

F-Secure Policy Manager Proxy

Administrator's Guide



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About F-Secure Corporation

ABOUT THIS GUIDE

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How This Guide Is Organized

The F-Secure Policy Manager Proxy Administrator's Guide provides an overview of F-Secure Policy Manager Proxy concepts, a step-by-step guide to installation and all the information you need to set up and manage your F-Secure Policy Manager Proxy.

F-Secure Policy Manager Proxy Administrator's Guide is divided into the following chapters:

Chapter 1. *Introduction* provides general information about F-Secure Policy Manager Proxy and how it works.

Chapter 2. *Installation* contains a step-by-step guide to installing F-Secure Policy Manager Proxy.

Chapter 3. *Configuration* describes how F-Secure Policy Manager Proxy is configured.

Chapter 4. *F-Secure Policy Manager Proxy on Linux* describes how to install, configure and troubleshoot F-Secure Policy Manager Proxy for Linux.

Chapter 5. *Troubleshooting* describes how the diagnostic log files are read.

Technical Support provides contact information for assistance and details about the Web Club.

About F-Secure Corporation describes the company background and products

Who Should Use This Guide

This guide is intended for system administrators. It is assumed that the reader has:

- Working knowledge of Microsoft Windows Server operating systems.
- A basic understanding of the Internet and TCP/IP protocols.

Conventions Used in F-Secure Guides

This section describes the symbols, fonts, and terminology used in this manual.

Symbols



WARNING: The warning symbol indicates a situation with a risk of irreversible destruction to data.



IMPORTANT: An exclamation mark provides important information that you need to consider.



REFERENCE - A book refers you to related information on the topic available in another document.



NOTE - A note provides additional information that you should consider.



TIP - A tip provides information that can help you perform a task more quickly or easily.

⇒ An arrow indicates a one-step procedure.

Fonts

Arial bold (blue) is used to refer to menu names and commands, to buttons and other items in a dialog box.

Arial Italics (blue) is used to refer to other chapters in the manual, book titles, and titles of other manuals.

Arial Italics (black) is used for file and folder names, for figure and table captions, and for directory tree names.

Courier New is used for messages on your computer screen.

Courier New bold is used for information that you must type.

SMALL CAPS (BLACK) is used for a key or key combination on your keyboard.

[Arial underlined \(blue\)](#) is used for user interface links.

Arial italics is used for window and dialog box names.

PDF Document

This manual is provided in PDF (Portable Document Format). The PDF document can be used for online viewing and printing using Adobe® Acrobat® Reader. When printing the manual, please print the entire manual, including the copyright and disclaimer statements.

For More Information

Visit F-Secure at <http://www.f-secure.com> for documentation, training courses, downloads, and service and support contacts.

In our constant attempts to improve our documentation, we would welcome your feedback. If you have any questions, comments, or suggestions about this or any other F-Secure document, please contact us at documentation@f-secure.com.

1

INTRODUCTION

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How are F-Secure Policy Manager Proxy and F-Secure Anti-Virus Proxy Different?.....	14

1.1 An Up-To-Date System is a Secure System

To be protected, a workstation must have the latest defence against viruses and other malware that exist in the internet.

What Is The Virus Definition Database?

Information against known viruses, worms and other malware are compiled into the *virus definition database*.

This virus definition database is regularly made available to all the workstations with F-Secure Client Security installed. It is this virus definition database that enables F-Secure Client Security to protect a workstation from viruses and malware.

How Do the Virus Definition Databases Get To F-Secure Client Security?

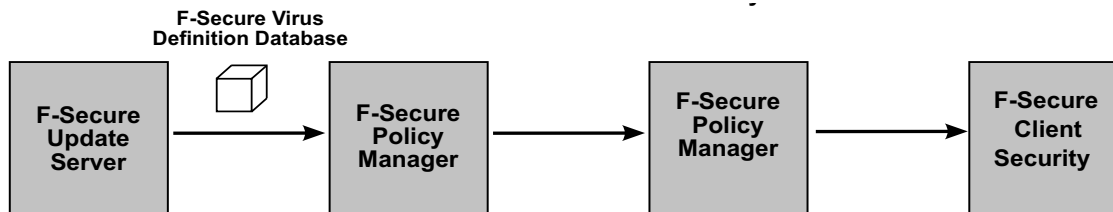


Figure 1-1 A typical virus definition database delivery chain.

The virus definition database travels through the steps shown in Figure 1-1.

i Figure 1-1 is the primary path; there are fallback paths if one or more of the links is unavailable (for example if the machine running F-Secure Policy Manager has a power cut).

What Does F-Secure Policy Manager Do?

F-Secure Policy Manager allows you to centrally manage all the F-Secure products in your network. It is the central monitoring and configuration point for your network.



See *F-Secure Policy Manager Administrator's Guide* for more information.

What Does F-Secure Policy Manager Proxy Do?

