SMTP gateway aliases for all users associated with the object selected in Step 2. If the list is extremely long, you can click *Stop* and just work with a subset of the alias list.

The list does not include any aliases that have a pending operation on them.

5 Select one or more gateway aliases to migrate.

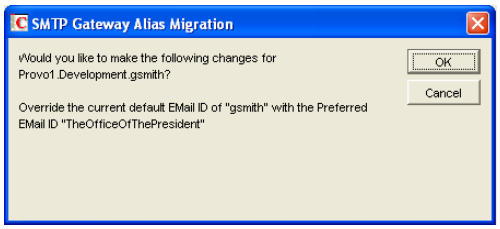
or

Click *Select All*.

6 Click *Migrate* to start the migration process.

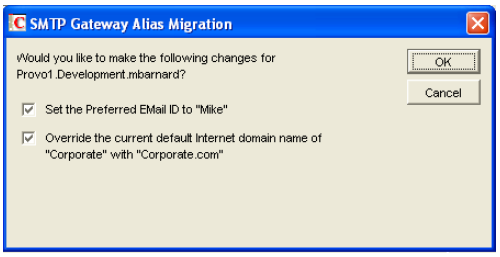
You are prompted for how to handle each gateway alias.

- If the alias is just a username, you can select whether or not you want to use that username as the user's preferred e-mail ID.



If you do, the username is transferred into the *Preferred E-Mail ID* field on the Internet Addressing property page of the User object.

- If the alias also includes an Internet domain name, you can select whether or not you want to use that Internet domain name with the user's preferred e-mail ID.



If you do, the domain name is transferred into the *Internet Domain Name* field on the Internet Addressing property page of the User object.

NOTE: For an internal user, if the Internet domain name is not defined in your GroupWise system under *Tools* > *GroupWise System Operations* > *Internet Addressing*, then the Internet domain name is not transferred into the *Internet Domain Name* field on the Internet Addressing property page of the User object. However, for external users, undefined Internet domain names are transferred into the *Internet Domain Name* field on the Internet Addressing property page of the External User or External Entity object.

By default, both usernames and domain names are selected for migration.

7 For each gateway alias, deselect the check boxes for any actions that you do not want the Alias Migration utility to perform, then click *OK*.

For convenience when migrating multiple aliases, you can click *OK to All* to apply your current selections to all aliases.

8 When the migration is complete, select a different gateway alias type to migrate.

or

Click *Close*.

45.3.4 Verifying the Gateway Alias Migration

To see what the Gateway Alias Migration utility has accomplished:

1 Browse to and right-click a User object that used to have a gateway alias, then click *Properties*.

2 Click *GroupWise* > *Gateway Aliases*.

The alias list should be empty.

3 On the same User object, click *GroupWise* > *Internet Addressing*.

The *Preferred EMail ID* field should be filled in with the information from the old gateway alias.

Configuring Internet Services

46

For detailed instructions about installing and starting the Internet Agent for the first time, see "Installing the GroupWise Internet Agent" in the *GroupWise 7 Installation Guide*.

The Internet Agent offers several useful services that you can configure to meet the needs of your GroupWise® system.

46.1 Configuring SMTP/MIME Services

SMTP and MIME are standard protocols that the GroupWise Internet Agent uses to send and receive e-mail messages over the Internet. SMTP, or Simple Mail Transfer Protocol, is the message transmission protocol. MIME, or Multipurpose Internet Mail Extension, is the message format protocol. Choose from the following topics for information about how to enable SMTP/MIME services and configure various SMTP/MIME settings:

46.1.1 Configuring Basic SMTP/MIME Settings

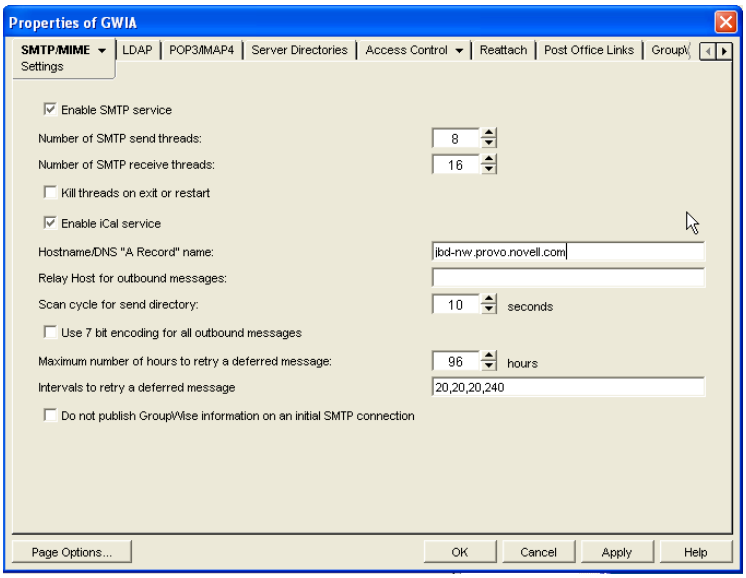
Basic SMTP/MIME settings configure the following aspects of Internet Agent functioning:

- Number of send and receive threads that the Internet Agent starts and how often the send threads poll for outgoing messages
- Hostname of the server where the Internet Agent is running and of a relay host if your system includes one
- IP address to bind to at connection time if the server has multiple IP addresses
- Whether to use 7-bit or 8-bit encoding for outgoing messages

- How to handle messages that cannot be sent immediately and must be deferred
- Whether to display GroupWise version information when establishing an SMTP connection

To set the Internet Agent basic SMTP/MIME settings:

1. In ConsoleOne®, right-click the Internet Agent object, then click *Properties*.
2. If the SMTP/MIME Settings page is not the default page, click *SMTP/MIME* > *Settings*.



3. Fill in the fields:

   Enable SMTP Service: SMTP service is on by default. This setting allows SMTP Internet messaging. This setting corresponds with the Internet Agent's /smtp switch.

   Number of SMTP Send Threads: The SMTP send threads setting lets you specify the number of threads that process SMTP send requests. Each thread is equivalent to one connection. The default is 8 threads. This setting corresponds with the Internet Agent's /sd switch.

   Number of SMTP Receive Threads: The SMTP receive threads setting lets you specify the number of threads that process SMTP receive requests. Each thread is equivalent to one connection. The default is 16 threads. This setting corresponds with the Internet Agent's /rd switch.

   Kill Threads on Exit or Restart: Select this option to cause the Internet Agent to stop immediately, without allowing its send/receive threads to perform their normal shutdown procedures. The normal termination of all send/receive threads can take several minutes, especially if a large message is being processed. By terminating immediately, a needed restart can occur immediately as well. This setting corresponds with the Internet Agent's /killthreads switch.

   Enable iCal Service: Select this option if you want the Internet Agent to convert outbound GroupWise Calendar items into MIME text/calendar iCal objects and to convert incoming MIME text/calendar messages into GroupWise Calendar items. Enabling the iCal service provides the functionality described in "Accepting or Declining Internet Items" in "Scheduling Group and Posted Items" in the *GroupWise 7 Windows Client User Guide*. This setting corresponds with the Internet Agent's /imip switch.

Hostname/DNS "A Record" Name: The Hostname/DNS “A Record” name setting lets you identify the hostname of the server where the Internet Agent resides, or in other words the A Record in your DNS table that associates a hostname with the server’s IP address (for example, gwia.novell.com). This setting corresponds with the Internet Agent’s /hn switch.

If you leave this field blank, the Internet Agent uses the hostname obtained by querying the hosts file from the server.

Relay Host for Outbound Messages: The Relay host setting can be used if you want to use one or more relay hosts to route all outbound Internet e-mail. Specify the IP address or DNS hostname of the relay hosts. Use a space between relay hosts in a list. Relay hosts can be part of your network or can reside at the Internet service provider’s site. This setting corresponds with the Internet Agent’s /mh switch.

If you want to use a relay host, but you want some outbound messages sent directly to the destination host rather than to the relay host, you can use a route configuration file (`route.cfg`). Whenever a message is addressed to a user at a host that is included in the `route.cfg` file, the Internet Agent sends the message directly to the host rather than to the relay host. For information about creating a `route.cfg` file, see Section 46.1.9, “Using a Route Configuration File,” on page 732.

Scan Cycle for Send Directory: The Scan cycle setting specifies how often the Internet Agent polls for outgoing messages. The default is 10 seconds. This setting corresponds with the Internet Agent’s /p switch.

Use 7 Bit Encoding for All Outbound Messages: By default, the Internet Agent uses 8-bit MIME encoding for any outbound messages that are HTML-formatted or that contain 8-bit characters. If, after connecting with the receiving SMTP host, the Internet Agent discovers that the receiving SMTP host cannot handle 8-bit MIME encoded messages, the Internet Agent converts the messages to 7-bit encoding.

With this option selected, the Internet Agent automatically uses 7-bit encoding and does not attempt to use 8-bit MIME encoding. You should use this option if you are using a relay host that does not support 8-bit MIME encoding. This setting corresponds with the Internet Agent’s /force7bitout switch.

Maximum Number of Hours to Retry a Deferred Message: Specify the number of hours after which the Internet Agent stops trying to send deferred messages. The default is 96 hours, or four days. A deferred message is any message that can’t be sent because of a temporary problem (host down, MX record not found, and so forth). This setting corresponds with the Internet Agent’s /maxdeferhours switch.

Intervals to Retry a Deferred Message: Specify in a comma-delimited list the number of minutes after which the Internet Agent retries sending deferred messages. The default is 20, 20, 20, 240. The Internet Agent interprets this list as follows: It retries 20 minutes after the initial send, 20 minutes after the first retry, 20 minutes after the second retry, and 240 minutes (4 hours) after the third retry. Thereafter, it retries every 240 minutes until the number of hours specified in the *Maximum Number of Hours to Retry a Deferred Message* field is reached. You can provide additional retry intervals as needed. It is the last retry interval that repeats until the maximum number of hours is reached. This setting corresponds with the Internet Agent’s /msgdeferinterval switch.

Do Not Publish GroupWise Information on an Initial SMTP Connection: Select this option to suppress the GroupWise version and copyright date information that the Internet Agent typically responds with when contacted by another SMTP host or a telnet session. This setting corresponds with the Internet Agent’s /nosmtpversion switch.

4 Click *OK* to save the changes.

46.1.2 Using Extended SMTP (ESMTP) Options

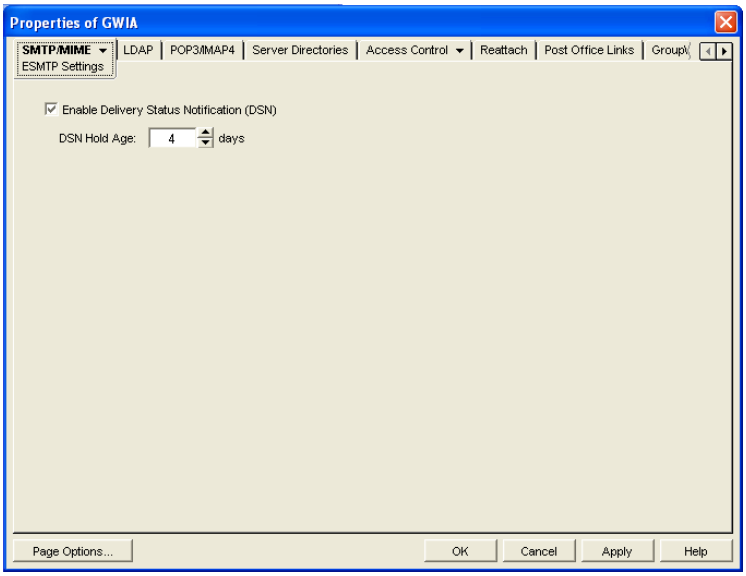
The Internet Agent supports several Extended SMTP (ESMTP) settings. These are settings that might or might not be supported by another SMTP system.

The following ESMTP extensions are supported:

- **SIZE:** For more information, see RFC 1870 (http://www.ietf.org/rfc/rfc1870.txt).
- **AUTH:** For more information, see RFC 2554 (http://www.ietf.org/rfc/rfc2554.txt).
- **DSN:** For more information, see RFC 3464 (http://www.ietf.org/rfc/rfc3464.txt) and RFC 3461 (http://www.ietf.org/rfc/rfc3461.txt).
- **8BITMIME:** For more information, see RFC 1652 (http://www.ietf.org/rfc/rfc1652.txt).
- **STARTTLS:** For more information, see RFC 3207 (http://www.ietf.org/rfc/rfc3207.txt).

To configure ESMTP settings:

1. In ConsoleOne, right-click the Internet Agent object, then click *Properties*.
2. Click *SMTP/MIME* > *ESMTP Settings*.



3. Fill in the fields:

   Enable Delivery Status Notification: Turn on this option to allow the Internet Agent to request status notifications for outgoing messages and to supply status notifications for incoming messages. This requires the external e-mail system to also support *Delivery Status Notification*. Currently, notification consists of two delivery statuses: successful or unsuccessful.

   If you enable the *Delivery Status Notification* option, you need to select the number of days that you want the Internet Agent to retain information about the external sender so that status updates can be delivered to him or her. For example, the default hold age causes the sender information to be retained for 4 days. If the Internet Agent does not receive delivery status notification from the GroupWise recipient's Post Office Agent (POA) within that time period, it deletes the sender information and the sender does not receive any delivery status notification.

4. Click *OK* to save the changes.

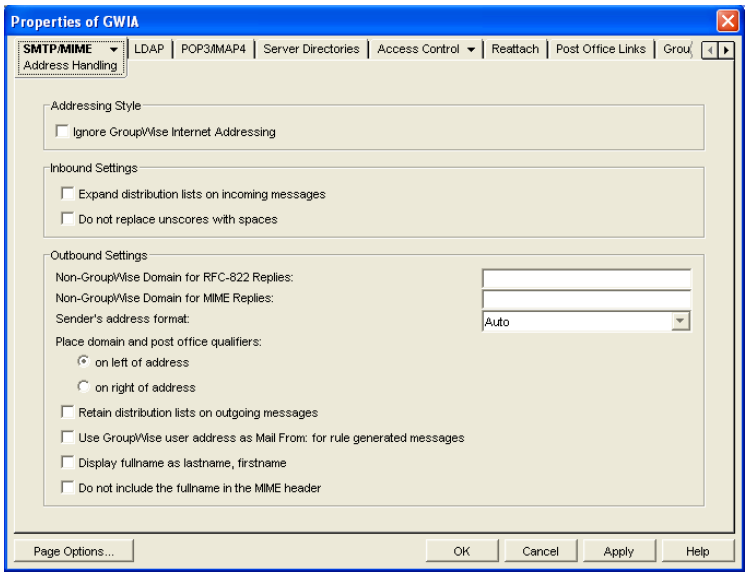
46.1.3 Configuring How the Internet Agent Handles E-Mail Addresses

The Internet Agent can handle e-mail addresses in a variety of ways:

- Internet addressing vs. GroupWise proprietary addressing
- Group membership expansion on inbound messages
- Distribution membership expansion on outbound messages
- Using non-GroupWise domains
- Using sender's address format
- Using domain and post office information

To set the Internet Agent address handling options:

1. In ConsoleOne, right-click the Internet Agent object, then click *Properties*.
2. Click *SMTP/MIME* > *Address Handling*.



3. Fill in the fields:

   Ignore GroupWise Internet Addressing: GroupWise supports both Internet-style addressing (*user@host*) and GroupWise proprietary addressing (*user_ID.post_office.domain*). By default, the Internet Agent uses Internet-style addressing.

   If you do not want the Internet Agent to use standard Internet-style addressing (*user@host*), turn on the *Ignore GroupWise Internet Addressing* option. With this option turned on, messages use the mail domain name in the *Foreign ID* field (Internet Agent object > *GroupWise* > *Identification*) for the domain portion of a user's Internet address. If you included multiple mail domain names in the *Foreign ID* field or the `frgnames.cfg` file, as described in "Listing Foreign Domain Names" on page 723, the first mail domain name listed is the one used in addresses.

   The Internet Agent supports user and post office aliases in either mode. This setting corresponds with the Internet Agent's /dia switch.

Expand Groups on Incoming Messages: Turn on this option to have incoming Internet messages addressed to public groups sent to all members of the groups. This setting corresponds with the Internet Agent's /group switch.

Non-GroupWise Domain for RFC-822 Replies: This setting can be used only if 1) you created a non-GroupWise domain to represent all or part of the Internet, as described in Section 6.7, "Adding External Users to the GroupWise Address Book," on page 95, and 2) you defined the non-GroupWise domain's outgoing conversion format as RFC-822 when you linked the Internet Agent to the domain.

Specify the name of the non-GroupWise domain associated with the RFC-822 conversion format. When a GroupWise user replies to a message that was originally received by the Internet Agent in RFC-822 format, the reply is sent to the specified non-GroupWise domain and converted to RFC-822 format so that it is in the same format as the original message.

This setting corresponds with the Internet Agent's /fd822 switch.

Non-GroupWise Domain for MIME Replies: This setting can be used only if 1) you created a non-GroupWise domain that represents all or part of the Internet, as described in Section 6.7, "Adding External Users to the GroupWise Address Book," on page 95, and 2) you defined the non-GroupWise domain's outgoing conversion format as MIME when you linked the Internet Agent to the domain.

Specify the name of the non-GroupWise domain associated with the MIME conversion format. When a GroupWise user replies to a message that was originally received by the Internet Agent in MIME format, the reply is sent to the specified non-GroupWise domain and converted to MIME format so that it is in the same format as the original message.

This setting corresponds with the Internet Agent's /fdmime switch.

Sender's Address Format: This setting applies only if you have not enabled GroupWise Internet addressing (in other words, you selected the *Ignore GroupWise Internet Addressing* option). If GroupWise Internet addressing is enabled, the Internet Agent ignores this setting and uses the preferred address format established for outbound messages (*Tools > GroupWise System Operations > Internet Addressing*).

The Sender's Address Format setting lets you specify which GroupWise address components (*domain.post_office.user_ID*) are included as the user portion of the address on outbound messages. You can choose from the following options:

- **Domain, Post Office, User, and Hostname:** Uses the *domain.post_office.user_ID@host* syntax.
- **Post Office, User, and Hostname:** Uses the *post_office.user_ID@host* syntax.
- **User and Hostname:** Uses the *user_ID@host* syntax.
- **Auto (default):** Uses the GroupWise addressing components required to make the address unique within the user's GroupWise system. If a user ID is unique in a GroupWise system, the outbound address uses only the user ID. If the post office or domain.post office components are required to make the address unique, these components are also included in the outbound address.

The Sender's Address Format setting corresponds with the Internet Agent's /aql switch.

Place Domain and Post Office Qualifiers: If the sender's address format must include the domain and/or post office portions to be unique, you can use this option to determine where the domain and post office portions are located within the address.

- **On Left of Address (default):** Leaves the domain and post office portions on the left side of the @ sign (for example, *domain.post_office.user_ID@host*.

- **On Right of Address:** Moves the domain and post office portions to the right side of the @ sign, making the domain and post office part of the host portion of the address (for example, *user_ID@post_office.domain.host*. If you choose this option, you must ensure that your DNS server can resolve each *post_office.domain.host* portion of the address. This setting corresponds with the Internet Agent's /aqor switch.

  Retain Distribution Lists on Outgoing Messages: Select this option if you do not want the Internet Agent to expand distribution lists on messages going to external Internet users. Expansion of distribution lists can result in large SMTP headers on outgoing messages. This setting corresponds with the Internet Agent's /keepsendgroups switch.

  Use GroupWise User Address as Mail From: for Rule Generated Messages: Select this option if you want the Internet Agent to use the real user in the *Mail From* field instead of having auto-forwards come from Postmaster and auto-replies come from Mailer-Daemon. This setting corresponds with the Internet Agent's /realmailfrom switch.

4 Click *OK* to save the changes.

Listing Foreign Domain Names

The *Foreign ID* field (*Internet Agent object* > *GroupWise* > *Identification*) identifies the Internet domain names for which the Internet Agent accepts messages. The field should always include your mail domain name (for example, novell.com). You can include additional domain names by separating them with a space, as in the following example:

```
novell.com gw.novell.com gwia.novell.com
```

When you list multiple Internet domain names, the Internet Agent accepts messages for a GroupWise user if any of the Internet domain names are used (for example, jsmith@novell.com, jsmith@gw.novell.com, or jsmith@gwia.novell.com).

The field limit is 255 characters. If you need to exceed that limit, you can create a `frgnames.cfg` text file in the *`domain`*`\wpgate\`*`gwia`* directory. Include each Internet domain name, separated by a space, just like you would in the *Foreign ID* field.

46.1.4 Determining Format Options for Messages

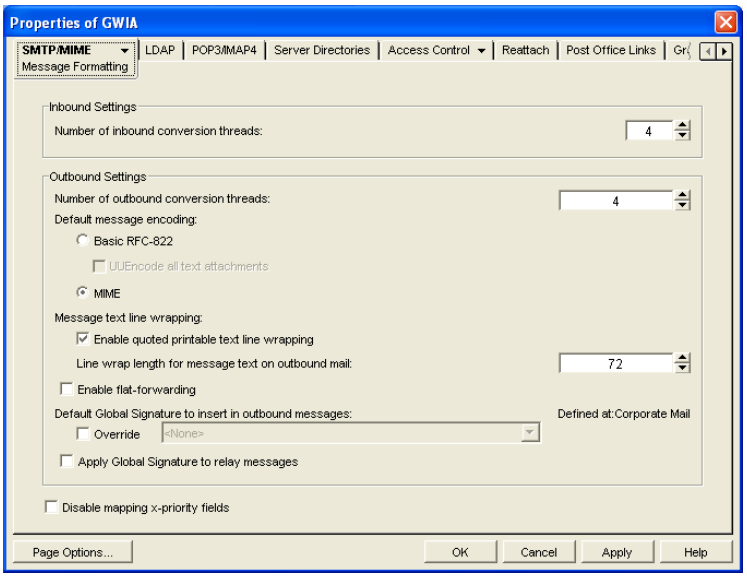
You can control aspects of how the Internet Agent formats incoming and outgoing messages:

- Number of Internet Agent threads for converting messages into the specified format
- The view in which incoming messages are displayed to GroupWise users
- Text encoding method (Basic RFC-822 or MIME)
- Text wrapping
- Message prioritization based on x-priority fields

To set the Internet Agent format options:

1 In ConsoleOne, right-click the Internet Agent object, then click *Properties*.

2 Click *SMTP/MIME* > *Message Formatting*.



3 Fill in the fields:

Number of Inbound Conversion Threads: The inbound conversion threads setting lets you specify the number of threads that convert inbound messages from MIME or RFC-822 format to the GroupWise message format. The default setting is 4. This setting corresponds with the Internet Agent's /rt switch.

Number of Outbound Conversion Threads: The outbound conversion threads setting lets you specify the number of threads that convert outbound messages from the GroupWise message format to MIME or RFC-822 format. The default setting is 4. This setting corresponds with the Internet Agent's /st switch.

Default Message Encoding: The default message encoding setting lets you select the encoding method for your outbound Internet messages. You can select either *Basic RFC-822* formatting or *MIME* formatting. *MIME* is the default message format. This setting corresponds with the Internet Agent's /mime switch.

If you select the *Basic RFC-822* option, you can decide whether or not to have the Internet Agent UUEncode all ASCII text attachments to RFC-822 formatted messages. By default, this option is turned off, which means ASCII text attachments are included as part of the message body. This setting corresponds with the Internet Agent's /uueaa switch.

Message Text Line Wrapping: The *Quoted Printable* text line wrapping setting lets you select the Quoted Printable MIME standard for line wrapping, which provides "soft returns". By default this setting is turned on. If you turn the setting off, MIME messages go out as plain text and wrap text with "hard returns" according to the number of characters specified in the line wrap length setting. This setting corresponds with the Internet Agent's /nqpmt switch.

The *Line Wrap Length for Message Text on Outbound Mail* setting lets you specify the line length for outgoing messages. This is useful if the recipient's e-mail system requires a certain line length. The default line length is 72 characters. This setting corresponds with the Internet Agent's /wrap switch.

Enable Flat Forwarding: Select this option to automatically strip out the empty message that is created when a message is forwarded without adding text, and retain the original sender of the message, rather than showing the user who forwarded it. This facilitates users forwarding messages from GroupWise to other e-mail accounts. Messages arrive in the other accounts

showing the original senders, not the users who forwarded the messages from GroupWise. This setting corresponds with the Internet Agent's /flatfwd switch.

Default Global Signature to Insert in Outbound Messages: Displays the default global signature for your GroupWise system as described in Section 14.3.2, "Selecting a Default Global Signature for All Outgoing Messages," on page 220. If you want this Internet Agent to append a different global signature, select Override, then select the desired signature.

Apply Global Signature to Relay Messages: Select this option to append the global signature to messages that are relayed through your GroupWise system (for example, messages from POP and IMAP clients) in addition to messages that originate within your GroupWise system. This setting corresponds with the Internet Agent's /relayaddsignature switch.

Disable Mapping X-Priority Fields: Select this option to disable the function of mapping an x-priority MIME field to a GroupWise priority for the message. By default, the Internet Agent maps x-priority 1 and 2 messages as high priority, x-priority 3 messages as normal priority, and x-priority 4 and 5 as low priority in GroupWise. This setting corresponds with the Internet Agent's /nomappriority switch.

4 Click *OK* to save the changes.

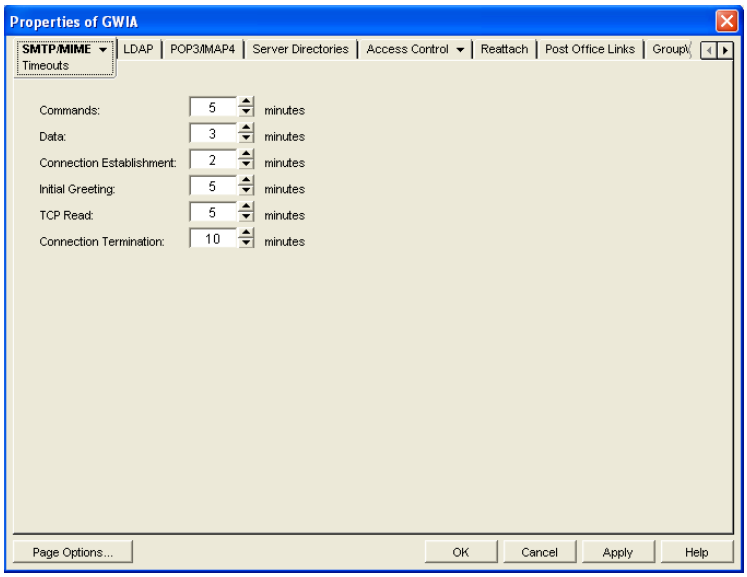
46.1.5 Configuring the SMTP Timeout Settings

The SMTP Timeout settings specify how long the Internet Agent's SMTP service waits to receive data that it can process. After the allocated time expires, the Internet Agent might give a TCP read/write error.

To configure the SMTP timeout settings:

1 In ConsoleOne, right-click the Internet Agent object, then click *Properties*.

2 Click *SMTP/MIME* > *Timeouts*.



3 Fill in the fields:

Commands: The *Commands* setting lets you specify how long the Internet Agent waits for an SMTP command. The default is 5 minutes. This setting corresponds with the Internet Agent's /tc switch.

Data: The *Data* setting lets you specify how long the Internet Agent waits for data from the receiving host. The default is 3 minutes. This setting corresponds with the Internet Agent's /td switch.

Connection Establishment: The *Connection Establishment* setting lets you specify how long the Internet Agent waits for the receiving host to establish a connection. The default is 2 minutes. This setting corresponds with the Internet Agent's /te switch.

Initial Greeting: The *Initial Greeting* setting lets you specify how long the Internet Agent waits for the initial greeting from the receiving host. The default is 5 minutes. This setting corresponds with the Internet Agent's /tg switch.

TCP Read: The *TCP Read* setting lets you specify how long the Internet Agent waits for a TCP read. The default is 5 minutes. This setting corresponds with the Internet Agent's /tr switch.

Connection Termination: The *Connection Termination* setting lets you specify how long the Internet Agent waits for the receiving host to terminate the connection. The default is 10 minutes. This setting corresponds with the Internet Agent's /tt switch.

4 Click *OK* to save the changes.

46.1.6 Determining What to Do with Undeliverable Messages

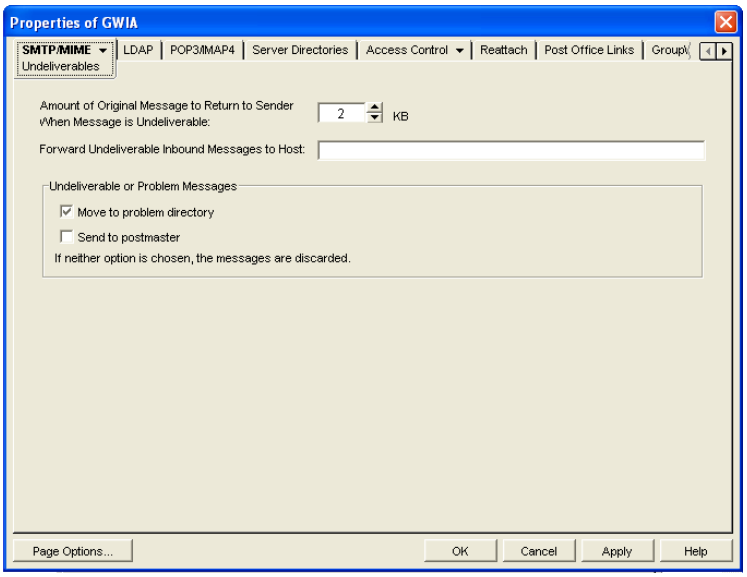
You can configure how the Internet Agent handles messages that it cannot deliver:

- How much of the message to return to the sender
- Another host to forward the message to (where it might be deliverable)
- Whether to move the message to the GroupWise problem directory or send it to the GroupWise administrator

To set the Internet Agent undeliverable message options:

1 In ConsoleOne, right-click the Internet Agent object, then click *Properties*.

2 Click *SMTP/MIME* > *Undeliverables*.



3 Fill in the fields:

Amount of Original Message to Return to Sender When Message is Undeliverable: This setting lets you specify how much of the original message is sent back to the sender when a message is deemed undeliverable. By default, only 2 KB of the original message is sent back. This setting corresponds with the Internet Agent's /mudas switch.

Forward Undeliverable Inbound Messages to Host: This setting lets you specify a host to which undeliverable messages are forwarded. This might be useful if you use UNIX sendmail aliases.

When an IP address is specified rather than a DNS hostname, the IP address must be surrounded by square brackets [ ]. For example, [172.16.5.18].

This setting corresponds with the Internet Agent's /fut switch.

Undeliverable or Problem Messages: This setting lets you specify what you want the Internet Agent to do with problem messages. A problem message is an inbound or outbound message that the Internet Agent cannot convert properly. By default, problem messages are discarded. If you want to save problem messages, specify whether to move the messages to the problem directory (`gwprob`), send them to the postmaster, or do both. This setting corresponds with the Internet Agent's /badmsg switch.

IMPORTANT: Despite the field name (*Undeliverable or Problem Messages*), this setting does not apply to undeliverable messages.

---

4 Click *OK* to save the changes.

46.1.7 Configuring SMTP Dial-Up Services

SMTP dial-up services can be used when you don't require a permanent connection to the Internet and want to periodically check for mail messages queued for processing. Perform the following tasks in order to use SMTP dial-up services:

- "Setting up Internet Dial-Up Software" on page 728
- "Enabling Dial-Up Services" on page 728
- "Creating a Dial-Up Schedule" on page 729

Setting up Internet Dial-Up Software

The Internet Agent requires routing software to make the dial-up connection to the Internet. The Internet Agent cannot make this connection itself; it simply creates packets to hand off to the routing software.

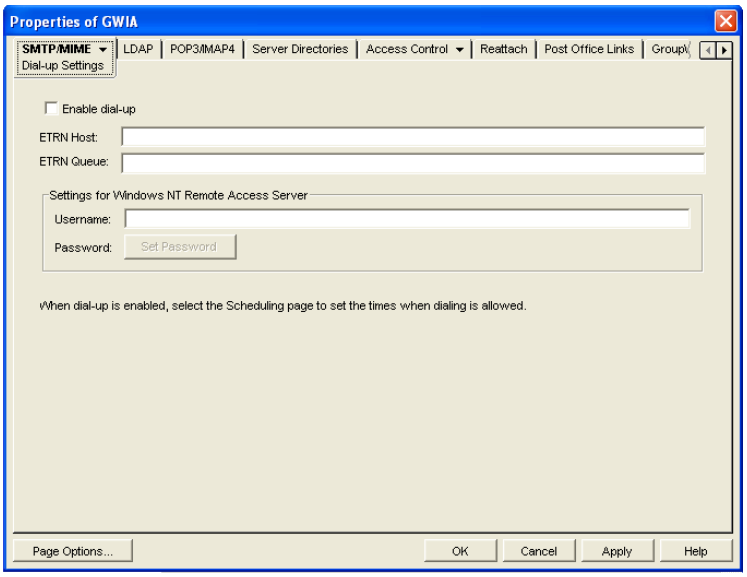
For information about configuring the Internet Agent's dial-up feature with routing software, see TID 10007366 in the Novell Support Knowledgebase (http://www.novell.com/support/supportcentral).

Enabling Dial-Up Services

After you have the appropriate routing software in place, you can enable and configure the Internet Agent's dial-up services.

1 In ConsoleOne, right-click the Internet Agent object, then click Properties.

2 Click *SMTP/MIME > Dial-Up Settings*.



3 Fill in the fields:

Enable Dial-Up: Turn on this option to allow the Internet Agent to support SMTP dial-up service. This option is off by default. This setting corresponds with the Internet Agent's /usedialup switch.

ETRN Host: Specify the IP address, or DNS hostname, of the mail server (where your mail account resides) at your Internet Service Provider. You should obtain this address from your Internet Service Provider. This setting corresponds with the Internet Agent's /etrnhost switch.

ETRN Queue: Specify your e-mail domain as provided by your Internet Service Provider (for example, novell.com). This setting corresponds with the Internet Agent's /etrnqueue switch.

Username: The *Username* setting applies only if you are using a Windows Remote Access Server (RAS) and the Internet Agent is not running on the same server as the RAS.

Specify the RAS Security username. This setting corresponds with the Internet Agent's /dialuser switch.

Password: The *Password* setting applies only if you are using a Windows Remote Access Server (RAS) and the Internet Agent is not running on the same server as the RAS.

Specify the RAS Security user's password. This setting corresponds with the Internet Agent's /dialpass switch.

4 Click *OK* to save the changes.

Creating a Dial-Up Schedule

After you enable the Internet Agent to use a dial-up connection, you need to schedule the times when the Internet Agent initiates a connection.

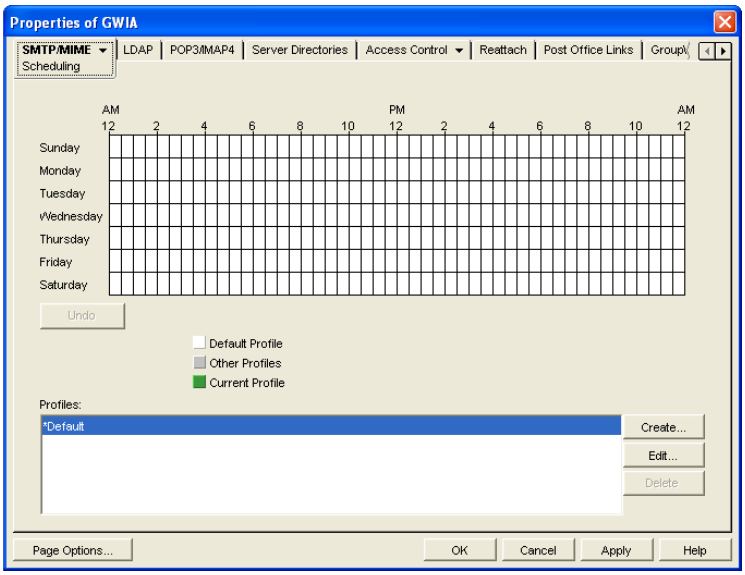
NOTE: When the Internet Agent initiates a connection, it simply passes TCP/IP packets to the routing service that makes the Internet connection. The routing software, not the Internet Agent, is responsible for the actual dial-up or timeout.

