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MailFilter/ax Administrators Guide

Christian Hofstädtler

Version 1.5-1030

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You can find Information, that was not available at the time of writing, in the QuickStart Information or online: <http://www.mailfilter.cc/en/>.

This Version describes MailFilter for NetWare with GroupWise 5.5 and GroupWise 6 using GroupWise Internet Agent.

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MailFilter/ax Server/NLM, the MailFilter configuration tools including MailFilter Configuration and MailFilter Installation/Upgrade Wizard, MailFilter/NRM, the MailFilter Documentation (including this Guide) and all additional MailFilter programs are referred further in as "MailFilter".

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Compiled May 11, 2003. This Guide covers MailFilter/ax Version 1.5.

1 Why MailFilter/ax?

Protection against Viruses, Worms & Trojan Horses!

Protection against Spam!

Today Worms, Trojans and Viruses spread over 90% via E-Mail - you can stop this very easily, with E-Mail filters. This can also save your users time, automatically deleting Spam mails.

The Solution for your GroupWise Installation: MailFilter/ax Server. MailFilter/ax Server runs on your existing NetWare Server and integrates with GWIA. As soon as Mails are exchanged with the Internet, they are routed through MailFilter/ax, the Attachments get scanned - and, if "infected" blocked.

Blocked E-Mails are saved on the Server in a special directory, and the Administrator gets notified. On desire, also your internal users can be notified. As mentioned above, MailFilter/ax can save users valuable time by also scanning subject lines and from-headers for specified texts.

2 Regular Updates

Worms, Trojans and Viruses are always developed to hide better and better. Because of this, we continuously make updates to MailFilter/ax to better detect such programs. You should regularly check for a new version of MailFilter/ax and install the newest version immediately. <http://www.mailfilter.cc/en/>

3 MailFilter/ax Installation

Installing the MailFilter/ax Server begins with the local installation of the MailFilter Installation Wizard, which also contains the administration guides and a set of default block lists. Install the Wizard as follows:

3.1 MailFilter/ax Installation Wizard

1. Start "MailFilterAX-Setup.exe" from the distribution media.
2. Click "Next" and then select "Complete".
3. Select the local target directory.
4. Click "Install" to install MailFilter/ax Installation Wizard.

3.2 MailFilter/ax Server Installation

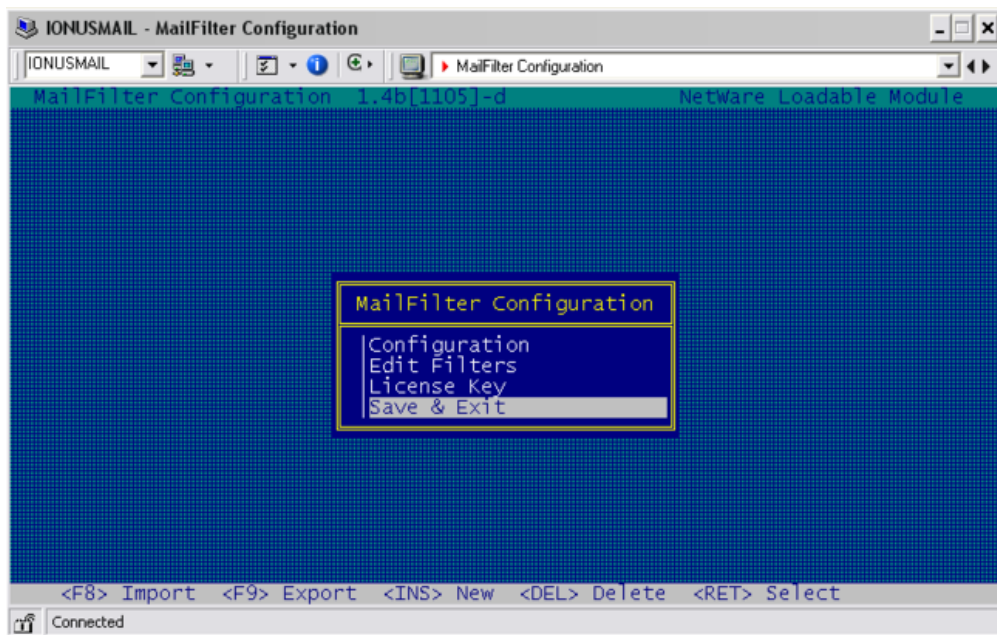
1. Select "MailFilter\Installation Wizard" from your start menu.
2. Select the mapped SYS: drive of the NetWare server where you want to install MailFilter/ax (the server with GWIA on it).
Press "OK" to launch the Quick Start Wizard.

Note: if you are installing MailFilter/ax in a cluster environment, please read the document "MailFilter/ax Cluster Notes".