F-Secure Policy Manager Proxy helps deliver the virus definition databases quickly and efficiently.

1.2 When Should You Use F-Secure Policy Manager Proxy?

The effects of F-Secure Policy Manager Proxy are most obvious in large, vastly spread networks; for example a large corporation with remote offices in different parts of the globe. An example of one situation where F-Secure Policy Manager Proxy is useful is shown in Figure 1-2.

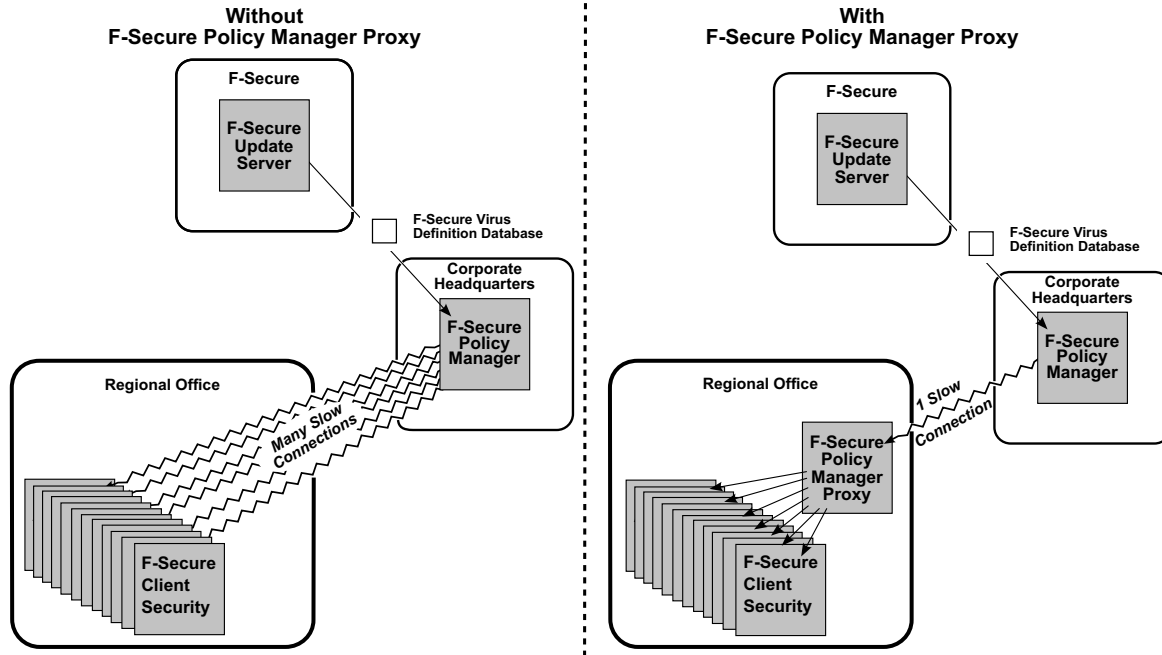


Figure 1-2 On the right, with F-Secure Policy Manager Proxy, the number of slow connections is dramatically reduced.

There are three reasons to use F-Secure Policy Manager Proxy:

To Decrease Network Bandwidth Usage

You should use F-Secure Policy Manager Proxy when you have a group of workstations far away from your F-Secure Policy Manager Server; for example a “remote office” scenario like in Figure 1-2.

To Decrease Virus Definition Database Delivery Time

You should use F-Secure Policy Manager Proxy when you have a group of workstations separated from the F-Secure Policy Manager Server by a slow connection (for example a dialup connection), for example in a situation like in Figure 1-2.

To Decrease F-Secure Policy Manager Hardware Load

You should use F-Secure Policy Manager Proxy, if the server hardware running the F-Secure Policy Manager is unable to cope with the number of virus definition database requests it receives.

1.3 How are F-Secure Policy Manager Proxy and F-Secure Anti-Virus Proxy Different?

They are designed to work with different F-Secure products.

	F-Secure Policy Manager Proxy	F-Secure Anti-Virus Proxy
Works with F-Secure Client Security versions	6.0 and later	Earlier than 6.0
Works with F-Secure Policy Manager versions	6.0 and later	Earlier than 6.0
Can deliver virus definition databases without an upstream connection?	no	yes

Both can function in the same network.

2

INSTALLATION

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2.1 System Requirements

To install F-Secure Policy Manager Proxy, your system must meet the following minimum requirements:

Processor:	Intel Pentium III 450MHz processor or faster
Memory:	256 MB RAM
Disk Space:	300 MB; 500 MB or more is recommended. The disk space required depends on the size of the installation.
Network:	10 Mbit; 100Mbit is recommended.
Operating System:	Windows Server 2000 Windows Server 2003
F-Secure Software:	F-Secure Client Security 6 or later F-Secure Policy Manager 6 or later

2.2 Installing F-Secure Policy Manager Proxy

There are two possible methods of installing F-Secure Policy Manager Proxy:

- Locally; see further instructions in the “*Local Installation*”
- Remotely; see further instructions in the *F-Secure Policy Manager Administrator’s Guide*.

