

PreciseMail Anti-Spam Gateway Installation Guide, VMS Edition

September 2019

This manual provides installation and setup instructions for PreciseMail Anti-Spam Gateway.

Operating System and Version: OpenVMS Alpha V7.3-2 or later
OpenVMS I64 V8.2 or later

PMDF Version: PMDF V6.8 or later

Software Version: PreciseMail Anti-Spam Gateway V3.3

Process Software

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Preface

This guide describes how to install PreciseMail Anti-Spam Gateway.

Intended Audience

This manual is intended for use by the system manager or any individual responsible for installing and maintaining the PreciseMail Anti-Spam Gateway anti-spam product.

Document Structure

This guide consists of three chapters and two appendices.

Chapter 1	Contains pre-installation information.
Chapter 2	Describes the PreciseMail Anti-Spam Gateway installation procedure.
Chapter 3	Contains post-installation information.
Appendix A	Contains a listing of a sample installation.
Appendix B	Contains a list of the files created by an installation.

Related Documents

You can find additional information in the following documents:

- *PreciseMail Anti-Spam Gateway User's Guide* describes the PreciseMail Anti-Spam Gateway user interface.
- *PreciseMail Anti-Spam Gateway Management Guide* describes the PreciseMail Anti-Spam Gateway message scanner.
- *PreciseMail Anti-Spam Gateway Release Notes* contain information and updates not included in this manual. The release notes are part of the software distribution kit.

1

Preparing to Install PreciseMail Anti-Spam Gateway

This chapter describes the steps that should be taken prior to installing the PreciseMail Anti-Spam Gateway client and server.

1.1 Prerequisite Software

PreciseMail Anti-Spam Gateway requires OpenVMS Alpha V7.3-2 or later, or OpenVMS I64 8.2 or later to run.

If you plan to use PreciseMail Anti-Spam Gateway with PMDF, it requires PMDF V6.8 or later, available from Process Software.

Sophos Anti-Virus must be installed on the same system as PreciseMail Anti-Spam Gateway if you wish to enable the virus-scanning feature of the pass-through proxy server.

1.2 Accessing the Online Release Notes

The PreciseMail Anti-Spam Gateway kit provides online release notes, which you can display or print by using VMSINSTAL with the OPTIONS N parameter. After the installation, you can read the release notes by printing the file SYS\$HELP:PMASvvn.RELEASE_NOTES, where “vvn” denotes the version number of the software. For example, for version V3.3 of PreciseMail Anti-Spam Gateway, the file name would be PMAS033.RELEASE_NOTES.

1.3 Installation Procedure Requirements

Before installing PreciseMail Anti-Spam Gateway, ensure that the following privileges, resources, and requirements are met:

- For Alpha systems, OpenVMS Alpha V7.3-2 or later is required. For Integrity systems, OpenVMS I64 V8.2 or later is required.
- All the normal privileges and quotas of the default SYSTEM account.
- Approximately 2 to 5 minutes, depending on your system configuration, distribution medium, and options selected.
- Approximately 35,000 free blocks on a disk for use during the installation procedure; this can be the system disk or a disk specified with the VMSINSTAL AWD option.
- Approximately 30,000 free blocks on the system disk for a full installation.

2

Installing PreciseMail Anti-Spam Gateway

PreciseMail Anti-Spam Gateway uses VMSINSTAL for installation. If you do not know how to use VMSINSTAL, you should first read the chapter on installing software in the *VMS System Manager's Manual*. For the installation, you should be logged into the SYSTEM account or another suitably privileged account.

If you are upgrading PreciseMail Anti-Spam Gateway from an earlier version, the steps are the same as described below, with the addition of a couple of prior tasks. If you are installing PreciseMail Anti-Spam Gateway on your system for the first time, you should skip the rest of this section and continue with Section 2.1.

Before upgrading, you should stop PMAS from running while the installation is running. If you're running PMAS with PMDF, the easiest way to do this on OpenVMS is to define the following logical before running VMSINSTAL:

```
$ define/system/exec pmdf_hold pmas
```

If you're running the PTSMTTP proxy server, you can stop the PTSMTTP worker processes with this command:

```
$ @pmas_com:ptsmtt_shutdown
```

After the installation completes and you execute the PMAS startup procedure, deassign the logical above and tell PMDF to submit the PMAS channel for execution:

```
$ deassign/system/exec pmdf_hold  
$ pmdf submit pmas poll
```

2.1 Invoking VMSINSTAL

Invoke VMSINSTAL to install PreciseMail Anti-Spam Gateway.

```
$ @SYS$UPDATE:VMSINSTAL PMAS033 ddcu:
```

Substitute the appropriate device name for *ddcu*.

```
OpenVMS AXP Software Product Installation Procedure V6.2  
It is dd-Mmm-yyyy at hh:mm.  
Enter a question mark (?) at any time for help.
```

If there are any users logged into the system, you will see the message:

```
%VMSINSTAL-W-ACTIVE, The following processes are still active:  
...process names...
```

Installing PreciseMail Anti-Spam Gateway

You can install PreciseMail Anti-Spam Gateway while users are logged in, though PMDF should be shutdown to avoid messages coming in while PreciseMail Anti-Spam Gateway is being installed.

* Do you want to continue anyway [NO]?

If you wish to continue, answer YES.

* Are you satisfied with the backup of your system disk [YES]?

If you feel comfortable with your system disk backup, answer YES. Otherwise, answer NO, perform the backup, then restart the installation procedure.

2.2 Installation Options

The next question is

* Do you want to purge files replaced by this installation [YES]?

If this is the first time you have installed PreciseMail Anti-Spam Gateway, answering NO to this question can save some time when the PreciseMail Anti-Spam Gateway files are moved into their directories.

2.3 Disk and Directory Selection

PreciseMail Anti-Spam Gateway is installed in its own rooted directory to avoid mixing PreciseMail Anti-Spam Gateway files with normal VMS files. The only files copied to VMS directories are the PreciseMail Anti-Spam Gateway release notes, which are copied to SYS\$HELP:, and PMAS_STARTUP.COM, which is copied to SYS\$STARTUP:.

PreciseMail Anti-Spam Gateway can reside on any disk. The installation prompts you for the name of the disk and top-level directory for the utilities. The default is SYS\$SYSDEVICE:[PMAS].