The Internet Agent uses profiles to enable you to assign different dial-up criteria to different times. For example, the default profile instructs the Internet Agent to initiate a dial-up connection

whenever an outgoing message is placed in its send queue. However, during the night, you might want the Internet Agent to initiate a connection only after 30 outgoing messages have been queued. In this case, you could create a profile that requires 30 messages to be queued and then apply the profile between the hours of 11 p.m. and 7 a.m. each day.

To create a dial-up schedule:

1. In ConsoleOne, right-click the Internet Agent object, then click *Properties*.
2. Click *SMTP/MIME > Scheduling*.



3. Continue with the desired task:
   - “Applying a Profile” on page 730
   - “Creating a Profile” on page 730
   - “Editing a Profile” on page 730
   - “Deleting a Profile” on page 731

Applying a Profile

1. Select the profile in the *Profiles* list.
2. Click the desired hour.

   or

   Drag to select multiple hours.
3. Click *Apply* to save the changes or click *OK* to save the changes and close the page.

Creating a Profile

1. Click *Create* to display the Create Profile dialog box.
2. Fill in the fields:

   Name: Specify a unique name for the profile. It must be different than any other name in the Profile list.

   Description: If desired, specify a description for the profile.

Queue Thresholds: The queue thresholds determine the criteria for the Internet Agent to initiate a dial-up connection to send messages. The settings do not apply to receiving messages (see Dial Parameters below).

You can base the criteria on the number of messages in the send queue, the total size of the messages in the send queue, or the number of minutes to wait between connections. If necessary, you can use a combination of the three criteria.

For example, if you set *Messages* to 20, *Kilobytes* to 100, and *Minutes* to 60, the Internet Agent instructs the routing service to initiate a dial-up connection when 20 messages have accumulated in the queue, when the total size of the messages in the queue reaches 100 K, or when 60 minutes have passed since the last connection.

Dial Parameters: The dial parameters serve two purposes: 1) the Internet Agent passes the Redial Interval and Idle Time Before Hangup parameters to the routing service to use when initiating a connection to send outbound messages, and 2) the Internet Agent uses the Polling Interval parameter to determine how often the routing service should initiate a connection to check for inbound messages. The Polling Interval parameter is required.

Specify the interval between redials (default is 30 seconds), the amount of time to wait before hanging up when there are no messages to process (default is 60 seconds), and the interval between polling for inbound messages (default is 0 minutes).

3. Click *OK* to add the profile to the Profiles list.
4. To apply the profile to a block of time, see "Applying a Profile" on page 730.

Editing a Profile

1. Select the profile you want to edit, then click *Edit* to display the Edit Profile dialog box.
2. Modify the desired fields. For information about each of the fields, click the Help button in the Edit Profile dialog box or see "Creating a Profile" on page 730.
3. Click Apply to save the changes or click OK to save the changes and close the page.

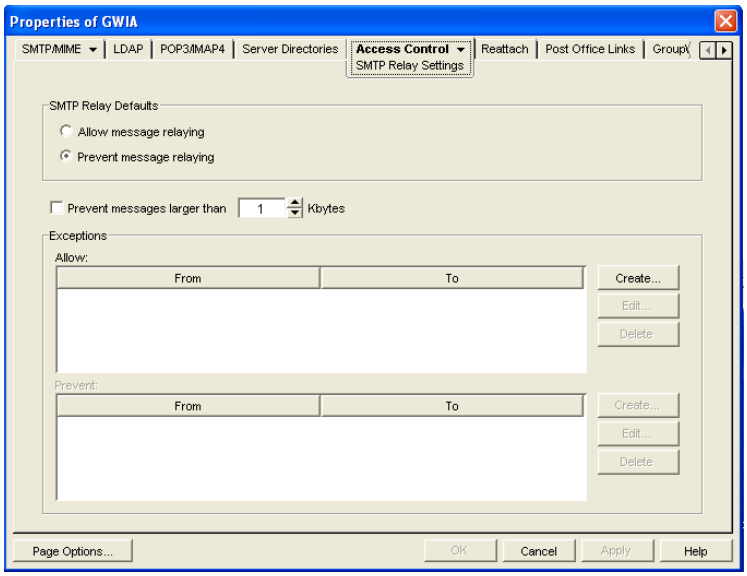
Deleting a Profile

1. Select the profile you want to remove from the list, then click *Delete*.
2. Click *Apply* to save the changes or click *OK* to save the changes and close the page.

46.1.8 Enabling SMTP Relaying

You can enable the Internet Agent to function as a relay host for Internet messages. The Internet Agent can relay messages received from all Internet hosts, or you can select specific hosts for which you allow it to relay.

1. In ConsoleOne, right-click the Internet Agent object, then click *Properties*.
2. Click *Access Control* > *SMTP Relay Settings*.

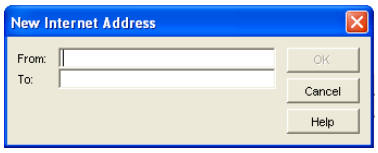


3 Under *SMTP Relay Defaults*, select whether you want to allow or prevent message relaying.

If you prevent message relaying, you can define exceptions that allow message relaying for specific Internet hosts. This can also be done if you allow message relaying. We suggest that you select the option that enables you to define the fewest exceptions.

4 To prevent relaying of messages larger than a specific size (regardless of the *SMTP Relay Defaults* setting), enable the *Prevent Messages Larger Than* option and specify the size limitation.

5 To define an exception, click *Create* to display the New Internet Address dialog box.



6 Fill in the following fields:

From: Specify the Internet address that must be in the message's *From* field for the exception to be applied.

To: Specify the Internet address that must be in the message's *To* field for the exception to be applied. This is also the address that the message is relayed to (in the case of an Allow exception).

In both the *From* and *To* fields, you can use either an IP address or a DNS hostname, as shown in the following examples:

```
novell.com
10.1.1.10
```

You can enter a specific address, as shown above, or you can use wildcards and IP address ranges to specify multiple addresses, as follows:

```
*.novell.com
10.1.1.*
10.1.1.10-15
```

7 Click *OK* to add the exception to the list.

8 When finished defining exceptions, click *OK* to save your changes.

46.1.9 Using a Route Configuration File

The Internet Agent supports the use of a route configuration file (`route.cfg`) to specify destination SMTP hosts. This can be useful in situations such as the following:

- You are using a relay host for outbound messages. However, you want some outbound messages sent directly to the destination host rather than the relay host. Whenever a message is addressed to a user at a host that is included in the `route.cfg` file, the Internet Agent sends the message directly to the destination host rather than the relay host.
- You need to send messages to SMTP hosts that are unknown to the public Domain Name Servers. The `route.cfg` file acts much like a hosts file to enable the Internet Agent to resolve addresses not listed in DNS.
- The Internet Agent uses external DNS servers but the server it is running on has an internal IP address. This prevents the Internet Agent from querying external DNS servers for its own internal domain names and receiving Host Down errors from the external DNS servers.
- You want to route messages through an SMTP host that checks for viruses (or performs some other task) before routing them to the destination host.

To set up a `route.cfg` file:

1 Create the `route.cfg` file as a text file in the *domain*`\wpgate\`*gwia* directory.

2 Add an entry for each SMTP host you want to send to directly. The entry format is:

```
hostname  address
```

where *address* is either an alternative hostname or an IP address. For example:

```
novell.com gwia.novell.com
unixbox [172.16.5.18]
```

Make sure to include a hard return after the last entry. In addition, if you use an IP address, it must be included in square brackets, as shown in the second example.

3 Save the `route.cfg` file.

46.1.10 Customizing Delivery Status Notifications

The Internet Agent returns status messages for all outbound messages. For example, if a GroupWise user sends a message that the Internet Agent cannot deliver, the Internet Agent returns an undeliverable message to the GroupWise user.

By default, the Internet Agent uses internal status messages. However, you can override the internal status messages by using a `status.xml` file that includes the status messages you want to use.

1 Open the appropriate `status`*xx*`.xml` file, located in the *domain*`\wpgate\`*gwia* directory.

The *domain*`\wpgate\`*gwia* directory includes a `status`*xx*`.xml` file for each language included on your *GroupWise 7 Administrator* CD (for example, `statusus.xml`, `statusde.xml`, and `statusfr.xml`).

2 Make the modifications you want.

The following sample code shows the elements and default text of the Undeliverable Message status:

```
<STATUS_MESSAGE type="undeliverableMessage" xml:lang="en-US">
<SUBJECT>Message status - undeliverable</SUBJECT>
<MESSAGE_BODY>
<TEXT>\r\nThe attached file had the following undeliverable
recipient(s):\r\n</TEXT>
<RECIPIENT_LIST format="\t%s\r\n"
<SESSION_TRANSCRIPT>
<TEXT>\r\nTranscript of session follows:\r\n<TEXT>
</SESSION_TRANSCRIPT>
<ATTACH_ORIGINAL_MSG></ATTACH_ORIGINAL_MSG>
</MESSAGE_BODY>
</STATUS_MESSAGE>
```

You can modify text in the `<SUBJECT>` tag or in the `<TEXT>` tags.

You can add additional `<TEXT> tags` in the `<MESSAGE_BODY>`.

You can remove tags to keep an element from being displayed. For example, you could remove the `<ATTACH_ORIGINAL_MSG></ATTACH_ORIGINAL_MSG>` tags to keep the original message from displaying.

You can use the following format characters and variables:

- \t: tab
- \r: carriage return
- \n: line feed
- %s: recipient name variable

3. Save the file, renaming it from `status`*`xx`*`.xml` to `status.xml`.
4. Restart the Internet Agent.

The Internet Agent now uses the status messages defined in the `status.xml` file rather than its internal status messages.

46.1.11 Managing MIME Messages

Multipurpose Internet Mail Extensions, or MIME, provides a means to interchange text in languages with different character sets. Multimedia e-mail can be sent between different computer systems that use the SMTP protocol. MIME allows you to send and receive e-mail messages containing:

- Images
- Sounds
- UNIX Tar Files
- PostScript*
- FTP-able File Pointers
- Non-ASCII Character Sets
- Enriched Text
- Nearly any other file

Because MIME handles such a variety of file types, you might need to customize aspects of MIME for your users.

- "Customizing MIME Preamble Text" on page 734
- "Customizing MIME Content-Type Mappings" on page 735

Customizing MIME Preamble Text

An ASCII file called `preamble.txt` is installed in the Internet Agent gateway directory (*`domain`*`\wpgate\`*`gwia`*). This file, which is included with any MIME multipart message, is displayed when the message recipient lacks a MIME-compliant mail reader.

The content of the `preamble.txt` file is a warning, in English, that the file is being sent in MIME format. If the recipient cannot read the message, he or she needs to either use a MIME-compliant mail reader or reply to the sender and request the message not be sent in MIME format.

We recommend that you use the `preamble.txt` file so that those who read MIME messages coming from your GroupWise system and who lack MIME-compliant mail readers can understand why they cannot read the message and can take corrective action.

If you choose to modify the `preamble.txt` file, be aware of the following considerations:

- The maximum file size is 1024 bytes (1 KB)
- This file is read by the Internet Agent when the Internet Agent starts, so if you change the file, you must restart the Internet Agent.

The Internet Agent's gateway directory also contains a `preamble.all` file. The `preamble.all` file includes the text of `preamble.txt` translated into several languages. If you anticipate that your users will be sending mail to non-English speaking users, you might want to copy the appropriate language sections from the `preamble.all` file to the preamble.txt file.

The 1024-byte limit on the size of the `preamble.txt` file still applies, so make sure that the file does not exceed 1024 bytes.

Customizing MIME Content-Type Mappings

By default, the GroupWise client determines the MIME content-type and encoding for message attachments. If, for some reason, the GroupWise client cannot determine the appropriate MIME content-type and encoding for an attachment, the Internet Agent must determine the content-type and encoding.

The Internet Agent uses a `mimetype.cfg` file to map attachments to the appropriate MIME content types. Based on an attachment's content type, the Internet Agent encodes the attachment using quoted-printable, Base64, or BinHex. Generally, quoted-printable is used for text-based files, Base64 for application files, and BinHex for Macintosh files.

The `mimetype.cfg` file includes mappings for many standard files. If necessary, you can modify the file to include additional mappings. If an attachment is sent which does not have a mapping in the file, the Internet Agent chooses quoted-printable, BinHex or Base64 encoding.

The `mimetype.cfg` file is also used for RFC-822 attachments, but UUencode or BinHex encoding is used regardless of the mapped content type.

The `mimetype.cfg` file is located in the *`domain`*`\wpgate\`*`gwia`* directory. The following section provide information you need to know to modify the file:

- "Mapping Format" on page 735
- "File Organization" on page 736

Mapping Format

Each mapping entry in the file uses the following format:

`content-type .ext|dtk-`*`code`*`|mac-`*`ttttcccc`* `[/parms] ["comment"]`

Element	Description
content-type	The MIME content type to which the file type is being mapped (for example, text/plain). You can omit the content-type only if you use the /parms element to explicitly define the encoding scheme for the file type.
.ext|dtk-*code*|mac-*ttttcccc*	The .ext element, dtk-*code* element, and mac-*ttttcccc* element are mutually exclusive. Each entry contains only one of the elements. ◆ **.ext:** The file type extension being mapped to the content type (for example, `.txt`). ◆ **dtk-*code*:** The detect code being mapped to the content type (for example, dtk-1126). GroupWise assigns a detect code to each attachment type. ◆ **mac-*ttttcccc*:** The Macintosh file type and creator application being mapped to the content type (for example, mac-textmswd). The first four characters (*tttt*) are used for the file type. The last four characters (*cccc*) are used for the creator application. You can use ???? for the creator portion (mac-text????) to indicate a certain file type created by any application. You can use ???? in both portions (mac-????????) to match any file type created by any application.
/parms	Optional parameters that can be used to override the default encoding assigned to the MIME content type. Possible parameters are: ◆ /alternate ◆ /parallel ◆ /base64 ◆ /quoted-printable ◆ /quoted-printable-safe ◆ /uuencode ◆ /plain ◆ /binhex ◆ /nofixeol ◆ /force-*ext* ◆ /noconvert ◆ /apple-single ◆ /apple-double

Element	Description
"comment"	Optional content description

File Organization

The `mimetype.cfg` file contains the following four sections:

- [Parameter-Override]
- [Mac-Mappings]
- [Detect-Mappings]
- [Extension-Mappings]

[Parameter-Override]

The [Parameter-override] section take priority over other sections. You can use this section to force the encoding scheme for certain file types. This section also contains defaults for sending various kinds of multipart messages. This is how the Internet Agent knows to put attachments into MIME Alternate/Parallel multiparts.

[Mac-Mappings]

The [Mac-mappings] section defines mappings for Macintosh file attachments. The following is a sample entry:

```
application/msword mac-wdbnmswd "Word for Macintosh"
```

Macintosh files have a type and creator associated with them. The first four characters are used for the type and the last four characters are used for the creator application.

In the above example, the type is `wdbn` and the creator application is `mswd`. When a user attaches a Macintosh file to a message, the Internet Agent uses the appropriate entry in the [Map-mappings] section to map the file to a MIME content type and then encode the file according to the assigned encoding scheme. Unless otherwise specified by the /parms element, BinHex 4.0 is used for the encoding. The following example shows how you can use the /parms element to change the encoding from the default (BinHex) to Base64:

```
application/msword mac-wdbnmswd /base64 "Word for Macintosh"
```

If necessary, you can use ???? for the creator portion (mac-text????) to indicate a certain file type created by any application. Or, you can use ???? in both portions (mac-????????) to match any file type created by any application. For example:

```
application/octet-stream mac-???????? /base64 "Mac Files"
```

This causes all Macintosh files to be encoded using Base64 rather than BinHex.

[Detect-Mappings]

GroupWise attempts to assign each attachment a detect code based on the attachment's file type. The [Detect-mappings] section defines the mappings based on these detect codes. The following is a sample entry:

```
application/msword dtk-1000 "Microsoft Word 4"
```

The Internet Agent uses the detect code to map to a MIME content type and then encode the file according to the assigned encoding scheme. If there is no mapping specified or if the file type cannot be determined, one of the other mapping methods, such as Extension-Mappings, are used. The detect codes associated with attachments are GroupWise internal codes and cannot be changed.

[Extension-Mappings]

If a mapping could not be made based on the entries in the [Mac-mappings] and [Detect-mappings] section, the Internet Agent uses the [Extension-mappings] section. The [Extension-mappings] section defines mappings based on the attachment's file extension. The following is a sample entry:

```
application/pdf .pdf
```

46.2 Configuring LDAP Services

The Internet Agent supports the Lightweight Directory Access Protocol (LDAP) standard. With LDAP enabled, the GroupWise Internet Agent functions as an LDAP server, allowing LDAP queries for GroupWise user information contained in the GroupWise Address Book. You can also configure which GroupWise fields (Given Name, Last Name, Phone, and E-Mail) are visible to an LDAP query.

- Section 46.2.1, "Enabling LDAP Services," on page 737
- Section 46.2.2, "Configuring Public Access," on page 738

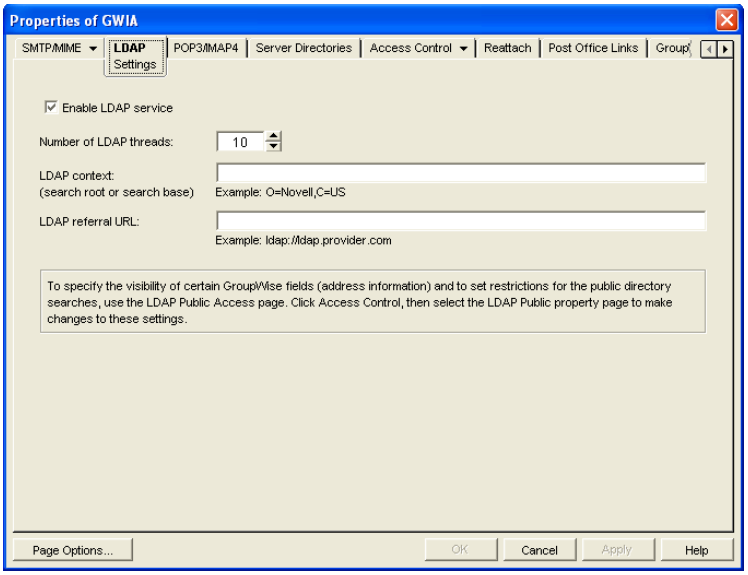
IMPORTANT: For users to perform LDAP searches for GroupWise user information, they need to define the GroupWise Address Book as an LDAP directory in their e-mail client. When doing so, they use the Internet Agent's DNS hostname or IP address for the LDAP server address

---

46.2.1 Enabling LDAP Services

To enable and configure LDAP services for mail client access:

1. In ConsoleOne, right-click the Internet Agent object, then click *Properties*.
2. Click *LDAP* > *Settings* to display the LDAP Settings page.



3 Fill in the fields:

Enable LDAP Service: Turn on this option to allow LDAP queries. LDAP service is on by default. This setting corresponds to the Internet Agent's /ldap switch.

Number of LDAP Threads: The *LDAP Threads* setting lets you specify the maximum number of threads that process LDAP queries. The default is 10 threads. This setting corresponds with the Internet Agent's /ldapthrd switch.

LDAP Context: Use this option to limit the directory context in which the LDAP server searches. For example, if you want to limit LDAP searches to the Novell organization container located under the United States country container, enter O=Novell,C=US. This setting corresponds with the Internet Agent's /ldapcntxt switch.

If you enter an LDAP context, you must make sure that users, when defining the directory in their e-mail client, enter the same context (using the identical text you did) in the Search Base or Search Root field.

You can leave the settings empty in both locations.

LDAP Referral URL: Use this option to define a secondary LDAP server to which you can refer an LDAP query if the query fails to find a user or address in your GroupWise system. For this option to work, the requesting Web browser must be able to track referral URLs. This setting corresponds with the Internet Agent's /ldaprefurl switch.

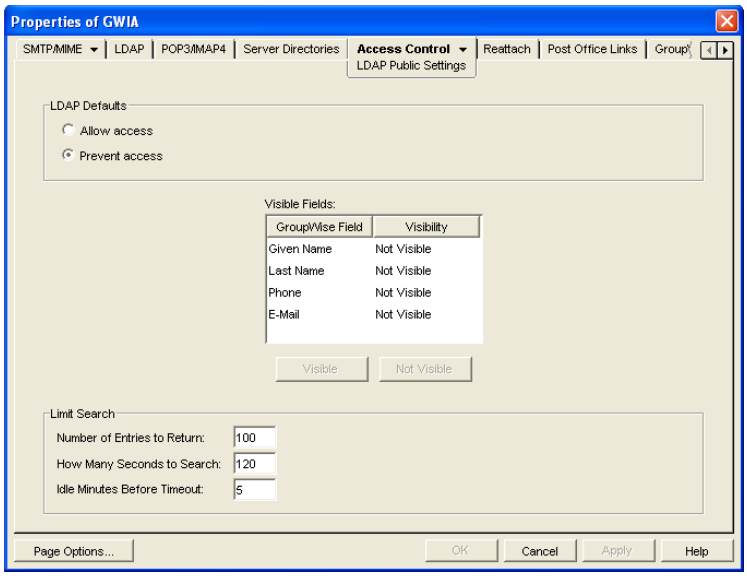
4 Continue with the next section, Configuring Public Access.

46.2.2 Configuring Public Access

After you've enabled LDAP services, you can configure which GroupWise fields are visible to LDAP searches and also set search restrictions. By default, no fields are visible.

1 If the Internet Agent object's property page is not open, right-click the Internet Agent object, then click *Properties*.

2 Click *Access Control* > *LDAP Public Settings*.



3 Fill in the fields:

LDAP Defaults: Select one of the following defaults for public access: *Allow Access* or *Prevent Access*. If you select *Allow Access,* the GroupWise fields (in the *Visible Fields* lists) default to *Visible* for an LDAP search. If you select *Prevent Access*, the GroupWise fields default to *Not Visible*.

Visible Fields: You can override the default visibility for a GroupWise field (*Given Name*, *Last Name*, *Phone*, and *E-Mail*) by selecting the field and then clicking the appropriate visibility button (*Visible* or *Not Visible*). For example, if you've selected *Allow Access* as the LDAP default, but you don't want users' telephone numbers to be visible, you can mark the *Phone* field as *Not Visible*.

Number of Entries to Return: Select the maximum number of entries to return. The default is 100.

How Many Seconds to Search: Select the maximum amount of time (in seconds) you want the Internet Agent to spend searching. The default is 120 seconds.

Idle Minutes before Timeout: Specify the number of minutes to allow the search to continue without finding a matching address entry. The default is 5 minutes.

4 Click *OK* to save the changes.

46.3 Configuring POP3/IMAP4 Services

The Post Office Protocol 3 (POP3) and the Internet Message Access Protocol 4 (IMAP4) are standard messaging protocols for the Internet. The GroupWise Internet Agent can function as a POP3 or an IMAP server, allowing access to the GroupWise domain database and message store. With POP3 or IMAP server functionality enabled, GroupWise users can download their messages from GroupWise to any POP3/IMAP4-compliant Internet e-mail client. To send messages, POP3/IMAP4 clients can identify the Internet Agent as their SMTP server.

Complete the instructions in the following sections to set up POP3/IMAP4 service:

- Section 46.3.1, "Enabling POP3/IMAP4 Services," on page 740
- Section 46.3.2, "Configuring Post Office Links," on page 741

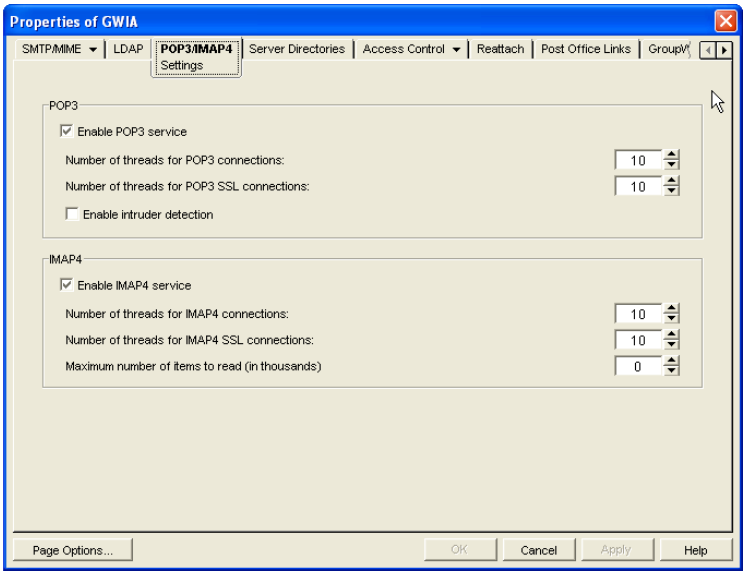
- Section 46.3.3, “Giving POP3 or IMAP4 Access Rights to Users,” on page 743
- Section 46.3.4, “Setting Up an E-Mail Client for POP3/IMAP4 Services,” on page 743

NOTE: Internal IMAP clients can connect directly to the POA, rather than connecting through the Internet Agent, as described in Section 36.2.3, “Supporting IMAP Clients,” on page 490. Direct connection provides faster access for internal IMAP clients.

46.3.1 Enabling POP3/IMAP4 Services

By default, POP3 service and IMAP4 service are enabled. To verify that the services are enabled and configured appropriately:

1. In ConsoleOne, right-click the Internet Agent object, then click *Properties*.
2. Click *POP3/IMAP4* > *Settings* to display the POP3/IMAP4 Settings page.



3. Fill in the fields:

   Enable POP3 Service: POP3 service is on by default. This setting allows POP3 downloads from a GroupWise mailbox. It corresponds with the Internet Agent’s /pop3 switch.

   Number of Threads for POP3 Connections: The POP3 threads setting lets you specify the number of connections for POP3 download requests. The default is 10 threads. This setting corresponds with the Internet Agent’s /pt switch.

   Number of Threads for POP3 SSL Connections: Specify the maximum number of threads you want the Internet Agent to use for secure POP3 connections. This setting corresponds with the Internet Agent’s /sslpt switch.

   Enable Intruder Detection: Select this option to instruct the Internet Agent to log POP3 e-mail clients in through the POA so that the POA’s intruder detection can take effect, if it has been configured in ConsoleOne (POA object > *Client Access Settings* > *Intruder Detection*). This setting corresponds with the Internet Agent’s /popintruderdetect switch.

Enable IMAP4 Service: IMAP4 service is on by default. This setting allows IMAP4 downloads and management of GroupWise messages. It corresponds with the Internet Agent's /imap4 switch.

Number of Threads for IMAP4 Connections: The IMAP4 threads setting lets you specify the number of connections for IMAP4 requests. The default is 10 threads. This setting corresponds with the Internet Agent's /it switch.

Number of Threads for IMAP4 SSL Connections: Specify the maximum number of threads you want the Internet Agent to use for secure IMAP4 connections. This setting corresponds with the Internet Agent's /sslit switch.

Maximum Number of Items to Read: Specify in thousands the maximum number of items that you want the Internet Agent to download at one time. By default, the Internet Agent downloads 10,000 items at a time. For example, specify 15 to download 15,000 items at a time. This setting corresponds with the Internet Agent's /imapreadlimit switch.

4 Click *OK* to save the changes.

The Post Office Agent (POA) can also be configured to support IMAP connections. You could offer IMAP services internally through the POA to provide faster response time for internal users, as described in Section 36.2.3, "Supporting IMAP Clients," on page 490. However, IMAP is primarily available on the POA to support several third-party applications that communicate with the POA using IMAP, while the IMAP services provided by the Internet Agent provide the standard IMAP access used by users across the Internet.

46.3.2 Configuring Post Office Links

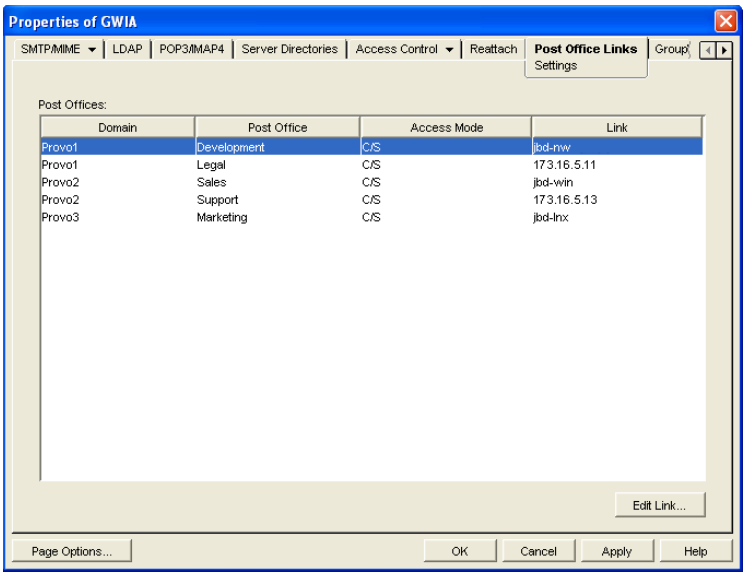
To function as a POP3/IMAP4 server, the Internet Agent requires access to each post office that contains mailboxes that will be accessed by a POP3/IMAP4 client. The Internet Agent can connect directly to the post office directory through a UNC path or mapped drive, or it can use a TCP/IP connection to the Post Office Agent (POA). By default, the Internet Agent uses the access mode that has been defined for the post office (Post Office object > *GroupWise* > *Post Office Settings*). If necessary, you can change the way the Internet Agent links to a post office.

To change a post office link:

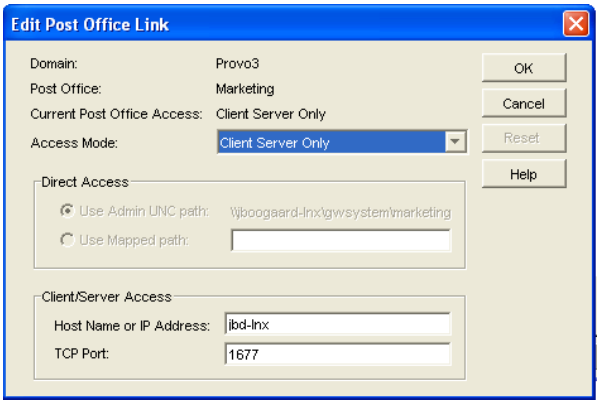
1 In ConsoleOne, right-click the Internet Agent object, then click *Properties*.

2 Click *Post Office Links* > *Settings*.

The Post Office list displays all post offices in your GroupWise system and how the Internet Agent connects to them



3 In the *Post Offices* list, select the post office whose link information you want to change, then click *Edit Link* to display the Edit Post Office Link dialog box.



4 Define the following properties:

Access Mode: The access mode determines whether the Internet Agent uses client/server access, direct access, or both client/server and direct access to connect to the post office. With client/server and direct, the Internet Agent first tries client/server access; if client/server access fails, it then tries direct access. You can also choose to use the same access mode currently defined for the post office (on the Post Office object's Post Office Settings). The current access mode is displayed in the *Current Post Office Access* field.

Direct Access: When connecting to the post office in direct mode, the Internet Agent can use the post office's UNC path (as defined on the Post Office object's Identification) or a mapped path that you enter.

Client/Server Access: When connecting to the post office in client/server mode, the Internet Agent must know the hostname (or IP address) and port number of the Post Office Agent running against the post office.

5 Click *OK*.

6 Repeat Step 3 through Step 5 for each post office whose link you want to change.

46.3.3 Giving POP3 or IMAP4 Access Rights to Users

Access to POP3/IMAP4 services is determined by the class of service in which they are a member. By default, all users are members of the default class of service, which gives them POP3 and IMAP4 access.

If you changed the default class of service to exclude POP3 or IMAP4 access rights, or if you defined additional classes of services that do not provide POP3 or IMAP4 access rights, you might want to evaluate your currently defined classes of service to ensure that they provide the appropriate POP3 or IMAP4 access. For details, see Section 47.1, "Controlling User Access to the Internet," on page 747.

46.3.4 Setting Up an E-Mail Client for POP3/IMAP4 Services

With the Internet Agent set up as a POP3 and/or IMAP4 server, you can configure users' e-mail clients to download messages from GroupWise mailboxes.

Most e-mail clients are configured differently. However, all Internet clients need to know the following information:

- **POP3/IMAP4 Server:** The DNS hostname or IP address of the Internet Agent.
- **Login Name:** The user's GroupWise user ID. For POP3 clients, there are several user ID login options you can use to control how the Internet Agent handles the user's messages. For example, you can limit how many messages are downloaded each session. For more information, see "User ID Login Options" on page 743.
- **Password:** The user's existing GroupWise mailbox password. POP3/IMAP4 services requires users to have passwords assigned to their mailboxes.

User ID Login Options

With POP3 clients, users can add the options listed in the table below to the login name (GroupWise user ID) to control management of their mailbox messages. If used, these options override the POP3 settings assigned through the user's class of service (see Section 47.1.2, "Creating a Class of Service," on page 748).

Login options are appended to the user ID name with a colon character (:) between the user ID name and the switches:

Syntax: user_ID:switch

Example: `User1:v=1`

You can combine options by stringing them together after the user ID and the colon without any spaces between the options:

Syntax: user_ID:switch1switch2

Example: `User1:v=1sdl=10`

The syntax for the user ID options is not case sensitive. Login options are not required. If you do not want to include any login options, just enter the user ID name in the text box, or following the USER command if you are using a Telnet application as your POP3 client.

Table 46-1 *User ID Login Options*

Option	Explanation	Example
v=*number between 1-31*	The v option defines the POP3 client's view number. If multiple POP3 clients access the same GroupWise mailbox, each client must use a different view number in order to see a fresh mailbox. For example, if two POP3 clients access a mailbox and the first client downloads the unread messages, the second client cannot download the messages unless it is using a different view number than the first client. If this option is not used, the default value is 1.	*User_ID*:v=1
d	The d option deletes the messages from the GroupWise mailbox after they have been downloaded to the POP3 client.	*User_ID*:d
p	The p option purges the messages from the GroupWise mailbox after they have been downloaded to the POP3 client.	*User_ID*:p
t=*1-1000*	The t option defines the download period, starting with the current day. For example, if you specify 14, then only messages that are 14 days old or newer are downloaded. If this option is not used, the default value is 30 days.	*User_ID*:t=14
n	The n option downloads messages in RFC-822 format rather than the default MIME format.	*User_ID*:N
m	The m option downloads messages in MIME format. This is the default.	*User_ID*:M
s	The s option presets the file size when the STAT command is executed. If the user mailbox contains a lot of messages or large messages, it can take a long time to calculate the file size. With this option, the STAT command always reports an artificial file size of 1, which can save time.	*User_ID*:S
l=*1-1000*	The l option limits the number of messages to download for each POP3 session. For example, if you want to limit the number of messages to 10, you enter l=10. If this option is not used, the default value is 100 messages.	*User_ID*:L=10

46.4 Configuring Paging Services

The GroupWise Internet Agent includes the ability to send a GroupWise message to a pager through an Internet paging service provider. The Internet Agent's paging service includes the following features:

- **Smart forwarding:** If a message has been replied to or forwarded before being sent to a pager, the Internet Agent identifies the original message and sends only it.
- **Easy to read originator information:** The Internet Agent sends the original From, Subject, and Message information to the pager, rather than cryptic Header information.