3.3 Base Configuration

1. For "Internet Agent Configuration File" select the appropriate GroupWise Internet Agent GWIA.CFG. (e.g.: SYS:\SYSTEM\GWIA.CFG)
2. Type your Internet Domain Name (= GWIA Primary Internet Domain) in the corresponding field. (e.g: MailFilter.cc)
3. Type the server's Host Name in the corresponding field. (e.g: gwia.mailfilter.cc)
4. Select your GroupWise Internet Agent version.
5. Click "Install" – MailFilter/ax is configured automatically, based upon the selected GWIA.CFG, MailFilter/ax NLMs are copied to the Server, and a default set of Block-List entries are installed. Lines to load MailFilter on server start-up are added to the Autoexec.NCF file.
6. To start MailFilter/ax, a few things are left:
 - (a) Load MFConfig.NLM.
 - (b) Verify the Configuration.
 - (c) Save the Configuration ("Save & Exit")
 - (d) Finally, load MailFilter/NLM. (Type MFSTART on the System Console.)

4 MailFilter/ax Configuration

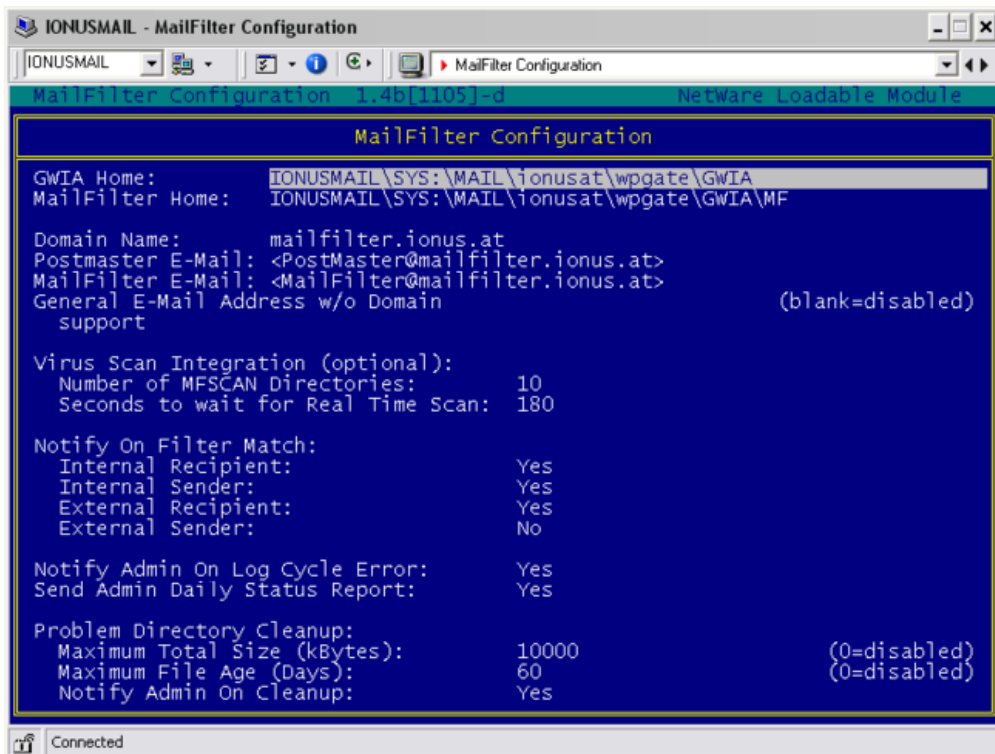


MFConfig (*MailFilter/ax Configurator*) allows you to change the complete Configuration of MailFilter/ax directly on the Server.

Under ...
Configuration
Edit Filters
License Key

... you find:
MailFilter Basic Configuration, Domain-Data
Block/Filter List
License Key Input Form