2.2.1 Local Installation

Installing F-Secure Policy Manager Proxy is a two-step process:

1. Install F-Secure Policy Manager Proxy
2. Configure F-Secure Client Security to use F-Secure Policy Manager Proxy.

Step 1.

1. Run the *setup.exe* file.
2. Click the **Next** button on the first screen of the installer.
3. Read through the license agreement and click the *I accept this agreement* option. Click **Next**.
4. Select the *Custom* option and click **Next** to continue.

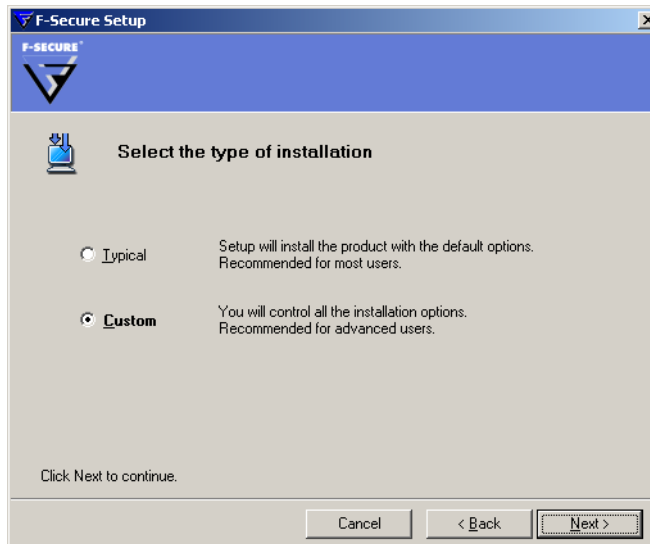


Figure 2-1 Custom installation

5. Make sure the box next to F-Secure Policy Manager Proxy is checked and click **Next**.

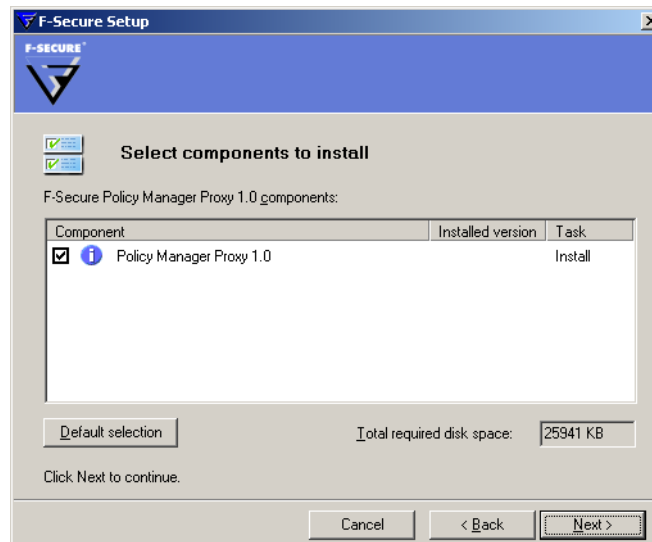


Figure 2-2 Components

6. Select where to install F-Secure Policy Manager Proxy in the dialog by clicking the **Browse** button. Click **Next**.



If a previous installation of an F-Secure product was detected on the computer, this dialog is not displayed and the previous installation directory is used.

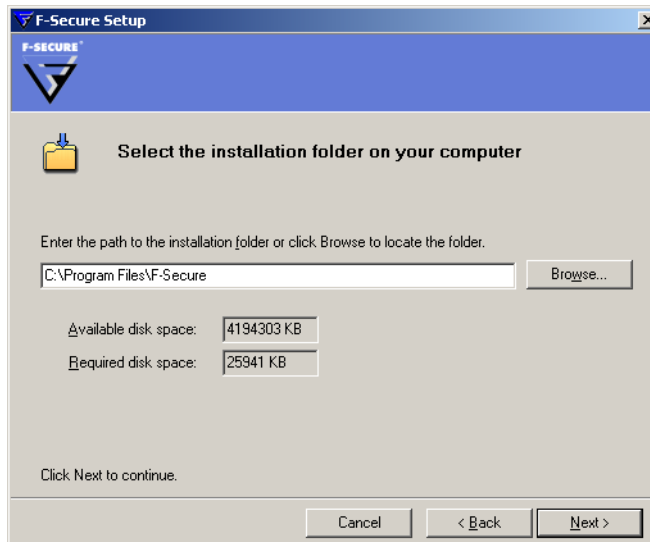


Figure 2-3 Installation folder

7. If a previous installation of an F-Secure product is detected, you will be asked if you would like to use the same settings as the previous installed product. If you select **Yes** the dialogs in steps 8–10 will be skipped. If you select **No**, you can continue through steps 8–10 and select new settings.