- **User block control:** By using the /l=*length* and /b=*number* switches on the message's To line, the sender can control the block length and number of blocks to send to the pager. By default, the Internet Agent sends 255 bytes per block (/l=255 /b=1).

To set up and use paging services, complete the tasks in the following sections:

- Section 46.4.1, "Setting Up Paging," on page 745
- Section 46.4.2, "Using Paging," on page 746

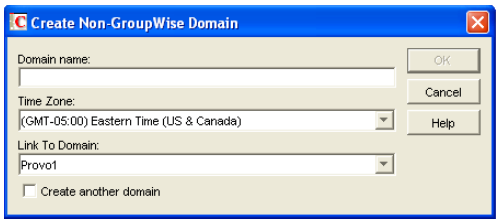
46.4.1 Setting Up Paging

To set up the Internet Agent's paging service, you need to create a non-GroupWise domain to represent the paging service and then use your Internet Agent to link your system to the non-GroupWise domain. The non-GroupWise domain enables GroupWise to correctly identify pager messages and route messages to the Internet Agent, which can then send the messages to the Internet.

- "Creating a Non-GroupWise Domain" on page 745
- "Linking the Internet Agent to the Non-GroupWise Domain" on page 745

Creating a Non-GroupWise Domain

1. In ConsoleOne, right-click the GroupWise System object, click *New*, then click *Non-GroupWise Domain* to display the Create Non-GroupWise Domain dialog box.



2. Fill in the following information:

   Domain Name: Provide the domain with a name such as Page. Users need to know the name when addressing pager messages.

   Time Zone: Select the time zone in which the Internet Agent is located.

   Link to Domain: Select the domain in which the Internet Agent is located.

3. Click *OK* to create the domain.

Linking the Internet Agent to the Non-GroupWise Domain

1. In ConsoleOne, click *Tools* > *GroupWise Utilities* > *Link Configuration* to display the GroupWise Link Configuration tool.
2. In the drop-down list, select the domain that owns the Internet Agent that you are using for this paging service.
3. In the *Outbound Links* box, right-click the non-GroupWise domain, then click *Edit*.
4. Click *Yes* to accept the domain path as the mapped path and display the Edit Domain Link dialog box.

5 In the *Link Type* field, select *Gateway*.

6 In the *Gateway Link* field, select the *Internet Agent.*

7 In the *Gateway Access String* field, type `-page`.

8 Click *OK* to save the information.

9 Click *File* > *Exit* > *Yes* to save your changes and exit the Link Configuration tool.

10 Restart the Internet Agent.

46.4.2 Using Paging

To use paging, GroupWise users must address messages to the non-GroupWise domain, specifying the PIN number of the pager and the hostname of the paging service in the following format:

`domain:pin@paging_service_provider`

For example,

`page:123456789@skytel.com`

`page:123456789@epage.arch.com`

By using the /l=*length* and /b=*number* switches on the message's To line, the sender can control the block length and number of blocks to send to the pager. For example,

`page:123456789@epage.arch.com/l=128/b=4`

By default, the Internet Agent sends 255 bytes per block (/l=255 /b=1).

Managing Internet Access 47

After you have configured the Internet services that you want the Internet Agent to provide in your GroupWise® system, you need to take control of the information that flows in and out between your GroupWise system and the Internet.

47.1 Controlling User Access to the Internet

You can use the GroupWise Internet Agent’s Access Control feature to configure a user’s ability to send and receive SMTP/MIME messages to and from Internet recipients and to access his or her mailbox from POP3 or IMAP4 e-mail clients. In addition to enabling or disabling a user’s access to features, you can configure specific settings for the features. For example, for outgoing SMTP/MIME messages, you can limit the size of the messages or the sites to which they can be sent.

Access Control can be implemented at a user, distribution list, post office, or domain level.

Choose from the following information to learn how to set up and use Access Control.

47.1.1 Classes of Service

A class of service is a specifically defined configuration of Internet Agent privileges. A class of service controls the following types of access activities:

- Whether or not SMTP/MIME messages are allowed to transfer to and from the Internet
- Whether or not SMTP/MIME messages are allowed to transfer to and from specific domains on the Internet
- The maximum size of SMTP/MIME messages that can transfer to and from the Internet
- Whether or not SMTP/MIME messages generated by GroupWise rules are allowed to transfer to the Internet
- Whether or not IMAP4 clients are allowed to access the GroupWise system
- Whether or not POP3 clients are allowed to access the GroupWise system, and if allowed, how messages to and from POP3 clients are managed by the GroupWise system

The default class of service, which all users belong to, allows incoming and outgoing SMTP/MIME messages, and allows POP3 and IMAP4 access. You can control user access, at an individual, distribution list, post office, or domain level, by creating different classes of service and adding the

appropriate members to the classes. For example, you could create a class of service that limits the size of SMTP/MIME messages for a selected individual, distribution list, post office, or domain.

Because you can assign membership at the user, distribution list, post office, and domain level, it is possible that a single user can be a member of multiple classes of service. This conflict is resolved hierarchically, as shown in the following table.

Table 47-1 *Conflict Resolution for Classes of Service*

Membership assigned to a user through a...	Overrides membership assigned to the user through the...
domain	◆ default class of service
post office	◆ default class of service ◆ domain
distribution list	◆ default class of service ◆ domain ◆ post office
user	◆ default class of service ◆ domain ◆ post office

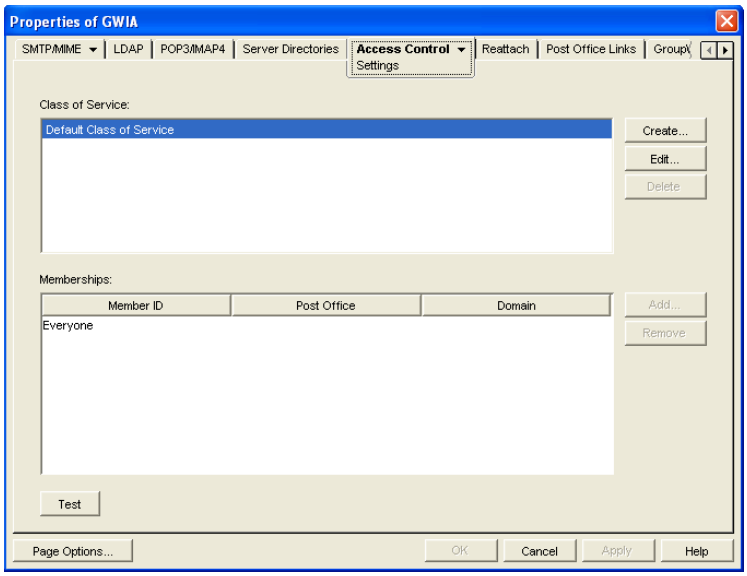
If a user's membership in two classes of service is based upon the same level of membership (for example, both through individual user membership), the class that applies is the one that allows the most privileges.

IMPORTANT: The Internet Agent uses the message size limit set for the default class of service as the maximum incoming message size for your GroupWise system. Therefore, you should set the message size for the default class of service to accommodate the largest message that you want to allow into your GroupWise system. As needed, you can then create other classes of service with smaller message size limits to restrict the size of incoming messages for selected users, distribution lists, post offices, or domains. Methods for restricting message size within your GroupWise system are described in Section 12.3.4, "Restricting the Size of Messages That Users Can Send," on page 185.

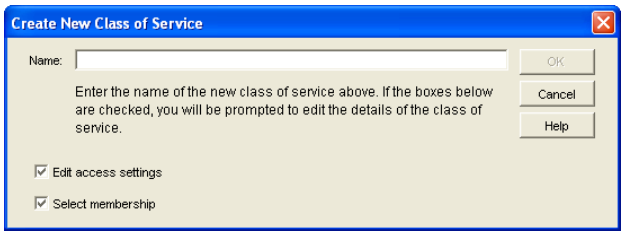
Attachments on incoming SMTP messages are included in the `mime.822` file, in addition to being attached to the message. Therefore, attachments contribute twice to the size of the overall message. Take this into account when determining the maximum incoming message size for your GroupWise system.

47.1.2 Creating a Class of Service

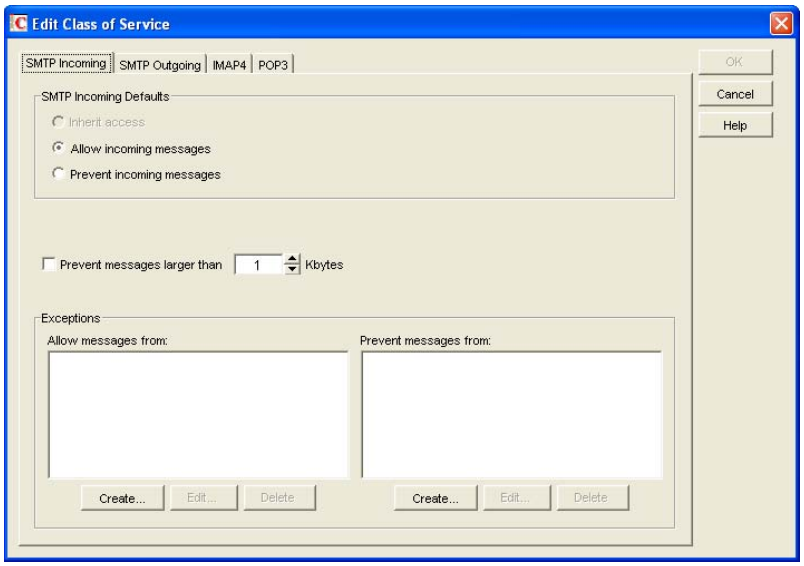
1. In ConsoleOne®, right-click the Internet Agent object, then click *Properties*.
2. Click *Access Control* > *Settings* to display the Access Control Settings page.



3 Click *Create* to display the Create New Class of Service dialog box.



4 Type a name for the class, then click *OK* to display the Edit Class of Service dialog box.



5 On the *SMTP Incoming* tab, choose from the following options:

Inherit Access: Select this option if you want members of this class of service to inherit their SMTP Incoming access from a class of service assigned at a higher level. For example, a post

office inherits the domain's access. If the domain is not a member of a class of service, the post office inherits the default class of service.

Allow Incoming Messages: Select this option to allow members of the class of service to receive e-mail messages through the Internet Agent. You can use the Exceptions option to prevent messages from specific Internet sites.

Prevent Incoming Messages: Select this option to prevent e-mail messages coming from the Internet. You can use the *Exceptions* option to allow messages from specific Internet sites.

Prevent Messages Larger Than: This option is available only if you chose *Allow Incoming Messages* or *Prevent Incoming Messages*. In the case of *Prevent Incoming Messages*, this option only applies to messages received from Internet sites listed in the *Allow Messages From* list.

If you want to set a size limit on incoming messages, select the limit.

Internet messages that exceed the limit are not delivered. The sender receives an e-mail message indicating that the message is undeliverable and including the following explanation:

```
Message exceeds maximum allowed size
```

Exceptions: This option is available only if you chose *Allow Incoming Messages* or *Prevent Incoming Messages*.

Prevent Messages From: If you chose to allow incoming messages but you want to prevent messages from specific Internet sites (IP addresses or DNS hostnames), add the sites to the *Prevent Messages From* list.

Allow Messages From: Conversely, if you chose to prevent incoming messages but you want to allow messages from specific Internet sites (IP addresses or DNS hostnames), add the sites to the *Allow Messages From* list.

If you want to allow messages where the username is blank, add Blank-Sender-User-ID to the *Allow Messages From* list.

6 Click *SMTP Outgoing*, then choose from the following options:

Inherit Access: Select this option if you want members of this class of service to inherit their *SMTP Outgoing* access from a class of service assigned at a higher level. For example, a post office inherits the domain's access. If the domain is not a member of a class of service, the post office inherits the default class of service.

Allow Outgoing Messages: Select this option to allow members of the class of service to send e-mail messages over the Internet. You can use the Exceptions option to prevent messages from being sent to specific Internet sites.

Prevent Outgoing Messages: Select this option to prevent members of the class of service from sending e-mail messages over the Internet. You can use the Exceptions option to allow messages to be sent to specific Internet sites.

Prevent Messages Larger Than: This option is available only if you chose *Allow Outgoing Messages* or *Prevent Outgoing Messages*.

If you want to set a size limit on outgoing messages, specify the limit.

Allow Rule-Generated Messages: This option is available only if you chose *Allow Outgoing Messages* or *Prevent Outgoing Messages*.

Turn on this option to allow the Internet Agent to send messages that were generated by a GroupWise rule.

In addition, you can use the /blockrulegenmsg startup switch in the Internet Agent startup file (`gwia.cfg`) to allow some types of rule-generated messages while blocking others.

Exceptions: This option is available only if you chose *Allow Outgoing Messages* or *Prevent Outgoing Messages*.

If you chose to allow outgoing messages but you want to prevent messages from being sent to specific Internet sites (IP addresses or DNS hostnames), add the sites to the *Prevent Messages To* list.

Conversely, if you chose to prevent outgoing messages but you want to allow messages to be sent to specific Internet sites (IP addresses or DNS hostnames), add the sites to the *Allow Messages To* list.

7 Click *IMAP4*, then choose from the following options:

Inherit Access: Select this option if you want members of this class of service to inherit their IMAP4 access from a class of service assigned at a higher level. For example, a post office inherits the domain's access. If the domain is not a member of a class of service, the post office inherits the default class of service.

Allow Access: Select this option to allow members of the class to send and receive messages with an IMAP4 client.

Prevent Access: Select this option to prevent members of the class from sending and receiving messages with an IMAP4 client.

8 Click POP3, then choose from the following options:

Inherit Access: Select this option if you want members of this class of service to inherit their POP3 access from a class of service assigned at a higher level. For example, a post office inherits the domain's access. If the domain is not a member of a class of service, the post office inherits the default class of service.

Allow Access: Select this option to allow members of the class to download their GroupWise messages to a POP3 client.

Prevent Access: Select this option to prevent downloading GroupWise messages to a POP3 client.

Delete Messages from GroupWise Mailbox after Download: This option applies only if you selected *Allow Access*.

If you turn on this option, messages downloaded from a GroupWise Mailbox to a POP3 client are moved to the Trash folder in the GroupWise Mailbox.

POP3 client users can enable this option by using the *userID*:d login option when initiating their POP session. For more information, see "User ID Login Options" on page 743.

Purge Messages from GroupWise Mailbox after Download: This option applies only if you selected *Allow Access*.

If you turn on this option, messages downloaded from a GroupWise Mailbox are moved to the Mailbox's Trash folder and then emptied, completely removing the messages from the Mailbox.

POP3 client users can enable this option by using the *userID*:p login option when initiating their POP session. For more information, see "User ID Login Options" on page 743.

Convert Messages to MIME Format When Downloading: This option applies only if you selected Allow Access.

If you turn on this option, messages downloaded to a POP3 client are converted to the MIME format.

POP3 client users can enable this option by using the *userID*:m login option when initiating their POP session. They can disable it by using the *userID*:n login option; this converts

messages to RFC-822 format. For more information, see "User ID Login Options" on page 743.

High Performance on File Size Calculations: This option applies only if you selected *Allow Access*.

POP3 clients calculate the size of each message file before downloading it. Turn on this option if you want to assign a size of 1 KB to each message file. This eliminates the time associated with calculating a file's actual size.

POP3 client users can enable this option by using the *userID*:s login option when initiating their POP session. For more information, see "User ID Login Options" on page 743.

Number of Days Prior to Today to Get Messages From: This option applies only if you selected *Allow Access*.

Select the number of days to go back to look for GroupWise Mailbox messages to download to the POP3 client. The default is 30 days.

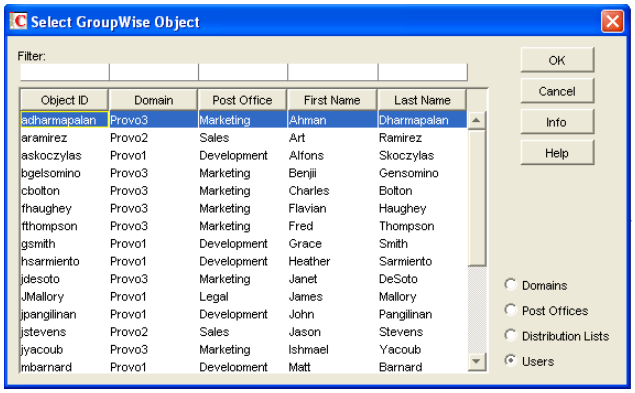
POP3 client users can override this option by using the *userID*:t=*x* login option when initiating their POP session. For more information, see "User ID Login Options" on page 743.

Maximum Number of Messages to Download: This option applies only if you selected Allow Access.

Select the maximum number of messages a user can download at one time from a GroupWise Mailbox to a POP3 client. The default is 100 messages.

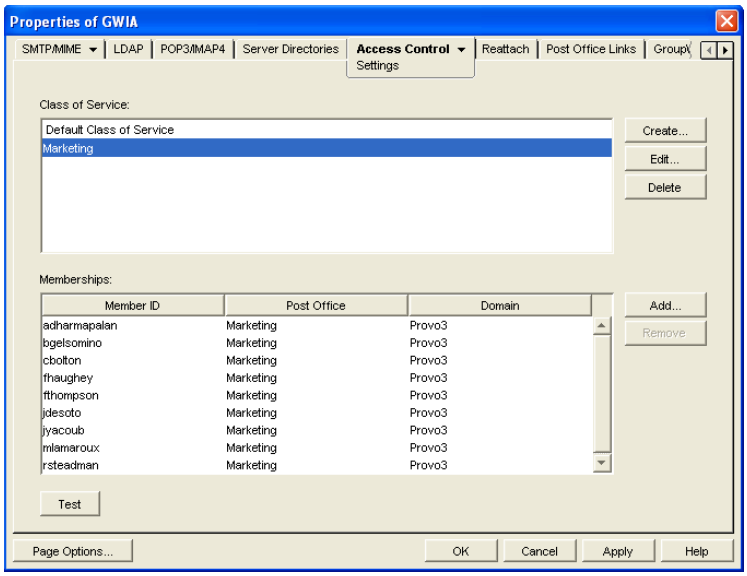
POP3 client users can override this option by using the *userID*:l=*x* login option when initiating their POP session. For more information, see "User ID Login Options" on page 743.

9 Click *OK* to display the Select GroupWise Object dialog box.



10 Select *Domains*, *Post Offices*, *Distribution Lists*, or *Users* to display the list you want.

11 In the list, select the domain, post office, distribution list, or user you want, then click *Add* to add the object as a member in the class. You can Control+click or Shift+click to select multiple users.



12 To add additional domains, post offices, distribution lists or users as members of the class of service, select the class of server, then click *Add* to display the Select GroupWise Object dialog box.

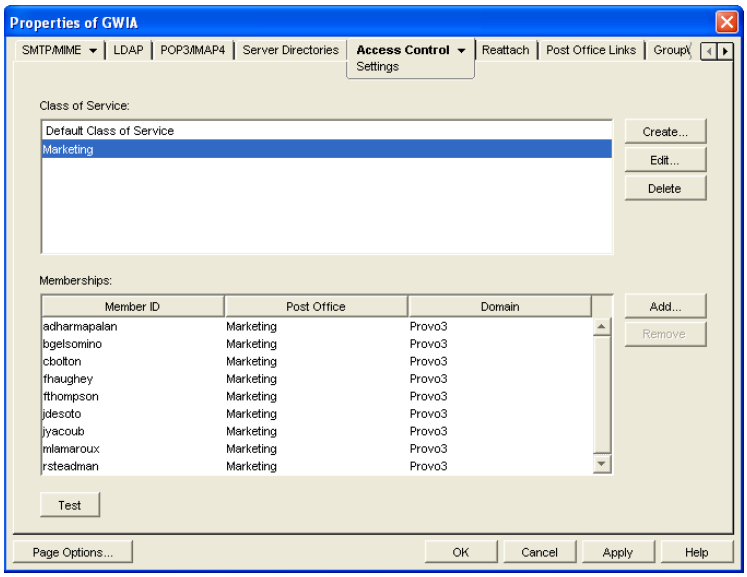
13 Click *OK* (on the Settings page) when finished adding members.

47.1.3 Testing Access Control Settings

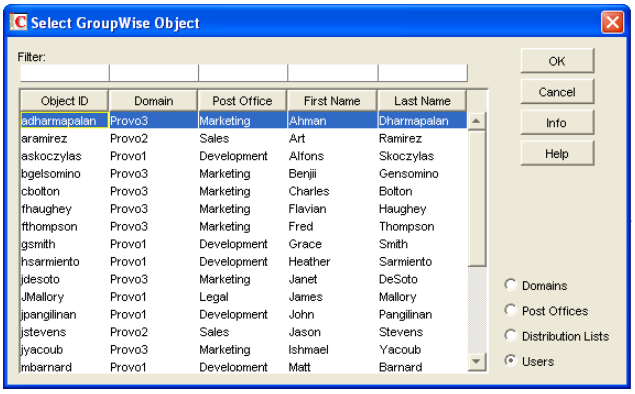
If you created multiple classes of service, you might not know exactly which settings are being applied to a specific object (domain, post office, distribution list, or user) and which class of service the setting is coming from. To discover an object's settings, you can test the object's access.

1 In ConsoleOne, right-click the Internet Agent object, then click *Properties*.

2 Click *Access Control* > *Settings* to display the Access Control Settings page.



3 Click *Test* to display the Select GroupWise Object dialog box.

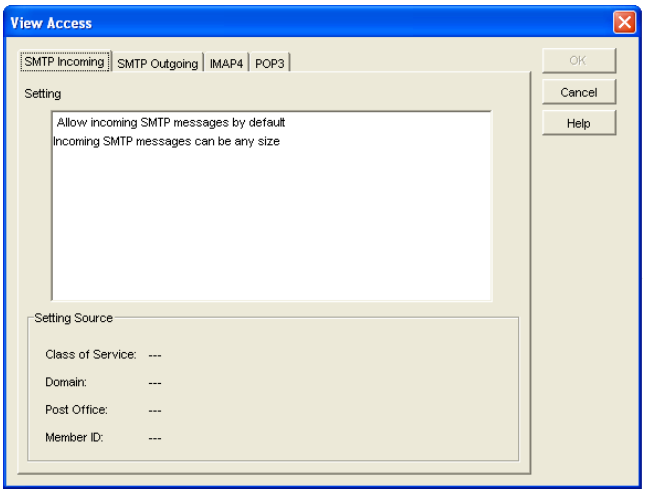


You use this dialog box to select the object (domain, post office, distribution list, or user) whose access you want to test.

4 Select *Domains*, *Post Offices*, *Distribution Lists*, or *Users* to display the list you want. For example, if you want to see what access an individual user has, select *Users*.

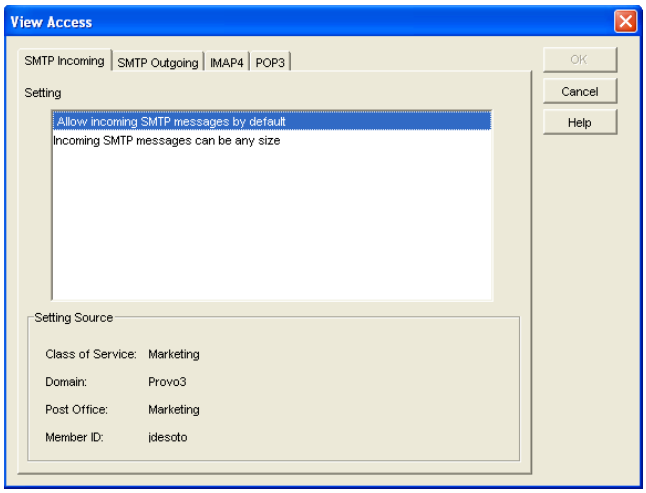
5 In the list, select the object you want to view, then click *View Access*.

The tabbed pages show the access control settings for *SMTP Incoming*, *SMTP Outgoing*, *IMAP4*, and *POP3* as they are applied to that user, distribution list, post office, or domain.



6 To view the source for a specific setting, select the setting in the *Setting* box

The *Setting Source* fields display the class of service being applied to the object. It also displays the Member ID through which the class is being applied.



7 When finished, click *OK*.

47.1.4 Maintaining the Access Control Database

The Access Control database stores the information for the various classes of service you have created. If any problems occur with a class of service, you can validate the database to check for errors with the records and indexes contained in the database. If errors are found, you can recover the database.

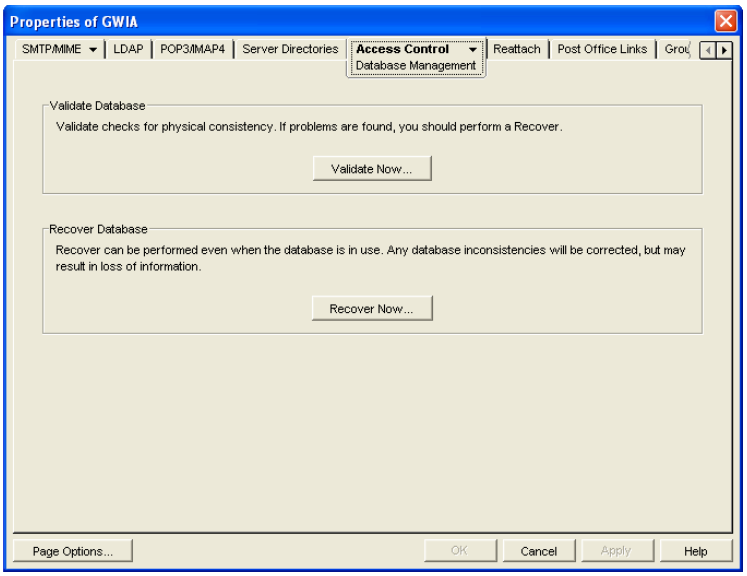
The Access database, `gwac.db`, is located in the *`domain`*`\wpgate\`*`gwia`* directory.

- "Validating the Database" on page 755
- "Recovering the Database" on page 756

Validating the Database

1 In ConsoleOne, right-click the Internet Agent object, then click *Properties*.

2 Click *Access Control* > *Database Management* to display the Database Management page.



3 Click *Validate Now*.

4 After the database has been validated, click *OK*.

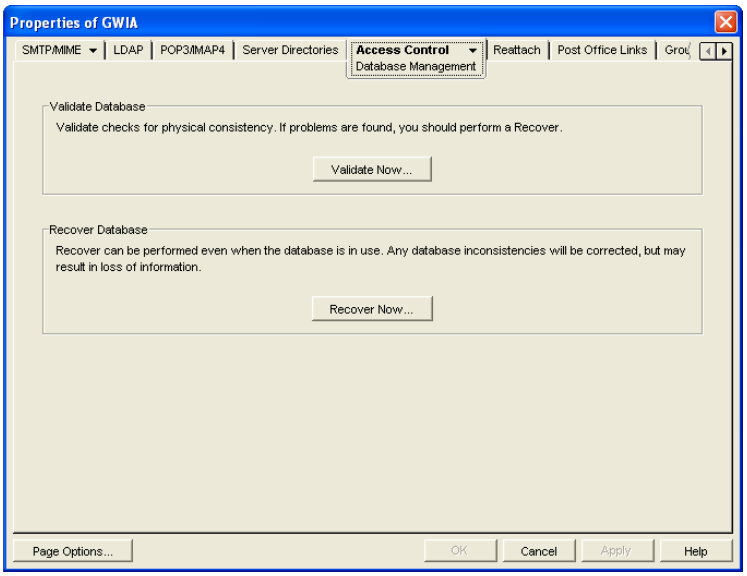
5 If errors were found, see Recovering the Database below.

Recovering the Database

If you encountered errors when validating the database, you must recover the database. During the recovery process a new database is created and all intact records are copied to the new database. Some records might not be intact, so you should check the classes of services to see if any information was lost.

1 In ConsoleOne, right-click the Internet Agent object, then click *Properties*.

2 Click *Access Control* > *Database Management* to display the Database Management page.



3 Click *Recover Now*.

4 Click *OK*.

5 Check your class of service list to make sure that it is complete.

47.2 Blocking Unwanted E-Mail from the Internet

The GroupWise Internet Agent includes the following features to help you protect your GroupWise system and users from unwanted e-mail:

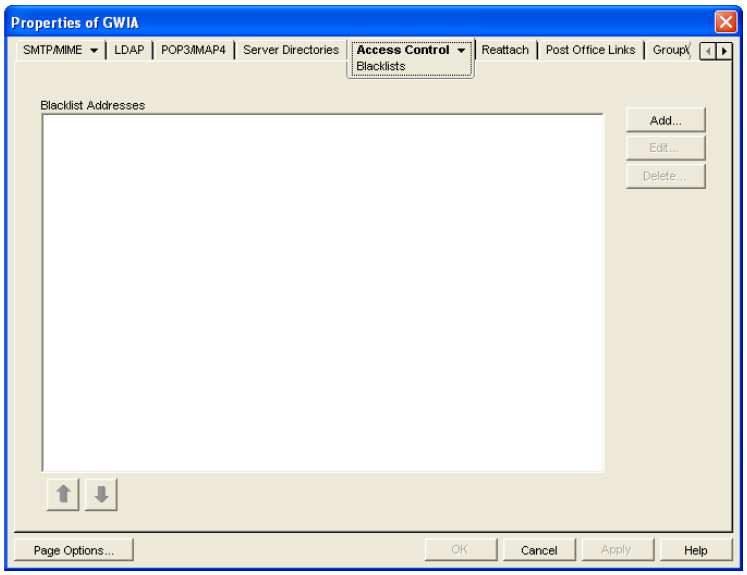
47.2.1 Real-Time Blacklists

Many organizations, such as Mail Abuse Prevention System (MAPS*) and SpamCop*, provide lists of IP addresses that are known to be open relay hosts or spam hosts. If you want to use free blacklist services such as these, or if you subscribe to fee-based services, you can define the blacklist addresses for these services. The Internet Agent then uses the defined services to ensure that no messages are received from blacklisted hosts. The following sections provide information to help you define blacklist addresses and, if necessary, override a host address included in a blacklist.

Defining a Blacklist Address

1 In ConsoleOne, right-click the Internet Agent object, then click *Properties*.

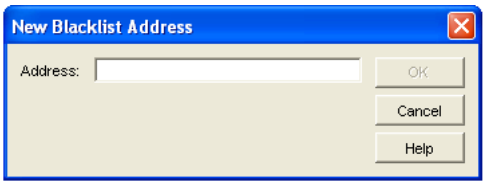
2 Click *Access Control* > *Blacklists* to display the Blacklists page.



The *Blacklist Addresses* list displays the addresses of all blacklists that the Internet Agent checks when it receives a message from another SMTP host. The Internet Agent checks the first blacklist and continues checking lists until the sending SMTP host's IP address is found or all lists have been checked. If the sending SMTP host's IP address is included on any of the blacklists, the message is rejected. If you have the Internet Agent's logging level set to Verbose, the log file includes information about the rejected message and the referring blacklist.

This list corresponds with the Internet Agent's /rbl switch.

3 Click *Add* to display the New Blacklist Address dialog box.



The following list provides the names, Web sites, and blacklist addresses for two services that are free at the time of this release:

Service	Site	Address
Mail Abuse Prevention System (MAPS)	www.mail-abuse.org	blackholes.mail-abuse.org
SpamCop	www.spamcop.net	bl.spamcop.net

4 Type the blacklist address in the *Address* box, then click *OK* to add the address to the *Blacklist Addresses* list.

5 If you have multiple blacklists in the *Blacklist Addresses* list, use the up-arrow and down-arrow to position the blacklists in the order you want them checked. The Internet Agent checks the blacklists in the order they are listed, from top to bottom.

6 Click *OK* to save your changes.

Overriding a Blacklist

In some cases, a blacklist might contain a host from which you still want to receive messages. For example, goodhost.com has been accidentally added to a blacklist but you still want to receive messages from that host.

You can use the *SMTP Incoming Exceptions* list on a class of service to override a blacklist. For information about editing or creating a class of service, see Section 47.1.2, "Creating a Class of Service," on page 748.

47.2.2 Access Control Lists

If you want to block specific hosts yourself rather than use a blacklist (in other words, create your own blacklist), you can configure a class of service that prevents messages from those hosts. You do this on the Internet Agent object's Access Control Settings page by editing the desired class of service to add the hosts to the *Prevent Messages From* exception list on the *SMTP Incoming* tab. For example, if you wanted to block all messages from badhost.com, you could edit the default class of service to add badhost.com to the list of prevented hosts.

You can also create a list of hosts that you always want to allow messages from, so you can create your own white list.

For information about editing or creating a class of service, see Section 47.1.2, "Creating a Class of Service," on page 748.

47.2.3 Blocked.txt File

ConsoleOne creates a `blocked.txt` file that includes all the hosts that have been added to the Prevent Messages From exceptions list for the default class of service (see Section 47.1, "Controlling User Access to the Internet," on page 747).

You can manually edit the `blocked.txt` file to add or remove hosts. To maintain consistency for your system, you can also copy the list to other Internet Agent installations.

To manually edit the `blocked.txt` file:

1. Open the `blocked.txt` file in a text editor.
2. Add the host addresses.

   The entry format is:

   ```
   address1
   address2
   address3
   ```

   where *address* is either a hostname or an IP address. You can block on any octet. For example:

IP Address	Blocks
..*.34	Any IP address ending with 34
172.16.*.34	Any IP address starting with 172.16 and ending with 34
172.16.10-34.*	Any IP address starting with 172.16 and any octet from 10 to 34

   You can block on any segment of the hostname. For example:

Hostname	Blocks
provo*.novell.com	provo.novell.com provo1.novell.com provo2.novell.com
*.novell.com	gw.novell.com (but not novell.com itself)

There is no limit to the number of IP addresses and hostnames that you can block in the `blocked.txt` file

3 Save the file as `blocked.txt`.

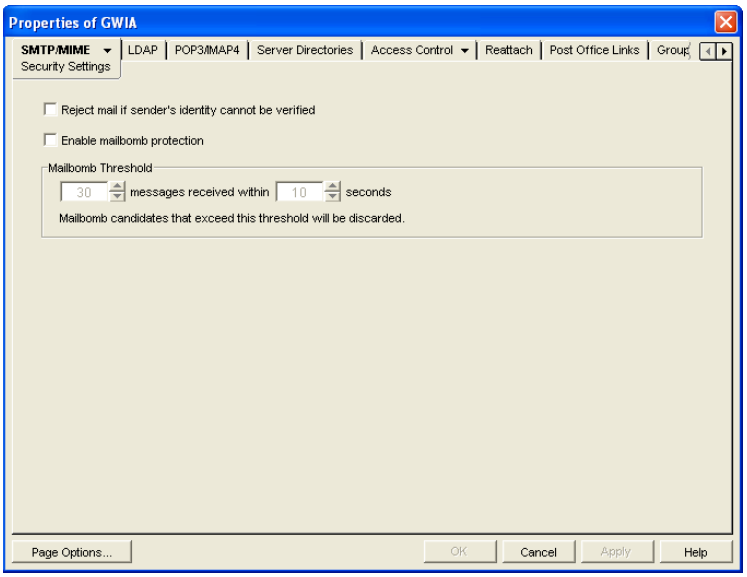
47.2.4 Mailbomb (Spam) Protection

Multiple unsolicited messages (sometimes called a *mailbomb* or *spam*) from the Internet can potentially harm your GroupWise messaging environment. You can use the settings on the SMTP Security page to help protect your GroupWise system from malicious or accidental attacks.

To configure the SMTP security settings:

1 In ConsoleOne, right-click the Internet Agent object, then click *Properties*.

2 Click *SMTP/MIME* > *Security Settings*.



3 Fill in the fields:

Reject Mail if Sender's Identity Cannot be Verified: This setting lets you prevent messages if the sender's host is not authentic.