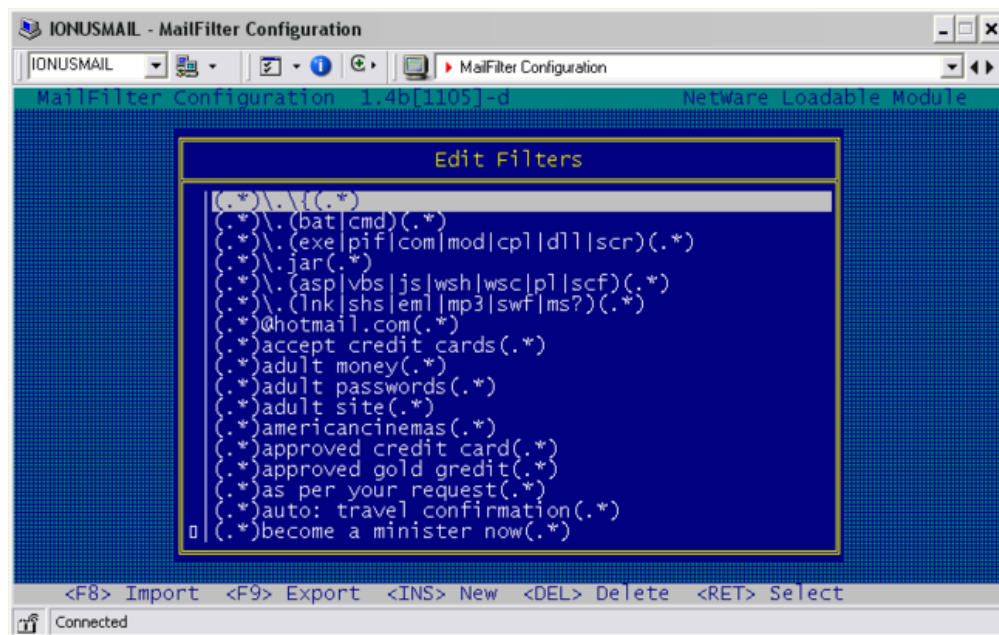
4.1 Access Paths



GWIA Home	path to the GWIA-agent directory
MailFilter Home	path to the MailFilter server directory (usually GWIA\MF)
Domain Name(s)	all Internet domains (comma seperated)
Postmaster E-Mail	Postmaster's e-mail address
MailFilter E-Mail	from-address for status/notification e-mails
General E-Mail Address	common from-address, without Internet-domain. See also Section 5 ("Multi2One").
Schedule-Time	Time when all (low-priority) outgoing mails are hold back (Rule and License)
DNS Blacklist Zone	The DNS zone name of your preferred spam blacklist.
GWIA Mode/Version	for GWIA version 6.0 use 600, for GWIA versions 5.2, 5.5 use 550.
MailFilter Control/Config Password	App password you are required to enter when chaning the configuration.
Enable PFA functionality	Enables the mail fix-up code for PFA users with a single POP mailbox.
Drop Unresolvable Relay Hosts	If the sender's email server cannot be resolved, the mail gets dropped.
Virus Scan Integration	
Number of MFSCAN ...	Queue-Directory Count
... Directories	Recommended Values: 1 to 15. Default: 10
Seconds to wait ...	Seconds, that Mails are left in the MFSCAN directory.
...for Real Time Scan	This value depends heavily on your Virus-Scanner and Server Load. You should test this value also with high Server Load!

Decode Attachments. . .	Default: 180 Seconds. If your Virus Scanner can read Mime822 files, you can leave it off. See also Section 10 ("Integration Virus Scanner").
Default Notify On Filter Match	default notification for dropped mails:
Internal Recipient	internal recipient of the mail
Internal Sender	internal sender of the mail
External Recipient	external recipient of the mail
External Sender	external sender of the mail
Notify Admin on	notify the administrator if log cycling
. . . Log Cycle Error	fails
Send Admin Daily Status	send the status report to the
. . . Report	postmaster (including statistics)
Problem Directory Cleanup	cleanup of the MFPROB directory:
Maximum Total Size	maximum total size of all files (in kB)
Maximum File Age	number of days before a mail is removed
Notify Admin	notify the administrator if the directory
. . . On Cleanup	has been cleaned up

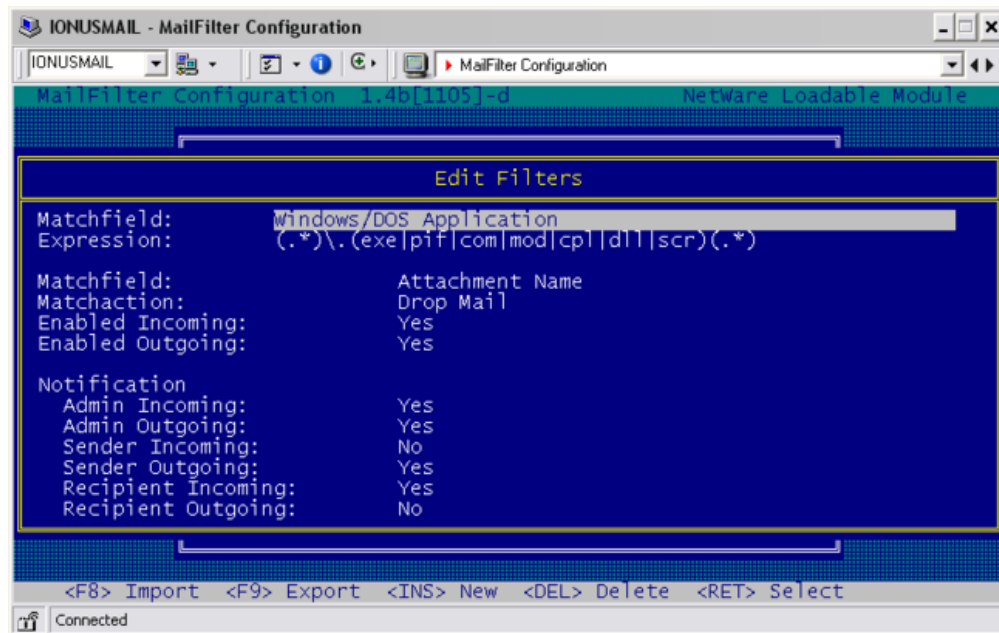
4.2 Edit Filters



In this lists the following keys are available:

ESC	Closes the window, back to main menu
INS	Add Entry
DEL	Delete Entry
RET [Enter]	Change Entry
F8	Import entries from List-File
F9	Export list as List-File

4.2.1 Common



Description	description of this filter (optional)
Expression	Regular Filter Expression
For an introduction to Regular Expressions see:	http://zez.org/article/articleprint/11/
Matchfield	field, the filter is applied to
Matchaction	action if filter matches
Enabled Incoming	filter is enabled for incoming mails
Enabled Outgoing	filter is enabled for outgoing mails
Notification	users which get informed on a drop

Special Characters should not be used, as every E-Mail Client codes such characters in another form.

4.2.2 Attachment Filters

Recommendation: "(.*)\\.EXTENSION(.*)"

Entries are matched against the names of Attachments. This list should block all startable files. (The Default List is made for Windows.)

To send executable files (e.g. Software Updates), they probably will have to be packed into ZIP-Files. (ZIP-Files also contain checksums, so you can ensure that such files are transmitted successfully.)

4.2.3 Domain Filters

Recommendation: "(.*)@domain.com(.*)"

Entries are matched against the Sender of E-Mails. (From-Header)

The Sender-Filter e.g. "@hotmail.com" is interesting if you get much Spam mails from Hotmail Addresses - but this blocks *all* Hotmail User!

4.2.4 Subject Filters

Recommendation: “(*.)Three or more words(*.)”

Entires are matched against the Subject of E-Mails. (Subject-Header) Warning: Special Characters are not recognized!

You should only put descriptive strings in this block list. An entry should be longer than 3 chars. The word “in” is very bad, as it also matches “Incident”, “Information”, “Indigo” and so on ...

4.3 Save Changes

To apply the changes you have made select “Save & Exit” from the main menu. After confirming, MailFilter Configurator exits. To activate the new Configuration, you have to reload the MailFilter Server NLMs. To do this, type MFSTOP and then MFSTART on the System Console.

4.4 Don't Save Changes

To have the Configuration Changes not saved, press “ESC” in the main menu, and confirm with Yes.

5 Multi2One Senders

This Function is for (smaller) installations, where only one E-Mail address exists, or, not all internal users get an external (Internet) E-Mail address assigned. To enable this function, enter in the Configuration in "General E-Mail Address" the external E-Mail address. (Without Internet Domain Name, e.g. just "sales", if "sales@mailfilter.cc" is the complete address.)

Mails from users with a Gateway Alias like <offinn@mailfilter.cc > (where *nn* is a number from 01 to 99), get changed by MailFilter Server - but only the Sender E-Mail address! Addresses in the further text are not changed.

Of course, to be able to receive e-Mails that are directed to this address, you need a GroupWise user. (or an External Entity).

Recommendation: With a GroupWise rule, move all mails that this user gets in a Shared Folder and share it to all users.

If you don't want/need this feature, leave the field "General E-Mail Address" blank.

Example Configuration:

Common E-Mail Adresse	order@mailfilter.cc
Entered GroupWise GWIA Gateway Aliases:	
E-Mail User "ch"	ch@mailfilter.cc
E-Mail User "abc"	ord01@mailfilter.cc
E-Mail User "xyz"	ord02@mailfilter.cc
E-Mail User "order"	order@mailfilter.cc
MailFilter "General E-Mail Address"	office

Consequences:

Mails from User "ch" won't get changed.
Mails to User "ch" won't get changed.

Mails from User "abc" get changed.
Mails to User "abc" won't get changed.

Sender Address is changed to "order".

Mails from User "xyz" get changed.
Mails to User "xyz" won't get changed.

Sender Address is changed to "order".

Mails from User "order" won't get changed.
Mails to User "order" won't get changed.

6 Server Tasks

6.1 MailFilter/ax Start

To load MailFilter/ax on the Server, type MFSTART on the System Console. ein. You can modify the file MFSTART.NCF, so that for example, MailFilter/ax loads in it's own Address Space.

6.2 MailFilter/ax Stop

To unload MailFilter/ax either type MFSTOP on the System Console, or hit the F7 key in the MailFilter/ax Status Screen and confirm unload. This may take a bit, specially if mails are queued for scanning.

6.3 Start MailFilter/ax Automatically

To have MailFilter/ax load automatically after a server restart, put the following line in your Autoexec.NCF: MFSTART

If you have installed MailFilter/ax with the Installation Wizard, this has already been done for you.

7 Administrative Tasks

7.1 Dropped E-Mails

If MailFilter drops a Mail, the Mail is put into the MFPROB directory and the Administrator gets notified. As soon as you receive such a “MailFilter Problem Report” Mail, you should check the MFPROB directory and remove its contents after checking it carefully.