8. Select the *Central management with F-Secure Policy Manager* option and click **Next**.

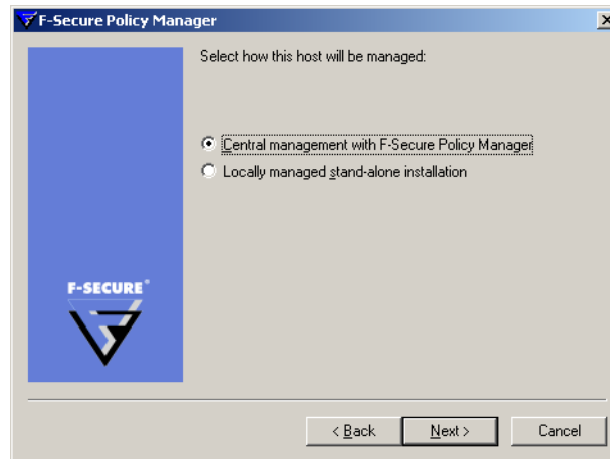


Figure 2-4 Central management

9. Copy the public key file, *admin.pub* from the F-Secure Policy Manager Server to the local file system. Click **Browse** and select this key file. Click **Next**

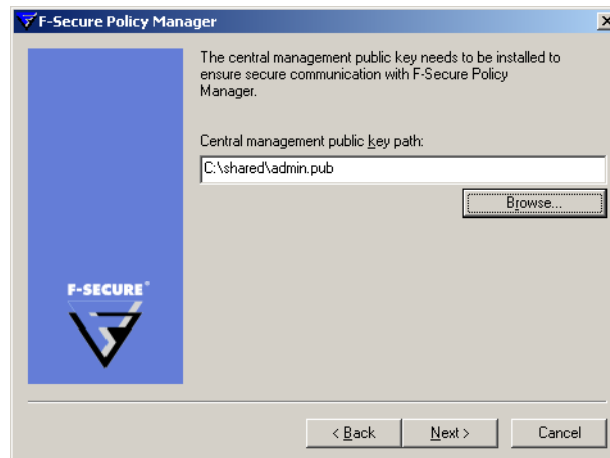


Figure 2-5 Public key installation

10. Enter the IP address of the F-Secure Policy Manager Server you wish the F-Secure Policy Manager Proxy to communicate with. Click **Next**

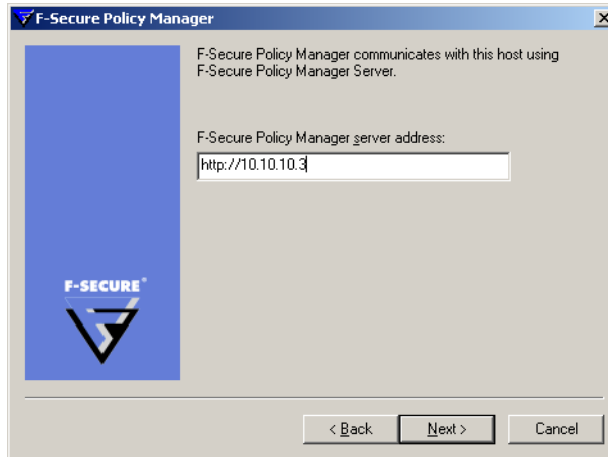


Figure 2-6 F-Secure Policy Manager Server IP address

11. Click **Start** to begin.
12. When the progress bar is full, click **Next**.
13. F-Secure Policy Manager Proxy is now running. Click **Finish** to close the final dialog.

Step 2.

In a centrally managed network you should configure F-Secure Client Security to use F-Secure Policy Manager Proxy by distributing a new policy with this configuration.



For more information about policies and remote configuration, please consult the [F-Secure Policy Manager Administrator's Guide](#)

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CONFIGURATION

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3.1 Overview

F-Secure Policy Manager Proxy is configured remotely through the F-Secure Policy Manager Console.



For more information about the F-Secure Policy Manager, see the [F-Secure Policy Manager Administrator's Guide](#).