When this setting is turned on, the Internet Agent refuses messages from a smart host if a DNS reverse lookup shows that a PTR record does not exist for the IP address of the sender's host.

When this setting is turned off, the Internet Agent accepts messages from any host, but display a warning if the initiating host is not authentic.

This setting corresponds with the Internet Agent's /rejbs switch.

Enable Mailbomb Protection: Mailbomb protection is turned off by default. You can turn it on by selecting this option.

Mailbomb Threshold: When you enable Mailbomb protection, default values are defined in the threshold settings. The default settings are 30 messages received within 10 seconds. You can change the settings to establish an acceptable security level.

Any group of messages that exceeds the specified threshold settings is entirely discarded. If you want to prevent future mailbombs from the mailbomb sender, identify the sender's IP address (by looking at the Internet Agent's console) and then modify the appropriate class of service to prevent mail being received from that IP address (*Access Control* > *Settings*). For more information, see Section 47.1.2, "Creating a Class of Service," on page 748.

The time setting corresponds with the Internet Agent's /mbtime switch. The message count setting corresponds with the /mbcount switch.

4 Click *OK* to save the changes.

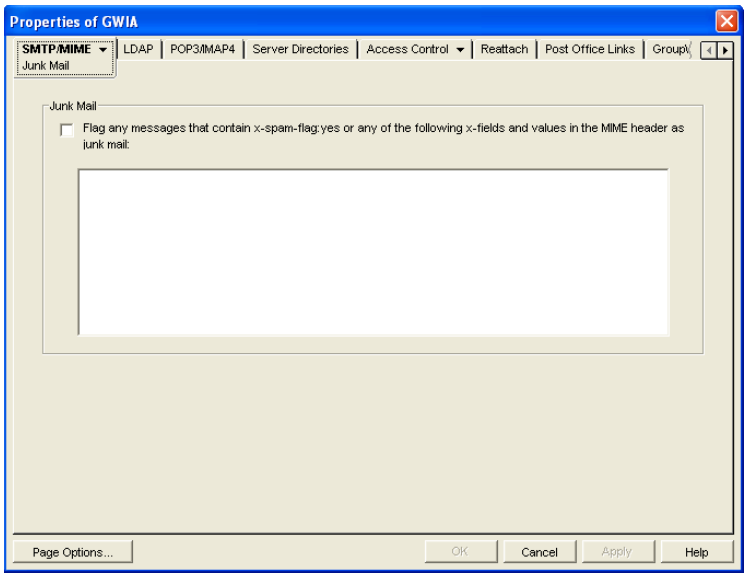
You can protect your system against mailbombs (spam). With mailbomb protection enabled, if the Internet Agent receives a certain number of messages (the default is 30) from the same host or IP address within a specific time interval (the default is 10 seconds), it discards the messages.

47.2.5 Customized Spam Identification

Before GroupWise 7, you could use the /xspam startup switch to flag messages for handling by the client Junk Mail Handling feature if they contained an x-spam-flag:yes in the MIME header. Starting in GroupWise 7, you can configure as many strings as needed to identify junk mail and you can use ConsoleOne to specify the strings.

1 In ConsoleOne, right-click the Internet Agent, then click *Properties*.

2 Click *SMTP/MIME* > *Junk Mail*.



3 Select *Flag Any Messages*, then specify the strings in the text box.

Anti-spam services use different indicators to mark potential spam. One might use a string of asterisks; the more asterisks, the greater the likelihood that the message is spam. Another might

use a numerical value; the higher the number, the greater the likelihood that the message is spam. The following samples are taken from MIME headers of messages:

```
X-Spam-Results: *****
X-Spam-Status: score=9
```

Based on these samples, examples are provided below of lines that you could add to the list to handle the X-Spam tags found in the MIME headers of messages coming into your system.

Example:

```
X-Spam-Results: *****
```

This line marks as spam any message whose MIME header contained an X-Spam-Results tag with five or more asterisks. Messages with X-Spam-Results tags with fewer than five asterisks are not marked as spam.

Example:

```
X-Spam-Status: Yes
```

This line marks as spam any message whose MIME header contained the X-Spam-Status tag set to Yes, regardless of the score.

Example:

```
X-Spam-Status: score=9
X-Spam-Status: score=10
```

These lines marks as spam any message whose MIME header has the X-Spam-Status tag set to Yes and had a score of 9 or 10. X-Spam-Status tags with scores less than 9 are not marked as spam.

You can add as many lines as necessary to the list to handle whatever message tagging your anti-spam service uses.

4 Click *OK* to save your list of strings.

The list is saved in the `xspam.cfg` file in the *`domain`*`\wpgate\`*`gwia`* directory. As described above, each line of the xspam.cfg file identifies an "X" header field that your anti-spam service is writing to the MIME header, along with the values that flag the message as spam. The Internet Agent examines the MIME header for any field listed in the `xspam.cfg` file. When a match occurs, the message is marked for handling by the GroupWise client Junk Mail Handling feature.

47.2.6 SMTP Host Authentication

The Internet Agent supports SMTP host authentication for both outbound and inbound message traffic.

- "Outbound Authentication" on page 762
- "Inbound Authentication" on page 763

Outbound Authentication

For outbound authentication to other SMTP hosts, the Internet Agent requires that the remote SMTP hosts support the AUTH LOGIN authentication method. To set up outbound authentication:

1 Include the remote SMTP host's domain name an authentication credentials in the `gwauth.cfg` file, located in the *`domain`*`\wpgate\`*`gwia`* directory. The format is:

```
domain_name    authuser    authpassword
```

For example:

```
smtp.novell.com    remotehost    novell
```

2. If you have multiple SMTP hosts that require authentication before they accept messages from your system, create an entry for each host. Make sure to include a hard return after the last entry.
3. If you want to allow the Internet Agent to send messages only to SMTP hosts listed in the `gwauth.cfg` file, use the following startup switch:

   ```
   /forceoutboundauth
   ```

   With the /forceoutboundauth switch enabled, if a message is sent to an SMTP host not listed in the gwauth.cfg file, the sender receives an Undeliverable message.

Inbound Authentication

For inbound authentication from other SMTP hosts, you can use the /forceinboundauth startup switch to ensure that the Internet Agent accepts messages only from SMTP hosts that use the AUTH LOGIN authentication method to provide a valid GroupWise user ID and password. The remote SMTP hosts can use any valid GroupWise user ID and password. However, for security reasons, we recommend that you create a dedicated GroupWise user account for remote SMTP host authentication.

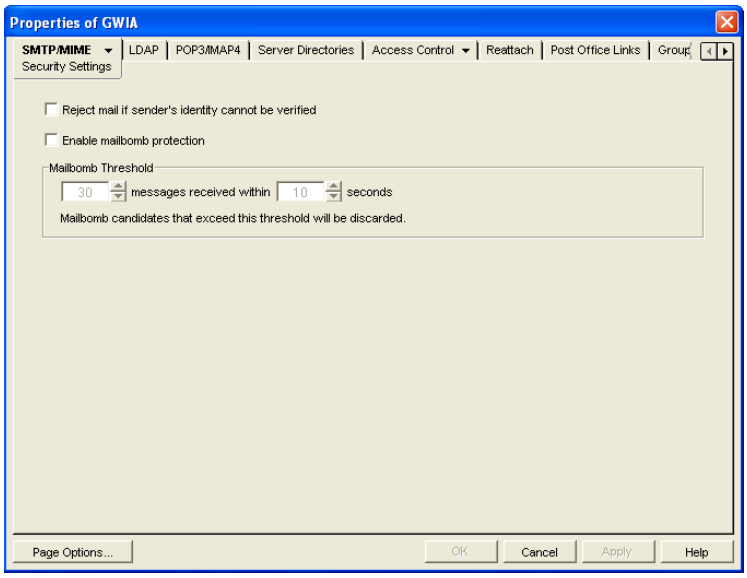
47.2.7 Unidentified Host Rejection

You can have the Internet Agent reject messages from unidentified sources. The Internet Agent refuses messages from a host if a DNS reverse lookup shows that a “PTR” record does not exist for the IP address of the sender’s host.

If you choose not to have the Internet Agent reject messages from unidentified hosts, it accepts messages from any host, but it displays a warning if the sender’s host is not authentic.

To configure the Internet Agent to reject messages from unidentified hosts:

1. In ConsoleOne, right-click the Internet Agent object, then click *Properties*.
2. Click *SMTP/MIME* > *Security Settings* to display the Security Settings page.



3 Turn on the *Reject Mail if Sender's Identity Cannot Be Verified* option.

This setting corresponds with the Internet Agent's /rejbs switch.

4 Click *OK* to save your changes.

47.3 Tracking Internet Traffic with Accounting Data

The Internet Agent can supply accounting information for all messages, including information such as the message's source, priority, size, and destination.

The accounting file is an ASCII-delimited text file that records the source, priority, message type, destination, and other information about each message sent through the gateway. The file, which is updated daily at midnight (and each time the Internet Agent restarts), is called `acct` and is located in the *`xxx`*`.prc` directory. If no accountant is specified for the gateway in ConsoleOne, the file is deleted and re-created each day. Follow the steps below to set up accounting.

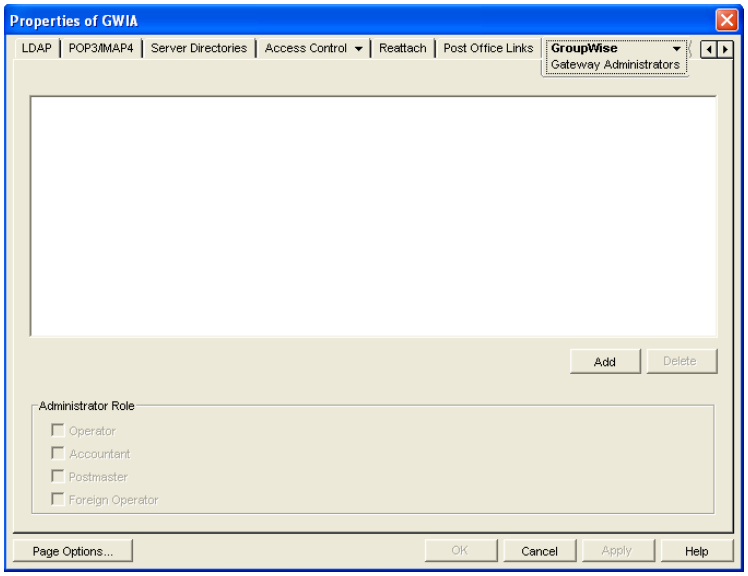
- Section 47.3.1, "Selecting an Accountant," on page 764
- Section 47.3.2, "Enabling Accounting," on page 765
- Section 47.3.3, "Understanding the Accounting File," on page 766

47.3.1 Selecting an Accountant

You can select one or more GroupWise users to be accountants. Every day at midnight, each accountant receives an accounting file (`acct`) that contains information about the messages the gateway sent that day.

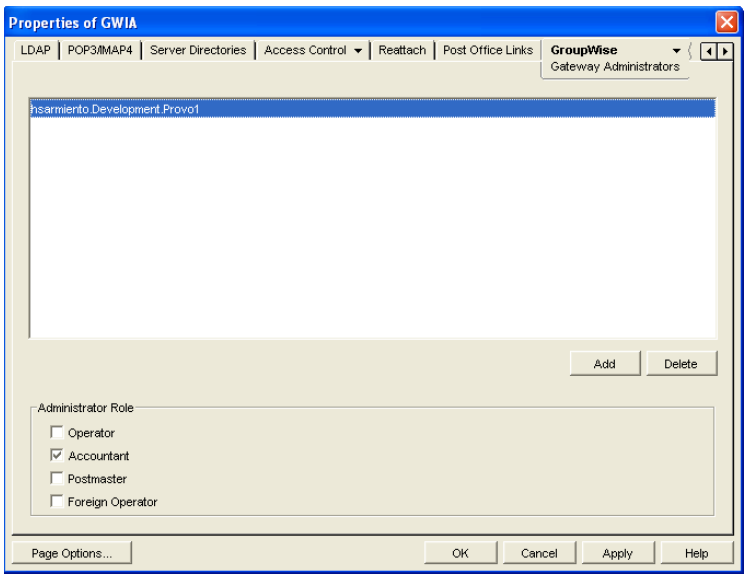
1 In ConsoleOne, right-click the Internet Agent object, then click *Properties*.

2 Click *GroupWise* > *Gateway Administrators* to display the Gateway Administrators page.



3 Click *Add*, browse for and select the user you want to add, then click *OK* to add the user to the list of administrators.

4 Select the user in the list of administrators, then click *Accountant*.

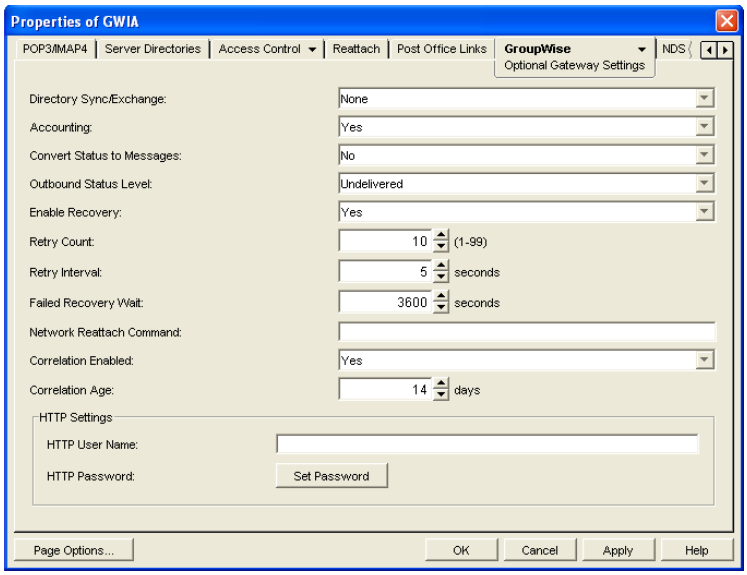


5 Click *OK* to save the changes.

47.3.2 Enabling Accounting

1 In ConsoleOne, right-click the Internet Agent object, then click *Properties*.

2 Click *GroupWise* > *Optional Gateway Settings* to display the Optional Gateway Settings page.



3 Set *Accounting* to *Yes*.

4 Set *Correlation Enabled* to *Yes*.

5 Click *OK*.

47.3.3 Understanding the Accounting File

The following is an Accounting file entry for a single event. Each field in the entry is described below.

```
O,11/25/2007,21:58:39,3DE29CD2.14E:7:6953,
Mail,2,Provo,Research,jsmith,48909,Meeting
Agenda,Provo,GWIA,sde23a9f.001,MIME,hjones@novell.com,1,2,11388,0
```

Table 47-2 *Accounting File Entry Fields*

Field	Example	Description
Inbound/Outbound	O	Displays I for inbound messages and O for outbound messages
Date	11/25/2007	The date the message was processed.
Time	21:58:39	The time the message was processed.
GroupWise message ID	3DE29CD2.14E:7:6953	The unique GroupWise ID assigned to the message.
GroupWise message type	Mail	Mail message, appointment, task, note, or phone message for outbound messages. Unknown for inbound messages.
GroupWise message priority	2	High priority = 1 Normal priority = 2 Low priority = 3
GroupWise user's domain	Provo	The domain in which the GroupWise user resides.
GroupWise user's post office	Research	The post office where the GroupWise user's mailbox resides.
GroupWise user's ID	jsmith	The GroupWise user's ID. For outbound messages, the GroupWise user is the message sender. For inbound messages, the GroupWise user is the message recipient.
GroupWise user's account ID	48909	The GroupWise user's account ID. The account ID is assigned on the user's GroupWise Account page (*User object* > *GroupWise* > *Account*).
Message subject	Meeting Agenda	The message's Subject line. Only the first 32 characters are displayed.
Gateway domain	Provo	The domain where the Internet Agent resides.
Gateway name	GWIA	The Internet Agent's name.
Foreign message ID	sde23a9f.001	A unique ID for outbound messages. The identifier before the period (sde23a9f) uniquely identifies a message. The identifier after the period (001) is incremented by one for each message sent.
Foreign message type	MIME	The message type (MIME, etc.)

Field	Example	Description
Foreign user's address	hjones@novell.com	The foreign user's e-mail address. For inbound messages, the foreign user is the message sender. For outbound messages, the foreign user is the message recipient.
Recipient count	1	The number of recipients.
Attachment count	2	The number of attached files. The total count includes the message.
Message size	11388	The total size, in bytes, of the message and its attachments.
Other	0	Not used.

You can use the Monitor Agent to generate a report based on the contents of this file. For more information, see Section 61.3.10, "Gateway Accounting Report," on page 1011.

Configuring the Internet Agent

48

As your GroupWise® system grows and evolves, you might need to modify Internet Agent configuration to meet the changing needs of your system. The following topics help you configure the Internet Agent:

48.1 Changing the Link Protocol between the Internet Agent and the Message Transfer Agent

Before GroupWise 7, the Internet Agent and the MTA communicated by transferring message files through message queue directories, as shown in the following diagrams in *GroupWise 7 Troubleshooting 3: Message Flow and Directory Structure*:

- "Mapped/UNC Link: Outbound Transfer to the Internet Successful"
- "Mapped/UNC Link: Inbound Transfer from the Internet Successful"

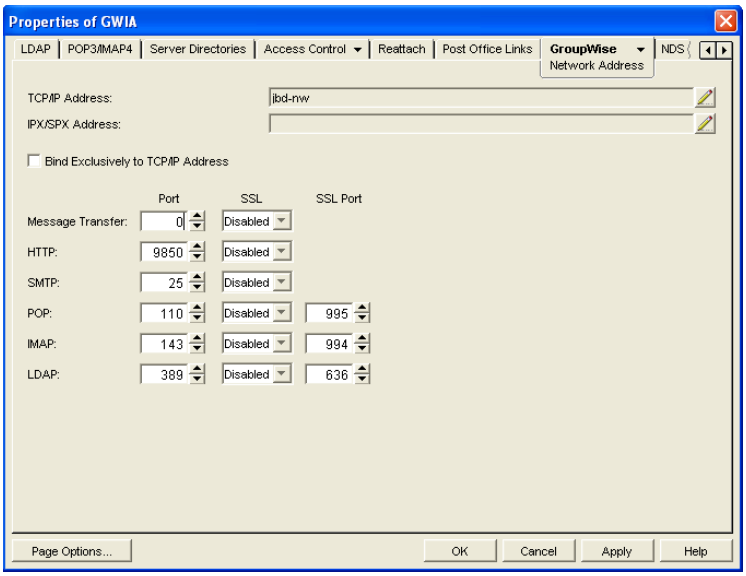
Starting in GroupWise 7, you can configure the Internet Agent so that it uses TCP/IP to communicate with the MTA, instead of message files, as shown in the following diagrams:

- "TCP/IP Link: Outbound Transfer to the Internet Successful"
- "TCP/IP Link: Inbound Transfer from the Internet Successful"

During installation of the Internet Agent, you had the opportunity to choose between a direct link (message files) and a TCP/IP link. If you did not choose the TCP/IP link during installation, you can configure the Internet Agent to use TCP/IP at any time.

If you want to enable TCP/IP communication between the Internet Agent and the MTA, use 7102 or another available port number. If you do not want to enable TCP/IP communication, use 0 (zero) as the port number.

1. In ConsoleOne®, right-click the Internet Agent, then click *Properties*.
2. Click *GroupWise* > *Network Address*.



3 In the *TCP/IP Address* field, click *Edit*, specify the IP address of the server where the Internet Agent is running, then click *OK* to return to the Network Address page.

4 In the *Message Transfer Port* field, specify a unique port number; for example, 7102.

5 Click *OK* to save the new link configuration for the Internet Agent.

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

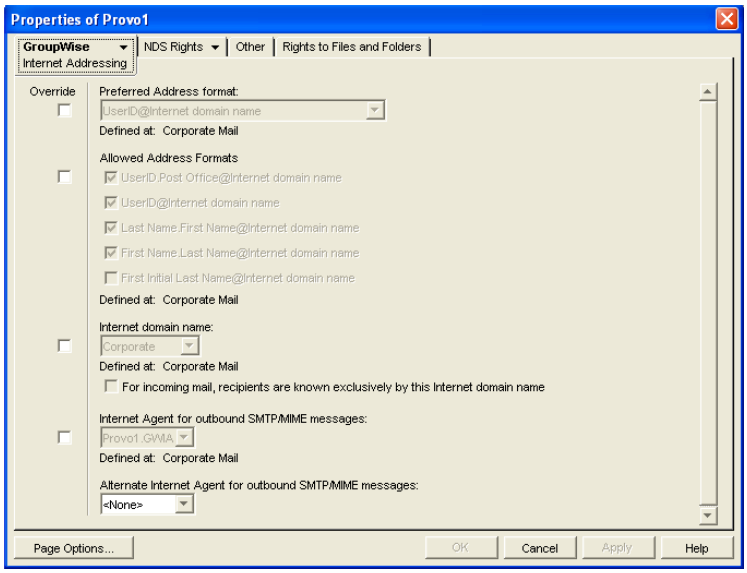
48.2 Configuring an Alternate Internet Agent for a Domain

By configuring the Internet Agent to communicate with the MTA by way of TCP/IP, you can configure an alternate Internet Agent for a domain, so that if the domain's primary Internet Agent goes down, the MTA can fail over to another Internet Agent in your GroupWise system until the primary Internet Agent is up and running again. This feature is especially useful in large GroupWise systems with multiple Internet Agents that handle a lot of Internet messages.

1 Make sure that you have configured the Internet Agents for TCP/IP, as described in Changing the Link Protocol between the Internet Agent and the Message Transfer Agent.

2 In ConsoleOne, right-click the Domain object, then click *Properties*.

3 Click *GroupWise* > *Internet Addressing*.



4 In the *Alternate Internet Agent for Outbound SMTP/MIME Messages* field, select an Internet Agent as an alternate for this domain.

5 Click *OK* to save your changes.

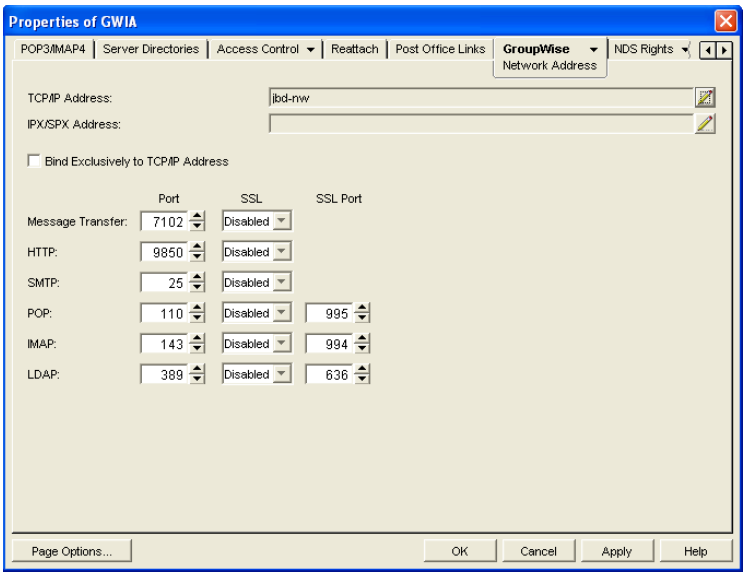
The MTA always tries to transfer outbound Internet messages to the primary Internet Agent first, so after an outage the primary Internet Agent automatically resumes its normal processing for the domain.

48.3 Binding the Internet Agent to a Specific IP Address

You can now cause the Internet Agent to bind to a specified IP address when the server where it runs uses multiple IP addresses. The specified IP address is associated with all ports used by the agent. Without an exclusive bind, the Internet Agent binds to all IP addresses available on the server.

1 In ConsoleOne, browse to and right-click the Internet Agent object, then click *Properties*.

2 Click *GroupWise* > *Network Address* to display the Network Address page.



3 Select *Bind Exclusively to TCP/IP Address*, then click *OK* to save your change.

Corresponding Startup Switches
You can also use the /ip startup switch in the Internet Agent startup file to establish an exclusive bind to the specified IP address.

48.4 Securing Internet Agent Connections with SSL

The Internet Agent can use the SSL (Secure Socket Layer) protocol to enable secure connections to other SMTP hosts, POP/IMAP clients, and the Internet Agent Web console. For the Internet Agent to do so, you must ensure that it has access to a server certificate file and that you've configured the connection types (SMTP, POP, IMAP, HTTP) you want secured through SSL. The following sections provide instructions:

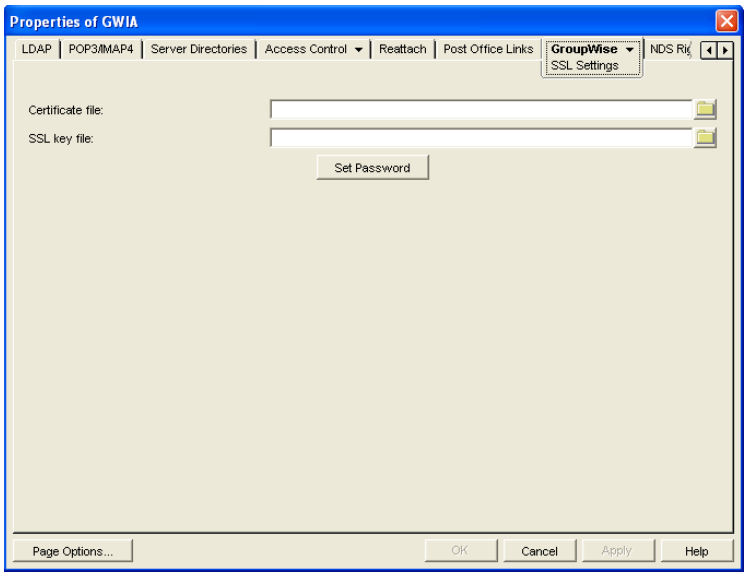
- Section 48.4.1, "Defining the Certificate File," on page 772
- Section 48.4.2, "Defining Which Connections Use SSL," on page 773

48.4.1 Defining the Certificate File

To use SSL, the Internet Agent requires access to a server certificate file and key file. The Internet Agent can use any Base64/PEM or PFX formatted certificate file located on its server. If the Internet Agent's server does not have a server certificate file, you can use the GroupWise Generate CSR utility to help you obtain one. For information, see Section 5.17.6, "GroupWise Generate CSR Utility (GWCSRGEN)," on page 83.

To define the certificate file and key file that the Internet Agent will use:

1 In ConsoleOne, right-click the Internet Agent object, then click *Properties*.
2 Click *GroupWise* > *SSL Settings* to display the SSL Settings page.



3 Fill in the *Certificate File*, *SSL Key File*, and *Set Password* fields:

Certificate File: Specify the server certificate file that the Internet Agent will use. The certificate file must be in Base64/PEM or PFX format. If you type the filename rather than using the *Browse* button to select it, use the full path if the file is not in the same directory as the Internet Agent program. This setting corresponds to the Internet Agent's /certfile switch.

SSL Key File: Specify the key file associated with the certificate. If the private key is included in the certificate file rather than in a separate key file, leave this field blank. If you type the filename rather than using the *Browse* button to select it, use the full path if the file is not in the same directory as the Internet Agent program. This setting corresponds to the Internet Agent's /keyfile switch.

Set Password: Click *Set Password* to specify the password for the key. If the key does not require a password, do not use this option. This setting corresponds to the /keypasswd switch.

4 If you want to define which connections (HTTP, SMTP, POP3, or IMAP4) use SSL, click *Apply* to save your changes, then continue with the next section, Section 48.4.2, "Defining Which Connections Use SSL," on page 773.

or

Click *OK* to save your changes.

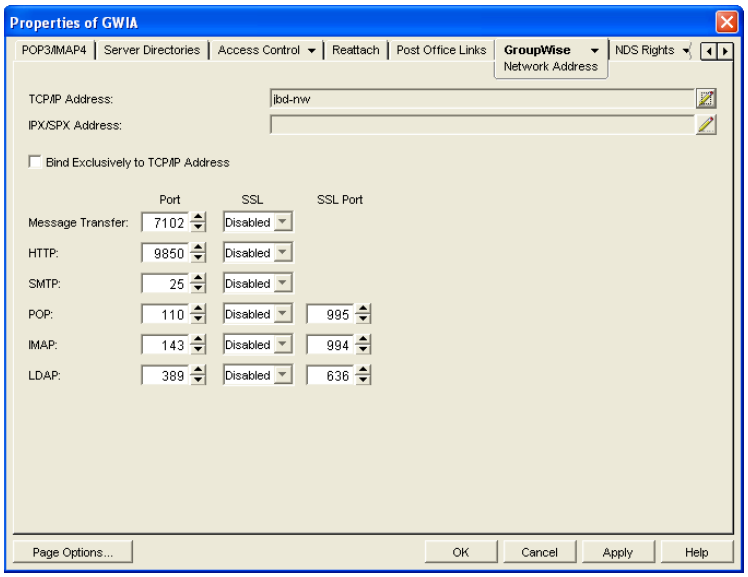
48.4.2 Defining Which Connections Use SSL

After you define the Internet Agent's certificate and key file (see Section 48.4.1, "Defining the Certificate File," on page 772), you can configure which connections you want to use SSL. You can enable SSL connections to other SMTP hosts and the Internet Agent Web console, which means that an SSL connection is used if the other SMTP host or the Web browser (running the Web console) supports SSL. You can also enable or require SSL connections to POP3 and IMAP4 clients. If SSL is enabled, an SSL connection is used if the client supports SSL; if SSL is required, only SSL connections are accepted.

To configure connections to use SSL:

1 In ConsoleOne, if the Internet Agent object's property pages are not already displayed, right-click the Internet Agent object, then click *Properties*.

2 Click *GroupWise* > *Network Address* to display the Network Address page.



3 Configure the SSL settings for the following connections:

HTTP: Select *Enabled* to enable the Internet Agent to use a secure connection when passing information to the Internet Agent Web console. The Web browser must also be enabled to use SSL; if it is not, a non-secure connection is used.

SMTP: Select *Enabled* to enable the Internet Agent to use a secure connection to other SMTP hosts. The SMTP host must also be enabled to use SSL or TLS (Transport Layer Security); if it is not, a non-secure connection is used.

POP: Select from the following options to configure the Internet Agent's use of secure connections to POP clients:

- **Disabled:** The Internet Agent does not support SSL connections. All connections are non-SSL through port 110.
- **Enabled:** The POP client determines whether an SSL connection or non-SSL connection is used. The Internet Agent listens for SSL connections on port 995 and non-SSL connections on port 110.
- **Required:** The Internet Agent forces SSL connections on port 995 and port 110. Non-SSL connections are denied.

IMAP: Select from the following options to configure the Internet Agent's use of secure connections to IMAP clients:

- **Disabled:** The Internet Agent does not support SSL connections. All connections are non-SSL through port 143.
- **Enabled:** The IMAP client determines whether an SSL connection or non-SSL connection is used. The Internet Agent listens for SSL connections on port 993 and non-SSL connections on port 143.
- **Required:** The Internet Agent forces SSL connections on port 993 and port 143. Non-SSL connections are denied.

Monitoring the Internet Agent

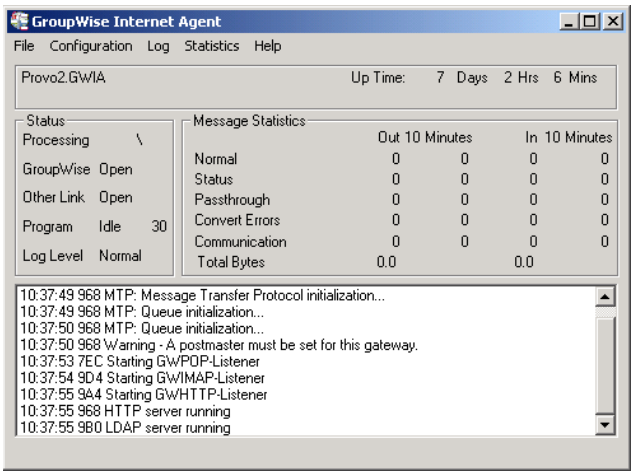
49

You can monitor the operation of the GroupWise® Internet Agent by using several different diagnostic tools. Each provides important and helpful information about the status of the Internet Agent and how it is currently functioning. Choose from the titles listed below to learn more about how to monitor the operations of the Internet Agent.

49.1 Using the Internet Agent Server Console

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

Figure 49-1 *Internet Agent Console*



NetWare	The Internet Agent console always displays on the NetWare® server console.
Linux:	You must use the --show startup switch in order to display the Linux Internet Agent server console.

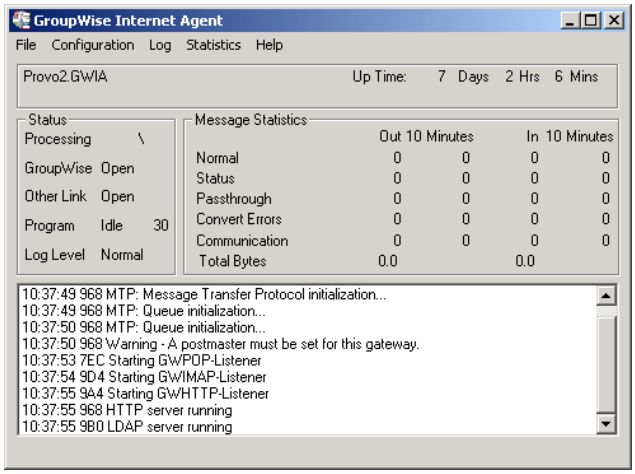
Windows:	If the Internet Agent is running as a Windows service under the Local System User, it is displayed on the desktop only if the Allow Service to Interact with Desktop option was selected during installation or has been configured on the Internet Agent service's General property page.

Refer to the following sections for information about the specific sections and functionality included in the console:

49.1.1 Description

The description section of the console identifies the Internet Agent and displays how long its has been running.

Figure 49-2 *Internet Agent Server Console*



Domain.Gateway: Displays the domain and Internet Agent names.

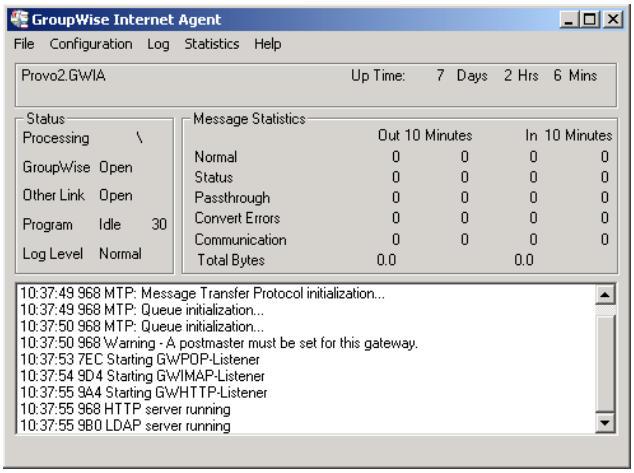
Up Time: Displays the total length of time the Internet Agent has been running. If the Internet Agent terminates unexpectedly (such as in a power outage), the *Up Time* display does not reset to 0 (zero). It shows the total time elapsed since the Internet Agent was last loaded after a proper termination.

Description: Displays any descriptive information provided on the Internet Agent object's Identification page (*Internet Agent object* > *GroupWise* > *Identification*).

49.1.2 Status

The *Status* section of the console provides a quick look at the Internet Agent's current message processing activity, network connectivity, and information logging level.

Figure 49-3 *Internet Agent Server Console*



Processing: Displays a rotating bar if the Internet Agent is running. If there is no bar, or if the bar is stationary for more than one minute, the Internet Agent is not running.