* Enter the top-level directory for PreciseMail Anti-Spam Gateway [SYS\$SYSDEVICE:[PMAS]]:

Once a directory has been specified (or **RETURN** is pressed to select the default), the directory is created and messages like the following are displayed:

```
%VMSINSTAL-I-SYSDIR, This product creates system disk directory
SYS$SYSDEVICE:[PMAS].
```

2.3.1 Mixed VMScusters (Alpha and Integrity systems)

Mixed VMScusters that consist of a mix of Alpha and Integrity systems are fully supported by PreciseMail Anti-Spam Gateway. The PMAS_ROOT: directory tree can be shared by both systems if it resides on a common disk. When the PreciseMail Anti-Spam Gateway installation determines that the node is part of a cluster, it will ask whether or not to install the images for the other architecture. For example, if the installing node is an Alpha, the Alpha executables will be installed, and the following prompts will be displayed:

* Do you want to install the I64 images for PreciseMail Anti-Spam too [N]?

Simply answer YES or NO as desired.

2.3.2 Installing the Documentation

The installation will next ask you about installing the documentation for PreciseMail Anti-Spam Gateway. Documentation is supplied in Bookreader, PDF, HTML, Postscript, and ASCII text file formats. The installation will prompt you with this question:

* Do you want to install the documentation for PreciseMail Anti-Spam Gateway [YES]?

If you answer YES to the question, the documentation will be copied to PMAS_ROOT:[DOC].

2.4 The Installation Completes

After the configuration questions, the PreciseMail Anti-Spam Gateway software and related files are copied to their destination directories. Informational messages about the individual components are displayed as needed.

3

Post-Installation Information

This chapter contains important information about the PreciseMail Anti-Spam Gateway configuration and startup options.

PreciseMail Anti-Spam Gateway can be configured to run as a PMDF channel or as a pass-through SMTP proxy server (PTSMTP) that sits in front of whatever SMTP server you're currently running. The PTSMTP solution offers a number of advantages over the PMDF channel configuration, including increased performance and the ability to reject messages during the SMTP session, preventing some messages from even entering into your mail system.

If you upgrading PreciseMail Anti-Spam Gateway from a previous version, you should follow the steps outlined in Section 3.5 below.

Note: If you are upgrading PreciseMail Anti-Spam Gateway from a previous version and do not plan to use the Pass-Through SMTP Server, you will not need to perform any of the configuration steps outlined in Section 3.3 below.

3.1 PreciseMail Anti-Spam Gateway License Information

When you purchase a PreciseMail Anti-Spam Gateway license, you will receive a license key that looks like a normal VMS-style license PAK. However, the VMS LMF is not used by PreciseMail Anti-Spam Gateway. The PMAS license data must be copied to a file named `PMAS_ROOT:[000000]PMAS.LICENSE`. If this file is not found, or if the included license data is invalid, PreciseMail Anti-Spam Gateway will not run.

3.2 PreciseMail Pass-Through SMTP Server Configuration

The PreciseMail Pass-Through SMTP (PTSMTP) Server acts as a proxy server for all incoming mail. The PTSMTP server does not replace your existing SMTP server, but instead works with your existing SMTP server, passing incoming messages directly to your existing server for delivery. Messages are scanned by the PreciseMail engine as they pass through, and quarantined or discarded messages are never actually sent to your primary SMTP server.

To properly set up the PTSMTP server, you must configure it to run on the well-known SMTP port (port 25) and reconfigure your actual SMTP server to run on an alternate port. SMTP clients will open a connection to the PTSMTP server on port 25, which will in turn open a pass-through connection to your actual SMTP server on its alternate port. Messages will be scanned and diverted or passed through as appropriate according to your PMAS configuration settings.

Post-Installation Information

For more information on the PMAS Pass-Through SMTP Server, please see the *PreciseMail Anti-Spam Gateway Management Guide*.

3.2.1 Reconfiguring your primary SMTP server

By default, your primary SMTP server listens on the well-known SMTP port, which is port number 25. This brief list shows how the SMTP server for various products can be reconfigured to run on an alternate port.

Product	Method
PMDF	The alternate port number is specified in the <i>[SERVICE=SMTP]</i> section of <i>PMDF_TABLE:DISPATCHER.CNF</i> . The PMDF dispatcher must be restarted.
MultiNet	The alternate port is defined using the <i>SET PORT</i> command after selecting SMTP in <i>MULTINET CONFIGURE/SERVICES</i> .
TCPware	The alternate port is defined using the <i>@TCPWARE:CNFNET SMTP</i> command to configure the TCPware SMTP component.
MX	The system-wide logical name <i>MX_SMTP_PORT</i> specifies the port on which the MX SMTP server listens.

For full details, please consult the documentation for your SMTP product.

3.2.2 Configuring the Pass-Through SMTP Server

The PMAS Pass-Through SMTP server will be started if the configuration variables *PTSMTP_LISTEN_PORT*, *PTSMTP_MAILSERVER_PORT*, and *PTSMTP_MAILSERVER_HOST* are defined. These configuration variables are documented in the *PreciseMail Anti-Spam Gateway Management Guide*. The first one specifies the SMTP port (which is normally the default, port 25), and the other two should be defined to point to the host and port number on which your reconfigured primary SMTP server is listening. For example:

```
#
# Listen for incoming SMTP connections on port 25
#
ptsmtp_listen_port      25
#
# PMDF's SMTP server is running on port 2525
# on this same system
#
ptsmtp_mailserver_host  127.0.0.1
ptsmtp_mailserver_port  2525
```

If you have already configured the web-based PMAS GUI, you can define the variables using the administrator's interface. If you have not, you can define the variables by editing the configuration file (*PMAS_DATA:PMAS_CONFIG.DAT*) and adding them.

There are variables that control the PTSMTP worker processes that run. *PTSMTP_WORKER_MIN* is the minimum number of worker processes that will run. *PTSMTP_WORKER_MAX* is the maximum number of temporary worker processes than can be running simultaneously. The amount of time a temporary process can be idle before it exits is *PTSMTP_IDLE_TIME*.

3.2.3 Starting the PMAS Pass-Through SMTP server

When the PTSMTMP configuration variables are defined, the pass-through SMTP server is automatically started when SYS\$STARTUP:PMAS_STARTUP.COM is run. After the server has been started, there will be several “PTSMTMP” processes running as detached processes:

```
$ pipe show system | search sys$input ptsmtmp
20203AC8 PTSMTMP      HIB      7      1126    0 00:00:00.37      207      198
20203DC9 PTSMTMP      0001 LEF      4      13850   0 00:00:11.76      553      555
202034D4 PTSMTMP      0002 LEF      6      2284    0 00:00:06.90      447      508
$
```

3.2.4 Configuring the PreciseMail Processor

The PreciseMail Processor is run to handle email-based requests from users to release quarantined messages and manage user-specific allow and block lists. You must configure your SMTP product to run the PMAS_COM:SPAM_PROCESS.COM command procedure when mail is sent to the “PreciseMail” email address (or whatever address you specify in the PMAS configuration file).