3.2 Remote Configuration

Configuring F-Secure Policy Manager Proxy remotely is done in the F-Secure Policy Manager Console through the *advanced editing mode*. To enter this mode:

1. Go to the **View** drop-down menu.
2. Click **Advanced Mode**.

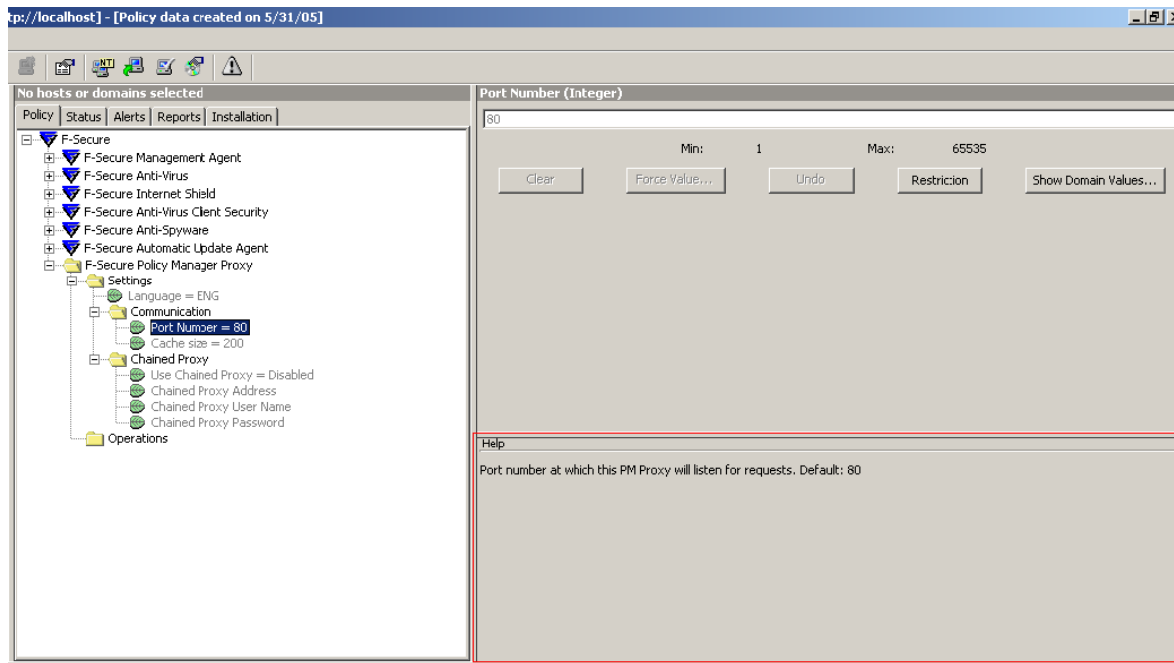


Figure 3-1 The F-Secure Policy Manager Console showing the settings available for the F-Secure Policy Manager Proxy.

You can find explanations of each of the configuration options in the help area (see Figure 3-1).

3.2.1 Chained Proxy Configuration

F-Secure Policy Manager Proxy can connect through another F-Secure Policy Manager Proxy or HTTP proxy; this is a 'chained proxy configuration.'

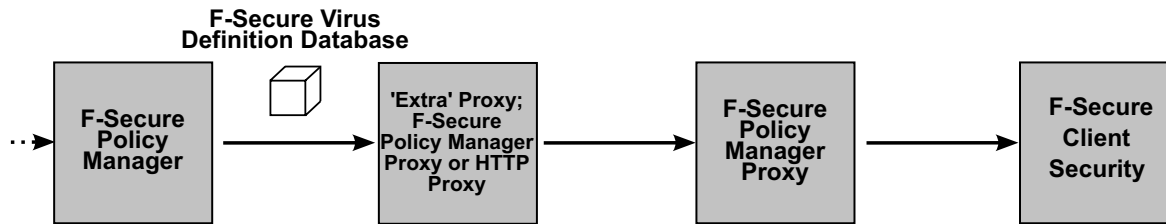


Figure 3-2 An example chained proxy configuration.

A chained proxy configuration may be necessary to:

- traverse network boundaries or,
- reduce load from F-Secure Policy Manager Server.

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F-SECURE POLICY MANAGER PROXY ON LINUX

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4.1 Introduction

This chapter describes how to install, configure and troubleshoot F-Secure Policy Manager Proxy for Linux.

4.2 System Requirements

To install F-Secure Policy Manager Proxy for Linux, your system must meet the following minimum requirements:

Processor:	Intel Pentium III 1GHz processor or faster
Memory:	512 MB of RAM or more is recommended
Disk space to install:	90 MB
Free disk space:	100 MB of free hard disk space; 500 MB or more is recommended.
Operating System:	Red Hat Enterprise Linux 4 Red Hat Enterprise Linux 3 SUSE Linux 10.0 SUSE Linux 9.x SUSE Linux Enterprise Server 9 Debian GNU Linux Sarge 3.1
F-Secure Software:	F-Secure Client Security 6 or later F-Secure Policy Manager 6 or later

4.3 Installation

1. Log in as `root`.
2. Open a terminal.

3. To install type:

Debian Based Distributions	RPM Based Distributions
<pre>dpkg -i f-secure-policy-manager-proxy_1.0.<build>_i386.deb</pre>	<pre>rpm -i f-secure-policy-manager-proxy-1.0.<build>-1.i386.rpm</pre>

F-Secure Policy Manager Proxy is started automatically after the installation.