GroupWise: Displays whether the Internet Agent's network connection is OPEN or CLOSED. This network connection is the Internet Agent's only link to GroupWise. The status indicates whether or not the Internet Agent can write to the `wpcsin` directory and access the `wpcsout` directory. The Internet Agent does a scan each cycle to see if these directories exist. If the status is CLOSED, the Internet Agent attempts to reattach to the network.

It is normal for this field to display the word CLOSED for a minute or so after you start the Internet Agent. However, if the connection remains CLOSED, look for the `wpcsin` and `wpcsout` directories. If they are not created yet, start the Message Transfer Agent (MTA).

Other Link: This field does not apply to the Internet Agent. It always says OPEN.

Program: Displays the processing cycle. You can use the Gateway Time Settings page (*Internet Agent object* > *GroupWise* > *Gateway Time Settings*) to adjust the processing cycle.

Log Level: Displays the logging level the Internet Agent is currently using. The logging level determines how much data is displayed on the message portion of this screen and written to the log file. You can use the console menu options to override the default setting for the current session. For information, see Section 49.1.4, "Logging," on page 784

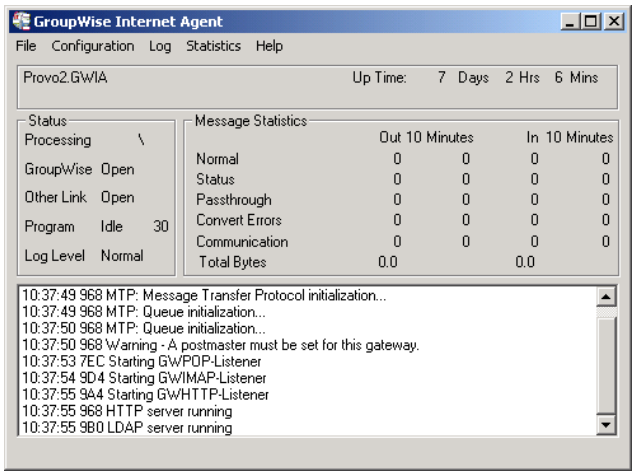
49.1.3 Statistics

The *Statistics* section of the console can display five different sets of information:

Message Statistics

The *Message Statistics* section of the console, shown below, is the default statistics section displayed by the Internet Agent console.

Figure 49-4 *Internet Agent Server Console*



Message Statistics shows the number of inbound and outbound messages processed by the Internet Agent. The *Out* and *In* columns display the cumulative message totals and the *10 Minutes* column display snap shot totals for the last ten minutes. You change the time interval of the *10 Minutes* column in ConsoleOne. For instructions, see Section 50.2.3, “Increasing Polling Time,” on page 801.

Normal: Displays the number of inbound and outbound messages processed by the Internet Agent.

Status: Displays the number of inbound and outbound status messages processed by the Internet Agent. The amount of status message traffic depends on the Outbound Status level (Internet Agent object > *GroupWise* > *Optional Gateway Settings*). If the Outbound Status level is set to Full, more status messages are generated. If the Outbound Status level is set to Undelivered, fewer status messages are generated.

Passthrough: Displays the number of inbound and outbound passthrough messages the Internet Agent has processed.

Convert Errors: Outbound messages are converted from GroupWise format to MIME or RFC-822 format. Inbound messages are converted to GroupWise format. This field displays the number of inbound and outbound messages that the Internet Agent could not convert.

Communication: Displays the number of communication errors encountered by the Internet Agent.

Total Bytes: Displays the total number of bytes of inbound and outbound messages processed by the Internet Agent.

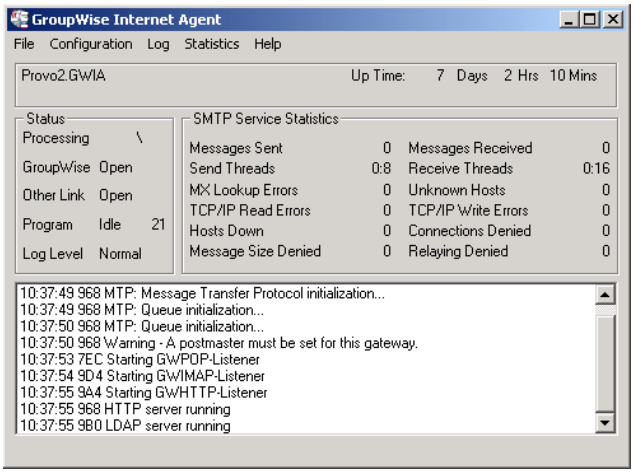
SMTP Service Statistics

The *SMTP Service Statistics* section, shown below, includes only the information for messages processed by the Internet Agent’s SMTP daemon.

NetWare:	Press F10-Options, then F9-Stats to switch to the SMTP Service Statistics.

Linux and Windows:	Click *Statistics* > *SMTP Service*.

Figure 49-5 *SMTP Service Statistics Section of the Internet Agent Server Console*



Messages Sent: Displays the total number of SMTP messages sent by the Internet Agent during its current up time.

Send Threads: The first number displays the number of threads currently being used to send SMTP messages. The second number displays the number of threads still available to the Internet Agent for sending SMTP messages. This is the total number of assigned send threads (by default, 8) minus the currently used threads. You can change the total number of assigned SMTP send threads in ConsoleOne (Internet Agent object > *SMTP/MIME* > *Settings*). For more information, see Section 46.1.1, “Configuring Basic SMTP/MIME Settings,” on page 717.

Messages Received: Displays the total number of SMTP messages received by the Internet Agent during its current up time.

Receive Threads: The first number is the number of threads currently being used to receive SMTP messages. The second number is the number of threads still available to the Internet Agent for receiving SMTP messages. This is the total number of assigned receive threads (by default, 16) minus the currently used threads. You can change the total number of assigned SMTP receive threads in ConsoleOne (Internet Agent object > *SMTP/MIME* > *Settings*). For more information, see Section 46.1.1, “Configuring Basic SMTP/MIME Settings,” on page 717.

MX Lookup Errors: To resolve hostnames to IP addresses, the Internet Agent performs MX record lookups in DNS. This field displays the number of MX record lookups that failed.

Unknown Hosts: Displays the number of SMTP hosts that the Internet Agent could not establish a connection with because the hostname could not be resolved to an IP address.

TCP/IP Read Errors: Displays the number of TCP read errors encountered by the Internet Agent. A TCP read error occurs if the Internet Agent connects successfully to another SMTP host but is unable to process a TCP read command during the message transfer.

TCP/IP Write Errors: Displays the number of TCP write errors encountered by the Internet Agent. A TCP write error occurs if the Internet Agent connects successfully to another SMTP host but is unable to process a TCP write command during the message transfer.

Hosts Down: Displays the number of SMTP hosts that the Internet Agent could not establish a connection with in order to send or receive messages. The Internet Agent was able to resolve the hostname to an IP address, but the connection could not be established.

Connections Denied: Displays the number of connections denied by the Internet Agent. A connection is denied if the host is blocked through:

- A Class of Service (Internet Agent object > *Access Control* > *Settings*). For more information, see Chapter 47.1, "Controlling User Access to the Internet," on page 747.
- A blacklist (Internet Agent object > *Access Control* > *Blacklists*). For more information, see Chapter 47.2, "Blocking Unwanted E-Mail from the Internet," on page 757.
- The Reject Mail if Sender's Identity Cannot Be Verified setting (Internet Agent object > *SMTP/MIME* > *Security Settings*), if it is enabled and the sender's identity cannot be verified. For more information, see Section 47.2.4, "Mailbomb (Spam) Protection," on page 760.

Message Size Denied: Displays the number of SMTP messages that the Internet Agent did not send or receive because they exceeded the maximum message size. You can change the maximum message size in ConsoleOne (Internet Agent object > *Access Control* > *Settings* > edit class of service > *SMTP Incoming* tab or *SMTP Outgoing* tab). For more information, see Section 47.1, "Controlling User Access to the Internet," on page 747.

Relaying Denied: Displays the number of relay messages denied by the Internet Agent. A relay message is denied for the following reasons:

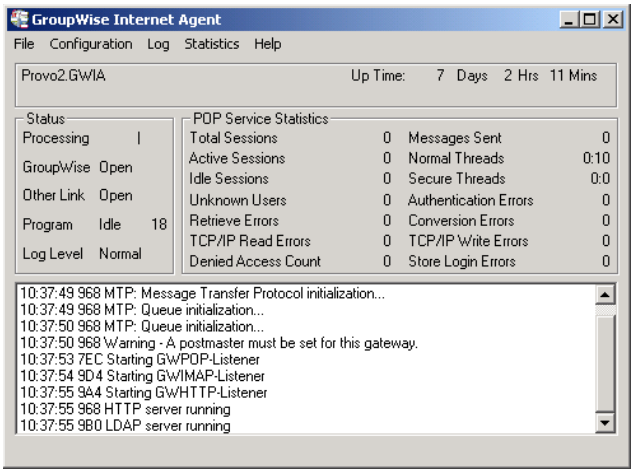
- The Internet Agent is not enabled as a relay host (Internet Agent object > *Access Control* > *SMTP Relay Settings*). For more information, see Section 46.1.8, "Enabling SMTP Relaying," on page 731.
- The relay message could not be authenticated.

POP Service Statistics

The *POP Service Statistics* section, shown below, provides information about the POP activity handled by the Internet Agent.

NetWare:	Press F10-Options, then F9-Stats to switch to the POP Service Statistics.
Linux and Windows:	Click *Statistics* > *POP Service*.

Figure 49-6 *POP Service Statistics Section of the Internet Agent Server Console*



Total Sessions: Displays the total number of POP3 sessions processed by the Internet Agent during its current up time.

Active Sessions: Displays the number of currently active POP3 sessions.

Idle Sessions: Displays the number of threads still available to the Internet Agent for POP3 sessions. This is the total number of assigned POP3 threads (by default, 10) minus the active sessions. You can change the total number of assigned POP3 threads in ConsoleOne (Internet Agent object > *POP3/IMAP4 > Settings)*. For more information, see Section 46.3, “Configuring POP3/IMAP4 Services,” on page 739.

Messages Sent: Displays the total number of GroupWise mailbox messages retrieved through POP3 sessions.

Normal Threads: Displays the number of POP threads that are busy and the number that are available.

Secure Threads: Displays the number of POP SSL threads that are busy and the number that are available.

Unknown Users: Displays the number of user logins that failed because the user does not exist in the GroupWise system.

Authentication Errors: Displays the number of GroupWise user logins that failed because the user supplied an incorrect password.

Retrieve Errors: Displays the number of errors generated because the Internet Agent could not transfer messages to the POP3 client.

Conversion Errors: Displays the number of errors generated because the Internet Agent could not convert retrieved GroupWise messages to MIME format.

TCP/IP Read Errors: Displays the number of TCP read errors encountered by the Internet Agent. A TCP read error occurs if the Internet Agent successfully opens a POP3 session but is unable to process a TCP read command during the session.

TCP/IP Write Errors: Displays the number of TCP write errors encountered by the Internet Agent. A TCP write error occurs if the Internet Agent successfully opens a POP3 session but is unable to process a TCP write command during the session.

Denied Access Count: Displays the number of POP3 sessions that were denied because the user does not have POP3 access. POP3 access is controlled through the user's Class of Service assignment (Internet Agent object > *Access Control* > *Settings*). For more information, see Section 47.1, "Controlling User Access to the Internet," on page 747.

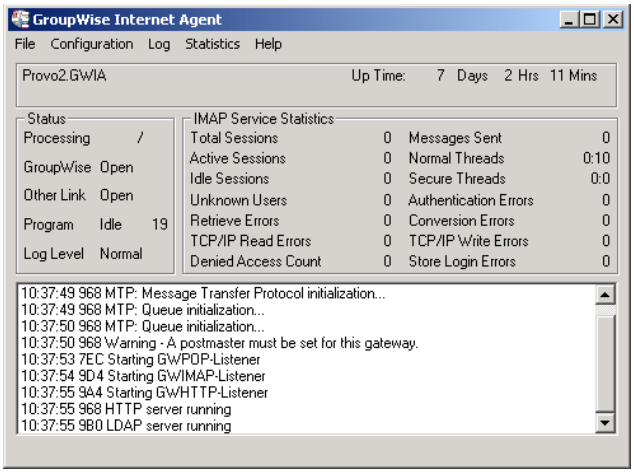
Store Login Errors: Displays the number of GroupWise user logins that failed because the users' GroupWise mailboxes were unavailable (for example, the post office is down or the Internet Agent link to the post office is down).

IMAP Service Statistics

The *IMAP Service Statistics* section, shown below, provides information about the IMAP activity handled by the Internet Agent.

NetWare:	Press F10-Options, then F9-Stats to switch to the IMAP Service Statistics.
Linux and Windows:	Click *Statistics* > *IMAP Service*.

Figure 49-7 *IMAP Service Statistics Section of the Internet Agent Server Console*



Total Sessions: Displays the total number of IMAP4 sessions processed by the Internet Agent during its current up time.

Active Sessions: Displays the number of currently active IMAP4 sessions.

Sessions Available: Displays the number of threads still available to the Internet Agent for IMAP4 sessions. This is the total number of assigned IMAP4 threads (by default, 10) minus the active sessions. You can change the total number of assigned IMAP4 threads in ConsoleOne (Internet Agent object > *POP3/IMAP4* > *Settings*). For more information, see Section 46.3, "Configuring POP3/IMAP4 Services," on page 739.

Messages Sent: Displays the total number of GroupWise mailbox messages retrieved through IMAP4 sessions.

Normal Threads: Displays the number of IMAP threads that are busy and the number that are available.

Secure Threads: Displays the number of IMAP SSL threads that are busy and the number that are available.

Unknown Users: Displays the number of user logins that failed because the user does not exist in the GroupWise system.

Authentication Errors: Displays the number of GroupWise user logins that failed because the user supplied an incorrect password.

Retrieve Errors: Displays the number of errors generated because the Internet Agent could not transfer messages to the IMAP4 client.

Conversion Errors: Displays the number of errors generated because the Internet Agent could not convert retrieved GroupWise messages to MIME format.

TCP/IP Read Errors: Displays the number of TCP read errors encountered by the Internet Agent. A TCP read error occurs if the Internet Agent successfully opens a IMAP4 session but is unable to process a TCP read command during the session.

TCP/IP Write Errors: Displays the number of TCP write errors encountered by the Internet Agent. A TCP write error occurs if the Internet Agent successfully opens an IMAP4 session but is unable to process a TCP write command during the session.

Denied Access Count: Displays the number of IMAP4 sessions that were denied because the user does not have IMAP4 access. IMAP4 access is controlled through the user's Class of Service assignment (Internet Agent object > *Access Control* > *Settings*). For more information, see Section 47.1, "Controlling User Access to the Internet," on page 747.

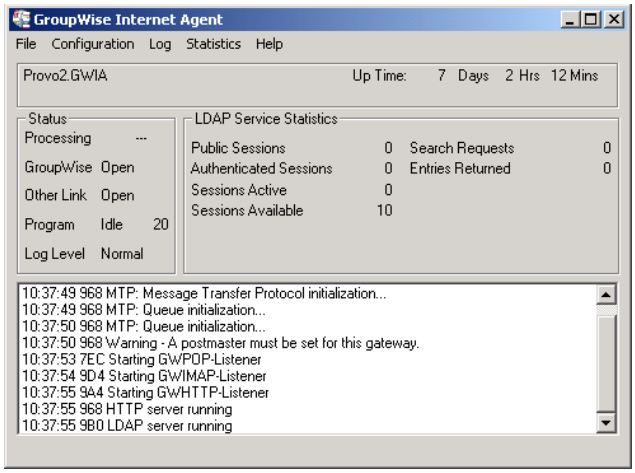
Store Login Errors: Displays the number of GroupWise user logins that failed because the users' GroupWise mailboxes were unavailable (for example, the post office is down or the Internet Agent link to the post office is down).

LDAP Service Statistics

The *LDAP Service Statistics* section, shown below, provides information about the LDAP activity handled by the Internet Agent.

NetWare:	Press F10-Options, then F9-Stats to switch to the LDAP Service Statistics.
Linux:	Click *Statistics* > *LDAP Service*.

Figure 49-8 *LDAP Service Statistics Section of the Internet Agent Server Console*



Public Sessions: Displays the total number of LDAP sessions handled by the Internet Agent.

Authenticated Sessions: This field is not used.

Sessions Active: Displays the total number of LDAP sessions currently being processed by the Internet Agent.

Sessions Available: Displays the number of threads still available to the Internet Agent for LDAP sessions. This is the total number of assigned LDAP threads (by default, 10) minus the active sessions. You can change the total number of assigned LDAP threads in ConsoleOne (Internet Agent object > *LDAP* > *Settings*). For more information, see Section 46.2, “Configuring LDAP Services,” on page 737.

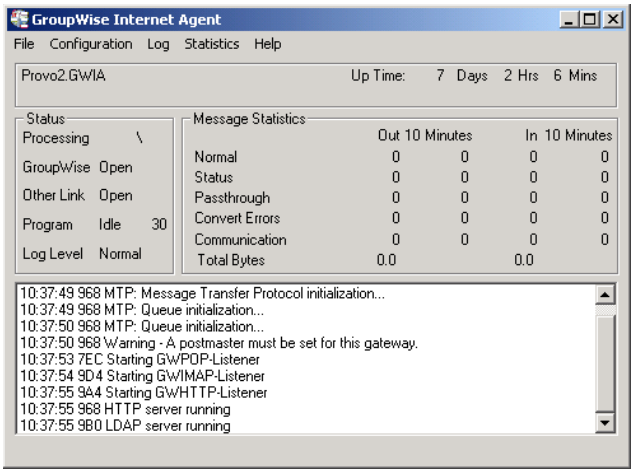
Search Requests: Displays the total number of LDAP queries against the GroupWise Address Book.

Entries Returned: Displays the total number of Address Book entries returned for the search requests. For example, a single search request might return 25 entries.

49.1.4 Logging

The *Logging* section of the console, shown below, displays Internet Agent activity. The number and detail of these messages depend on the logging level you select. See Chapter 49.6, “Using Internet Agent Log Files,” on page 791 for more information.

Figure 49-9 *Internet Agent Server Console*



49.1.5 Menu Functions

The following sections explain the menu options available in the Internet Agent console:

- "NetWare Internet Agent Console" on page 785
- "Linux and Windows Internet Agent Console" on page 786

NetWare Internet Agent Console

The menu functions on the NetWare Internet Agent console provide you with the following options.

F6-Restart: Select this option to restart the Internet Agent. The Internet Agent rereads all of its configuration files (`gwia.cfg`, `blocked.txt`, `gwauth.cfg`, `route.cfg`, and so forth).

F7-Exit: Select this option to terminate the Internet Agent and return to the system prompt.

F8-Info: Select this option to display the Internet Agent configuration information in the Logging section of the console and in the log file.

F9-Browse Log File: Select this option to browse the log file. The following browse options are displayed:

- **F1-Cancel Browse:** Select this option to exit browse mode and to return to the console.
- **Up-arrow, Down-arrow:** Press the Up-arrow and Down-arrow keys to scroll one line at a time.
- **PgUp, PgDn:** Press the PageUp and PageDown keys to scroll one screen at a time.
- **Ctrl+PgUp:** Press Ctrl+PageUp to move to the top of the log file.
- **Ctrl+PgDn:** Press Ctrl+PageUp to move to the bottom of the log file.

F-10 Options: Select this option to display the options menu. The following options are displayed:

- **F1-Exit Options:** Select this option to return to the main Internet Agent console screen.
- **F2-Log Level:** Select this option to toggle between log levels. This option overrides the default log level set in the Log Settings page (Internet Agent object > *GroupWise* > *Log Settings*) or the /loglevel switch in the startup file for the current session.

- **F6-Colors:** Select this option to scroll through the several color options. This option is useful if the Internet Agent station has a monochrome monitor. You can also use this option to help you quickly identify an Internet Agent if more than one is running.
- **F8-Zero Stats:** Select this option to reset the values in the Statistics section of the screen.
- **F9-Stats:** Select this option to scroll through the SMTP service statistics, POP service statistics, IMAP service statistics, LDAP service statistics, and message transfer status.

Linux and Windows Internet Agent Console

The menu functions on the Linux and Windows Internet Agent console provide you with the following options.

File > Restart (F6): Select this option to restart the Internet Agent. The Internet Agent rereads all of its configuration files (`gwia.cfg`, `blocked.txt`, `gwauth.cfg`, `route.cfg` and so forth).

File > Exit (F7): Select this option to terminate the Internet Agent and return to the system prompt.

Configuration > Agent Settings (F5): Select this option to display the Internet Agent configuration information.

Configuration > Message Transfer Status: Select this option to display the status of the TCP/IP link between the Internet Agent and the MTA for the domain.

Configuration > Edit Startup File: Select this option to open the `gwia.cfg` file in the default text editor.

Log > Cycle Log: Select this option to close the current log file and start a new one.

Log > View Log: Select this option to view the log files.

Log > Log Settings: Select this option to set the logging level, turn on or off disk logging, and configure the maximum log file size and disk space. These changes apply only to the current session.

Statistics > Message: Select this option to display the Message statistics. For information about the Message statistics, see "Message Statistics" on page 778.

Statistics > SMTP Service: Select this option to display the SMTP Service statistics. For information about the SMTP Service statistics, see "SMTP Service Statistics" on page 778.

Statistics > POP Service: Select this option to display the POP Service statistics. For information about the POP Service statistics, see "POP Service Statistics" on page 780.

Statistics > IMAP Service: Select this option to display the IMAP Service statistics. For information about the IMAP Service statistics, see "IMAP Service Statistics" on page 782.

Statistics > LDAP Service: Select this option to display the LDAP Service statistics. For information about the LDAP Service statistics, see "LDAP Service Statistics" on page 783.

Statistics > Zero Statistics (F8): Select this option to reset the Message, SMTP, POP, IMAP, and LDAP statistics.

49.2 Using the Internet Agent Web Console

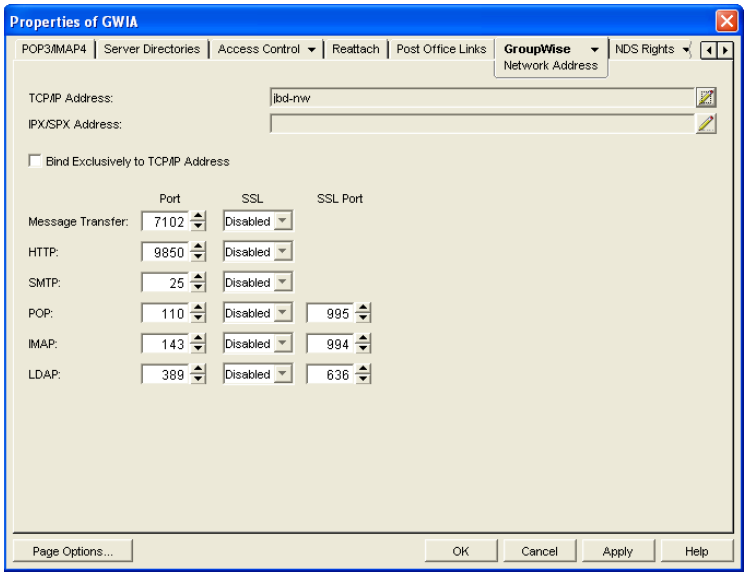
You can use a Web browser interface, referred to as the Web console, to monitor the Internet Agent. You cannot use the Internet Agent Web console to change any of the Internet Agent's settings. Changes must be made through ConsoleOne, the server console, or the startup file.

- Section 49.2.1, "Setting Up the Internet Agent Web Console," on page 787
- Section 49.2.2, "Monitoring the Internet Agent at the Web Console," on page 788

49.2.1 Setting Up the Internet Agent Web Console

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

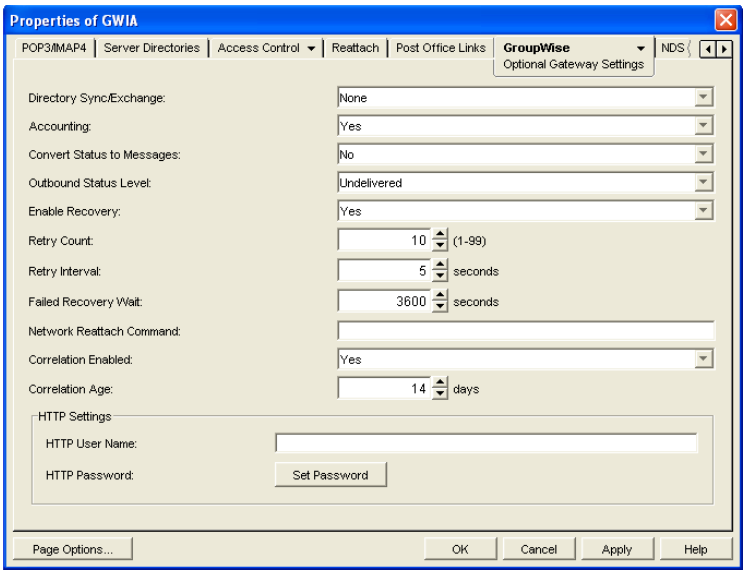
1. In ConsoleOne, right-click the WebAccess Agent object, then click *Properties*.
2. Click *GroupWise* > *Network Address* to display the Network Address page.



3. Make a note of the TCP/IP address and the HTTP port number. You need this information to access the Internet Agent Web console.
4. If you want to use an SSL connection for the Internet Agent Web console, which provides optimum security, select *Enabled* in the *HTTP SSL* drop-down list.

   For additional instructions about using SSL connections, see Section 71.2, "Server Certificates and SSL Encryption," on page 1119.
5. Click *Apply* to save your changes on the Network Address page.

   If you want to limit access to the Internet Agent Web console, you can provide a username and password.
6. Click *GroupWise* > *Optional Gateway Settings* to display the Optional Gateway Settings page.



7 In the *HTTP User Name* field, enter an arbitrary username (for example, gwia).

8 Click *Set Password* to assign a password (for example, monitor).

9 Click *OK* to save your changes.

ConsoleOne then notifies the Internet Agent to restart to put the new settings into effect.

49.2.2 Monitoring the Internet Agent at the Web Console

1 In a Web browser, enter the following:

`http://IP_address:agent_port` (non-secure server)

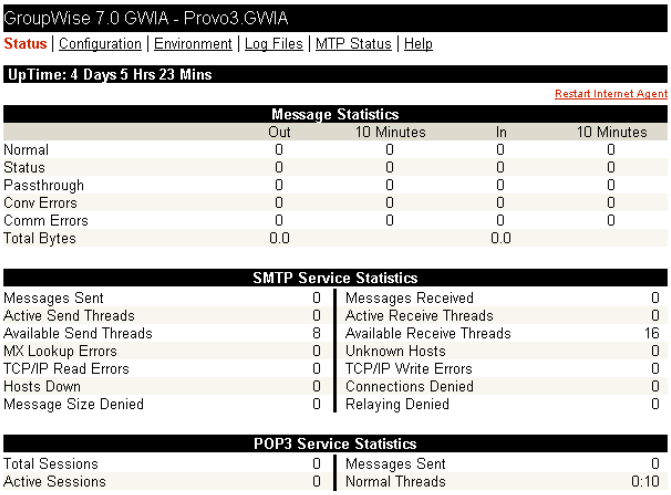
or

`https://IP_address:agent_port` (secure server)

where *IP_address* is the IP address or hostname of the server where the Internet Agent is running, and *HTTP_port* is the port number assigned to the agent. If you used the default port during installation, the port number is 9850.

2 If prompted, enter the Web console username and password.

The Internet Agent Web console is displayed.



GroupWise 7.0 GWIA - Provo3.GWIA

Status | Configuration | Environment | Log Files | MTP Status | Help

UpTime: 4 Days 5 Hrs 23 Mins

Restart Internet Agent

Message Statistics

	Out	10 Minutes	In	10 Minutes
Normal	0	0	0	0
Status	0	0	0	0
Passthrough	0	0	0	0
Conv Errors	0	0	0	0
Comm Errors	0	0	0	0
Total Bytes	0.0		0.0	

SMTP Service Statistics

Messages Sent	0	Messages Received	0
Active Send Threads	0	Active Receive Threads	0
Available Send Threads	8	Available Receive Threads	16
MX Lookup Errors	0	Unknown Hosts	0
TCP/IP Read Errors	0	TCP/IP Write Errors	0
Hosts Down	0	Connections Denied	0
Message Size Denied	0	Relaying Denied	0

POP3 Service Statistics

Total Sessions	0	Messages Sent	0
Active Sessions	0	Normal Threads	0:10

The Web console has five pages (Status, Configuration, Environment, and Log Files, and MTP Status). You can click *Help* on any page for information about the page.

49.3 Using Novell Remote Manager

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

IMPORTANT: If the Internet Agent is running in protected mode on NetWare, it does not display in Novell Remote Manager.

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

`http://server_address:8008`

For example:

`http://172.16.5.18:8008`

For more information about using Novell Remote Manager, see the NetWare 6.5 Documentation Web site (http://www.novell.com/documentation/nw65) and the Novell Open Enterprise Server Documentation Web site (http://www.novell.com/documentation/oes).

49.4 Using an SNMP Management Console

The Internet Agent can be monitored through an SNMP management console, such as the one provide with Novell® ZENworks® Server Management.

Before you can monitor the Internet Agent through an SNMP management console, you must compile the Internet Agent's MIB (Management Information Base) file. The Internet Agent's MIB file, named `gwia.mib`, is located in the `agents\snmp` directory on the *GroupWise 7 Administrator* CD or in the GroupWise software distribution directory.

The MIB file contains all the Trap, Set, and Get variables used for communication between the Internet Agent and management console. The Trap variables provide warnings that point to current

and potential problems. The Set variables allow you to configure portions of the application while it is still running. The Get variables display the current status of different processes of the application.

To compile the MIB file:

1. Copy the Internet Agent MIB (`gwia.mib`) to the SNMP management console's MIB directory.
2. Compile the MIB file.
3. Create a profile that uses the Internet Agent MIB, then select that profile.

49.5 Assigning Operators to Receive Warning and Error Messages

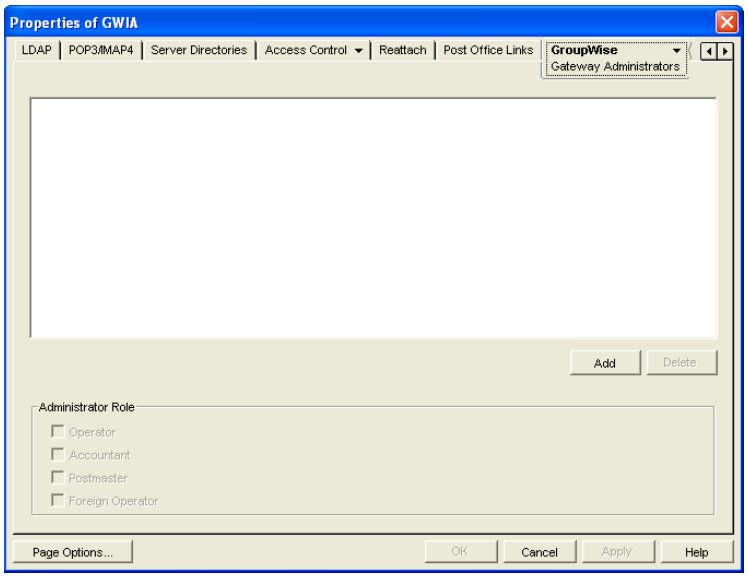
You can select GroupWise users to receive warning and error messages issued by the Internet Agent. Whenever the agent issues a warning or error, these users, called operators, receive a message in their mailboxes. You can specify one or more operators.

An operator can also shut down the Internet Agent by sending a mail message addressed as follows:
gwia`:shutdown`

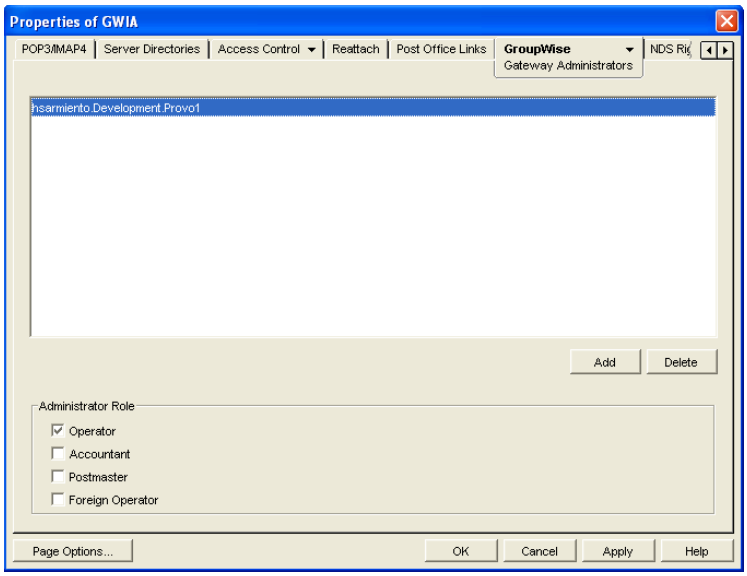
where *gwia* is your Internet Agent's name.

To assign an operator:

1. In ConsoleOne, right-click the Internet Agent object, then click *Properties*.
2. Click *GroupWise* > *Gateway Administrators* to display the Gateway Administrators page.



3. Click *Add*, select a user, then click *OK* to add the user to the Gateway Administrators list.



4 Make sure *Operator* is selected as the Administrator Role.

5 If desired, add additional operators.

6 Click *OK*.

49.6 Using Internet Agent Log Files

You can use the Internet Agent logging options to help you monitor its operation. By default, the Internet Agent logs information to its server console, Web console, and to a log file on disk. You can control the following logging features:

- The type of information to log.
- Disabling disk logging (Windows Internet Agent only).
- How long to retain log files.
- The maximum amount of disk space to use for log files.
- Where to store log files.

You can control logging through ConsoleOne, Internet Agent startup switches, and the Internet Agent console. The following table shows which logging options you can control from each location.

Table 49-1 *Logging Options*

	ConsoleOne	Startup Switches	NetWare Console	Linux Console	Windows Console
Logging Level	Yes	Yes	Yes	Yes	Yes
Disk Logging	No	No	No	Yes	Yes
Maximum Log File Age	Yes	Yes	No	Yes	Yes
Maximum Disk Space	Yes	Yes	No	Yes	Yes

	ConsoleOne	Startup Switches	NetWare Console	Linux Console	Windows Console
Log File Location	Yes	Yes	No	No	No

The log settings in ConsoleOne are used as the default settings. Startup switches override the ConsoleOne log settings, and console settings override startup switches.

49.6.1 Modifying Log Settings in ConsoleOne

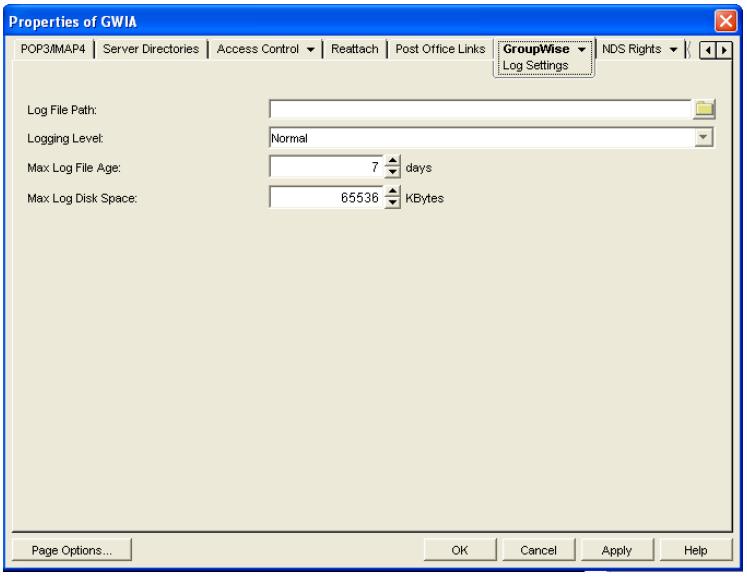
Through ConsoleOne, you can configure the following log settings:

- Log file location
- Logging level (applies to both console logging and disk logging)
- Maximum age for log files
- Maximum disk spaced used for log files

The ConsoleOne settings are the default settings. The Internet Agent uses these settings unless you override them with startup switches in the gwia.cfg startup file or at the server console.

