



# TREND MICRO™ Hosted Email Security

## Active Directory Synchronization Tool

### User's Guide

Integrate email threat protection in a hosted service



Messaging Security

Trend Micro Incorporated reserves the right to make changes to this document and to the product described herein without notice. Before installing and using the product, review the readme files, release notes, and/or the latest version of the applicable documentation, which are available from the Trend Micro website at:

<http://docs.trendmicro.com/en-us/enterprise/trend-micro-email-security.aspx>

Trend Micro, the Trend Micro t-ball logo, OfficeScan, and Control Manager are trademarks or registered trademarks of Trend Micro Incorporated. All other product or company names may be trademarks or registered trademarks of their owners.

Copyright © 2015. Trend Micro Incorporated. All rights reserved.

Document Part No.: HSEM07257\_151203

Release Date: December 2015

Protected by U.S. Patent No.: Patents pending.

This documentation introduces the main features of the product and/or provides installation instructions for a production environment. Read through the documentation before installing or using the product.

Detailed information about how to use specific features within the product may be available at the Trend Micro Online Help Center and/or the Trend Micro Knowledge Base.

Trend Micro always seeks to improve its documentation. If you have questions, comments, or suggestions about this or any Trend Micro document, please contact us at [docs@trendmicro.com](mailto:docs@trendmicro.com).

Evaluate this documentation on the following site:

<http://www.trendmicro.com/download/documentation/rating.asp>



# Table of Contents

## Preface

Preface .....	iii
Documentation .....	iv
Audience .....	iv
Document Conventions .....	v

## Chapter 1: Introduction

About Trend Micro Hosted Email Security .....	1-2
About Active Directory Synchronization Tool .....	1-2

## Chapter 2: Installing Active Directory Synchronization Tool

System Requirements .....	2-2
Downloading Active Directory Synchronization Tool Installation Program .....	2-2
Enabling Hosted Email Security Web Services .....	2-3
Installing Active Directory Synchronization Tool .....	2-4
Updating Active Directory Synchronization Tool .....	2-5

## Chapter 3: Using Active Directory Synchronization Tool

Configuring Active Directory Synchronization Tool .....	3-2
Configuring Service Settings .....	3-2
Configuring Source Directory .....	3-3
Removing Source Directory .....	3-6
Updating Source Directory .....	3-7
Testing Synchronization Locally .....	3-7
Synchronizing Groups and Email Accounts .....	3-8
Viewing Synchronization History .....	3-9

Configuring Hosted Email Security Server ..... 3-10

## **Appendix A: Troubleshooting Active Directory Synchronization Tool**

Diagnostic Logs in Active Directory Synchronization Tool ..... A-2

Troubleshooting Active Directory Synchronization Tool ..... A-2

## **Index**

Index ..... IN-1

# Preface

## Preface

Welcome to the Trend Micro™ Hosted Email Security Active Directory Synchronization Tool User Guide. This guide introduces the Active Directory Synchronization Tool and explains how to use the Active Directory Synchronization Tool to synchronize groups and email accounts from Active Directory to the Hosted Email Security server.

This section includes the following topics:

- *Documentation on page iv*
- *Audience on page iv*
- *Document Conventions on page v*

# Documentation

The documentation set for Hosted Email Security includes the following:

**TABLE 1. Product Documentation**

DOCUMENT	DESCRIPTION
Administrator Guide	The Administrator Guide contains information about Hosted Email Security and provides instructions on how to configure Hosted Email Security to protect your network from spam, phishing and malware before they reach your network.
Active Directory Synchronization Tool User Guide	The Active Directory Synchronization Tool User Guide is a PDF document that introduces Hosted Email Security Active Directory Synchronization Tool and explains how to use the Active Directory Synchronization Tool to synchronize groups and email accounts from Active Directory to the Hosted Email Security server.
Support Portal	The Support Portal is an online database of problem-solving and troubleshooting information. It provides the latest information about known product issues. To access the Support Portal, go to the following website: <a href="http://esupport.trendmicro.com">http://esupport.trendmicro.com</a>

View and download the documentation at:

<http://docs.trendmicro.com/en-us/enterprise/trend-micro-email-security.aspx>

# Audience

The Hosted Email Security documentation is written for IT administrators and security analysts. The documentation assumes that the reader has an in-depth knowledge of networking and information security, including the following topics:

- Network topologies
- Active Directory management

- Policy management and enforcement

The documentation does not assume the reader has any knowledge of threat event correlation.