4.4 Configuration

1. Configure F-Secure Policy Manager Proxy by editing the following configuration file:

```
/opt/etc/f-secure/fspmp/conf/proxy.cfg
```

2. Restart F-Secure Policy Manager Proxy to apply configuration changes by typing:

```
# /etc/init.d/fspmp restart
```

4.4.1 Chained Proxy Configuration

F-Secure Policy Manager Proxy can connect through another F-Secure Policy Manager Proxy or HTTP proxy; this is a ‘chained proxy configuration.’ For more information, see “[Chained Proxy Configuration](#)”, 24.

To configure chained proxies:

1. Open the F-Secure Policy Manager Proxy configuration file:

```
/opt/etc/f-secure/fspmp/conf/proxy.cfg
```

2. Add the host name or IP address of the F-Secure Policy Manager Proxy or HTTP Proxy with which this proxy communicates in

```
chained_proxy_ip_addr=
```

3. Specify the TCP port of the F-Secure Policy Manager Proxy or HTTP Proxy with which this proxy communicates in:
`chained_proxy_port=`
4. If the HTTP Proxy with which this proxy communicates requires a user name for authentication, enter it in:
`http_proxy_user=`
5. If the HTTP Proxy with which this proxy communicates requires a password for authentication, enter it in:
`http_proxy_password=`
6. Restart F-Secure Policy Manager Proxy to apply configuration changes by typing:
`# /etc/init.d/fspmp restart`

4.5 Upgrading

1. Log in as `root`.
2. Open a terminal.
3. Type:


Debian Based Distributions	RPM Based Distributions
<pre>dpkg -i f-secure-policy-manager-proxy_1.0.<build>_i386.deb</pre>	<pre>rpm -U f-secure-policy-manager-proxy-1.0.<build>-1.i386.rpm</pre>

Upgrading does not change the previous configuration.

4.6 Uninstallation

1. Log in as root.
1. Open a terminal.
2. Type:

Debian Based Distributions	RPM Based Distributions
<code>dpkg -r f-secure-policy-manager-proxy</code>	<code>rpm -e f-secure-policy-manager-console</code>

 *Log files and configuration files are not removed as these are irreplaceable and contain valuable information. To remove these, type:*

```
rm -rf /opt/f-secure/fspmp
```

4.7 Frequently Asked Questions

Q. How can I check that F-Secure Policy Manager Proxy is running?

A. You can check this by typing:

```
/etc/init.d/fspmp status
```

Q. How can I start F-Secure Policy Manager Proxy manually?

A. Type:

```
/etc/init.d/fspmp start
```

Q. Why does F-Secure Policy Manager Proxy not start?

A. Check the runtime errors, warnings and other information that are logged in

```
/var/opt/f-secure/fspmp/log/log
```

Q. Where are the F-Secure Policy Manager Proxy files located in the Linux version?

A. To list all files and their places type:

Debian Based Distributions	RPM Based Distributions
<code>dpkg -L f-secure-policy-manager-proxy</code>	<code>rpm -ql f-secure-policy-manager-proxy</code>

Q. Can I configure F-Secure Policy Manager Proxy not to start on system start up?

A. Yes, type:

Debian Based Distributions	RPM Based Distributions
<code>update-rc.d -f fspmp remove</code>	<code>chkconfig --del fspmp</code>

To configure F-Secure Policy Manager Proxy to start on system start up again, type:

Debian Based Distributions	RPM Based Distributions
<code>update-rc.d fspmp defaults</code>	<code>chkconfig --add fspmp</code>

5

TROUBLESHOOTING

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5.1 Overview

The F-Secure Policy Manager Proxy keeps detailed logs of activity and any errors that have occurred. Two time-annotated log files kept:

- the “*The Error Log*”, 33; a record of any errors that occurred,
- the “*The Status Report Log*”, 37; a running summary of the F-Secure Policy Manager Proxy’s activity.

5.2 The Error Log

The Error Log file is used to store messages generated by F-Secure Policy Manager Proxy. Some of the messages provide information about normal operations (for example, startup, shutdown, daily maintenance). Other messages indicate errors.

In addition to the current Error Log file, three previous Error Log files are kept. By default these are located at:

- c:\program files\fs-secure\fspmp\log\log (current)
- c:\program files\fs-secure\fspmp\log\log.o (previous)
- c:\program files\fs-secure\fspmp\log\log.oo (older)
- c:\program files\fs-secure\fspmp\log\log.ooo (oldest)



If you changed the install directory during installation then these paths will be relative to the path that you selected, for example, [install_directory]\fspmp\log\log.o

5.3 Reading the Error Log

5.3.1 Message Structure

Every message in the log contains the following information:

- The date and time the message was generated.

```
May-28-12:20:28.461 2-ERR 00017999 379 iad_open(): A
library/system-call open() failed for file
c:\program
files\f-secure\FSPMP\data/misc/license.dat, see
errno (reason: 2)
```