To configure the default log settings in ConsoleOne:

1. Right-click the Internet Agent object, then click *Properties*.
2. Click *GroupWise* > *Log Settings* to display the Log Settings page.



3. Modify any of the following properties:

Log File Path: The Internet Agent creates a new log file each day and each time it is started. The log file is named *mmdd*gwia.*nnn*, where *mm* is the month, *dd* is the day, and *nnn* is a sequenced number (001 for the first log file of the day, 002 for the second, and so forth). The default location of the log files depends on the platform where the Internet Agent is running.

NetWare:	*domain*\wpgate*gwia*\000.prc
Linux:	/var/log/novell/groupwise/*domain_name*.gwia
Windows:	c:*grpwise**gwia*

If you want to specify a different location, enter the directory path or browse to and select the directory.

Logging Level: There are four logging levels:

- **Off:** Disables the logging function.
- **Normal:** Displays warnings and error messages. This is the preferred logging level.
- **Verbose:** Displays information about traffic, including non-delivery reports, in addition to warnings and error messages. Information includes the filename, path, message ID, and size of the message being processed; the IP address of any inbound SMTP connections; the Internet Agent-specific MSG number; and SMTP connection messages such as "Connect to novell.com" and "Accepted connection from 172.16.5.18 novell.com".
- **Diagnostic:** Displays detailed function calls made by the Internet Agent. This level is not useful for most troubleshooting. Verbose is better for standard troubleshooting.

The verbose and diagnostic logging levels do not degrade Internet Agent performance, but log files saved to disk consume more disk space when verbose or diagnostic logging is in use.

Max Log File Age: Specify the number of days you want the Internet Agent to retain old log files. The Internet Agent retains the log file for the specified number of days unless the maximum disk space for the log files is exceeded. The default age is 7 days.

Max Log Disk Space: Specify the maximum amount of disk space you want to use for log files. If the disk space limit is exceeded, the Internet Agent deletes log files, beginning with the oldest file, until the limit is no longer exceeded. The default disk space is 65536 KB.

4 Click *OK* to save the log settings.

49.6.2 Modifying Log Settings through Startup Switches

You can use startup switches to override any log settings you configured in ConsoleOne. as described in Section 49.6.1, "Modifying Log Settings in ConsoleOne," on page 792. Edit the `gwia.cfg` file to change switch settings, as described in Section 52.1.2, "Modifying the gwia.cfg File," on page 814.

For information about the startup switches that can be used to modify log settings, see Section 52.12, "Log File Switches," on page 851.

49.6.3 Modifying Log Settings through the Internet Agent Server Console

- "NetWare Internet Agent Server Console" on page 794
- "Linux or Windows Internet Agent Server Console" on page 794

NetWare Internet Agent Server Console

You can use the NetWare Internet Agent console to set the logging level for the current session.

Changes you make to logging level at the console apply only to the current session. When you restart the Internet Agent, the logging level is reset to the settings specified in ConsoleOne or the startup switches. See Section 49.6.1, “Modifying Log Settings in ConsoleOne,” on page 792 and Section 49.6.2, “Modifying Log Settings through Startup Switches,” on page 793.

To modify the logging level:

1. At the NetWare Internet Agent’s console, press F10-Options, then press F2-Log Level repeatedly to toggle among the available log levels:
   - **Off:** Disables the logging function.
   - **Normal:** Displays warnings and error messages. This is the preferred logging level.
   - **Verbose:** Displays information about traffic, including non-delivery reports, in addition to warnings and error messages. Information includes the filename, path, message ID, and size of the message being processed; the IP address of any inbound SMTP connections; the Internet Agent-specific MSG number; and SMTP connection messages such as “Connect to novell.com” and “Accepted connection from 172.16.5.18 novell.com”.
   - **Diag:** Displays detailed function calls made by the Internet Agent. This level is not useful for most troubleshooting. Verbose is better for standard troubleshooting.
2. Press F1-Exit Options to return to the main console screen.

Linux or Windows Internet Agent Server Console

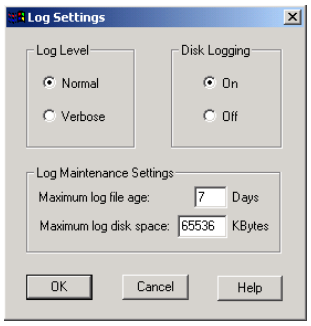
You can use the Windows Internet Agent console to override the following log settings for the current sessions:

- Disk logging on/off
- Log file location
- Logging level (applies to both console logging and disk logging)
- Maximum age for log files
- Maximum disk spaced used for log files

Changes you make to the log settings at the console apply only to the current session. When you restart the Internet Agent, the log level is reset to the level specified in ConsoleOne or the startup switches. See Section 49.6.1, “Modifying Log Settings in ConsoleOne,” on page 792 and Section 49.6.2, “Modifying Log Settings through Startup Switches,” on page 793.

To modify the log settings:

1. In the Windows Internet Agent console, click *Log* > *Log Settings* to display the Log Settings dialog box.



2 Change the desired settings:

- **Log Level:** Select Normal to display warnings and error messages; this is the preferred logging level. Select Verbose to display information about traffic, including non-delivery reports, in addition to warnings and error messages. Information includes the filename, path, message ID, and size of the message being processed; the IP address of any inbound SMTP connections; the Internet Agent-specific MSG number; and SMTP connection messages such as "Connect to novell.com" and "Accepted connection from 172.16.5.18 novell.com".
- **Disk Logging:** Select *On* or *Off* to enable or disable logging of information to log files.
- **Maximum Log File Age:** Specify the number of days you want the Internet Agent to retain old log files. The Internet Agent retains the log file for the specified number of days unless the maximum disk space for the log files is exceeded. The default age is 7 days.
- **Maximum Log Disk Space:** Specify the maximum amount of disk space you want to use for log files. If the disk space limit is exceeded, the Internet Agent deletes log files, beginning with the oldest file, until the limit is no longer exceeded. The default disk space is 65536 KB.

49.6.4 Viewing Log Files

You can view the log file for the current session, or you can view archived log files. The current log file is viewable through the Internet Agent console, as described in Section 49.1, "Using the Internet Agent Server Console," on page 775, or in the Internet Agent Web console, as described in Section 49.2, "Using the Internet Agent Web Console," on page 787. Archived files are viewable through the consoles or an ASCII text editor.

Current Log File

The current log file is displayed in the Logging window of the Internet Agent console, with only the most current operations visible. The log file is complete, and includes the gateway startup and configuration information and ongoing operations logged by time, including the shutdown operation. You can browse the file from top to bottom or perform a search for any text string you want. You can also view the current log file from the Internet Agent Web console.

Archived Log Files

The Internet Agent creates a new log file every day at midnight or every time it restarts. Older log files are not deleted for at least one day unless you have not allowed sufficient disk space for them to be archived.

Log files are named according to the date they were created. If the Internet Agent was restarted during the day, the file extension indicates which session is logged (for example `0518log.003` indicates the third session logged for May 18).

Archived log files are saved in ASCII. You can use any text editor to open a file or to print it. You can also view the log files from the Internet Agent console or the Internet Agent Web console.

49.7 Using Internet Agent Error Message Documentation

Internet Agent 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 "Internet Agent Error Messages" in *GroupWise 7 Troubleshooting 1: Error Messages*.

49.8 Employing Internet Agent Troubleshooting Techniques

If you are having a problem with the Internet Agent 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 Internet Agent problems. See "Strategies for Agent Problems" in *GroupWise 7 Troubleshooting 2: Solutions to Common Problems*.

49.9 Stopping the Internet Agent

The following sections describe the various methods you can use to shut down the Internet Agent:

- Section 49.9.1, "Using the Internet Agent Console," on page 796
- Section 49.9.2, "Using a Command at the Command Line," on page 796
- Section 49.9.3, "Using a Mail Message," on page 797
- Section 49.9.4, "Using a Shutdown File," on page 797

49.9.1 Using the Internet Agent Console

To stop the Internet Agent while at the server console:

NetWare:	Press F7-Exit, then select *Yes*.
Linux and Windows:	Click *File* > *Exit*.

49.9.2 Using a Command at the Command Line

To stop the Internet Agent at the command line:

NetWare:	`unload gwia`
Linux:	`/etc/init.d/grpwise stop`
Windows:	N/A

49.9.3 Using a Mail Message

The Internet Agent can be stopped by sending a shutdown message to the Internet Agent. In order to shut down the program with a message, the user sending the message must be defined as an operator for the Internet Agent. This prevents unauthorized users from shutting down the Internet Agent. For information about defining a user as an operator, see Section 49.5, "Assigning Operators to Receive Warning and Error Messages," on page 790.

The message to shut down the Internet Agent must be addressed to the Internet Agent, not a non-GroupWise domain. The syntax for the To line is:

gwia:shutdown

where *gwia* is the name of the Internet Agent object.

49.9.4 Using a Shutdown File

The Internet Agent can also be stopped by placing a file named `shutdown` in the *domain*\wpgate*gwia*\000.prc directory. When the Internet Agent sees this file, it deletes the file and shuts down.

Optimizing the Internet Agent 50

The following sections provide information about some of the methods you can use to optimize the speed and reliability of the GroupWise® Internet Agent:

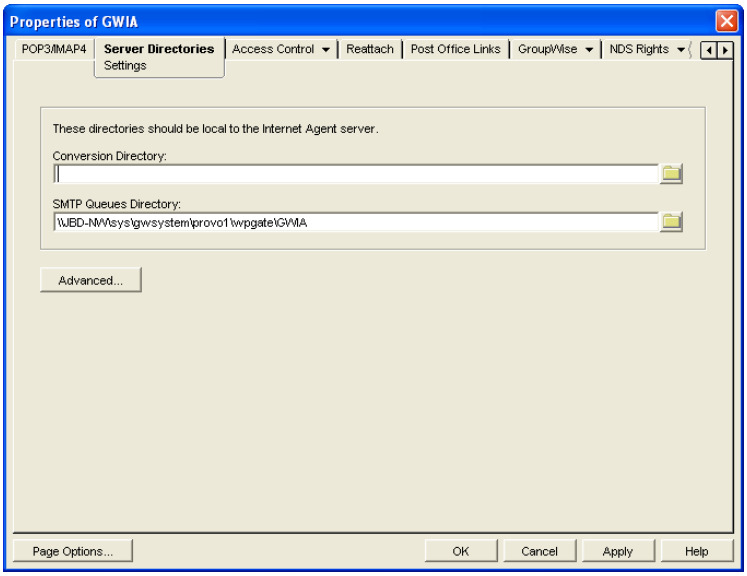
50.1 Relocating the Internet Agent’s Processing Directories

The Internet Agent uses several directories to process message files. For best performance, these directories should be located on the same server where the Internet Agent is running.

NetWare:	If you installed the Internet Agent on a different server from where the domain is located, you should move the Internet Agent’s processing directories to the server where the Internet Agent is running.
Linux:	If you installed the Internet Agent on a different server from where the domain is located, you should move the Internet Agent’s processing directories to the server where the Internet Agent is running.
Windows:	The Internet Agent Installation program creates the Internet Agent’s processing directories on the Windows server when it installs the Windows Internet Agent, so you typically don’t need to move them.

To define the location of the Internet Agent’s directories:

1. In ConsoleOne®, right-click the Internet Agent object, then click *Properties*.
2. Click *Server Directories* > *Settings* to display the server directories Settings page.



3 Fill in the fields:

Conversion Directory: Select the directory where the Internet Agent stores temporary files for message conversion. The default conversion directory depends on the Internet Agent platform.

NetWare:	*domain*\wpgate*gwia*000.prc\gwwork
Linux:	*domain*/wpgate/*gwia*/000.prc/gwwork
Windows:	*c*:\grpwise*gwia*

If you type a path to a Windows drive (rather than using the *Browse* button to select the directory), you must use UNC path syntax.

This setting corresponds with the Internet Agent's /work switch.

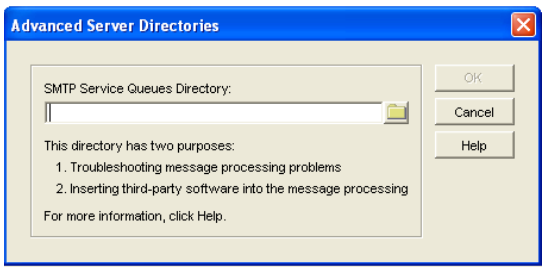
SMTP Queues Directory: Select the directory where the Internet Agent stores messages being routed to and from the Internet. The default directory depends on the Internet Agent platform.

NetWare:	*domain*\wpgate*gwia*
Linux:	*domain*/\wpgate/*gwia*
Windows:	c:\grpwise\gwia

Four subdirectories are created under the SMTP queues directory: defer, send, receive, and result.

This setting corresponds with the Internet Agent's /dhome switch.

4 Click the *Advanced* button.



5 Fill in the field:

SMTP Service Queues Directory: If you want, specify a secondary SMTP queues directory for outbound messages. This secondary directory can be helpful for troubleshooting by providing a way to trap messages before they are routed to the Internet. You can also use the secondary directory to run third-party utilities such as a virus scanner on Internet-bound messages.

The Internet Agent places all outbound messages in this secondary directory. The messages must then be moved manually (or by another application) to the primary SMTP queues' send directory (see Step 3) before the Internet Agent routes them to the Internet.

This setting corresponds with the /smtphome switch.

If you type a directory path rather than using the *Browse* button to select a directory, make sure you use UNC path syntax.

6 Click *OK* to close the dialog box.

7 Click *OK* to save the changes to the directory locations.

50.2 Increasing Internet Agent Speed

You can implement the following procedures to help enhance the Internet Agent's processing speed:

- Section 50.2.1, "Sending and Receiving Threads," on page 801
- Section 50.2.2, "Changing the Maximum Packet Received Buffers," on page 801
- Section 50.2.3, "Increasing Polling Time," on page 801
- Section 50.2.4, "Decreasing the Timeout Cycles," on page 802

50.2.1 Sending and Receiving Threads

The Internet Agent uses sending and receiving threads to process incoming and outgoing messages. The more threads you make available, the more messages the Internet Agent can process concurrently. However, threads place a demand on the server's resources. Too many threads can monopolize memory and CPU utilization.

Make sure you balance your processing speed requirements with the other applications running on the same server as the Internet Agent.

For information about adjusting the SMTP sending and receiving threads, see Section 46.1.1, "Configuring Basic SMTP/MIME Settings," on page 717.

50.2.2 Changing the Maximum Packet Received Buffers

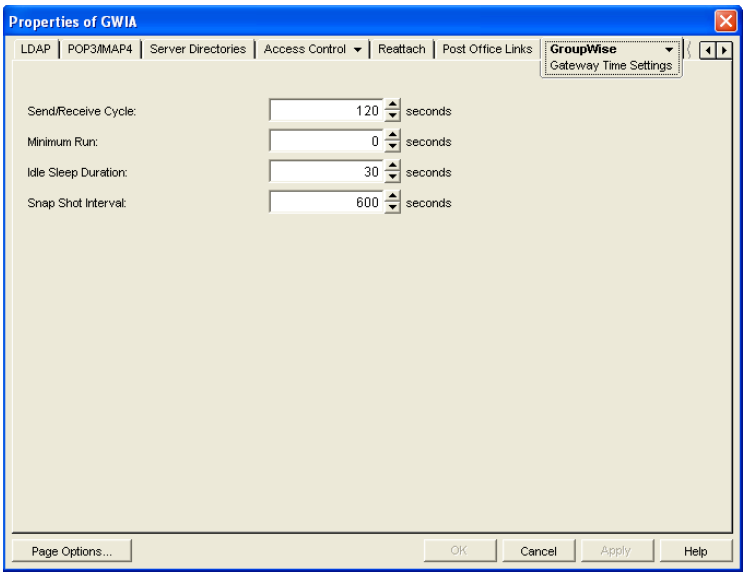
This option is available only for the NetWare® version. If you leave the send and receive threads at their default settings, you probably do not need to change the Maximum Packet Received Buffers parameter. However, if you significantly increase the number of send and receive threads, you should increase the default Maximum Packet Received Buffers parameter to better accommodate the SMTP processes. You must change this parameter at the server.

50.2.3 Increasing Polling Time

Incoming and outgoing messages are stored in priority queues. The Internet Agent polls these queues and then forwards the messages for distribution. The *Time* option lets you control how often the Internet Agent polls these queuing directories. Make sure you balance polling time requirements with the other applications running on the same server as the Internet Agent.

1 In ConsoleOne, right-click the Internet Agent object, then click *Properties*.

2 Click *GroupWise* > *Gateway Time Settings* to display the Gateway Time Settings page.



3 Modify the following settings:

Idle Sleep Duration: Select the time, in seconds, you want the Internet Agent to idle after it has processed its queues. A low setting, such as 5 seconds, speeds up processing but requires more resources. A higher setting slows down the Internet Agent but requires fewer resources by reducing the number of network polling scans.

Snap Shot Interval: The *Snap Shot Interval* is a sliding interval you can use to monitor Internet Agent activity. For example, if the *Snap Shot Interval* remains at the default (10 minutes), the *Snap Shot* columns in the console display only the previous 10 minutes of activity.

4 Click *OK* to save the changes.

50.2.4 Decreasing the Timeout Cycles

The Internet Agent has a series of switches that control its timeout settings. By decreasing the default time of the timeout cycles you might be able to slightly increase the Internet Agent speed. However, the timeout cycles do not place an extremely significant burden on the overall performance of the Internet Agent so the effect might be minimal. You should consider this option only after you have tried everything else.

For information about configuring the timeout settings in ConsoleOne, see Section 46.1.5, “Configuring the SMTP Timeout Settings,” on page 725. For information about configuring the settings using startup switches, see Section 52.6.9, “Timeouts,” on page 837.

50.3 Automating Reattachment to NetWare Servers

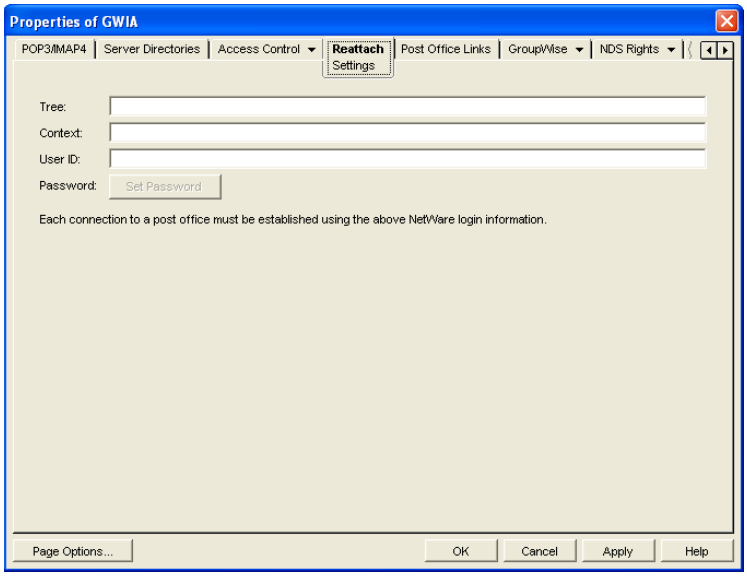
You can specify the reattach information for the Windows Internet Agent in ConsoleOne. Whenever the Windows Internet Agent loses its connection to a post office that is on a NetWare server, it reads the reattach information from the domain database and attempt to reattach to the NetWare server.

The NetWare Internet Agent does not use this information. To reattach to NetWare servers where user post offices reside, the NetWare Internet Agent uses the user ID and password specified during

installation. This user ID and password are specified in the `gwia.cfg` file. For more information, see Section 52.3, “Required Switches,” on page 821.

To specify the reattachment information for the Windows Internet Agent:

1. In ConsoleOne, right-click the Internet Agent object, then click *Properties*.
2. Click *Reattach* > *Settings* to display the NetWare reattachment Settings page.



3. Define the following properties:

   Tree: Specify the Novell® eDirectory™ tree that the Internet Agent logs in to. If the Internet Agent does not use an eDirectory user account, leave this field blank.

   Context: Specify the eDirectory context of the Internet Agent’s user account. If the Internet Agent does not use an eDirectory user account, leave this field blank.

   User ID: Specify the name of the user account.

   Password: Specify the password for the user account.

4. Click *OK*.

Connecting GroupWise Systems and Domains Using the Internet Agent

51

The Internet Agent can be used as a link between GroupWise® systems and between domains in the same GroupWise system.

51.1 Connecting GroupWise Systems

If you have two independent GroupWise systems, you can use the Internet Agent to connect the two systems. This requires each GroupWise system to have the Internet Agent installed.

After the systems are connected, you can synchronize information between the two systems so that users from both systems appear in the GroupWise Address Book.

The following sections provide instructions:

51.1.1 Overview

For the purpose of the following discussion, GWSys1 and GWSys2 represent two separate GroupWise systems.

When you connect the two systems, you connect the two domains where the Internet Agents are located. To do so:

- In GWSys1, define the GWSys2 Internet Agent domain as an external domain. Configure a domain link from the GWSys1 Internet Agent domain to the external domain, defining the link type as a gateway link that uses the Internet Agent. This allows GWSys1 to deliver messages to GWSys2.
- In GWSys2, define the GWSys1 Internet Agent domain as an external domain. Configure a domain link from the GWSys2 Internet Agent domain to the external domain, defining the link type as a gateway link that uses the Internet Agent. This allows GWSys2 to deliver messages to GWSys1.

After you've connected the two systems, users can send messages between the two systems by entering the recipients' full addresses (*userID.post_office.domain* or *user@host*).

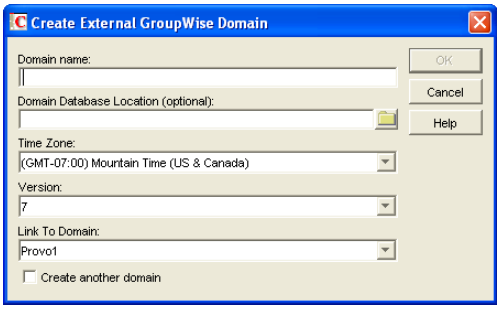
If desired, you can simplify addressing by exchanging information between systems, which causes user information to be displayed in the Address Book. The easiest way to exchange information is to enable the External System Synchronization feature in both systems. When enabled, this synchronization constantly updates the Address Books in both systems so that local users can more easily address messages to and access information about the users in the external system. If you don't want to enable the External System Synchronization feature, you can manually exchange information.

51.1.2 Creating an External Domain

The first step in connecting two GroupWise systems by way of Internet Agents is to create an external domain in each GroupWise system. The external domain represents the Internet Agent domain in the other GroupWise system and provides the medium through which you define the link to the other system.

To create an external domain:

1. In ConsoleOne®, right-click *GroupWise System*, then click *New* > *External Domain* to display the Create External GroupWise Domain dialog box.



2. Fill in the following fields:

   Domain Name: Specify the name of the Internet Agent domain as it is defined in the external GroupWise system.

   Domain Database Location (Optional): Leave this field empty.

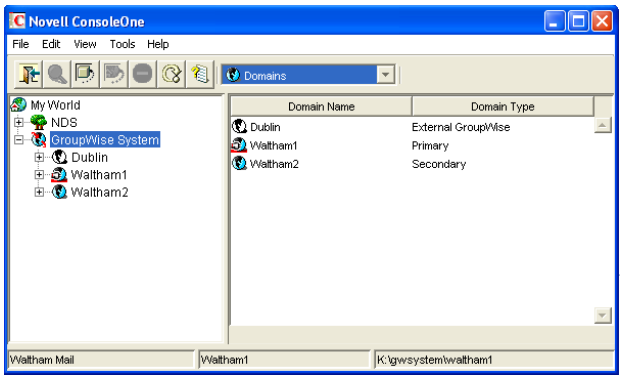
   Time Zone: Select the time zone where the domain is physically located.

   Version: Select the external domain's GroupWise version. The domain's version is determined by its MTA version. The options are *4.X, 5.X*, and *6*, *6.5*, and *7*.

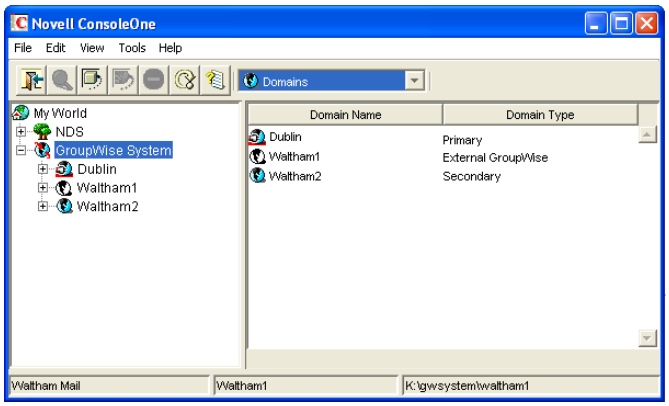
   Link to Domain: Select the domain in your system that you want to link to the external domain. This must be your system's Internet Agent domain. By default, all messages sent to the external GroupWise system are routed to this domain. The domain's MTA then routes the messages to the Internet Agent, which connects to the Internet Agent in the other system.

3. Click *OK* to create the external domain.

   The external domain is added to your GroupWise system and is visible in the GroupWise View. In the following example, Dublin is the external domain.



4 Repeat Step 1 through Step 3 to define an external domain in the second GroupWise system. If you do not have administrative rights to that system, you must coordinate with that GroupWise system's administrator.



5 Continue with Linking to the External Domain.

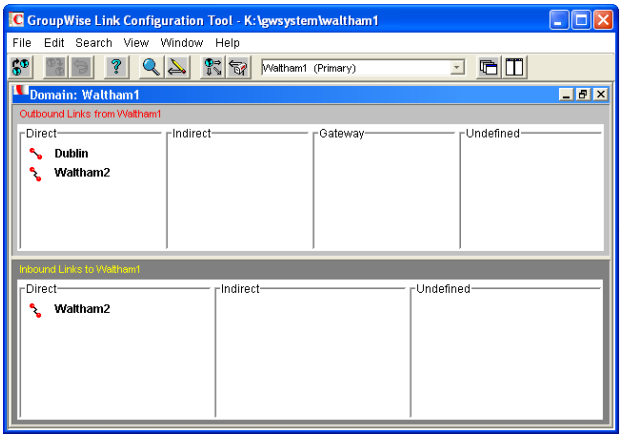
51.1.3 Linking to the External Domain

After you define a domain from the other GroupWise system as an external domain in your system, you need to make sure that your system's domains have the appropriate links to the external domain.

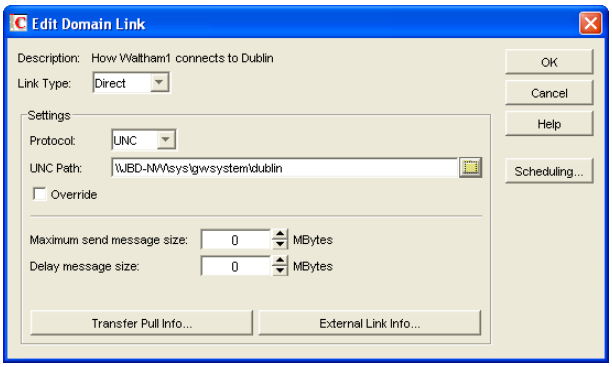
The Internet Agent domain in your system needs to have a gateway link to the external domain. All other domains in your system have indirect links (through the Internet Agent domain) to the external domain. These links are configured automatically when the external domain was created.

To configure the gateway link for your Internet Agent domain:

1 In ConsoleOne, right-click the Internet Agent domain, then click *GroupWise Utilities > Link Configuration* to display the Link Configuration utility.



2 In the *Outbound Links* list, double-click the external domain to display the Edit Domain Link dialog box.



3 Modify the following fields:

Link Type: Select *Gateway*.

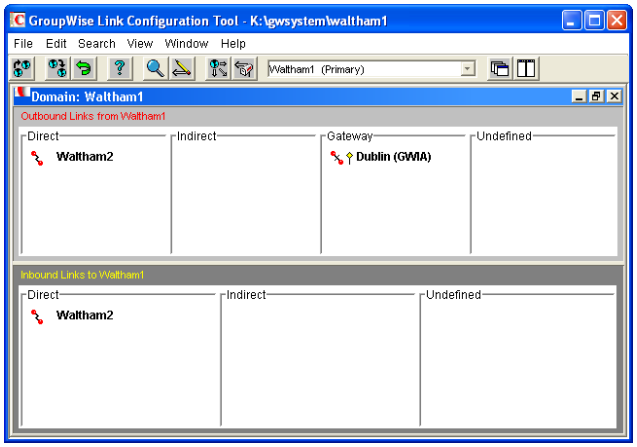
Gateway Link: Select the name of your Internet Agent.

Gateway Access String: Specify the hostname (Internet Agent object > *SMTP/MIME* > *Settings*) or foreign ID (Internet Agent object > *GroupWise* > *Identification*) assigned to the external domain's Internet Agent (for example, gwia.ctp.com).

Return Link: Leave this set to your Internet Agent domain.

4 Click *OK* to save your changes.

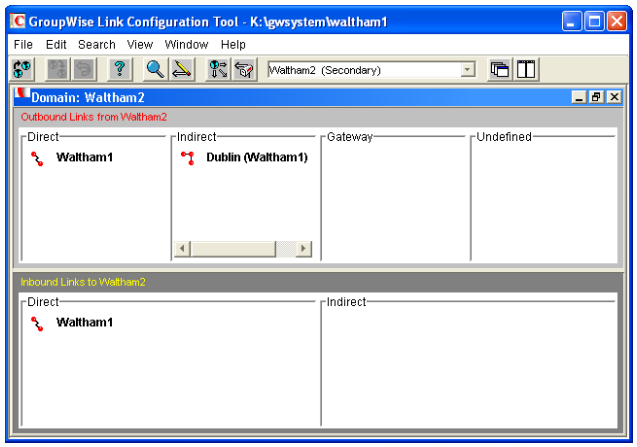
The external domain is displayed in the *Gateway* column of the *Outbound Links* list to show that the current domain is using a gateway link to the external domain. The symbol indicates a gateway link. The symbol indicates that the link configuration is not yet saved. To save the configuration information, click *Edit* > *Save*.



By default, the rest of the domains in your system should have an indirect link to the external domain. To verify this for a domain:

5 In the list of domains on the Link Configuration utility's toolbar, select the domain whose link you want to check, then verify that the external domain is displayed in the Indirect column of the *Outbound Links* list.

The symbol indicates an indirect link. If the symbol is displayed, the link modification has not yet been propagated to the domain.



6 After verifying your domain links, repeat Step 1 through Step 5 in the second GroupWise system to establish the links to the first GroupWise system. If you do not have administrative rights to that system, you must coordinate with that GroupWise system's administrator.

7 Continue with Checking the Link Status of the External Domain.

51.1.4 Checking the Link Status of the External Domain

The GroupWise MTA has monitoring capabilities that let you determine whether the domains in your system are properly linked to the external domain. When you look at the MTA's operation screen, you should see the external domain added to the domain count in the Status box.

If the link to the external domain is closed, the MTA should be logging and displaying the reasons under its Configuration Status function.

For more information about link protocols, see Chapter 10, “Managing the Links between Domains and Post Offices,” on page 137.

51.1.5 Sending Messages Between Systems

After you’ve established links between the Internet Agent domains in the two GroupWise systems, users in one system can send message to recipients in the other system by including the recipients’ fully-qualified GroupWise addresses:

userID.post_office.domain or user@host

To simplify addressing for your GroupWise users, you can exchange information between the two systems. This enables users in your GroupWise system to use the Address Book when selecting recipients from the other system. For information, see the next section, Exchanging Information Between Systems.

51.1.6 Exchanging Information Between Systems

Exchanging information between two GroupWise systems enables users in either system to use the Address Book when addressing messages to users in the other system. To exchange information, you can choose from the following methods:

External System Synchronization: You can use the External System Synchronization feature to automatically exchange domain, post office, user, resource, and distribution list information between the two systems. After the initial exchange of information, any information that changes in one system is automatically propagated to the other system in order to synchronize the information in that system. This is the recommended method for exchanging information between two systems. For information about setting up synchronization between two external systems, see Section 4.8, “External System Synchronization,” on page 64.

Manual Creation of Information: You can manually create the other systems’ objects (domains, post offices, users, resources, and distribution lists) as external objects in your GroupWise system. When doing so, the names of your external objects need to exactly match the names of the objects as defined in their system. Domains in your system link to the external domains indirectly through the first external domain you created (this is the external domain that one of your system’s domains has a direct link to). The advantage to this method is that you can choose which of the other system’s domains, post offices, users, resources, and distribution lists you want included in your system. The disadvantage is that there is a great amount of administrative overhead involved in creating all the objects and, after the objects are created, no automatic synchronization takes place so updates must be made manually.

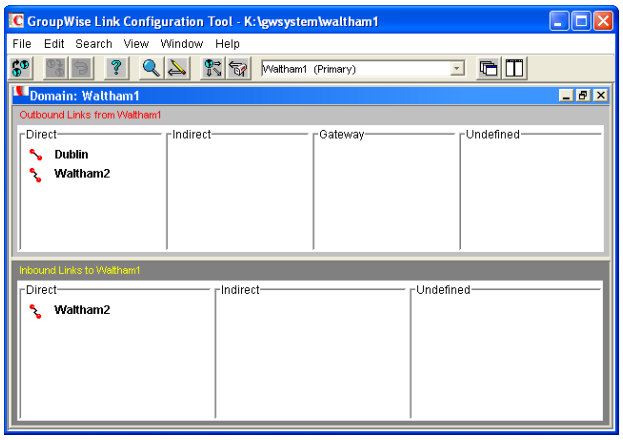
51.2 Linking Domains

If you have domains that cannot be linked by way of a mapped or TCP/IP connection, you can connect them by way of gateway links, with the Internet Agent defined as the gateway. Both domains being linked must have an Internet Agent installed.

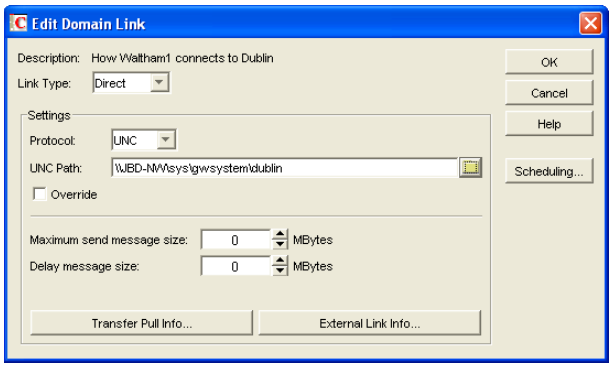
For purposes of reducing confusion in the following steps, the two domains being connected are referred to as Provo and Cambridge. You should substitute your domains appropriately.

To configure gateway links between two domains:

1 In ConsoleOne, right-click the Provo domain, then click *GroupWise Utilities* > *Link Configuration* to display the Link Configuration utility.



2 In the *Outbound Links* list, double-click the *Cambridge* domain to display the Edit Domain Link dialog box.



3 Modify the following fields:

Link Type: Select Gateway.