## Document Conventions

The documentation uses the following conventions:

**TABLE 2. Document Conventions**

CONVENTION	DESCRIPTION
UPPER CASE	Acronyms, abbreviations, and names of certain commands and keys on the keyboard
<b>Bold</b>	Menus and menu commands, command buttons, tabs, and options
<i>Italics</i>	References to other documents
Monospace	Sample command lines, program code, web URLs, file names, and program output
<b>Navigation &gt; Path</b>	The navigation path to reach a particular screen  For example, <b>File &gt; Save</b> means, click <b>File</b> and then click <b>Save</b> on the interface
 <b>Note</b>	Configuration notes
 <b>Tip</b>	Recommendations or suggestions
 <b>Important</b>	Information regarding required or default configuration settings and product limitations

CONVENTION	DESCRIPTION
 <b>WARNING!</b>	Critical actions and configuration options

# Chapter 1

## Introduction

This section provides a brief introduction about Trend Micro<sup>TM</sup> Hosted Email Security and Hosted Email Security Active Directory Synchronization Tool.

This section includes the following topics:

- *About Trend Micro Hosted Email Security on page 1-2*
- *About Active Directory Synchronization Tool on page 1-2*

## About Trend Micro Hosted Email Security

Trend Micro™ Hosted Email Security is a no-maintenance solution that delivers continuously updated protection to stop spam, phishing, and malware before they reach your network.

Using Trend Micro Hosted Email Security, mail administrators can set up rules to remove detected viruses and other malware from incoming messages before they reach the corporate network. Administrators can quarantine detected spam and other inappropriate messages. Then, intended message recipients or mail administrators can choose to release or delete the quarantined messages.

## About Active Directory Synchronization Tool

The Hosted Email Security Active Directory Synchronization Tool is a Microsoft Active Directory connector, installed in your environment and has access to your Hosted Email Security. It can synchronize the user email accounts and the group members email accounts from the Active Directory server to the Hosted Email Security server.

Synchronizing email accounts enables the Hosted Email Security server to verify each email message by performing a valid recipient check. Synchronizing user groups enables you to define policies for user groups in Hosted Email Security.

# Chapter 2

## Installing Active Directory Synchronization Tool

This section includes the following topics:

- *System Requirements on page 2-2*
- *Downloading Active Directory Synchronization Tool Installation Program on page 2-2*
- *Enabling Hosted Email Security Web Services on page 2-3*
- *Installing Active Directory Synchronization Tool on page 2-4*
- *Updating Active Directory Synchronization Tool on page 2-5*

# System Requirements

Review the following requirements before installing Hosted Email Security Active Directory Synchronization Tool.

**TABLE 2-1. System Requirements for Active Directory Synchronization Tool**

COMPONENT	REQUIREMENTS
Operating System	Microsoft Windows Server 2008 or 2012
Memory	Minimum 2-GB
Hard disk	Minimum 1-GB available for installation and processing data
Others	<ul style="list-style-type: none"><li>Internet access</li><li>Support for Microsoft Active Directory 2003, 2008 or 2012</li><li>Microsoft .NET Framework 3.5</li></ul>

# Downloading Active Directory Synchronization Tool Installation Program

---

## Procedure

1. Log on to the Hosted Email Security administration console by navigating to one of the following URLs:
  - European region: <https://ui.hes.trendmicro.eu>
  - Other regions: <https://ui.hes.trendmicro.com>
2. Go to **Administration > Web Services**.
3. Under the **Downloads** section on the **Web Services** screen, click  to download the **Active Directory Synchronization Tool**.

---

# Enabling Hosted Email Security Web Services

Web services programs in Hosted Email Security are disabled for your email domains by default. Enable Web services to allow the Active Directory Synchronization Tool to communicate and synchronize directory data from Active Directory to Hosted Email Security.

---

## Procedure

1. Go to **Administration > Web Services**.
2. Make sure that you have a Service Authentication Key. If no Authentication Key is generated before, click **Generate New Key**.

The Active Directory Synchronization Tool uses the Authentication Key to authenticate the communication. If an Authentication Key is already generated on your administrative console, copy and paste the Authentication Key to the Active Directory Synchronization Tool. Without the Authentication Key, the Active Directory Synchronization Tool will be unable to communicate with Hosted Email Security Web services.