7.2 Check MailFilter Status

To ensure that MailFilter runs and verifies E-Mails, you should regularly check the MailFilter Status Screen on the Server for errors and the MFPROB directory for mails. You should clear the problem mails if you do not need them anymore, as they are wasting space on the Server.

7.3 Re-Queuing Dropped E-Mails

If you need to recover a dropped E-Mail, you can copy the according Mail File from GWIA\MF\MFPROB to GWIA\RECEIVE or GWIA\SEND. GWIA will handle this mail as a normal E-Mail, but MailFilter will not touch this E-Mail. So, you should check the file first for Viruses!

7.4 Tuning

The directories GWIA\SEND, GWIA\RECEIVE, GWIA\RESULT, GWIA\MF\SEND, GWIA\MF\RECEIVE, GWIA\MF\RESULT, GWIA\MF\MFWORK, and GWIA\MF\MFSCAN should be set to “Immediate Purge”.

8 Integration GroupWise Internet Agent

To integrate MailFilter into GWIA and to re-enable the Mail-Transfer, you have to update the GWIA configuration. Enter for "SMTP Service Queues Directory" the same directory as you have entered in MailFilter Configurator, "Access Paths", "MFLT Path".

MailFilter supports GWIA 5.5 and GWIA 6.

8.1 Example Configurations

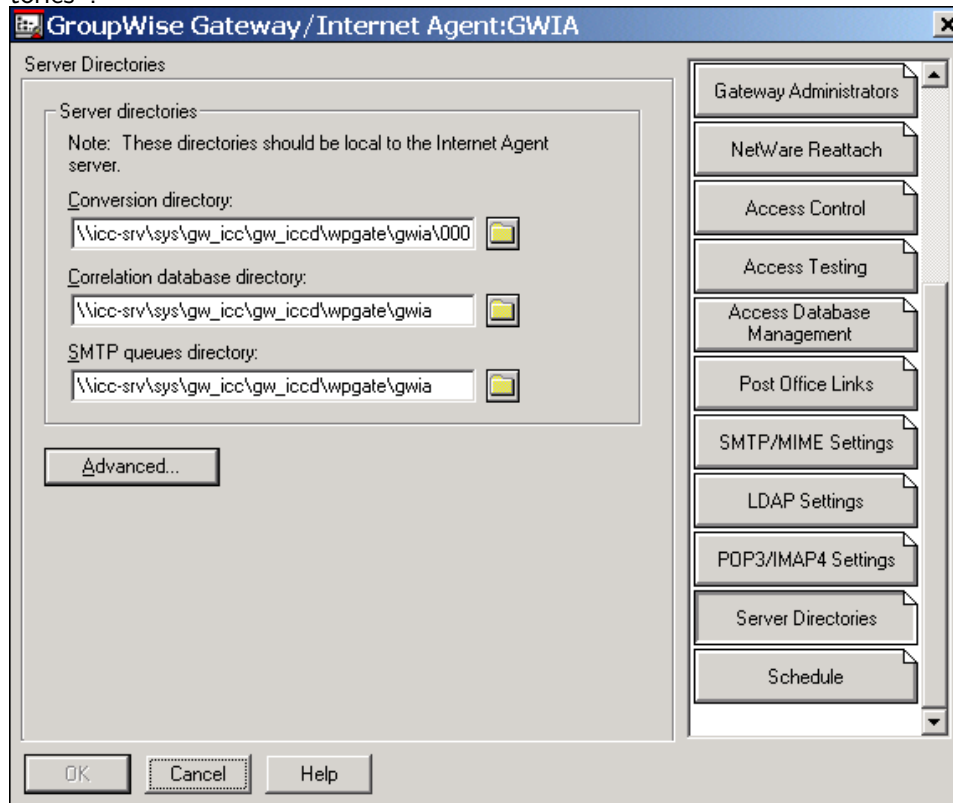
See Sections 8.3 (GroupWise Internet Agent Version 5.5) and 8.4 (GroupWise Internet Agent Version 6).