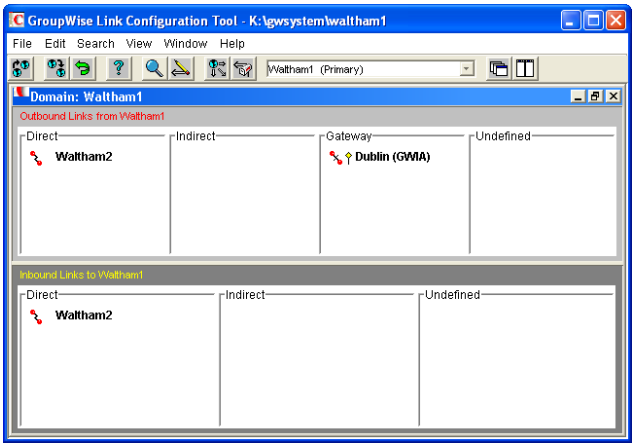
Gateway Link: Select the name of the Provo domain's Internet Agent.

Gateway Access String: Specify the hostname (Internet Agent object > *SMTP/MIME* > *Settings*) or foreign ID (Internet Agent object > *GroupWise* > *Identification*) of the Cambridge domain's Internet Agent (for example, `gwia.ctp.com`).

Return Link: Leave this set to the Provo domain.

4 Click OK to save your changes.

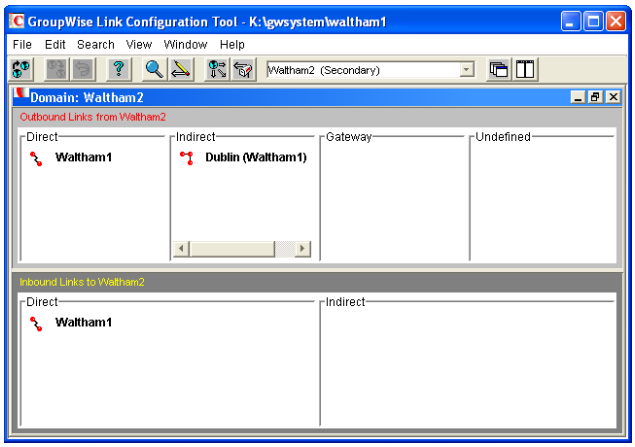
The Cambridge domain is displayed in the Gateway column of the Outbound Links list to show that the Provo domain is using a gateway link to it. The symbol indicates a gateway link. The symbol indicates that the link configuration is not yet saved. To save the configuration information, click *Edit* > *Save*.



By default, any domains that are already linked to your Provo domain should have an indirect link to the Cambridge domain through the Provo domain. To verify this for a domain:

5 In the list of domains on the Link Configuration utility's toolbar, select the domain whose link you want to check, then verify that the Cambridge domain is displayed in the Indirect column of the *Outbound Links* list.

The symbol indicates an indirect link. If the symbol is displayed, the link modification has not yet been propagated to the domain.



6 After verifying your domain links, repeat Step 1 through Step 5 in the second GroupWise system to establish the links to the first GroupWise system. If you do not have administrative rights to that system, you must coordinate with that GroupWise system's administrator.

The GroupWise MTA has monitoring capabilities that let you determine whether the domains in your system are properly linked. When you look at the MTA's operation screen, you should see all domains, regardless of link type, included in the domain count in the Status box.

If the link to a domain is closed, the MTA should be logging and displaying the reasons under its Configuration Status function.

For more information about link protocols, see Chapter 10, "Managing the Links between Domains and Post Offices," on page 137.

Using Internet Agent Startup Switches

52

NOTE: Starting in GroupWise® 7 Support Pack 1, many Internet Agent configuration settings that were previously stored as startup switches in the Internet Agent configuration file (`gwia.cfg`) were moved into eDirectory™ so that they can be modified in ConsoleOne®. For background information about this change, see "Consolidated Configuration Information (v7.0.1)" in "What's New in GroupWise 7" in the *GroupWise 7 Installation Guide*.

Startup switches let you modify the way the GroupWise Internet Agent works. Properly using startup switches can help you fine-tune the Internet Agent for your specific messaging environment.

Choose from the following list to find out how to use Internet Agent startup switches, and for an explanation of the purpose for each of the switches. The switches are grouped into sections according to the features and functionality that they affect.

52.1 How to Use Startup Switches

The Internet Agent reads its configuration file `gwia.cfg` at startup and restart. Only one switch is required in the `gwia.cfg` file. The /home switch points to the Internet Agent's gateway directory. This is always a subdirectory of `wpgate` in the domain directory structure.

You can use the `gwia.cfg` file to override primary configuration settings that are stored in the domain database (`wpdomain.db`) and modified in ConsoleOne. You can also use the `gwia.cfg` file to set secondary configuration settings that are not available in ConsoleOne. Section 52.2, "Alphabetical List of Switches," on page 815 indicates which settings are available in ConsoleOne and which settings are not.

- Section 52.1.3, “Editing Guidelines,” on page 814

52.1.1 Changing Internet Agent Settings in ConsoleOne

We recommend that you modify configuration settings in ConsoleOne rather than using corresponding switches in the `gwia.cfg` file. .

52.1.2 Modifying the gwia.cfg File

If you need to change the Internet Agent’s configuration and do not have access to ConsoleOne, you can manually edit the `gwia.cfg` file. Any changes you make to the `gwia.cfg` file override the primary settings in ConsoleOne so that the Internet Agent starts using the new settings. However, the primary settings are not changed in the domain database as a result of editing the `gwia.cfg` file. In order to specify secondary configuration settings that are not available in ConsoleOne, you must edit the `gwia.cfg` file.

The location of the `gwia.cfg` file used by the Internet Agent depends on the Internet Agent’s platform:

NetWare:	The `gwia.cfg` file used by the NetWare® Internet Agent is located in the same directory as the agent (typically sys:\system). Do not edit the `gwia.cfg` file located in the *domain*`\wpgate\`*gwia* `directory`; if you do, the changes do not affect the Internet Agent.
Linux:	The `gwia.cfg` file used by the Linux Internet Agent is located in the `/opt/novell/groupwise/agents/share` directory.
Windows:	The `gwia.cfg` file used by the Windows Internet Agent is located in the *domain*`\wpgate\`*gwia* directory. Do not edit the `gwia.cfg` file located in the same directory as the Internet Agent program. This `gwia.cfg` file is only used to redirect the Internet Agent to the `gwia.cfg` file in the *domain*`\wpgate\`*gwia* directory.

52.1.3 Editing Guidelines

If you decide to manually edit the `gwia.cfg` file, keep the following guidelines in mind when making modifications:

- Archive a copy of the file in case you need to return to the original switch settings.
- Use a text editor to edit the file.
- The comment characters include the semicolon (;), pound sign (#), and asterisk (*), and are used to disable a switch or to add comments. The Internet Agent ignores any line that begins with a comment character.
- Changes made to the configuration file do not take effect until you restart the Internet Agent.
- Switches used in the configuration file must begin with one of the following switch delimiters: / (forward slash) or - (hyphen). For example, you can use /sd or -sd. On Linux, you can use the Linux double-hyphen standard (for example, --sd).
- You can use either a hyphen (-) or an equals sign (=) to separate a switch from its value. For example, you can use /sd-12 or /sd=12. If you use a hyphen rather than a forward slash as the switch delimiter, you must use an equal sign (for example, -sd=12). If you use the Linux double-hyphen standard, you must user a space (for example, --sd 12).

- None of the switches or switch values are case sensitive. For example, /sd-12 is the same as /SD-12.
- If a switch is specified more than once in the configuration file or on the command line, and if it has a value (such as /loglevel=normal), only the last instance of the switch is used.
- The `gwia.cfg` file is used by default. However, you can also specify another configuration file or use startup switches on the command line when starting the Internet Agent program. If no other configuration file is specified on the command line (using the `gwia @filename` syntax), the default `gwia.cfg` configuration file is read and processed before, and in addition to, any command line switches.
- If a configuration file other than `gwia.cfg` is specified on the command line, the default `gwia.cfg` file is not read.

52.2 Alphabetical List of Switches

Primary configuration settings are available in ConsoleOne. Secondary configuration settings are not available in ConsoleOne and can be set only using switches in the `gwia.cfg` file.

Switch starts with: a b c d e f g h i j k l m n o p q r s t u v w x y z

Table 52-1 *Internet Agent Startup Switches*

NetWare Internet Agent	Linux Internet Agent	Windows Internet Agent	ConsoleOne Settings
/aql	--aql	/aql	*SMTP/MIME > Address Handling > Sender's Address Format*
/aqor /noaqor	--aqor --noaqor	/aqor /noaqor	*SMTP/MIME > Address Handling > Place Domain and Post Office Qualifiers on Right of Address*
/ari	--ari	/ari	N/A
/attachmsg /noattachmsg	--attachmsg --noattachmsg	/attachmsg /noattachmsg	N/A
/badmsg	--badmsg	/badmsg	*SMTP/MIME > Undeliverables > Undeliverable or Problem Message*
/blockrulegenmsg	--blockrulegenmsg	/blockrulegenmsg	N/A
/certfile	--certfile	/certfile	*GroupWise > SSL Settings > Certificate File*
/cluster	N/A	N/A	N/A
/color	N/A	N/A	N/A
/dbchar822	--dbchar822	/dbchar822	N/A
/dhome	--dhome	/dhome	*Server Directories > Settings > SMTP Queues Directory*
/defaultcharset	--defaultcharset	/defaultcharset	N/A
/dia /nodia	--dia --nodia	/dia /nodia	*SMTP/MIME > Address Handling > Ignore GroupWise Internet Addressing*

NetWare Internet Agent	Linux Internet Agent	Windows Internet Agent	ConsoleOne Settings
N/A	N/A	/dialpass	*SMTP/MIME > Dial-Up Settings > Password*
N/A	N/A	/dialuser	*SMTP/MIME > Dial-Up Settings > Username*
/displaylastfirst /nodisplaylastfirst	--displaylastfirst --nodisplaylastfirst	/displaylastfirst /nodisplaylastfirst	*SMTP/MIME > Address Handling > Display Fullname as Lastname, Firstname*
/dontreplaceunderscore /replaceunderscore	--dontreplaceunderscore --replaceunderscore	/dontreplaceunderscore /replaceunderscore	*SMTP/MIME > Address Handling > Do Not Replace Underscores with Spaces*
/dsn /nodsn	--dsn --nodsn	/dsn /nodsn	*SMTP/MIME > ESMTP Settings > Enable Delivery Status Notification (DSN)*
/dsnage	--dsnage	/dsnage	*SMTP/MIME > ESMTP Settings > DSN Hold Age*
/etrnhost	--etrnhost	/etrnhost	*SMTP/MIME > Dial-Up Settings > ETRN Host*
/etrnqueue	--etrnqueue	/etrnqueue	*SMTP/MIME > Dial-Up Settings > ETRN Queue*
/fd822	--fd822	/fd822	*SMTP/MIME > Address Handling > Non-GroupWIse Domain for RFC-822 Replies*
/fdmime	--fdmime	/fdmime	*SMTP/MIME > Address Handling > Non-GroupWIse Domain for MIME Replies*
/flatfwd /noflatfwd	--flatfwd --noflatfwd	/flatfwd/noflatfwd	*SMTP/MIME > Message Formatting > Enable Flat Forwarding*
/force7bitout /noforce7bitout	--force7bitout --noforce7bitout	/force7bitout /noforce7bitout	*SMTP/MIME > Settings > Use 7 Bit Encoding for All Outbound Messages*
/forceinboundauth	--forceinboundauth	/forceinboundauth	N/A
/forceoutboundauth	--forceoutboundauth	/forceoutboundauth	N/A
/fut	--fut	/fut	*SMTP/MIME > Undeliverables > Forward Undeliverable Inbound Messages*
/group /nogroup	--group --nogroup	/group /nogroup	*SMTP/MIME > Address Handling > Expand Groups on Incoming Messages*
/help	--help	/help	N/A
/hn	--hn	/hn	*SMTP/MIME > Settings > Hostname/ DNS Record “A Record” Name*
/home	--home	/home	N/A

NetWare Internet Agent	Linux Internet Agent	Windows Internet Agent	ConsoleOne Settings
/httppassword	--httppassword	/httppassword	*GroupWise > Optional Gateway Settings > HTTP Password*
/httpport	--httpport	/httpport	*GroupWise > Network Address > HTTP Port*
/httprefresh	--httprefresh	/httprefresh	N/A
/httpssl	--httpssl	/httpssl	*GroupWise > Network Address > HTTP SSL*
/httpuser	--httpuser	/httpuser	*GroupWise > Optional Gateway Settings > HTTP User Name*
/imap4	--imap4	/imap4	*POP3/IMAP4 > Settings > Enable IMAP4 Service*
/imapport	--imapport	/imapport	*GroupWise > Network Address > IMAP Port*
/imapreadlimit	--imapreadlimit	/imapreadlimit	*POP3/IMAP4 > Settings > Maximum Number of Items to Read*
/imapsport	--imapsport	/imapsport	*GroupWise > Network Address > IMAP SSL Port*
/imapssl	--imapssl	/imapssl	*GroupWise > Network Address > IMAP SSL*
/imip /noimip	--imip --noimip	/imip /noimip	*SMTP/MIME > Settings > Enable iCal Service*
/ip	--ip	/ip	*GroupWise > Network Address > Bind Exclusively to TCP/IP Address*
/ipa	--ipa	/ipa	N/A
/ipp	--ipp	/ipp	N/A
/iso88591is	--iso88591is	/iso88591is	N/A
/it	--it	/it	*POP3/IMAP4 > Settings > Number of Threads for IMAP4 Connections*
/keepsendgroups /nokeepsendgroups	--keepsendgroups --nokeepsendgroups	/keepsendgroups /nokeepsendgroups	*SMTP/MIME > Address Handling > Retain Distribution Lists on Outgoing Messages*
/keyfile	--keyfile	/keyfile	*GroupWise > SSL Settings > SSL Key File*
/keypasswd	--keypasswd	/keypasswd	*GroupWise > SSL Settings > Password*
/killthreads /nokillthreads	--killthreads --nokillthreads	/killthreads /nokillthreads	*SMTP/MIME > Settings > Kill Threads on Exit or Restart*
/koi8	--koi8	/koi8	N/A
/ldap	--ldap	/ldap	*LDAP > Settings > Enable LDAP Service*

NetWare Internet Agent	Linux Internet Agent	Windows Internet Agent	ConsoleOne Settings
/ldapcntxt	--ldapcntxt	/ldapcntxt	*LDAP > Settings > LDAP Context*
/ldapipaddr	--ldapipaddr	/ldapipaddr	N/A
/ldapport	--ldapport	/ldapport	*GroupWise > Network Address > LDAP Port*
/ldappwd	--ldappwd	/ldappwd	N/A
/ldaprefcntxt	--ldaprefcntxt	/ldaprefcntxt	*LDAP > Settings > LDAP Context*
/ldaprefurl	--ldaprefurl	/ldaprefurl	*LDAP > Settings > LDAP Referral URL*
/ldapserverport	--ldapserverport	/ldapserverport	*GroupWise > Network Address > LDAP Port*
/ldapserversslport	--ldapserversslport	/ldapserversslport	*GroupWise > Network Address > LDAP SSL Port*
/ldapssl /noldapssl	--ldapssl --noldapssl	/ldapssl /noldapssl	*GroupWise > Network Address > LDAP SSL*
/ldapthrd	--ldapthrd	/ldapthrd	*LDAP > Settings > Number of LDAP Threads*
/ldapuser	--ldapuser	/ldapuser	N/A
/log	--log	/log	*GroupWise > Log Settings > Log File Path*
/logdays	--logdays	/logdays	*GroupWise > Log Settings > Max Log File Age*
/loglevel	--loglevel	/loglevel	*GroupWise > Log Settings > Log Level*
/logmax	--logmax	/logmax	*GroupWise > Log Settings > Max Log Disk Space*
/maxdeferhours	--maxdeferhours	/maxdeferhours	*SMTP/MIME > Settings > Maximum Number of Hours to Retry a Deferred Message*
/mbcount	--mbcount	/mbcount	*SMTP/MIME > Security Settings > Enable Mailbomb Protection and Mailbomb Threshold*
/mbtime	--mbtime	/mbtime	*SMTP/MIME > Security Settings > Enable Mailbomb Protection and Mailbomb Threshold*
/mh	--mh	/mh	*SMTP/MIME > Settings > Relay Host for Outbound Messages*
/mime	--mime	/mime	*SMTP/MIME > Message Formatting > Default Message Encoding: MIME*
/mono	N/A	N/A	N/A
/msgdeferinterval	--msgdeferinterval	/msgdeferinterval	*SMTP/MIME > Settings > Intervals to Retry a Deferred Message*

NetWare Internet Agent	Linux Internet Agent	Windows Internet Agent	ConsoleOne Settings
/mudas	--mudas	/mudas	*SMTP/MIME > Undeliverables > Amount of Original Message to Return to Sender When Message Is Undeliverable*
/nasoq	--nasoq	/nasoq	N/A
/noesmtp	--noesmtp	/noesmtp	N/A
/noiso2022 /iso2022	--noiso2022 --iso2022	/noiso2022 /iso2022	N/A
/nomappriority /mappriority	--nomappriority --mappriority	/nomappriority /mappriority	*SMTP/MIME > Message Formatting > Disable Mapping X-Priority Fields*
/nosmtpversion /smtpversion	--nosmtpversion --smtpversion	/nosmtpversion /smtpversion	*SMTP/MIME > Settings > Do Not Display GroupWise Information on an Initial SMTP Connection*
/nosnmp	--nosnmp	/nosnmp	N/A
/notfamiliar /familiar	--notfamiliar --familiar	/notfamiliar /familiar	N/A
/nqpmt	--nqpmt	/nqpmt	*SMTP/MIME > Message Formatting > Enable Quoted Printed Message Text Line Wrapping*
/p	--p	/p	*SMTP/MIME > Settings > Scan Cycle for Send Directory*
/password	N/A	N/A	N/A
/pop3 /nopop3	--pop3 --nopop3	/pop3 /nopop3	*POP3/IMAP4 > Settings > Enable POP3 Service*
/popintruderdetect	--popintruderdetect	/popintruderdetect	*POP3/IMAP4 > Settings > Enable Intruder Detection*
/popport	--popport	/popport	*GroupWise > Network Address > POP Port*
/popsport	--popsport	/popsport	*GroupWise > Network Address > POP SSL Port*
/popssl	--popssl	/popssl	*GroupWise > Network Address > POP SSL*
/pt	--pt	--pt	*POP3/IMAP4 > Settings > Number of Threads for POP3*
/rbl	--rbl	/rbl	*Access Control > Blacklists > Blacklist Addresses*
/rd	--rd	/rd	*SMTP/MIME > Settings > Number of SMTP Receive Threads*
/realmailfrom /norealmailfrom	--realmailfrom --norealmailfrom	/realmailfrom /norealmailfrom	*SMTP/MIME > Address Handling > Use GroupWise User Address as Mail From: for Rule Generated Messages*

NetWare Internet Agent	Linux Internet Agent	Windows Internet Agent	ConsoleOne Settings
/rejbs	--rejbs	/rejbs	*SMTP/MIME > Security Settings > Reject Mail If Sender's Identity Cannot Be Verified*
/relayaddsignature	--relayaddsignature	/relayaddsignature	*SMTP/MIME > Message Formatting > Apply Global Signature to Relay Messages*
/rt	--rt	/rt	*SMTP/MIME > Message Formatting > Number of Inbound Conversion Threads*
/sd	--sd	/sd	*SMTP/MIME > Settings > Number of SMTP Send Threads*
N/A	--show	N/A	N/A
/smtp	--smtp	/smtp	*SMTP-MIME > Settings > Enable SMTP*
/smtphome	--smtphome	/smtphome	*Server Directories > Settings > Advanced > SMTP Service Queues Directory*
/smtpport	--smtpport	/smtpport	*GroupWise > Network Address > SMTP Port*
/smtpssl	--smtpssl	/smtpssl	*GroupWise > Network Address > SMTP SSL*
/sslit	--sslit	/sslit	*POP3/IMAP4 > Settings > Number of Threads for IMAP4 SSL Connections*
/sslpt	--sslpt	/sslpt	*POP3/IMAP4 > Settings > Number of Threads for POP3 SSL Connections*
/st	--st	/st	*SMTP/MIME > Message Formatting > Number of Outbound Conversion Threads*
/tc	--tc	/tc	*SMTP/MIME > Timeouts > Commands*
/td	--td	/td	*SMTP/MIME > Timeouts > Data*
/te	--te	/te	*SMTP/MIME > Timeouts > Connection Establishment*
/tg	--tg	/tg	*SMTP/MIME > Timeouts > Greeting*
/tr	--tr	/tr	*SMTP/MIME > Timeouts > TCP Reset*
/tt	--tt	/tt	*SMTP/MIME > Timeouts > Connection Termination*
/usedialup	--usedialup	/usedialup	*SMTP/MIME > Dial-Up Settings > Enable Dial-Up*
/user	N/A	N/A	N/A

NetWare Internet Agent	Linux Internet Agent	Windows Internet Agent	ConsoleOne Settings
/uueaa	--uueaa	/uueaa	*SMTP/MIME > Message Formatting > UUEncode All Message Attachments*
/work	--work	/work	*Server Directories > Settings > Conversion Directory*
/wrap	--wrap	/wrap	*SMTP/MIME > Message Formatting > Line Wrap Length for Message Text on Outbound Mail*
/xspam	--xspam	/xspam	*SMTP/MIME > Junk Mail*

52.3 Required Switches

The following switches point the Internet Agent to the Internet Agent's directory. They are assigned their initial value during installation.

/dhome
/hn
/home

The following switches are only for the NetWare version of the GroupWise Internet Agent, and are only required if the Internet Agent is running in remote mode, meaning that it does not reside on the same server as the GroupWise domain directory.

/user
/password

52.3.1 /dhome

Points to the SMTP service work area. This is normally the Internet Agent's gateway directory under the *domain*\wpgate directory. See Section 50.1, "Relocating the Internet Agent's Processing Directories," on page 799.

Syntax: `/dhome=pathname`

NetWare Example: `/dhome=sys:\headq\wpgate\gwia`

Linux Example: `-dhome /gwsystem/provo1/gwia`

Windows Example: `/dhome=c:\gwia`

52.3.2 /hn

Specifies the hostname that is displayed when someone connects to your Internet Agent using a Telnet session. You should enter the hostname assigned to you by your Internet service provider.

Syntax: `/hn=host_name`

Example: `/hn=gwia.novell.com`

This switch is required only under certain circumstances. Normally, the Internet Agent gets the information from another source and does not need this switch. If you receive a message that the /hn switch is required, you must use the switch.

For the NetWare version, the /hn switch is required only if you don't use the hosts file in the sys:\etc directory to indicate the IP address and name of the Internet Agent server. If either of these options (the IP address or the name of the server) is not available, the program cannot start.

52.3.3 /home

Points the Internet Agent to the Internet Agent's gateway directory. This is always a subdirectory of `wpgate` in the domain directory structure.

Syntax: `/home=`*`gateway_directory`*

NetWare Example: `/home=sys:\headq\wpgate\gwia`

Linux Example: `-home /gwsystem/provo1/gwia`

Windows Example: `/home=j:\headq\wpgate\gwia`

52.3.4 /user (NetWare Only)

Sets the login ID that the NetWare Internet Agent must use to log into a remote file server to access the domain database and Internet Agent directories.

Syntax: `/user-`*`login_ID`*

52.3.5 /password (NetWare Only)

Sets the password that the NetWare Internet Agent must use to log into a remote file server to access the domain database and Internet Agent directories.

Syntax: `/password-`*`password`*

52.4 Console Switches

The following switches apply to the Internet Agent console and optional SNMP management console:

/color
/help
/mono
/nosnmp
--show

52.4.1 /color

Sets the default color of the Internet Agent console. The values range from 0-7.

Syntax: `color-`*`0|1|2|3|4|5|6|7`*

Example: `/color-3`

You can also change the color of the screen for an Internet Agent session. From the menu on the bottom of the console, select Options, then press the key for Colors.

52.4.2 /help

Displays the Help screen for the startup switches.

Syntax: `/help`

52.4.3 /nosnmp

Disables SNMP for the Internet Agent. The default is to have SNMP enabled. See Section 49.4, "Using an SNMP Management Console," on page 789.

Syntax: /nosnmp

52.4.4 /mono

Runs the Internet Agent for a computer with a monochrome monitor.

Syntax: `/mono`

52.4.5 --show (Linux Only)

Starts the Linux Internet Agent with an agent console interface similar to that provided for the NetWare and Windows Internet Agent. This user interface requires that the X Window System and Open Motif* are running on the Linux server.

Syntax: `--show`

52.5 Environment Switches

The following switches configure Internet Agent environment settings such as working directories and NetWare clustering support.

/ip
/ipa
/cluster
/smtphome
/work

52.5.1 /ip

Binds the Internet Agent to the specified IP address so that, on a server with multiple IP addresses, the Internet Agent uses only the specified IP address.

Syntax: `/ip-`*`address`*

Example: `/ip-172.16.5.18`

52.5.2 /ipa

Specifies the IP address (or hostname) of a GroupWise POA that the Internet Agent can use to resolve IP addresses of other POAs in the system. This replaces the need to configure post office links for the Internet Agent in ConsoleOne (Internet Agent object > Post Office Links > Settings).

If you have established a GroupWise name server (`ngwnameserver`), you can use it. See Section 36.2.2, "Simplifying Client/Server Access with a GroupWise Name Server," on page 488.

Syntax: `/ipa-`*`address`*

Example: `/ipa-ngwnameserver`

52.5.3 /ipp

Specifies the port number of a GroupWise POA that the Internet Agent can use to resolve IP addresses of other POAs in the system. This replaces the need to configure post office links for the Internet Agent in ConsoleOne (Internet Agent object > Post Office Links > Settings).

If you have established a GroupWise name server (`ngwnameserver`), you can use it. See Section 36.2.2, "Simplifying Client/Server Access with a GroupWise Name Server," on page 488.

Syntax: `/ipp-`*`port_number`*

Example: `/ipp-1678`

52.5.4 /cluster (NetWare Only)

Informs the Internet Agent that it is running in a Novell® Cluster Services™ environment. For detailed information about running the Internet Agent in a clustering environment, see "Implementing the Internet Agent in a NetWare Cluster" in "Novell Cluster Services on NetWare" in the *GroupWise 7 Interoperability Guide*.

Syntax: `/cluster`

52.5.5 /smtphome

Specifies a secondary SMTP queues directory for inbound and outbound messages. This secondary directory can be helpful for troubleshooting by providing a way to trap messages before they are routed to the Internet. You can also use the secondary directory to run third-party utilities such as a virus scanner on Internet-bound messages. See Section 50.1, "Relocating the Internet Agent's Processing Directories," on page 799.

The Internet Agent places all outbound messages in this secondary directory. The messages must then be moved manually (or by another application) to the primary SMTP queue's send directory (/dhome switch) before the Internet Agent routes them to the Internet.

Syntax: `/smtphome-`*`path`*

Example: `/smtphome-mail:\provo1\wpgate\gwia\smtp2`

52.5.6 /work

Sets the directory where the Internet Agent stores its temporary files. On NetWare and Linux, the work directory is located in the domain by default. On Windows, it is not.

NetWare:	*domain*\wpgate*gwia*\000.prc\gwwork
Linux:	*domain*/wpgate/*gwia*/\000.prc/gwwork
Windows:	*c*:*grpwise**gwia*

Syntax: `/work-pathname`

NetWare Example: `/work-sys:\tmp\work`

Linux Example: `-work /opt/novell/groupwise/tmp`

Windows Example: `/work-j:\tmp\work`

52.5.7 /nasoq

By default, the Internet Agent sends the accounting file (`acct`) to users specified as accountants in ConsoleOne (Internet Agent object > GroupWise > Gateway Administrators). The file is sent daily at midnight and any time the Internet Agent shuts down.

This switch instructs the Internet Agent to send the acct file once daily at midnight, not each time the Internet Agent quits or is shut down.

Syntax: `/nasoq`

52.6 SMTP/MIME Switches

The following sections categorize and describe the switches that you can use to configure the Internet Agent's SMTP/MIME settings:

52.6.1 SMTP Enabled

The following switches enable SMTP and suppress version information display.

/smtp
/nosmtpversion

/smtp

Enables the Internet Agent to process SMTP messages. See Section 46.1.1, “Configuring Basic SMTP/MIME Settings,” on page 717.

Syntax: `/smtp`

/nosmtpversion

Suppresses the GroupWise version and copyright date information that the Internet Agent typically responds with when contacted by another SMTP host or a telnet session.

Syntax: /nosmtpversion

52.6.2 iCal Enabled

The following switch enables iCal.

/imip

/imip

Converts outbound GroupWise Calendar items into MIME text/calendar iCal objects and converts incoming MIME text/calendar messages into GroupWise Calendar items.

Syntax: /imip

52.6.3 Address Handling

The following switches determine how the Internet Agent handles e-mail addresses:

/aql
/aqor
/ari
/blockrulegenmsg
/dia
/displaylastfirst
/dontreplaceunderscore
/fd822
/fdmime
/group
/keepsendgroups
/msstu
/nomappriority

/notfamiliar
/realmailfrom

/aql

Allows you to determine the address qualification level. It specifies which GroupWise address components (domain.post_office.user) must be included as the user portion of a GroupWise user's outbound Internet address (userhost). Valid options are auto, userid, po, and domain.

This switch is valid only if your system is not configured to use Internet-style addressing, as described in Section 45, "Configuring Internet Addressing," on page 703, or you've configured the Internet Agent to ignore Internet-style addressing, as described in Section 46.1.3, "Configuring How the Internet Agent Handles E-Mail Addresses," on page 721.

Syntax: `/aql-option`

Example: `/aql-po`

Option	Description
auto	This option causes the gateway to include the addressing components required to make the user's address unique. If a user ID is unique in a GroupWise system, the outbound address uses only the *user_ID*. If the *post_office* or *domain.post_office* components are required to make the address unique, these components are also included in the outbound address. The auto option is the default.
userid	This option requires the gateway to include only the *user_ID* in the outbound Internet address, even if the user ID is not unique in the system. If a recipient replies to a user whose user ID is not unique and no other qualifying information is provided, that reply cannot be delivered.
po	This option requires the gateway to include *post_office.user_ID* in every outbound address, regardless of the uniqueness or non-uniqueness of the user ID.
domain	This option requires the gateway to include the fully-qualified GroupWise address (*domain.post office.user_ID*) in every outbound address, regardless of the uniqueness or non-uniqueness of the user ID. This option guarantees the uniqueness of every outbound Internet address, and ensures that any replies are delivered.

/aqor

The user part of a GroupWise user's outbound Internet address (*user@host*) can and sometimes must include the full Groupwise address (*domain.post_office.user_ID@host*) in order to be unique. The /aqor switch instructs the Internet Agent to move any GroupWise address components, except the *user_ID* component, to the right side of the address following the at sign (@). In this way, GroupWise addressing components become part of the host portion of the outbound Internet address. The /aql switch specifies which components are included.

For example, if the /aqor switch is used (in conjunction with the /aql-domain switch), Bob Thompson's fully qualified Internet address (headquarters.advertising.bob@novell.com) would be resolved to bob@advertising.headquarters.novell.com for all outbound messages.

If the /aqor switch is used with the /aql-po switch, Bob's Internet address would be resolved to bob@advertising.novell.com for all outbound messages.

If you use the /aqor switch to move GroupWise domain or post office names to be part of the host portion on the right side of the address, you must provide a way for the DNS server to identify the GroupWise names. You must either explicitly name all GroupWise post offices and domains in your system as individual MX Records, or you can create an MX Record with wildcard characters to represent all GroupWise post offices and domains. For information about creating MX Records, see details found in RFC #974.

For details about this setting, see Section 46.1.3, "Configuring How the Internet Agent Handles E-Mail Addresses," on page 721.

/ari

Enables or disables additional routing information that is put in the SMTP return address to facilitate replies. This switch might be needed in large systems with external GroupWise domains in which the external GroupWise users have not been configured in your local domain. Options include *Never* and *Always*. Most sites do not need to use this switch.

Syntax: `/ari-never|always`

Example: `/ari-never`

/blockrulegenmsg

In ConsoleOne, you can control whether or not rule-generated messages are allowed to enter your GroupWise system by selecting or deselecting the *Allow Rule-Generated Messages* option available in each class of service defined for the Internet Agent. This switch allows you to be more specific in the types of rule-generated messages that are blocked.

Syntax: `/blockrulegenmsg-forward | reply | none | all`

Example: `/blockrulegenmsg-forward`

In order for this switch to take effect, senders must be in a class of service where *Allow Rule-Generated Messages* is selected.

To select a class of service:

1. Browse to and right-click the Internet Agent object, then click *Properties*.
2. Click *Class of Service*.
3. Select a class of service, then click *Edit*.
4. Click *SMTP Incoming*, then make sure that *Allow Rule-Generated Messages* is selected.

/dia

GroupWise supports both Internet-style addressing (*user@host*) and GroupWise proprietary addressing (*user_ID.post_office.domain*). By default, the Internet Agent uses Internet-style addressing. See Section 46.1.3, "Configuring How the Internet Agent Handles E-Mail Addresses," on page 721.

You can use this switch to disable Internet-style addressing. With Internet-style addressing disabled, messages use the mail domain name in the Foreign ID field in ConsoleOne (Internet Agent object > GroupWise > Identification) for the domain portion of a user's Internet address. The Internet Agent continues to support user and post office aliases in either mode.

Syntax: `/dia`

/displaylastfirst

By default, users' display names are First Name Last Name. If you want users' display names to be Last Name First Name, you can use the /displaylastfirst switch. This forces the display name format to be Last Name First Name, regardless of the preferred address format.

Syntax: `/displaylastfirst`

/dontreplaceunderscore

By default, the Internet Agent accepts addresses of the format:

firstname_lastname@internet_domain_name

Even though this is not an address format included in the Allowed Address Formats list in ConsoleOne for configuring Internet addressing, as described in Section 45.1.5, "Allowed Address Formats," on page 707, you can use this switch to prevent this address format from being accepted by the Internet Agent.

Syntax: `/dontreplaceunderscore`

/fd822

Specifies a return address for GroupWise replies. A message that has been received by a GroupWise user through the Internet Agent and is replied to has this return address form. These switches cause the Internet Agent to produce a return address of the form *foreign domain.type*:"*user host*." *Foreign domain* can be any foreign domain you have configured and linked to the Internet Agent.

You can use the same foreign domain name for both the /fd822 switch and the /fdmime switch. You can specify multiple foreign domain and kind pairs by placing them in quotes. If multiple foreign domain and kind pairs are used, the first domain/kind pair is the return address for replies to messages received through the Internet Agent. The second domain/kind pair is checked to see what message format is used for old replies in the system. Up to four pairs can be specified with an 80-character limit.

This switch lets you change your foreign domain names in your GroupWise system and still have replies work. For example, if your foreign domain is called *faraway* and you added a foreign domain called Internet, you could use /fd822-"internet.nonmime smtp.nonmime." This causes replies to have a return address of internet.nonmime.:"*user@host*." The Internet Agent would also recognize *faraway*. This switch also lets you migrate from one foreign domain to another.

Most administrators do not need to use this switch.

Syntax: `/fd822-`*`foreign_domain.type`*

Example: `/fd822-Internet.nonmime`

/fdmime

Specifies a return address for GroupWise replies. A message that has been received by a GroupWise user through the Internet Agent and is replied to has this return address form. These switches cause the Internet Agent to produce a return address of the form *foreign_domain.type*:"*user host*."

Foreign_domain can be any foreign domain you have configured and linked to the Internet Agent. *Type* can be either mime or nonmime.