For PMDF, you can follow the procedure documented in Section 3.3.1, Configuring the PMDF PIPE and PMAS channels. You need only apply the changes regarding the PIPE command if you’re running the Pass-Through SMTP Server.

For MultiNet or TCPware, the following alias should be added to SMTP_ALIASES.:

```
precisemail: "|pmas_com:spam_process.com";
```

For MX, the MX SITE interface can be used to run the procedure. For more information, consult the MX documentation on how to configure the MX SITE interface.

3.3 PMDF Configuration for running PreciseMail Anti-Spam Gateway

Before PreciseMail Anti-Spam Gateway can run, PMDF has to be configured to pass incoming mail messages to PreciseMail Anti-Spam Gateway. This is done by configuring PIPE and PMAS channels and setting up an alias, rewrite rules, and a mapping entry for PreciseMail Anti-Spam Gateway. The sections below cover the steps necessary to properly configure PMDF for PreciseMail Anti-Spam Gateway to run; for more details on PMDF configuration, please consult the PMDF documentation.

3.3.1 Configuring the PMDF PIPE and PMAS channels

The hooks between PMDF and PreciseMail Anti-Spam Gateway are implemented using the PMDF PIPE and PMAS channels. The PIPE channel is provided by PMDF; the PMAS channel is provided with PreciseMail Anti-Spam Gateway. PMDF_TABLE:PMDF.CNF can be

Post-Installation Information

modified to add rewrite rules for the PIPE and PMAS channels at the top of the file (somewhere among the other rewrite rules):

```
!  
! PreciseMail Anti-Spam processor rewrite rules  
!  
pipe.example.com                $U%pipe.example.com@PIPE-DAEMON  
!  
! Rewrites for pmas channel  
!  
pmas                            $U%pmas.example.com@PMAS-DAEMON  
pmas.example.com                $U%pmas.example.com@PMAS-DAEMON
```

and add definitions for the channels themselves to the channel definition part of `PMDF_TABLE:PMDF.CNF`:

```
!  
! Pipe channel  
!  
pipe  
PIPE-DAEMON  
  
!  
! PreciseMail Anti-Spam Gateway  
!  
pmas  
PMAS-DAEMON
```

3.3.2 Create an alias for a PIPE address

Mail sent to the PreciseMail Anti-Spam Gateway user interface is routed by means of an alias that forwards to the PIPE channel. This alias should be added to your `PMDF_TABLE:ALIASES.` file or to your directory, if you're using a directory channel. The alias should look something like this:

```
precisemail:                precisemail@pipe.example.com
```

The specified domain for the alias's value should match the domain specified in the rewrite rule for the PIPE channel.

The alias defined must match the username given for the processor in the PreciseMail Anti-Spam Gateway configuration file. The default username is "PreciseMail".

3.3.3 Create a PIPE option file

An option file, `PIPE_OPTION.`, must be created in `PMDF_TABLE:` for the PIPE channel. It should contain a line similar to the following:

```
precisemail@pipe.example.com=@pmas_com:spam_process.com "%s"
```

The left-hand side of the equal sign must match the alias established in the preceding section, because the PIPE channel hands mail sent to that address to the command procedure associated with that address in the `PIPE_OPTION.` file.

3.3.4 Adding the PMAS Routing to MAPPINGS.

The last addition is a mapping entry that tells PMDF to route incoming mail messages to the PreciseMail Anti-Spam Gateway channel, pmas. This can be done using the CONVERSIONS or SCRIPT mapping table entries. (The SCRIPT mapping is supported by PMDF V6.2 with the PMDF_SCRIPT ECO. PMDF V6.1 and V6.1 sites must use the CONVERSIONS entry.) A CONVERSIONS or SCRIPT table entry should be added to PMDF_TABLE:MAPPINGS. and should look something like this:

```
!
! The SCRIPT channel (process incoming mail for local users)
!
SCRIPT
    IN-CHAN=tcp_*;OUT-CHAN=1;SCRIPT CHANNEL=pmas,MAXBLOCKS=200,MAXLINES=2000,Yes
    IN-CHAN=*;OUT-CHAN=*;SCRIPT      No
```

You can choose to use a CONVERSIONS entry in the same way; the only difference is that the MAXBLOCKS and MAXLINES parameters (which limit messages processed by PMAS based on file sizes) are not available via the CONVERSIONS entry.

```
!
! The CONVERSIONS > PMAS entry
!
CONVERSIONS
    IN-CHAN=tcp_*;OUT-CHAN=1;CONVERT CHANNEL=pmas,Yes
    IN-CHAN=*;OUT-CHAN=*;CONVERT      No
```

If you already have a CONVERSIONS channel in place, simply add the appropriate lines with “CHANNEL=pmas” to your existing channel.

The SCRIPT entry works much like the entry for a conversion channel. The IN-CHAN and OUT-CHAN keywords determine which messages get routed to the SCRIPT channel. In the example above, incoming SMTP mail from all of the “tcp” channels being routed to the local “1” channel will be forwarded to the PMAS channel first. The second line serves as a default, so any other mail (say, from tcp_* to tcp_*) will not get routed.

If you use the PMDF PopStore or MsgStore, you’ll need to add routing lines for them too.

PreciseMail Anti-Spam Gateway will ignore messages larger than 1000 blocks for performance reasons (most spam messages are typically not that large, so PreciseMail Anti-Spam Gateway typically should not be run on large messages, as it is just wasted processing). The MAXBLOCKS and MAXLINES keywords in the example above limit the size of messages that will be handed to the PMAS channel; messages larger than 200 blocks or longer than 2000 lines will not be processed by the SCRIPT channel (and thus not by PreciseMail Anti-Spam Gateway).

3.3.5 Recompiling the PMDF configuration

When all the changes above have been made to your PMDF configuration, you need to recompile your configuration (if you're running a compiled configuration) and restart the PMDF dispatcher. This is typically done using commands like the following. For more details, please see the PMDF documentation.

```
$ @sys$startup:pmdf_stop_queues
$ pmdf cnbuild
$ install replace pmdf_config_data
$ purge pmdf_config_data
$ pmdf restart dispatcher
$ @sys$startup:pmdf_start_queues
```

Note: You should wait until all of the PMDF execution queues stop before running SYS\$STARTUP:PMDF_START_QUEUES.COM. Queues that are “busy, stop pending” will have their shutdowns canceled by the START/QUEUE operation.

For clusters, you must issue PMDF CNBUILD and PURGE PMDF_CONFIG_DATA on each architecture, you must INSTALL REPLACE PMDF_CONFIG_DATA on each member, and you need a /CLUSTER qualifier on the PMDF RESTART DISPATCHER command above.