8.2 Configuration Test for GWIA

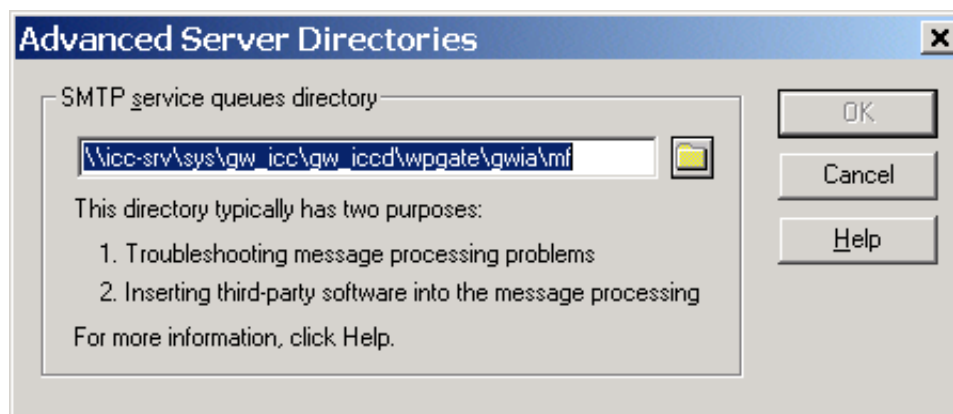
First make sure that the GroupWise Internet Agent loaded and that MailFilter is *not* loaded. Now send and receive e-Mails just like you always do. (MAX! Users: also use "Connect to Mail Hosts"!) Verify, that all e-Mails are stored in the GWIA MF\Send, MF\Receive directories - *no single* mail should be able to be delivered. Now, as you are certain that mail delivery is blocked, load MailFilter/NLM (use MFSTART) and check the Screens "MailFilter Status Screen" and "GroupWise Internet Agent", that mails are routed through MailFilter.

8.3 GroupWise Internet Agent Version 5.5

Launch the NetWare Administrator, in the GWIA Properties select “Server Directories”.



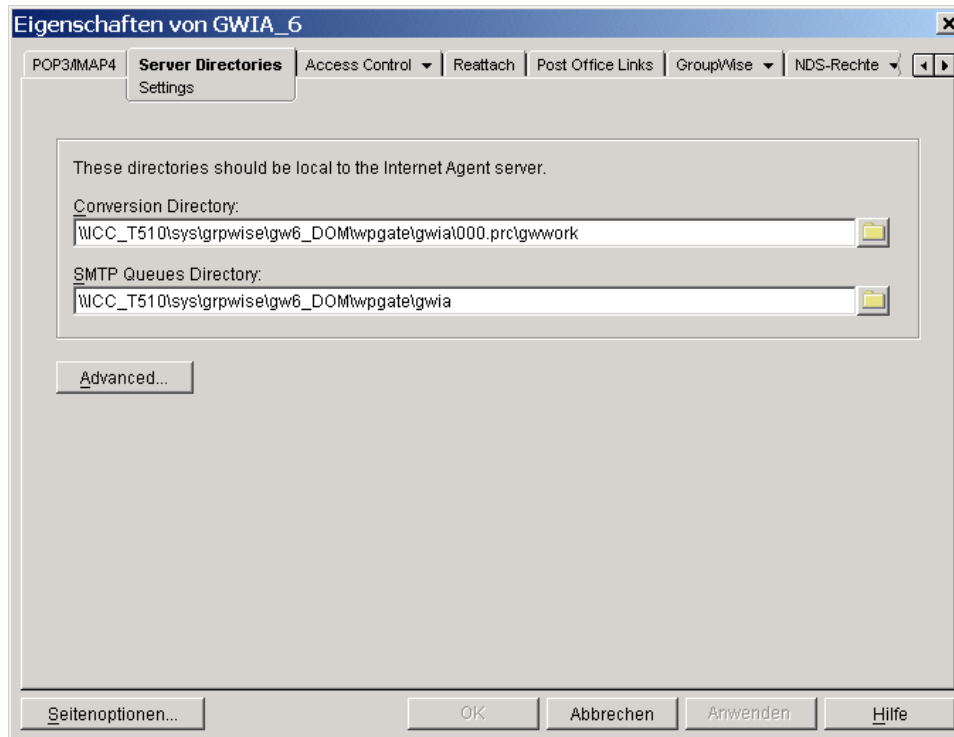
Click the “Advanced” button.



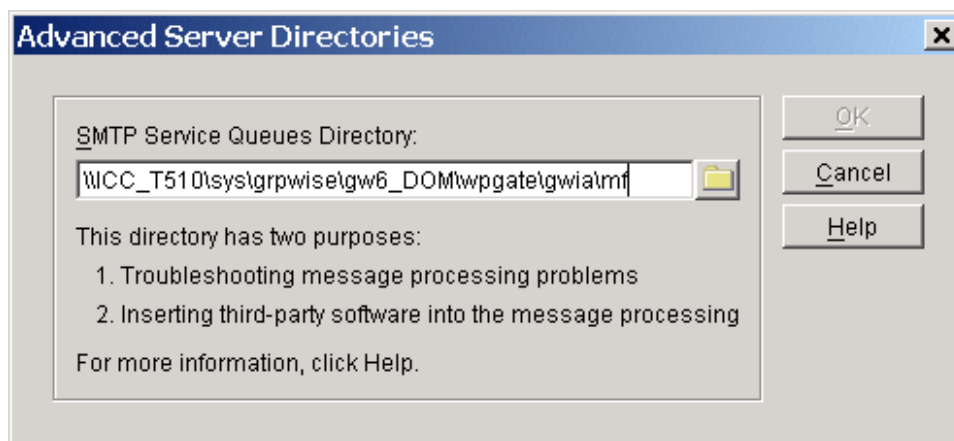
Enter the same directory that you have entered in the MailFilter Configurator as “MFLT Path”. The Quick Start Wizard uses a default of “GWIA\\MF”. To activate the Configuration Change, you’ll have to restart GWIA on the Server

8.4 GroupWise Internet Agent Version 6

Launch ConsoleOne and select “Server Directories\Settings” from the GWIA Properties.