- The message level, as explained in the section “*Message Levels*”. The level is written both as a number, as well as a 3-letter category (ERR/WRN/INF/DBG).

```
May-28-12:20:28.461 2-ERR 00017999 379 iad_open(): A
library/system-call open() failed for file
c:\program
files\f-secure\FSPMP\data/misc/license.dat, see
errno (reason: 2)
```

- The F-Secure Policy Manager Proxy error number (in case of an error).

```
May-28-12:20:28.461 2-ERR 00017999 379 iad_open(): A
library/system-call open() failed for file
c:\program
files\f-secure\FSPMP\data/misc/license.dat, see
errno (reason: 2)
```

- The thread-ID of the thread that issued the message.

```
May-28-12:20:28.461 2-ERR 00017999 379 iad_open(): A
library/system-call open() failed for file
c:\program
files\f-secure\FSPMP\data/misc/license.dat, see
errno (reason: 2)
```

- A brief explanation of what happened.

```
May-28-12:20:28.461 2-ERR 00017999 379 iad_open(): A
library/system-call open() failed for file
c:\program
files\f-secure\FSPMP\data/misc/license.dat, see
errno (reason: 2)
```

The message may also include the following if it was due to an error:

- The reason for the error, which may include one or both of the following:
 - If the message reports an error that was a consequence of a previous message (issued by the same thread), the reason usually specifies the original message that the current message is associated with.
 - If the message reports an external error (as explained in “[External Error Numbers](#)”), the external error code is usually specified as the reason.

```
May-28-12:20:28.461 2-ERR 00017999 379
iad_open(): A library/system-call open() failed
for file c:\program
files\f-secure\FSPMP\data/misc/license.dat, see
errno (reason: 2)
```

5.3.2 Message Levels

Messages in the log have various levels of importance:

Level	Meaning
1	critical error
2	error
3	warning
4	information
0	unassigned

5.4 Error Numbers

Every error message written to the log contains an error number. This number uniquely specifies what went wrong. There are two types of errors:

- Internal errors; those generated by F-Secure Policy Manager Proxy.
- External errors; those generated by the operating system or other external products.

5.4.1 Internal Error Numbers

A complete list of all the error numbers is located, by default at:
`c:\program files\fs-secure\fspmp\doc\log_error_codes.txt`



If you changed the install directory during installation these paths will be relative to the path that you selected, for example, `[install_directory]\fspmp\doc\log_error_codes.txt`

5.4.2 External Error Numbers

If an error message in the log was caused by an external error, the external error code is appended to the message in the Error Log. Usually, the description of F-Secure Policy Manager Proxy error number describes the kind of external error that occurred, and suggests places to look it up.

5.5 Troubleshooting with the Error Log

Errors in the Error Log can come from multiple threads; each message in the Error Log is marked with the number of the thread that generated it.


5.5.1 Some Example Error Messages

Error Message	Meaning
Not enough disk space for a full cache : 50 required, 0 already occupied, only 8 more available	This warning indicates that the available disk space is less than the amount F-Secure Policy Manager Proxy is set to use. F-Secure Policy Manager Proxy will operate more efficiently if you free up some disk space.
Removed 74381 bytes for free disk space smaller than cache margins	<p>This message displays when the disk is almost full. If the disk does completely fill, this may cause unpredictable system behavior.</p> <p>The proxy server restricts itself to never use the last 3 Mbytes of disk space, but some other application or user may completely fill the disk. When you see this message you should make some more space on the disk.</p>
socket 93 (92998ce:80) main_mux(): connection broken	<p>When this line appears in the Error Log, look for previous lines containing information about the same socket (in this case, 93) and the same address (in this case: 92998ce:80). A previous entry such as:</p> <pre>socket 103 (502fcbc7:8080)::RecvMore(): (m_http_value != m_length_value + 4)</pre> <p>notifies you that the server with which F-Secure Policy Manager Proxy is trying to communicate is not valid. In this case F-Secure Client Security has probably set the wrong IP address for F-Secure Policy Manager.</p>

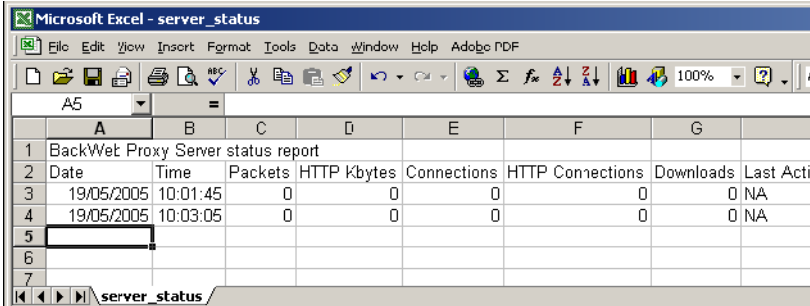
5.6 The Status Report Log

The Status Report Log contains regular summaries of F-Secure Policy Manager Proxy's status.