You can use the same foreign domain name for both the /fd822 switch and the /fdmime switch.

You can specify multiple foreign domain and kind pairs by placing them in quotes. If multiple foreign domain and kind pairs are used, the first domain/kind pair is the return address for replies to messages received through the Internet Agent. The second domain/kind pair is checked to see what message format is used for old replies in the system. Up to four pairs can be specified with an 80-character limit.

This switch lets you change your foreign domain names in your GroupWise system and still have replies work. For example, if your foreign domain is called SMTP and you add a foreign domain called Internet, you can use /fdmime-"internet.mime smtp.mime." This causes replies to have a return address of internet.mime:"*user@host*." The Internet Agent also recognizes SMTP. This switch also lets you migrate from one foreign domain to another.

Most administrators do not need to use this switch.

Syntax: `/fdmime-`*`foreign_domain.type`*

Example: `/fdmime-Internet.mime`

/group

Turns on group expansion. The default startup file has this switch commented out. If it is enabled, an incoming Internet message addressed to a public group is sent to members of that group. See Section 46.1.3, “Configuring How the Internet Agent Handles E-Mail Addresses,” on page 721.

Syntax: `/group`

/keepsendgroups

Prevents the Internet Agent from expanding distribution lists on messages going to external Internet users so that the SMTP header does not become too large.

Syntax: `/keepsendgroups`

/msstu

Instructs the Internet Agent to map spaces to underscores in user addresses for outbound messages. For example, john smith becomes john_smith.

Syntax: `/msstu`

/nomappriority

Disables the function of mapping an x-priority *MIME* field to a GroupWise priority for the message. By default, the Internet Agent maps x-priority 1 and 2 messages as high priority, x-priority 3 messages as normal priority, and x-priority 4 and 5 as low priority in GroupWise.

Syntax: `/nomappriority`

/notfamiliar

Instructs the Internet Agent to not include the user's familiar name, or display name, in the *From* field of the message's MIME header. In other words, the *From* field is *address* rather than "*familiar_name*" *address*.

Syntax: `/notfamiliar`

/realmailfrom

Instructs the Internet Agent to use the real user in the *Mail From* field instead of having auto-forwards come from Postmaster and auto-replies come from Mailer-Daemon.

Syntax: `/realmailfrom`

52.6.4 Message Formatting and Encoding

The following switches determine how the Internet Agent formats and encodes inbound and outbound e-mail messages:

/attachmsg
/dbchar822
/defaultcharset
/force7bitout
/iso88591is
/koi8
/mime
/noiso2022
/noqpmt
/relayaddsignature
/rt
/st
/uueaa
/wrap

/attachmsg

Instructs the Internet Agent to maintain the original format of any file type attachment.

Syntax: `/attachmsg`

/dbchar822

Instructs the Internet Agent to map inbound non-MIME messages to another character set that you specify. The mapped character set must be an Asian (double-byte) character set.

Syntax: `/dbchar822-`*`charset`*

Example: `/dbchar822-shift_js`

/defaultcharset

Specifies what character set to use if no character set is specified in an incoming message.

Syntax: `/defaultcharset-`*`charset`*

Example: `/defaultcharset-iso-8859-1`

For readability when the character set name includes hyphens (-), you can use an equal sign (=) as the delimiter between the switch and its setting.

Example: `/defaultcharset=iso-8859-1`

/force7bitout

By default, the Internet Agent uses 8-bit MIME encoding for any outbound messages that are HTML-formatted or that contain 8-bit characters. If, after connecting with the receiving SMTP host, the Internet Agent discovers that the receiving SMTP host cannot handle 8-bit MIME encoded messages, the Internet Agent converts the messages to 7-bit encoding.

You can use the /force7bitout switch to force the Internet Agent to use 7-bit encoding and not attempt to use 8 bit MIME encoding. You should use this option if you are using a relay host that does not support 8-bit MIME encoding. See Section 46.1.1, “Configuring Basic SMTP/MIME Settings,” on page 717.

Syntax: `/force7bitout`

/iso88591is

Instructs the Internet Agent to map inbound MIME ISO-8859-1 messages to another character set that you specify.

Syntax: `/iso88591is-`*`charset`*

Example: `/iso88591is-big5`

/koi8

Instructs the Internet Agent to map all outbound MIME messages to the KOI8 (Russian) character set.

Syntax: `/koi8`

/mime

Instructs the Internet Agent to send outbound messages in MIME format rather than in RFC-822 format. If you’ve defined an RFC-822 non-GroupWise domain, as described in Section 6.7, “Adding External Users to the GroupWise Address Book,” on page 95, users can still send RFC-822 formatted messages by using the RFC-822 domain in the address string when sending messages. Removing the switch corresponds to enabling the Default Message Encoding: Basic RFC-822 switch in ConsoleOne. See Section 46.1.4, “Determining Format Options for Messages,” on page 723.

Syntax: `/mime`

/noiso2022

Instructs the Internet Agent to not use ISO-2022 character sets. ISO-2022 character sets provide 7-bit encoding for Asian character sets.

Syntax: `/noiso2022`

/nqpmt

Disables quoted printable message text for outbound messages. If this switch is turned on, messages are sent with Base64 MIME encoding, unless all the text is US-ASCII. If you use this switch you need to review the setting for the /wrap switch to ensure that message text wraps correctly. See Section 46.1.4, “Determining Format Options for Messages,” on page 723.

Syntax: `/nqpmt`

/relayaddsignature

Appends the global signature to messages that are relayed through your GroupWise system (for example, messages from POP and IMAP clients) in addition to messages that originate within your GroupWise system. See Section 14.3, “Adding a Global Signature to Users’ Messages,” on page 219

Syntax: `/relayaddsignature`

/rt

Specifies the maximum number of threads that the Internet Agent uses when converting inbound messages from MIME or RFC-822 format to the GroupWise message format. The default setting is 4. See Section 46.1.4, “Determining Format Options for Messages,” on page 723.

Multiple threading allows for more than one receive process to be running concurrently. A receive request is assigned to a single thread and is processed by that thread. If you anticipate heavy inbound message traffic, you can increase the number of threads to enhance the speed and performance of the Internet Agent. The number of threads is limited only by the memory resources of your server.

Syntax: `/rt`

/st

Specifies the maximum number of threads that the Internet Agent uses when converting outbound messages from GroupWise message format to MIME or RFC-822 format. The default setting is 4. See Section 46.1.4, “Determining Format Options for Messages,” on page 723.

Multiple threading allows for more than one send process to be running concurrently. A send request is assigned to a single thread and is processed by that thread. If you anticipate heavy outbound message traffic, you can increase the number of threads to enhance the speed and performance of the Internet Agent. The number of threads is limited only by the memory resources of your server.

Syntax: /st

/uueaa

Forces the Internet Agent to UUencode any ASCII text files attached to outbound RFC-822 formatted messages. This switch applies only if the /mime switch is not used. Without this switch,

the Internet Agent includes the text as part of the message body. See Section 46.1.4, "Determining Format Options for Messages," on page 723.

Syntax: `/uueaa`

/wrap

Sets the line length for outbound messages that do not use quoted printable or Base64 MIME encoding. This is important if the recipient's e-mail system requires a certain line length. See Section 46.1.4, "Determining Format Options for Messages," on page 723.

Syntax: `/wrap-`*`line_length`*

Example: `/wrap-72`

52.6.5 Forwarded and Deferred Messages

The following switches configure how the Internet Agent handles forwarded and deferred messages:

/flatfwd
/maxdeferhours
/msgdeferinterval

/flatfwd

Automatically strips out the empty message that is created when a message is forwarded without adding text, and retains the original sender of the message, rather than showing the user who forwarded it. This facilitates users forwarding messages from GroupWise to other e-mail accounts. Messages arrive in the other accounts showing the original senders, not the users who forwarded the messages from GroupWise.

Syntax: `/flatfwd`

/maxdeferhours

Specifies the number of hours after which the Internet Agent stops trying to send deferred messages. The default is 96 hours, or four days. A deferred message is any message that can't be sent because of a temporary problem (host down, MX record not found, and so forth). See Section 46.1.1, "Configuring Basic SMTP/MIME Settings," on page 717.

Syntax: `/maxdeferhours-`*`hours`*

Example: `/maxdeferhours-48`

/msgdeferinterval

Specify in a comma-delimited list the number of minutes after which the Internet Agent retries sending deferred messages. The default is 20, 20, 20, 240. The Internet Agent interprets this list as follows: It retries 20 minutes after the initial send, 20 minutes after the first retry, 20 minutes after the second retry, and 240 minutes (4 hours) after the third retry. Thereafter, it retries every 240 minutes until the number of hours specified in the *Maximum Number of Hours to Retry a Deferred Message* field is reached. You can provide additional retry intervals as needed. It is the last retry interval that repeats until the maximum number of hours is reached. See Section 46.1.1, "Configuring Basic SMTP/MIME Settings," on page 717.

Syntax: `/msgdeferinterval-minutes,minutes...,minutes`

Example: `/msgdeferinterval-10,10,10,120`

52.6.6 Extended SMTP

The following switches configure the Internet Agent's Extended SMTP (ESMTP) settings:

/noesmtp
/dsn
/dsnage

/noesmtp

Disables ESMTP support in the Internet Agent.

Syntax: `/noesmtp`

/dsn

Enables Delivery Status Notification (DSN). The Internet Agent requests status notifications for outgoing messages and supplies status notifications for incoming messages. This requires the external e-mail system to also support Delivery Status Notification. Currently, notification consists of two delivery statuses: successful and unsuccessful. See Section 46.1.2, "Using Extended SMTP (ESMTP) Options," on page 720.

Syntax: `/dsn`

/dsnage

The /dsnage switch specifies the number of days that the Internet Agent retains information about the external sender so that status updates can be delivered to him or her. For example, the default DSN age causes the sender information to be retained for 4 days. If the Internet Agent does not receive delivery status notification from the GroupWise recipient's Post Office Agent (POA) within that time period, it deletes the sender information and the sender does not receive any delivery status notification. See Section 46.1.2, "Using Extended SMTP (ESMTP) Options," on page 720.

Syntax: `/dsnage`

52.6.7 Send/Receive Cycle and Threads

The following switches configure the Internet Agent's SMTP send/receive cycle and threads:

/p
/rd
/sd
/killthreads
/smtpport

/p

Specifies how often, in seconds, the Internet Agent polls for outbound messages. The default,10 seconds, causes the Internet Agent to poll the outbound message directory every 10 seconds. See Section 46.1.1, “Configuring Basic SMTP/MIME Settings,” on page 717.

Syntax: `/p-seconds`

Example: `/p-5`

/rd

Specifies the maximum number of threads used for processing SMTP receive requests (inbound messages). Each thread is equivalent to one connection. The default is 16 threads. See Section 46.1.1, “Configuring Basic SMTP/MIME Settings,” on page 717.

Syntax: `/rd-number_of_threads`

Example: `/rd-20`

/sd

Specifies the maximum number of threads used for processing SMTP send requests (outbound messages). Each thread is equivalent to one connection. The default is 8 threads. See Section 46.1.1, “Configuring Basic SMTP/MIME Settings,” on page 717.

Syntax: `/sd-number_of_threads`

Example: `/sd-12`

/killthreads

Instructs the Internet Agent to quickly terminate any active send/receive threads when it restarts.

Syntax: `/killthreads`

--smtpport (Linux only)

Changes the SMTP listen port from the default of 25. Use this switch only if the Internet Agent is receiving messages only from SMTP hosts that can be configured to connect to Internet Agent on a specified port.

52.6.8 Dial-Up Connections

SMTP dial-up services can be used when you don’t require a permanent connection to the Internet and want to periodically check for mail messages queued for processing. The following switches can be used when configuring dial-up services. For more information about dial-up services, see Section 46.1.7, “Configuring SMTP Dial-Up Services,” on page 727.

/usedialup
/etrnhost
/etrnqueue
/dialuser
/dialpass

/usedialup

Enables SMTP dial-up services. See “Enabling Dial-Up Services” on page 728.

Syntax: `/usedialup`

/etrnhost

Specifies the IP address or DNS hostname of the mail server where your mail account resides at your Internet Service Provider. You should obtain this address from your Internet Service Provider. See “Enabling Dial-Up Services” on page 728.

Syntax: `/etrnhost-`*`address`*

Example: `/etrnhost-172.16.5.18`

/etrnqueue

Specifies your e-mail domain as provided by your Internet Service Provider. See “Enabling Dial-Up Services” on page 728.

Syntax: `/etrnqueue-`*`email_domain`*

Example: `/etrnqueue-novell.com`

/dialuser (Windows Only)

Specifies the RAS Security user if you are using a Windows Remote Access Server (RAS) and the Internet Agent is not running on the same server as the RAS.

Syntax: `/dialuser-`*`username`*

Example: `/dialuser-rasuser`

/dialpass (Windows Only)

Specifies the RAS Security user’s password if you are using a Windows Remote Access Server (RAS) and the Internet Agent is not running on the same server as the RAS.

Syntax: `/dialpass-`*`password`*

Example: `/dialpass-raspassword`

52.6.9 Timeouts

The following switches specify how long SMTP services waits to receive data that it can process. After the time expires, the Internet Agent might give a TCP read/write error. Leave these switches at the default setting unless you are experiencing a problem with communication.

/tc
/td
/te
/tg
/tr
/tt

/tc

Specifies how long the program waits for an SMTP command. The default is 2 minutes.

Syntax: `/tc-minutes`

Example: `/tc-3`

/td

Specifies how long the program waits for data from the receiving host. The default is 5 minutes.

Syntax: `/td-minutes`

Example: `/td-2`

/te

Specifies how long the program waits for the receiving host to establish a connection. The default is 5 minutes.

Syntax: `/te-minutes`

Example: `/te-2`

/tg

Specifies how long the program waits for the initial greeting from the receiving host. The default is 3 minutes.

Syntax: `/tg-minutes`

Example: `/tg-2`

/tr

Specifies how long the program waits for a TCP read. The default is 10 minutes.

Syntax: `/tr-minutes`

Example: `/tr-2`

/tt

Specifies how long the program waits for the receiving host to terminate the connection. The default is 5 minutes.

Syntax: `/tt-minutes`

Example: `/tt-2`

52.6.10 Relay Host

The following switch configures whether or not the Internet Agent uses a relay host.

/mh

/mh

Specifies the IP address or DNS hostname of one or more relay hosts that you want the Internet Agent to use for outbound messages. Use a space to separate multiple relay hosts in a list.

The relay host can be part of your network or can reside at the Internet service provider's site. This switch is typically used in firewall integration if you want one server, the specified relay host, to route all mail. See Section 46.1.1, "Configuring Basic SMTP/MIME Settings," on page 717.

Syntax: `/mh-address`

Example: `/mh-172.16.5.18`

52.6.11 Host Authentication

The Internet Agent supports SMTP host authentication for both inbound and outbound message traffic. The following switches are used with inbound and outbound authentication:

/forceinboundauth
/forceoutbountauth

/forceinboundauth

Ensures that the Internet Agent accepts messages only from remote SMTP hosts that use the AUTH LOGIN authentication method to provide a valid GroupWise user ID and password. The remote SMTP hosts can use any valid GroupWise user ID and password. However, for security reasons, we recommend that you create a dedicated GroupWise user account for remote SMTP host authentication.

Syntax: `/forceinboundauth`

/forceoutboundauth

Ensures that the Internet Agent sends messages only to remote SMTP hosts that are included in a gwauth.cfg text file. The remote SMTP hosts must support the AUTH LOGIN authentication method.

The `gwauth.cfg` file must reside in the *`domain`*`\wpgate\`*`gwia`* directory and use the following format:

```
domain_name authuser authpassword
```

For example:

```
smtp.novell.com remotehost novell
```

You can define multiple hosts in the file. Make sure you include a hard return after the last entry.

If you use this switch, you need to include your Internet Agent as an entry in the gwauth.cfg file to enable status messages to be returned to GroupWise users. You can use any GroupWise user ID and password for your Internet Agent's authentication credentials. However, for security reasons, we recommend that you create a dedicated GroupWise user account for your Internet Agent.

Syntax: `/forceoutboundauth`

52.6.12 Undeliverable Message Handling

The following switches determine how the Internet Agent handles undeliverable messages:

/badmsg
/fut
/mudas

/badmsg

Specifies where to send problem messages. Problem messages can be placed in the Internet Agent problem directory (`gwprob`), they can be sent to the postmaster, or they can be sent to both or neither. The values for this switch are move, send, both, and neither.

The move option specifies to place problem messages in the `gwprob` directory for the Internet Agent. The send option specifies to send the message as an attachment to the Internet Agent postmaster defined in ConsoleOne (Internet Agent object > *GroupWise* > *Gateway Administrators*). The both option specifies to move the message to `gwprob` and send it to the postmaster. The neither option specifies to discard problem messages. The default when no switch is specified is move. See Section 46.1.6, “Determining What to Do with Undeliverable Messages,” on page 726.

Syntax: `/badmsg-move|send|both|neither`

Example: `/badmsg-both`

/fut

Forwards undeliverable messages to the specified host. This can be useful if you use UNIX sendmail aliases. See Section 46.1.6, “Determining What to Do with Undeliverable Messages,” on page 726.

Syntax: `/fut-`*`host`*

Example: `/fut-novell.com`

/mudas

Controls how much of the original message is sent back when a message is undeliverable. By default, only 2 KB of the original message is sent back. The value is specified in KB (8=8KB). See Section 46.1.6, “Determining What to Do with Undeliverable Messages,” on page 726.

Syntax: `/mudas-`*`KB`*

Example: `/mudas-16`

52.6.13 Mailbomb and Spam Security

Multiple unsolicited messages (sometimes called a *mailbomb* or *spam*) from the Internet can potentially harm your GroupWise messaging environment. At the least, it can be annoying to your users. You can use the following switches to help protect your GroupWise system from malicious, accidental, and annoying attacks:

/mbcount
/mbtime
/rejbs

/xspam
/rbl

/mbcount

Sets the number of messages that can be received from a single IP address in a given number of seconds before the Internet Agent denies access to its GroupWise system. It provides a form of system security to protect your system from mailbombs.

For example, with /mbcount set to 25 and /mbtime set to 60 seconds, if these limits are exceeded the sender's IP address is blocked from sending any more messages. The IP address of the sender is also displayed in the Internet Agent console. You can permanently restrict access to your system by that IP address through settings on the Access Control page in ConsoleOne (Internet Agent object > Access Control). By default, the mailbomb feature is turned off. To enable this feature, you must specify a value for mailbomb count and mailbomb time. See Section 47.2.4, "Mailbomb (Spam) Protection," on page 760.

Syntax: `/mbcount-`*number*

Example: `/mbcount-25`

/mbtime

Specifies the mailbomb time limit in seconds. This switch works with the /mbcount switch to block access to your GroupWise system from unsolicited inundations of e-mail. The default value is 10 seconds. See Section 47.2.4, "Mailbomb (Spam) Protection," on page 760.

Syntax: `/mbtime-`*seconds*

Example: `/mbtime-60`

/rejbs

Prevents delivery of messages if the sender's host is not authentic. When this switch is used, the Internet Agent refuses messages from a host if a DNS reverse lookup shows that a PTR record does not exist for the IP address of the sender's host. See Section 47.2.4, "Mailbomb (Spam) Protection," on page 760.

If this switch is not used, the Internet Agent accepts messages from any host, but displays a warning if the initiating host is not authentic.

Syntax: `/rejbs`

/xspam

Flags messages to be handled by the client Junk Mail Handling feature if they contain an x-spam-flag:yes in the MIME header. See Section 47.2.5, "Customized Spam Identification," on page 761.

Syntax: `/xspam`

/rbl

Lets you define the addresses of blacklist sites (free or fee-based) you want the Internet Agent to check for blacklisted hosts. If a host is included in a site's blacklist, the Internet Agent does not accept messages from it.

Syntax: `/rbl-blackholes.mail-abuse.org,bl.spamcop.net`

This switch corresponds to the Blacklist Addresses list (Internet Agent object > Access Control > Blacklists). For details about this setting, see Section 47.2.1, "Real-Time Blacklists," on page 757.

52.7 POP3 Switches

The following optional startup switches that can be used to configure the Internet Agent's POP3 service:

/pop3
/popintruderdetect
/popport
/popsport
/popssl
/pt
/sslpt

52.7.1 /pop3

Enables POP3 client access to GroupWise mailboxes through the Internet Agent. See Section 46.3.1, "Enabling POP3/IMAP4 Services," on page 740.

Syntax: `/pop3`

52.7.2 /popintruderdetect

Instructs the Internet Agent to log POP e-mail clients in through the POA so that the POA's intruder detection can take effect, if intruder has been configured in ConsoleOne (POA object > *Client Access Settings* > *Intruder Detection*). This switch cannot be used with older POAs that do not support intruder detection.

Syntax: `/popintruderdetect`

52.7.3 /popport

By default, the Internet Agent listens for POP3 connections on port 110. This switch allows you to change the POP3 listen port.

Syntax: `/popport-`*`port_number`*

Example: `/popport-111`

52.7.4 /popsport

By default, the Internet Agent listens for secure (SSL) POP3 connections on port 995. This switch allows you to change the POP3 SSL listen port.

Syntax: `/popsport-`*`port_number`*

Example: `/popsport-996`

52.7.5 /popssl

Disables, enables, or requires secure (SSL) connections between POP3 clients and the Internet Agent. See Section 48.4, “Securing Internet Agent Connections with SSL,” on page 772.

Syntax: `/popssl-enabled|disabled|required`

Example: `/popssl-required`

Option	Description
enabled	The POP3 client determines whether an SSL connection or non-SSL connection is used. By default, the Internet Agent listens for SSL connections on port 995 and non-SSL connections on port 110. You can use the /popsport and /popport switches to change these ports.
required	The Internet Agent forces SSL connections on port 995 and port 110. Non-SSL connections are denied. You can use the /popsport and /popport switches to change these ports.
disabled	The Internet Agent listens for connections only on port 110, and the connections are not secure. You can use the /popport switch to change this port.

52.7.6 /pt

Specifies the maximum number of threads to be used for POP3 connections. The default number is 10. You are limited only by the memory resources of your server. See Section 46.3.1, “Enabling POP3/IMAP4 Services,” on page 740.

Syntax: `/pt-number_of_threads`

Example: `/pt-15`

52.7.7 /sslpt

Specify the maximum number of threads you want the Internet Agent to use for secure POP3 connections. You are limited only by the memory resources of your server. See Section 46.3.1, “Enabling POP3/IMAP4 Services,” on page 740.

Syntax: `/sslpt-number_of_threads`

Example: `/sslpt-15`

52.8 IMAP4 Switches

The following optional startup switches that can be used to configure the Internet Agent’s IMAP4 service:

/imap4
/imapport
/imapreadlimit
/imapsport
/imapssl

/it
/sslit

52.8.1 /imap4

Enables IMAP4 client access to GroupWise mailboxes through the Internet Agent. See Section 46.3.1, “Enabling POP3/IMAP4 Services,” on page 740.

Syntax: `/imap4`

52.8.2 /imapport

By default, the Internet Agent listens for IMAP4 connections on port 143. This switch allows you to change the IMAP4 listen port.

Syntax: `/imapport-`*`port_number`*

Example: `/imapport-144`

52.8.3 /imapreadlimit

By default, the Internet Agent downloads a maximum of 20,000 items at a time. This switch allows you to specify, in thousands, the maximum number of items you want the Internet Agent to download. For example, specifying 30 indicates 30,000.

Syntax: `/imapreadlimit`

Example: `/imapreadlimit-30`

52.8.4 /imapsport

By default, the Internet Agent listens for secure (SSL) IMAP4 connections on port 993. This switch allows you to change the IMAP4 SSL listen port.

Syntax: `/imapsport-`*`port_number`*

Example: `/imapsport-994`

52.8.5 /imapssl

Disables, enables, or requires secure (SSL) connections between IMAP4 clients and the Internet Agent. See Section 48.4, “Securing Internet Agent Connections with SSL,” on page 772.

Syntax: `/IMAP4ssl-`*`enabled|disabled|required`*

Example: `/popssl-required`

Option	Description
enabled	The IMAP4 client determines whether an SSL connection or non-SSL connection is used. By default, the Internet Agent listens for SSL connections on port 993 and non-SSL connections on port 143. You can use the /imapsport and /imapport switches to change these ports.

Option	Description
required	The Internet Agent forces SSL connections on port 993 and port 143. Non-SSL connections are denied. You can use the /imapsport and /imapport switches to change these ports.
disabled	The Internet Agent listens for connections only on port 143, and the connections are not secure. You can use the /imapport switch to change this port.

52.8.6 /it

Specifies the maximum number of threads to be used for IMAP4 connections. The default number is 10. You are limited only by the memory resources of your server. See Section 46.3.1, “Enabling POP3/IMAP4 Services,” on page 740.

Syntax: `/it-number_of_threads`

Example: `/it-15`

52.8.7 /sslit

Specify the maximum number of threads you want the Internet Agent to use for secure IMAP4 connections. You are limited only by the memory resources of your server. See Section 46.3.1, “Enabling POP3/IMAP4 Services,” on page 740.

Syntax: `/sslit-number_of_threads`

Example: `/sslit-15`

52.9 HTTP (Web Console) Switches

The following switches enable the HTTP Web console and control its configuration settings. The Web console enables you to monitor the Internet Agent through a Web browser. For more information, see Section 49.2, “Using the Internet Agent Web Console,” on page 787.

/httpport
/httpuser
/httppassword
/httprefresh
/httpssl

52.9.1 /httpport

Specifies the port where the Internet Agent listens for the Web console. The default port established during installation is 9850.

Syntax: `/httpport-port_number`

Example: `/httpport-9851`

52.9.2 /httpuser

By default, any user who knows the Internet Agent's address and port (/httpport) can use the Web console. This switch adds security to the Web console by forcing users to log into the Web console using the specified username. The /httppassword switch must also be used to establish the user password.

Syntax: `/httpuser-`*`username`*

Example: `/httpuser-gwia`

The *username* can be any arbitrary name.

52.9.3 /httppassword

Specifies the password that must be supplied along with the username provided by /httpuser.

Syntax: `/httppassword-`*`password`*

Example: `/httppassword-monitor`

52.9.4 /httprefresh

By default, the Internet Agent refreshes the Web console information every 60 seconds. You can use this switch to override the default refresh interval.

Syntax: `/httprefresh-`*`seconds`*

Example: `/httprefresh-120`

52.9.5 /httpssl

Enables the Internet Agent to use a secure connection to a Web browser being used to display the Internet Agent Web console. The Web browser must also be enabled to use SSL; if it is not, a non-secure connection is used. See Section 48.4, "Securing Internet Agent Connections with SSL," on page 772.

Syntax: `/httpssl`

52.10 SSL Switches

The Internet Agent can use SSL to enable secure SMTP, POP, IMAP, and HTTP connections. The following switches can be used to 1) specify the server certificate file, key file, and key file password required for SSL and 2) enable or disable SSL for SMTP, POP, IMAP, and HTTP connections. See Section 48.4, "Securing Internet Agent Connections with SSL," on page 772.

/certfile
/keyfile
/keypasswd
/smtpssl
/httpssl
/popssl

/imapssl
/ldapssl

52.10.1 /certfile

Specifies the server certificate file to use. The file must be in Base64/PEM or PFX format. If the file is not in the same directory as the Internet Agent program, specify the full path.

Syntax: `/certfile-`*`filename`*

Example: `/certfile-\\server1\sys\server1.crt`

52.10.2 /keyfile

Specifies the private key file to use. The key file is required if the certificate file does not contain the key. If the certificate file contains the key, do not use this switch. When specifying a filename, use the full path if the file is not in the same directory as the Internet Agent program.

Syntax: `/keyfile-`*`filename`*

Example: `/keyfile-\\server1\sys\server1.key`

52.10.3 /keypasswd

Specifies the private key password. If the key does not require a password, do not use this switch.

Syntax: `/keypasswd-`*`password`*

Example: `/keypasswd-novell`

52.10.4 /smtppssl

Enables the Internet Agent to use a secure connection to other SMTP hosts. The SMTP host must also be enabled to use SSL or TLS (Transport Layer Security); if it is not, a non-secure connection is used. Valid settings are enabled and disabled.

Syntax: `/smtppssl-`*`setting`*

Example: `/smtppssl-enabled`

52.10.5 /httpssl

Enables the Internet Agent to use a secure connection to a Web browser being used to display the Internet Agent Web console. The Web browser must also be enabled to use SSL; if it is not, a non-secure connection is used. Valid settings are enabled and disabled.

Syntax: `/httpssl-`*`setting`*

Example: `/httpssl-enabled`

52.10.6 /popssl

Disables, enables, or requires secure (SSL) connections between POP3 clients and the Internet Agent.

Syntax: `/popssl-`*`enabled`*`|`*`disabled`*`|`*`required`*

Example: `/popssl-required`

Option	Description
enabled	The POP3 client determines whether an SSL connection or non-SSL connection is used. By default, the Internet Agent listens for SSL connections on port 995 and non-SSL connections on port 110. You can use the /popsport and /popport switches to change these ports.
required	The Internet Agent forces SSL connections on port 995 and port 110. Non-SSL connections are denied. You can use the /popsport and /popport switches to change these ports.
disabled	The Internet Agent listens for connections only on port 110, and the connections are not secure. You can use the /popport switch to change this port.

52.10.7 /imapssl

Disables, enables, or requires secure (SSL) connections between IMAP4 clients and the Internet Agent.

Syntax: `/IMAP4ssl-`*`enabled`*`|`*`disabled`*`|`*`required`*

Example: `/popssl-required`

Option	Description
enabled	The IMAP4 client determines whether an SSL connection or non-SSL connection is used. By default, the Internet Agent listens for SSL connections on port 993 and non-SSL connections on port 143. You can use the /imapsport and /imapport switches to change these ports.
required	The Internet Agent forces SSL connections on port 993 and port 143. Non-SSL connections are denied. You can use the /imapsport and /imapport switches to change these ports.
disabled	The Internet Agent listens for connections only on port 143, and the connections are not secure. You can use the /imapport switch to change this port.

52.10.8 /ldapssl

Instructs the Internet Agent to use a secure (SSL) connection with an LDAP server. For more information about why the Internet Agent would need to connect to an LDAP server, see Section 52.11, “LDAP Switches,” on page 849

Syntax: `/ldapssl`

52.11 LDAP Switches

The Internet Agent can perform GroupWise authentication of POP3/IMAP4 clients through an LDAP server and can also perform LDAP queries for GroupWise information. see Section 46.2.1, “Enabling LDAP Services,” on page 737.

The following sections describe the switches required to configure this functionality:

- Section 52.11.1, “GroupWise Authentication Switches,” on page 849
- Section 52.11.2, “LDAP Query Switches,” on page 850

52.11.1 GroupWise Authentication Switches

When a POP3/IMAP4 user attempts to access a GroupWise mailbox on a post office that has been configured for LDAP authentication, the Internet Agent connects to the post office’s POA, which then connects to the LDAP server so that the LDAP server can authenticate the user.

This process works automatically if the Internet Agent’s link to the post office is client/server (meaning that it communicates through TCP/IP to the post office’s POA). If the Internet Agent is using a direct link to the post office directory rather than a client/server link to the post office’s POA, the Internet Agent must communicate directly with the LDAP server rather communicate through the POA.

The following switches are used to provide the Internet Agent with the required LDAP server information:

/ldapipaddr
/ldapport
/ldapssl
/ldapuser
/ldappwd

/ldapipaddr

Specifies the IP address of the LDAP server through which GroupWise authentication takes place.

Syntax: `/ldapipaddr-`*`address`*

Example: `/ldapipaddr-172.16.5.18`

/ldapport

Specifies the port number being used by the LDAP server. The standard non-SSL LDAP port number is 389. The standard SSL LDAP port number is 636.

Syntax: `/ldapport-`*`number`*

Example: `/ldapport-389`

/ldapssl

Instructs the Internet Agent to use a secure (SSL) connection with the LDAP server.

Syntax: `/ldapssl`

/ldapuser

Specifies a user that has rights to the LDAP directory. The user must have at least Read rights.

Syntax: `/ldapuser-`*`username`*

Example: `/ldapuser-ldap`

/ldappwd

Specifies the password of the user specified by the /ldapuser switch.

Syntax: `/ldappwd-`*`password`*

Example: `/ldappwd-pwd1`

52.11.2 LDAP Query Switches

The Internet Agent can function as an LDAP server, allowing LDAP queries for GroupWise user information contained in the directory. The following switches configure the Internet Agent as an LDAP server.

/ldap
/ldapthrd
/ldapcntxt
/ldaprefurl
/ldaprefcntxt
/ldapserverport
/ldapserversslport

/ldap

Enables the Internet Agent as an LDAP server.

Syntax: `/ldap`

/ldapthrd

Specifies the maximum number of threads the Internet Agent can use for processing LDAP queries. The default is 10.

Syntax: `/ldapthrd-`*`number`*

Example: `/ldapthrd-5`

/ldapcntxt

Limits the directory context in which the LDAP server searches. For example, you could limit LDAP searches to a single Novell organization container located under the United States country container.

If you restrict the LDAP context, you must make sure that users, when defining the directory in their e-mail client, enter the same context (using the identical text you did) in the Search Base or Search Root field.

Syntax: `/ldapcntxt-"context"`

Example: `/ldapcntxt-"O=Novell,C=US"`

/ldaprefurl

Defines a secondary LDAP server to which you can refer an LDAP query if the query fails to find a user or address in your GroupWise system. For this option to work, the requesting Web browser must be able to track referral URLs.

Syntax: `/ldaprefurl-url`

Example: `/ldapurl-ldap://ldap.provider.com`

/ldaprefcntxt

Limits the directory context in which the secondary (referral) LDAP server searches.

Syntax: `/ldaprefcntxt-"context"`

Example: `/ldaprefcntxt-"O=Novell,C=US"`

/ldapserverport

Changes the LDAP listen port from the default of 389.

Syntax: `/ldapserverport port_number`

Example: `/ldapserverport 390`

/ldapserversslport

Changes the LDAP SSL listen port from the default of 636.

Syntax: `/ldapserversslport port_number`

Example: `/ldapserversslport 637`

52.12 Log File Switches

The following switches control how the Internet Agent uses the log file. The log file keeps a record of all Internet Agent activity. See Section 49.6, “Using Internet Agent Log Files,” on page 791.

/log
/logdays
/loglevel
/logmax

52.12.1 /log

On NetWare and Windows, the log files are stored in the *domain*`\wpgate\`*gwia*`\000.prc` directory by default. On Linux, they are stored in `/var/log/novell/groupwise/`*domain_name*`.gwia` by default. The log files are named after the month, day, and log number for

that date (*mmdd*gwia.*nn*).You can use the /log switch to redirect the log files to a different location.

Syntax: /log-*log_file_directory*

NetWare Example: /log-sys:\log\gwia

Linux Example: --log /opt/novell/groupwise/agents/log

Windows Example: /log-c:\log\gwia

52.12.2 /logdays

By default, log files are deleted after 7 days. This switch overrides the default setting. The range is from 1 to 360 days.

Syntax: /logdays-*days*

Example: /logdays-5

52.12.3 /loglevel

Defines the amount of information to record in log files.

The values are:

- Diag
- Verbose
- Normal (Default)
- Off

Syntax: /loglevel-*level*

Example: /loglevel-verbose

52.12.4 /logmax

Controls the maximum amount of disk space for all log files. The amount of disk space each log file consumes is added together to determine the total amount of disk space used. When the limit is reached, the Internet Agent deletes the existing log files, starting with the oldest one. The default is 64 MB. The range is from 256 KB to unlimited size. Use 0 for unlimited disk space.

Syntax: /logmax-*KB*

Example: /logmax-512