Select “Advanced”.



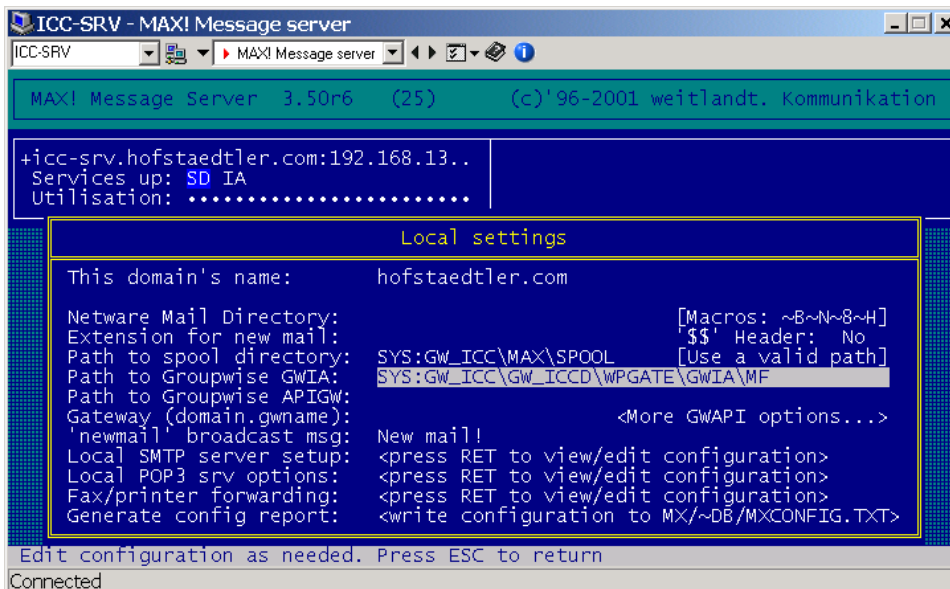
Enter the same directory that you have entered in the MailFilter Configurator as “MFLT Path”. The Quick Start Wizard uses a default of “GWIA\MF”. To activate the Configuration Change, you’ll have to restart GWIA on the Server

9 Integration with MAX! Message Server

To integrate MailFilter with MAX! Message Server: Enter in the MAX! Configuration ("Local Settings") as "Path to GroupWise GWIA" the same Path you've entered in the MailFilter Configurator as "MFLT Path". This Configuration assumes that MAX delivers mails through GWIA file-based. If MAX delivers using SMTP no changes to the MAX Configuration are needed. If you use MAX in conjunction with the APIGW, you probably need an update of MAX!, and a Change to GWIA delivery. Please contact your MAX! reseller for more information about this.

Configuration Test see section 8.2 "Configuration Test for GWIA".

Note: Only Mails passed to GWIA will be scanned by MailFilter, requiring correct Configuration!



10 Integration with Virus Scanners

Except the directory "GWIA\MF\MFSCAN" (and Subdirectories) no other directories of GWIA or of MailFilter/ax must be scanned by the Server Virus Scanner!

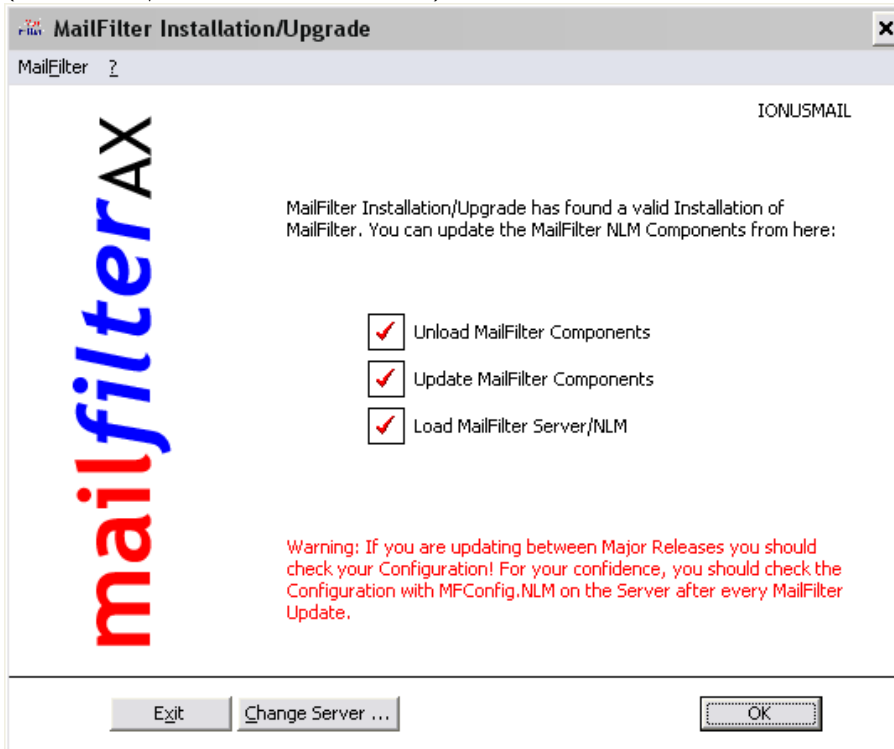
The Server Virus Scanner has to be able to unpack Mime-Mails, and has to be set to Delete or Cure, as MailFilter/ax has no chance to get information from the Virus Scanner . So, the E-Mail File either has to be deleted or changed in Size.