3.4 Starting PreciseMail Anti-Spam Gateway

Once the installation is complete, you can start the PreciseMail Anti-Spam Gateway software by executing the command procedure PMAS_STARTUP.COM, located in SYS\$STARTUP:. This procedure will define PMAS_ROOT and a number of other PMAS logical names in the system logical name table.

Before starting PreciseMail Anti-Spam Gateway, you may want to create PMAS_DATA:PMAS_CONFIG.DAT from the PMAS_CONFIG.TEMPLATE file, customizing the configuration variables as needed for your site.

To start the PreciseMail Anti-Spam Gateway software automatically at system startup, you should add a line like the following to the system startup procedure (SYSTARTUP_VMS.COM in SYS\$MANAGER):

```
$ @sys$startup:pmas_startup.com
```

PreciseMail Anti-Spam Gateway should be started before the PMDF processing queues are started.

You might want to add a command like the following to your login procedure for the generation of PreciseMail Anti-Spam Gateway statistics:

```
$ pmas_stats ::= $pmas_exe:pmas_stats.exe
```

The PMAS_EXE: logical name is defined by PMAS_STARTUP.COM to point to the appropriate architecture-specific image directory.

3.4.1 Verifying PreciseMail Anti-Spam Gateway is running

If everything is configured correctly, incoming SMTP mail messages destined for local users should now be processed by PreciseMail Anti-Spam Gateway. To verify that messages are being routed properly, you can check the `PMDF_LOG:MAIL.LOG_CURRENT` file to see that messages are being routed to the script channel. If the PreciseMail Anti-Spam Gateway script is being invoked properly, you'll also find `PMAS_MASTER.LOG` files in the `PMDF_LOG:` directory.

3.4.2 Running PreciseMail Anti-Spam Gateway in a cluster

If you are running PreciseMail Anti-Spam Gateway in an OpenVMS cluster consisting of systems with separate system disks, you should copy the startup file `PMAS_STARTUP.COM` from `SYS$STARTUP:` on the installation node to the `SYS$STARTUP:` directories of the desired nodes. You should check the command procedure to ensure that the device name used to invoke the `PMAS_START.COM` file is a valid device name or logical for the target cluster nodes.

The `PMAS` batch jobs, described in the PreciseMail Anti-Spam Gateway Management Guide, need to run on only one cluster member. You might find it helpful to run them in a generic queue that will run as long as at least one cluster member node is running. The `NOTIFY_QUEUE` configuration variable specifies the name of the queue to be used for the batch jobs. The following queue definition shows a sample generic queue:

```
$ sho que/ful pmas_batch/all
Generic batch queue PMAS_BATCH
  /GENERIC=(MILO_BATCH, CAESAR_BATCH, URSUS_BATCH, ZAIUS_BATCH) /OWNER=[SYSTEM]
  /PROTECTION=(S:M,O:D,G:R,W:S)
```

3.5 Upgrading PreciseMail Anti-Spam Gateway

If you upgrading PreciseMail Anti-Spam Gateway from a previous version, you should follow the steps outlined below.

- Review and clean up the files `PMAS_DATA:PMAS_CONFIG.DAT`, `.DAT-PREINSTALL`, and `.TEMPLATE`.
- Compare the `HTML` templates in `PMAS_HTML:` to any customized `.HTML` files you may have created. If you still need your customizations, you may need to reapply them to the new `.TEMPLATE` files.
- Clean up `PMAS_DATA:` and `PMAS_LOG:`, deleting old log files and old versions of files no longer needed.
- Consult Process Software Support to determine if there are any applicable ECOs for your new version of PreciseMail Anti-Spam Gateway.

3.6 Configuring the Web-Based User Interface

PreciseMail Anti-Spam Gateway includes a web-based user and administrator interface. The software requires that you run a web server on the same system running PreciseMail Anti-Spam Gateway. For OpenVMS, the following web servers can be used:

- HP Secure Web Server for OpenVMS Alpha (based on Apache)
- WASD OpenVMS Hypertext Services Package
- The OSU DECthreads-based Web Server
- Purveyor

The HP, WASD, and OSU servers are all free to run. If you do not currently run a web server on your OpenVMS system, as a PreciseMail Anti-Spam Gateway customer, you can get a free license for Purveyor from Process Software. However, note that Purveyor is provided as-is and is not supported by Process Software for any other use.

The PreciseMail Anti-Spam Gateway HTML templates are found in the directory `PMAS_HTML:`, and the CGI scripts used by the web interface are found in `PMAS_CGI:`

The steps needed to enable the web-based GUI are as follows:

- 1 Modify your web server configuration to serve the `PMAS` pages and images as described in the following sections.
- 2 Define the `GUI_URI_HOST` variable in `PMAS_DATA:PMAS_CONFIG.DAT` as the name of the system running the web server that's serving the pages. You may need to define other variables, depending on how you configure your server.
- 3 Edit the file `PMAS_HTML:INDEX.HTML` to specify the correct URL path for the form's "ACTION" tag, if necessary.

The sections below describe how to configure each of the servers to allow them to serve the PreciseMail Anti-Spam Gateway GUI web pages and scripts.

Note: Be sure you perform steps 2 and 3 above after configuring your web server!

Once configured, the PreciseMail Anti-Spam Gateway User Interface will be accessible to users via the following URL:

```
http://yourhost.example.com/pmas/index.html
```

Note: The sections below describe the changes that should be applied to fresh installations of the web servers. The instructions may differ some for those sites that have previously run these web servers. Please adapt the instructions to suit your particular web server environment.

3.6.1 Configuring HP Secure Web Server

The following steps are required to modify the HP Secure Web Server to serve the PreciseMail Anti-Spam Gateway files.

- 1 Edit the file `APACHE$COMMON:[CONF]HTTPD.CONF`. Add the following entries to the end of the file:

```
#
# An Alias to tell the web server where the PreciseMail Anti-Spam
# HTML files are located
#
Alias /pmas/ "/pmas_html/"

#
# A ScriptAlias to tell the web server where the PreciseMail Anti-Spam
# CGI script files are located. NOTE: The first part of the ScriptAlias
# value must match the value for GUI_URI_SCRIPT_PATH in
# PMAS_DATA:PMAS_CONFIG.DAT (minus the trailing slash)
#
ScriptAlias /scripts/pmas/ "/pmas_cgi/"
```

Note: The “`/scripts/pmas`” in the `ScriptAlias` line above must match the definition of the `GUI_URI_SCRIPT_PATH` variable in the `PMAS` configuration file. The “`/pmas`” in the `Alias` line above must match the definition of the `GUI_URI_PATH` variable in the `PMAS` configuration file. The values shown are the default values.