Every 10 minutes, F-Secure Policy Manager Proxy creates a record in the Status Report Log which contains the date, time and various counters (packets count, connected client count, etc.). The Status Report Log is located, by default at: `c:\program files\f-secure\fspmp\log\server_status`.

 *If you changed the install directory during installation then these paths will be relative to the path that you selected, for example, `[install_directory]\fspmp\report\server_status`*

Although the Status Report Log is a text file and can be viewed in any text editor, it is easier read in a spreadsheet program.



	A	B	C	D	E	F	G	
1	BackWeb Proxy Server status report							
2	Date	Time	Packets	HTTP kbytes	Connections	HTTP Connections	Downloads	Last Active
3	19/05/2005	10:01:45	0	0	0	0	0	NA
4	19/05/2005	10:03:05	0	0	0	0	0	NA
5								
6								
7								

Figure 5-1 An example Status Report Log viewed in Microsoft Excel™

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Overview

F-Secure Technical Support is available by e-mail and from the F-Secure Web site. You can access our Web site from within your F-Secure application or from your Web browser.

Web Club

The F-Secure Web Club provides assistance to users of F-Secure products. To enter, choose the Web Club command from the Help menu in the F-Secure application. The first time you use this option, enter the path and name of your Web browser and your location.

To connect to the Web Club directly from your Web browser, go to:

<http://www.f-secure.com/webclub/>

Virus Descriptions on the Web

F-Secure Corporation maintains a comprehensive collection of virus-related information on its Web site. To view the Virus Information Database, go to:

<http://www.f-secure.com/virus-info/>.

Advanced Technical Support

For advanced technical support, go to the F-Secure Support Center at <http://support.f-secure.com/> or contact your local F-Secure distributor directly.

For basic technical assistance, please contact your F-Secure distributor.

Please include the following information with your support request:

1. Name and version number of your F-Secure software program (including the build number).
2. Name and version number of your operating system (including the build number).
3. A detailed description of the problem, including any error messages displayed by the program, and any other details, which could help us duplicate the problem.

When contacting F-Secure support by telephone, please do the following so that we may help you more effectively and save time:

- Be at your computer so you can follow instructions given by the support technician, or be prepared to write down instructions.
- Have your computer turned on and (if possible) in the state it was in when the problem occurred. Or you should be ready to replicate the problem on the computer with minimum effort.



After installing the F-Secure software, you may find a Readme file in the F-Secure folder in the Windows Start > Programs menu. The Readme file contains late-breaking information about the product.

F-Secure Technical Product Training

F-Secure provides technical product training, material and information for our distributors, resellers and customers to succeed with F-Secure security products and services. Training can also be obtained through F-Secure Certified Training Partners. With these tools and expertise, our partners are able to differentiate their business from their competitors with a unique and powerful solution for enterprise security, and obtain higher levels of customer satisfaction while increasing market share and profitability.

Training Program

For more detailed information about our course offerings, please go to our F-Secure Technical Product Training page on the Internet at:

<http://www.f-secure.com/products/training/>

The courses take place in modern and well-equipped classrooms. All of our courses consist of theory and hands-on parts. At the end of each course there is a certification exam. Contact your local F-Secure office or F-Secure Certified Training Partner to get information about the courses and schedules.

Contact Information

General issues: Training@f-secure.com

Registration: Training-Registration@f-secure.com

Feedback: Training-Feedback@f-secure.com

About F-Secure Corporation

F-Secure Corporation is the fastest growing publicly listed company in the antivirus and intrusion prevention industry with more than 50% revenue growth in 2004. Founded in 1988, F-Secure has been listed on the Helsinki Stock Exchange since 1999. We have our headquarters in Helsinki, Finland, and offices in USA, France, Germany, Italy, Sweden, the United Kingdom and Japan. F-Secure is supported by service partners, value added resellers and distributors in over 50 countries. F-Secure protection is also available through mobile handset manufacturers such as Nokia and as a service through major Internet Service Providers, such as Deutsche Telekom, France Telecom and Charter Communications. The latest real-time virus threat scenario news are available at the F-Secure Antivirus Research Team weblog at <http://www.f-secure.com/weblog/>.

Services for Individuals and Businesses

F-Secure services and software protect individuals and businesses against computer viruses and other threats coming through the Internet or mobile networks. Our award-winning solutions include antivirus and desktop firewall with intrusion prevention, antispam and antispymware solutions. Our key strength is our proven speed of response to new threats. For businesses our solutions feature a centrally-managed and well-integrated suite of solutions for workstations and servers alike. Focused partners offer security as a service for companies that do not wish to build in-house security expertise.

Visit our website at <http://www.f-secure.com/products/> to learn more about our products and services.