If the VirusScanner is not used, both Values have to be set to 0. This Settings are also changed by MailFilter/ax if you did not buy the VirusScan-Integration.

Please check if your virus scanner can decode Mime822 files itself, if not, you have to enable "Decode Attachments for VScan" .

11 MailFilter/ax Update

MailFilter/ax Updates are installed from the MailFilter/ax Installation/Upgrade Wizard. First, locally install the new "MailFilterAX-Setup.exe" and then start the Installation Wizard. If you don't get the Update Screen, check Section 3.2 ("MailFilter/ax Server Installation").



To do an Automatic Update, check all 3 Possibilities. Press "OK" to execute the update. Warning! You should do an Automatic Update only, if you are not updating between Major Versions, or you know that no manual changes have to be done! – Any way, you should run MFConfig and press "Save" before you start MailFilter/ax again.

12 Logging & Reporting

MailFilter/ax places its Log-Files in the MFLOG directory, where the current MailFilter/ax Log file is named "MailFlt.log". Every day between 23h and 24h MailFilter/ax rotates the log file - the log file is renamed to "MailFlt.0dd" where "dd" is the month day, so the log files are kept for one month. Do not unload/reload MailFilter/ax between 23h and 24h, as this will produce unexpected results for the log files. Mostly you will lose the log file for the current day.

A Installed NCF's

A.1 MFSTART.NCF

```
##
## MFSTART.NCF - Starts the MailFilter System.
##
#
MFSTOP
#####
## Load MailFilter Server/NLM
## This is the main component of MailFilter on NetWare.
load mailflt
# load address space = MailFilter mailflt
#####
#
#####
## Load MailFilter/NRM
## MailFilter/NRM is disabled by default.
# load mfnrm
#####
#
##
## --- e o f ---
##
```

A.2 MFSTOP.NCF

```
##
## MFSTOP.NCF - Shuts down MailFilter System.
##
#
#####
## Unload MailFilter/NRM
## If you enabled MFNRM you should enable the following line also.
# unload mfnrm
#####
#
#####
## Unload MailFilter Server/NLM
unload mailflt.nlm
unload address space = mailfilter
unload address space = mailflt
#####
#
##
## --- e o f ---
```

##

B MailFilter/ax Uninstall

If you really decide to remove MailFilter/ax from the Server, use these steps:

1. Ensure, that no mails are left in the MailFilter/ax queue!
2. Unload GWIA: Type `UNLOAD GWIA` at the Server.
3. Disable MailFilter/ax Integration:
Remove your Configuration Changes that you have done in GWIA and/or MAX! for MailFilter/ax.
4. Unload MailFilter: Type `MFSTOP` at the Server.
5. Remove Configuration:
Delete the Directory `SYS:ETC\MAILFLT`.
6. Remove MailFilter/ax Home:
Delete the Directory `GWIA\MF`.
7. Remove MailFilter/NLM:
Delete from `SYS:SYSTEM` the files `MailFlt.nlm`, `MFConfig.nlm`, `MFNRM.nlm`, `MFSTART.NCF`, `MFSTOP.NCF` and remove the call to `MFSTART` from `Autoexec.NCF`.

C Troubleshooting

1. The MailFilter Log file can tell which Mail was handled last, and also logs all MailFilter Server Console Messages.
2. If MailFilter Abends, probably the ABEND.LOG can help you. (If MailFilter runs in another Address Space, see the COREx.DMP files.) On next load of MailFilter/ax, the last processed Mail gets moved into the directory MFPROB\CRASH.
3. If MailFilter Abends often, change the MFSTART.NCF so MailFilter/ax is loaded in a protected memory/address space.
4. When calling Support, please have your System Information (CONFIG.TXT generated by CONFIG.NLM v3) ready, the Abend Log(s) and the Mail Messages that were processed when MailFilter/ax abended.