- 2 After modifying `HTTPD.CONF`, it is necessary to restart the web server with this command:

```
$ @sys$startup:apache$startup restart
```

Note: Be sure to follow the other steps described in Section 3.6 above.

3.6.2 Configuring the WASD Web Server

The following steps are required to modify the WASD Web Server to serve the PreciseMail Anti-Spam Gateway files.

- 1 Edit the file pointed to by the `HTTPD$MAP:` logical (usually equated to `HT_ROOT:[LOCAL]HTTPD$MAP.CONF`). Add the following entries to the “*miscellaneous*” section near the middle of the file:

```
# miscellaneous
#
# An exec line to tell the web server where the PreciseMail Anti-Spam
# CGI script files are located. NOTE: The first part of the exec
# value must match the value for GUI_URI_SCRIPT_PATH in
# PMAS_DATA:PMAS_CONFIG.DAT (minus the trailing "/"*)
#
exec /scripts/pmas/* /pmas_root/alpha_exe/cgi/*

#
# A pass line to tell the web server where the PreciseMail Anti-Spam
# HTML files are located
#
pass /pmas/* /pmas_root/html/*
```

Post-Installation Information

The WASD server does not work if you use the logicals PMAS_CGI: and PMAS_HTML:. If you're running on VAX, the "exec" line would look like this:

```
exec /scripts/pmas/* /pmas_root/vax_exe/cgi/*
```

Note: The "/scripts/pmas" in the exec line above must match the definition of the GUI_URI_SCRIPT_PATH variable in the PMAS configuration file. The "/pmas" in the pass line above must match the definition of the GUI_URI_PATH variable in the PMAS configuration file. The values shown are the default values.

- 2 After modifying HTTPD\$MAP, it is necessary to restart the web server with this command:

```
$ httpd ::= $ht_exe:httpd.exe
$ httpd/do=restart
```

Note: Be sure to follow the other steps described in Section 3.6 above.

3.6.3 Configuring the OSU Web Server

The following steps are required to modify the OSU Web Server to serve the PreciseMail Anti-Spam Gateway files.

- 1 In order to work with the OSU web server, DCL wrapper files are needed for the PreciseMail Anti-Spam Gateway CGI scripts. You should create a [.PMAS] subdirectory in the WWW_ROOT:[BIN] directory. You can then run the command procedure PMAS_COM:OSU_SETUP.COM to create the DCL procedures in that directory. The following example shows how this is done.

```
$ create/directory www_root:[bin.pmas]
$ @pmas_com:osu_setup www_root:[bin.pmas]
Files will be created in WWW_ROOT:[BIN.PMAS]. Is this correct [Y]?
Driver .COM files copied to OSU directory WWW_ROOT:[BIN.PMAS]
$
```

- 2 After creating the command procedures, you must define a series of PMAS configuration variables to point to the .COM files. There is a special section in the PMAS_DATA:PMAS_CONFIG.TEMPLATE file entitled "Special OSU Server Section". You need to copy those lines to your PMAS_CONFIG.DAT file and uncomment them by deleting the "#" at the beginning of each line.
- 3 Edit the file WWW_SYSTEM:HTTP_SCRIPTS.CONF. Locate the list of optional exec directories, which should look something like this:

```
#
# Make list of optional exec directories.
#
.ITERATE $execenb $prefix $task
.NEXT exec /$mapimage/* %mapimage:/www
.NEXT exec /$mapdemo/* %mapimage:/demo
```


Add the following lines to that list of exec options:

```
#
# PreciseMail Anti-Spam Gateway CGI scripts
#
.NEXT exec /scripts/pmas/* www_root:[bin.pmas]
```

Note: The “/scripts/pmas” in the exec line above must match the definition of the GUI_URI_SCRIPT_PATH variable in the PMAS configuration file. The value shown is the default value.

- 4 Edit the file WWW_SYSTEM:HTTP_PATHS.CONF. Locate the “pass” section, which should look something like this:

```
#
# Grant access to selected www_root directories.
#
.EXPAND pass /www/* $sitepath
```

Add the following lines to that list of pass options:

```
#
# PreciseMail Anti-Spam Gateway HTML files
#
.EXPAND pass /pmas/* /pmas_html/*
```

Note: The “/pmas” in the pass line above must match the definition of the GUI_URI_PATH variable in the PMAS configuration file. The value shown is the default value.

- 5 After modifying the .CONF files, it is necessary to restart the OSU web server with this command:

```
$ privrequest := $www_system:privrequest.exe
$ privrequest 931 restart
```

Note: Be sure to follow the other steps described in Section 3.6 above.

3.6.4 Configuring the Purveyor Web Server

The following steps are required to modify the Purveyor Web Server to serve the PreciseMail Anti-Spam Gateway files.

- 1 Edit the Purveyor .DB file for your host. This is the file specified when you start the Purveyor server. Locate the “VirtualPathMap” section, which starts with this line:

```
Key Name: SYSTEM\CurrentControlSet\Services\Purveyor\Parameters\VirtualPathMap
```

Go to the end of that section and add the following lines:

```
Value 3
Name:          pmas
Type:          REG_SZ
Data:          pmas_html:
```

Note that the “Value 3” line may not have the number “3”. It should have the next subsequent number following the previous section in your file. For example, if the last section is “Value 17”, the entry above would be “Value 18”.

Post-Installation Information

- 2 Purveyor requires that all scripts be run from the Purveyor Scripts directory or from subdirectories under that directory. In a default installation, this directory is `PURVEYOR_ROOT:[PURVEYOR.DOCUMENTS.SCRIPTS]`.

If the PreciseMail Anti-Spam Gateway and Purveyor directories both reside on the system disk, the preferred method for adding the `PMAS_CGI: images` to the Purveyor Scripts directory is via the DCL command `SET FILE/ENTER`. This command can be used to create an alias for the `PMAS_CGI: directory` inside the Purveyor Scripts directory; both directories will point to the same physical files. The following command can be used to create the alias:

```
$ set file/enter=purveyor_root:[purveyor.documents.scripts]pmas.dir -
_ $ pmas_root:[alpha_exe]cgi.dir
```

On VAX, the `PMAS` directory would be `PMAS_ROOT:[VAX_EXE]`.

Note: The images will need to be INSTALLED from their PURVEYOR_ROOT: directory. See the following paragraphs for information on INSTALLING the images.

If the PreciseMail Anti-Spam Gateway and Purveyor directories do not reside on the same physical disk, the `SET FILE/ENTER` command cannot be used. In this case, you must create the `PMAS` subdirectory and copy the files from `PMAS_CGI:`

```
$ set default purveyor_root:[purveyor.documents.scripts]
$ create/directory [.pmas]
$ copy pmas_cgi:*. * [.pmas]*.*
```

The PreciseMail Anti-Spam Gateway CGI images are `INSTALLED` with privileges, so if you copy them, you must also make sure the copies are `INSTALLED`. One way to do this would be to edit `PMAS_COM:PMAS_START.COM` and change the directory on the appropriate lines that call `DO_INSTALL_IMAGES:`

```
$ call DO_INSTALL_IMAGES "PMAS_CGI:ALLOWLIST.EXE" "/PRIV=SYSPRV"
$ call DO_INSTALL_IMAGES "PMAS_CGI:BLOCKLIST.EXE" "/PRIV=SYSPRV"
$ call DO_INSTALL_IMAGES "PMAS_CGI:PMASLOGIN.EXE" "/PRIV=SYSPRV"
$ call DO_INSTALL_IMAGES "PMAS_CGI:PMASLOGOUT.EXE" "/PRIV=SYSPRV"
$ call DO_INSTALL_IMAGES "PMAS_CGI:PMASPREFS.EXE" "/PRIV=SYSPRV"
$ call DO_INSTALL_IMAGES "PMAS_CGI:PMASSTART.EXE" "/PRIV=SYSPRV"
$ call DO_INSTALL_IMAGES "PMAS_CGI:QUARANTINE.EXE" "/PRIV=SYSPRV"
$ call DO_INSTALL_IMAGES "PMAS_CGI:QUARCGI.EXE" "/PRIV=SYSPRV"
```

However, those changes will be lost during the next `PMAS` update, so it would be better to create a new `.COM` file that contains the modified `DO_INSTALL_IMAGES` calls and the `DO_INSTALL_IMAGES` subroutine from `PMAS_START.COM`.

- 3 Once the `.DB` file has been edited and the `PMAS` script directory has been created, Purveyor must be restarted using the following command:

```
$ @purveyor:purveyor_shutdown
$ @purveyor:purveyor_startup config.db
```

where “config.db” is your site-specific .DB file.

Note: The PMAS configuration variables `GUI_URI_SCRIPT_PATH` and `GUI_URI_PATH` are used to create the various URLs generated by the PMAS CGI programs. (These variables are documented in the *PreciseMail Anti-Spam Gateway Management Guide*). If your Purveyor setup does not call the Scripts directory “scripts”, you will need to define `GUI_URI_SCRIPT_PATH` to reflect that.

Note: Be sure to follow the other steps described in Section 3.6 above.

3.7 Changing the PMAS_ADMIN and PMAS_REPORTS Passwords

The web-based GUI features a special PreciseMail Anti-Spam Gateway Administrator interface that allows you to easily modify the PMAS configuration and view reports about PMAS processing. To access the administrator pages, you must log in as the user *PMAS_ADMIN*. The password for the *PMAS_ADMIN* “account” is stored in the PMAS user database (`PMAS_DATA:PMAS_USER_DB.DAT`).

Similarly, there is a special *PMAS_REPORTS* login that can be used to access only the PMAS processing reports pages.

When PMAS is first installed, default passwords are supplied for *PMAS_ADMIN* and *PMAS_REPORTS*. The default *PMAS_ADMIN* password is “secret”; the default password for *PMAS_REPORTS* is “secrettoo”. You should immediately change the *PMAS_ADMIN* and *PMAS_REPORTS* passwords using the `PMAS_EXE:PMASADMIN.EXE` utility. The *PMASADMIN* “user set_password” command takes two: an email address and a password. To change the *PMAS_ADMIN* password from its default value, use the following commands:

```
$ pmasadmin := $pmas_exe:pmasadmin.exe
$ pmasadmin user set_password pmas_admin somethingelse
$ pmasadmin user set_password pmas_reports somethingelsetoo
```

3.8 Using the Bookreader Documentation

To include the PreciseMail Anti-Spam Gateway Bookreader documents in the Bookreader search list, you should perform one or both of the following actions, depending on your Bookreader setup.

- Include the directory `PMAS_ROOT:[DOC]` in the search list equated to the logical name `DECW$BOOK`.
- Add `PMAS_ROOT:[DOC]LIBRARY.DECW$BOOKSHELF` to the `DECW$BOOKSHELF` logical name search list.

For more information, consult the Bookreader documentation.

A

Sample PreciseMail Anti-Spam Gateway Installation

This appendix includes a sample PreciseMail Anti-Spam Gateway installation.

```
$ @SYS$UPDATE:VMSINSTAL PMAS033 DUB0:[HUNTER]
OpenVMS AXP Software Product Installation Procedure V6.2

It is 1-OCT-2004 at 10:27.
Enter a question mark (?) at any time for help.
%VMSINSTAL-W-NOTSYSTEM, You are not logged in to the SYSTEM account.
%VMSINSTAL-W-ACTIVE, The following processes are still active:
    Polter Goat
    Goat Busters
* Do you want to continue anyway [NO]? yes
* Are you satisfied with the backup of your system disk [YES]? 

The following products will be processed:

    PMAS V3.3

        Beginning installation of PMAS V3.3 at 22:11
%VMSINSTAL-I-RESTORE, Restoring product save set A ...

        PMAS V3.3 Installation Procedure

        Copyright © 2019, Process Software, LLC. All rights reserved.
* Do you want to purge files replaced by this installation [YES]? 

    Configuring PreciseMail Anti-Spam Directories
    -----

    PreciseMail Anti-Spam places its files in a private directory structure.
    This directory structure can be located on any disk, but the disk must
    either have disk quotas disabled or sufficient diskquota to hold all
    of the PreciseMail Anti-Spam images, temporary files, and log files.

* Where should the PreciseMail Anti-Spam top directory be located? [SYS$SYSDEVICE:[PMAS]]: 

    The Alpha images will be installed.

* Do you want to install the VAX images for PreciseMail Anti-Spam too [N]: 
* Do you want to install the I64 images for PreciseMail Anti-Spam too [N]: 

    Documentation for PreciseMail Anti-Spam comes in Bookreader, PostScript,
    PDF, HTML, and ASCII text file formats. If you elect to install the
    documentation, the files will be placed in PMAS_ROOT:[DOC].

* Do you want to install the documentation for PreciseMail Anti-Spam Gateway? [YES]: 

    No further questions will be asked. The PreciseMail Anti-Spam
    installation will now continue for a minute or two, depending on
    your type of media and the system configuration.

%PMAS-I-CREDIR, Creating the PreciseMail Anti-Spam Gateway directory tree
```

Sample PreciseMail Anti-Spam Gateway Installation

PreciseMail Anti-Spam creates two directory trees for storing discarded and quarantined messages. These directories can be placed on different disks after the installation by creating new trees and specifying the new directory locations in the PreciseMail Anti-Spam configuration file. The disk(s) on which the discard and quarantine directories reside(s) must also have quotas disabled or must have sufficient system quota to provide for discarded and quarantined messages.

The default directories are:

```
PMAS_ROOT:[DISCARD...]  
PMAS_ROOT:[QUARANTINE...]
```

```
%PMAS-I-IMAGES, Linking and providing the PreciseMail Anti-Spam images....  
%PMAS-I-DATA, Providing the PreciseMail Anti-Spam data files....
```

Be sure to follow the post-installation instructions described in the PreciseMail Anti-Spam Installation Guide. This will minimally include editing SYSTARTUP_VMS.COM to include the following command:

```
$ @SYS$STARTUP:PMAS_STARTUP
```

If you were already running PreciseMail Anti-Spam, issue the following command to restart PreciseMail Anti-Spam and requeue the batch jobs:

```
$ @SYS$STARTUP:PMAS_STARTUP
```

```
%VMSINSTAL-I-MOVEFILES, Files will now be moved to their target directories...
```

```
Installation of PMAS V3.3 completed at 22:12
```

```
Adding history entry in VMI$ROOT:[SYSUPD]VMSINSTAL.HISTORY
```

```
Creating installation data file: VMI$ROOT:[SYSUPD]PMAS033.VMI_DATA
```

```
VMSINSTAL procedure done at 10:28
```

```
$
```

B

Files Created During Installation

The files in Table B–1 are created during the installation of the PreciseMail Anti-Spam Gateway software.

Table B–1 PreciseMail Anti-Spam Gateway files created during installation

File name	Description
Files in PMAS_ROOT:[COM]	
OSU_SETUP.COM	Creates .COM wrapper files needed for the OSU web server.
PMAS_CUSTOM_MASTER.COM	A copy of the PMDF_COM:PMAS_CUSTOM_MASTER.COM file.
PMAS_START.COM	Primary startup file, called by SYS\$STARTUP:PMAS_STARTUP.COM.
PMAS_STARTUP.COM	A copy of SYS\$STARTUP:PMAS_STARTUP.COM.
PTSMTP_CONTROLLER.COM	PTSMTP Controller procedure
PTSMTP_SHUTDOWN.COM	PTSMTP Shutdown procedure (called by PMAS_STARTUP.COM)
PTSMTP_STARTUP.COM	PTSMTP Startup procedure (called by PMAS_STARTUP.COM)
PTSMTP_WORKER.COM	PTSMTP Worker procedure
RUN_AUTOUPDATE.COM	The command procedure responsible for running the autoupdate program.
RUN_CLU_BATCH.COM	The command procedure responsible for running the Distributed Cluster Synchronization program.
RUN_NOTIFY.COM	The command procedure responsible for running the quarantine notification program.
RUN_NIGHTLY.COM	The command procedure responsible for maintaining the [LOG] directory.
RUN_STATS.COM	The command procedure responsible for running the statistics program.
SPAM_PROCESS.COM	Procedure run by the PMDF PIPE channel.
UPDATE.COM	Procedure run by the PMAS rules autoupdate service.

Files Created During Installation

Table B–1 (Cont.) PreciseMail Anti-Spam Gateway files created during installation

File name	Description
Files in PMAS_ROOT:[DOC]	
PMAS_INSTALL_GUIDE.DECW\$BOOK	PreciseMail Anti-Spam Gateway Installation Guide (Bookreader)
PMAS_INSTALL_GUIDE.PDF	PreciseMail Anti-Spam Gateway Installation Guide (Adobe PDF)
PMAS_INSTALL_GUIDE.PS	PreciseMail Anti-Spam Gateway Installation Guide (PostScript)
PMAS_INSTALL_GUIDE.TXT	PreciseMail Anti-Spam Gateway Installation Guide (ASCII)
PMAS_MGMT_GUIDE.DECW\$BOOK	PreciseMail Anti-Spam Gateway Management Guide (Bookreader)
PMAS_MGMT_GUIDE.PDF	PreciseMail Anti-Spam Gateway Management Guide (Adobe PDF)
PMAS_MGMT_GUIDE.PS	PreciseMail Anti-Spam Gateway Management Guide (PostScript)
PMAS_MGMT_GUIDE.TXT	PreciseMail Anti-Spam Gateway Management Guide (ASCII)
PMAS_USERS_GUIDE.DECW\$BOOK	PreciseMail Anti-Spam Gateway User's Guide (Bookreader)
PMAS_USERS_GUIDE.PDF	PreciseMail Anti-Spam Gateway User's Guide (Adobe PDF)
PMAS_USERS_GUIDE.PS	PreciseMail Anti-Spam Gateway User's Guide (PostScript)
PMAS_USERS_GUIDE.TXT	PreciseMail Anti-Spam Gateway User's Guide (ASCII)
LIBRARY.DECW\$BOOKSHELF	Bookshelf file for Bookreader documents

Table B–1 (Cont.) PreciseMail Anti-Spam Gateway files created during installation

File name	Description
Files in PMAS_ROOT:[VAX_EXE], [ALPHA_EXE], and [I64_EXE]	
AUTHDEBUG.EXE	Executable image for testing GUI authorizations processes.
BASTATS.EXE	Executable image that gathers PMAS statistics.
BAYES.EXE	Executable image to populate the Bayesian token databases.
CHECK_LICENSE.EXE	Checks the PMAS and Sophos licenses.
CLU_BATCH.EXE	Data Synch Cluster batch job.
CVTTOKEN.EXE	Executable image to convert V1.0 token databases to indexed files.
DNSBLPLUG.EXE	DNSBL plugin shareable used by the PTSMTMP proxy server.
IMPORT_CONFIG.EXE	Executable image that merges updated PMAS_CONFIG.DAT template information.
NOTIFY_QUARANTINED.EXE	Executable image for the quarantine notification messages.
PCRETEST.EXE	Executable image for testing regular expressions.
PMAS_COMPILE.EXE	Executable image to compile the PMAS rules.
PMAS_CLUSTER.EXE	Executable image for Data Synch Cluster daemon.
PMAS_DELDIR.EXE	Executable image to delete quarantine and discard directories efficiently.
PMAS_MASTER.EXE	Executable image for the PMDF pmas channel to process incoming mail messages.
PMAS_PROCESS.EXE	Executable image for the PreciseMail Processor user interface.
PMAS_STATS.EXE	Executable image to parse the contents of PMAS.LOG and generate a report on PreciseMail activities.
PMAS_UPDATE.EXE	Executable image to automatically download ruleset updates.
PMAS_USERDB_API.EXE	Shareable image that implements the PMAS user database API.
PMAS_VERSION.EXE	Executable image to display summary information for installed PMAS version.
PMAS.EXE	Executable image for interactively testing messages.
PMASADMIN.EXE	PMAS administrator command-line utility.
PMASPLUG.EXE	PMAS shareable used by the PTSMTMP proxy server.
PTSMTMP_CONTROLLER.EXE	Executable image for the main PTSMTMP Controller.
PTSMTMP_WORKER.EXE	Executable image for the PTSMTMP worker processes.
SOPHPLUG.EXE	Sophos shareable used by the PTSMTMP proxy server.
SPFQUERY.EXE	Executable image to perform SPF queries.
TLS_CERTREQ.EXE	Executable image to generate TLS certificates.
UNZIP.EXE	Info-ZIP UnZip utility used to decompress ruleset updates.
WHICHIP.EXE	Executable image to determine the IP stack running.

Files Created During Installation

Table B–1 (Cont.) PreciseMail Anti-Spam Gateway files created during installation

File name	Description
Files in PMAS_ROOT:[VAX_EXE.CGI], [ALPHA_EXE.CGI], and [I64_EXE.CGI]	
ADMINCONFIG.EXE	Executable image for the Administrative Configuration page.
ADMINGROUPS.EXE	Executable image for the Administrative Groups Configuration page.
ADMINLICENSE.EXE	Executable image for the Administrative License page.
ADMINREPORTS.EXE	Executable image for the Administrative Reports page.
ALLOWLIST.EXE	Executable image for the Allow List page.
BLOCKLIST.EXE	Executable image for the Block List page.
OSU_CGI_PMAS.EXE	Executable image for OSU CGI support.
PMASLOGIN.EXE	Executable image for the PMAS Login page.
PMASLOGOUT.EXE	Executable image for the PMAS Logout.
PMASPREFS.EXE	Executable image for the PMAS Preferences page.
PMASSTART.EXE	Executable image for the PMAS Start page.
QUARANTINE.EXE	Executable image for the PMAS Quarantine page.
QUARCGI.EXE	Executable image for the PMAS Quarantine options.
RULELIST.EXE	Executable image for the PMAS Rules List page.
Files in PMAS_ROOT:[HELP]	
PMAS_PROCESS_HELP.TXT	Help file for the user interface.
PMAS_PROCESS_HELP.TEMPLATE	HTML template for the Help file.
Files in PMAS_ROOT:[HTML]	
Various	HTML, JavaScript and CSS files for the PMAS GUI.

Table B-1 (Cont.) PreciseMail Anti-Spam Gateway files created during installation

File name	Description
Files in PMAS_ROOT:[DATA]	
00_LOCAL_TESTS.CF	Local rules and scores
00_ALLOWBLOCKLISTS.CF	Local allow and block rules
20_ANTI_RATWARE.CF	Rules to try to identify "legitimate" mail clients.
20_BODY_TESTS.CF	Rules applied to message bodies.
20_COMPENSATE.CF	Rules to compensate for some of the aggressive rules.
20_HEAD_TESTS.CF	Rules applied to message headers.
20_HTML_TESTS.CF	Rules applied to HTML messages.
20_META_TESTS.CF	Meta rules made up of header and body meta tests.
20_PHRASES.CF	Rules for identifying popular spam phrases.
20_PORN.CF	Rules for identifying words associated with porn messages.
20_RATWARE.CF	Rules for identifying messages sent by popular spam software.
20_URI_TESTS.CF	Rules applied to URIs in the message body.
40_SPAM_PHRASES.CF	Rules for identifying popular spam phrases.

Files Created During Installation

Table B–1 (Cont.) PreciseMail Anti-Spam Gateway files created during installation

File name	Description
Files in PMAS_ROOT:[DATA]	
50_SCORES.CF	Scores for the rules in the 20_* files.
99_LOCAL_SCORES.CF	Local scores to override the scores in 50_SCORES.CF.
ALIASES.TXT	Sample aliases file.
INTERNAL_IP.TXT	List of IP addresses that are internal to your network.
OPTIONAL_RULES.CF	Optional rules that you may or may not want to deploy for your site.
PMAS_CONFIG.TEMPLATE	Sample configuration file for PreciseMail Anti-Spam Gateway.
PMAS_CONFIRM_MSG.TEMPLATE	Sample template for the confirmation message generated by the PMAS Processor.
PMAS_DNSBL.TEMPLATE	Template configuration file for the DNSBL features
PMAS_PROCESS_REPLY.TEMPLATE	Sample reply message sent by the PMAS Processor in response to commands.
PMAS_SOPHOS_CONFIG.TEMPLATE	Sample configuration file for the Sophos AV engine.
PMAS_USER_DB.FDL	FDL (File Definition Language) file used to create the PMAS_USER_DB database.
PTSMTMP.CONF	Read-only configuration file for the PTSMTMP controller. (Not to be edited!)
PTSMTMP_PLUGINS.CONF	Secondary configuration file for the PTSMTMP controller; generated from PMAS config variables.
PTSMTMP_PMAS.CONF	Secondary configuration file for the PTSMTMP controller; generated from PMAS config variables.
PTSMTMP_SOPHOS.CONF	Secondary configuration file for the PTSMTMP controller.
PTSMTMP_SPF.TEMPLATE	Sample template for PTSMTMP SPF configuration.
QUARANTINE_MESSAGE.TEMPLATE	Sample template for quarantined message notification messages.
RDNS_EXCEPTIONS.TEMPLATE	Sample template for rDNS exceptions.
VIRUS_REPLACEMENT.TEMPLATE	Sample template for virus-laden bodypart replacement text.
VMF_EXCEPTIONS.TEMPLATE	Sample template for VMF (Verify MAIL FROM) exceptions.
Files in PMAS_ROOT:[API.USERDB]	
USERDB_API_DESCRIP.MMS	MMS/MMK file to build the UserDB API examples.
USERDB_API_EXAMPLE1.C	User database API example program.
USERDB_API_EXAMPLE2.C	User database API example program.
USERDB_API_EXAMPLE3.C	User database API example program.
USERDB_API_EXAMPLE4.C	User database API example program.
USERDB_API_EXAMPLE5.C	User database API example program.
USERDB_API_EXAMPLE6.C	User database API example program.
USERDB_API_MAKEFILE.	Make file to build the UserDB API example programs.
USERDB_API.H	User database API include file.

Table B-1 (Cont.) PreciseMail Anti-Spam Gateway files created during installation

File name	Description
Files in SYS\$COMMON:[SYSHLP]	
PMAS033.RELEASE_NOTES	Release notes for PreciseMail Anti-Spam Gateway