### Note

For added security, you may choose to periodically generate a new Authentication Key by clicking **Generate New Key**. You will then update your Active Directory Synchronization Tool to use the new Authentication Key. Note that once a new Authentication Key is generated, the old key becomes obsolete.

---

3. Click the disabled  icon on the right to enable **Applications**. This allows your Active Directory Synchronization Tool to communicate with Hosted Email Security Web services.



**FIGURE 2-1. Web Services screen**

## Installing Active Directory Synchronization Tool



### Note

Before installing the Active Directory Synchronization Tool, make sure that the computer where you want to install the tool meets the system requirements mentioned under the section [System Requirements on page 2-2](#).



### Note

Trend Micro recommends installing this tool on a separate computer than where the Active Directory is installed.

### Procedure

1. Run the **HESActiveDirectorySynchronizationTool.msi** application package to start the installation program.

The welcome screen appears.

2. Click **Next**.

The **End-User License Agreement** screen displays.

---

3. Accept the license agreement and click **Next**.

The **Destination Folder** screen displays.

4. Select the location where you want to install the tool, and then click **Next**.

The **Ready to Install** screen displays.

5. Click **Install**.

The **Installing** screen displays.



#### Note

If the **User Account Control** is enabled on your operating system, a pop-up appears requiring you to provide the administrator's access. Click **Yes** on the **User Account Control** pop-up to allow the installation.

---

6. Click **Finish** on the screen that appears after the installation completes.

---

## Updating Active Directory Synchronization Tool

If your Active Directory Synchronization Tool is outdated or a new version is available in Hosted Email Security, you can update the Synchronization Tool by uninstalling the current program and then installing the latest version.

---

### Procedure

1. Navigate to the location on your computer where the Active Directory Synchronization Tool is installed, and backup the following files:
  - **clientconf.xml**
  - **sources.xml**
2. Download the latest version of Active Directory Synchronization Tool from the Hosted Email Security server. See *Downloading Active Directory Synchronization Tool Installation Program on page 2-2* for the procedure.

3. Uninstall the current version of Active Directory Synchronization Tool on your computer.
4. Install the latest version of Active Directory Synchronization Tool you downloaded in Step 2 of this procedure, into the same folder where you installed the previous version. See [\*Installing Active Directory Synchronization Tool on page 2-4\*](#) for the procedure.
5. Copy the following files that you had backed up in Step 1 of this procedure to your installation folder:
  - **clientconf.xml**
  - **sources.xml**
6. Start the Active Directory Synchronization Tool to review your settings.

---

# Chapter 3

## Using Active Directory Synchronization Tool

This section includes the following topics:

- *Configuring Active Directory Synchronization Tool on page 3-2*
- *Synchronizing Groups and Email Accounts on page 3-8*
- *Testing Synchronization Locally on page 3-7*
- *Viewing Synchronization History on page 3-9*

# Configuring Active Directory Synchronization Tool

## Configuring Service Settings

You can configure your Hosted Email Security connection settings on **Service Settings** tab.

---

### Procedure

1. Start the **Active Directory Synchronization Tool** application.
2. On the **Service Settings** tab, configure the following:
  - Under **Hosted Email Security Administrator Logon Account** section:
    - **Account Name:** Your administrator account name you use to log on to Hosted Email Security administration console.
    - **Service Auth Key:** Your service authentication key for Hosted Email Security server.



#### Note

You can find your service authentication key on the **Web Services** screen (**Administration > Web Services**) on Hosted Email Security administration console.

---

- Under **Proxy Settings** section:
  - **Do not use a proxy:** If your network does not require a proxy, select this option to disable this setting.
  - **Automatically detect proxy settings:** Select this option to let Active Directory Synchronization Tool automatically detect your network proxy settings.

- **Manually set the proxy (HTTP):** Select this option to manually set the proxy **Server** and **Port** settings for your proxy server. If required, also type the proxy **User Name** and **Password**.



#### Note

Active Directory Synchronization Tool currently supports HTTP proxy only.

- **Synchronize every x hours:** Select this option and specify the duration in hours, if you want the Active Directory Synchronization Tool to automatically synchronize the user groups and email accounts from Active Directory to Hosted Email Security on a recurrent basis.



#### Note

This setting requires you to synchronize data manually for the first time. Later on, the Active Directory Synchronization Tool automatically synchronizes data according to your setting.

3. Click **Apply**.

## Configuring Source Directory

You can configure your Active Directory connection settings and synchronization source on **Source Directory** tab.



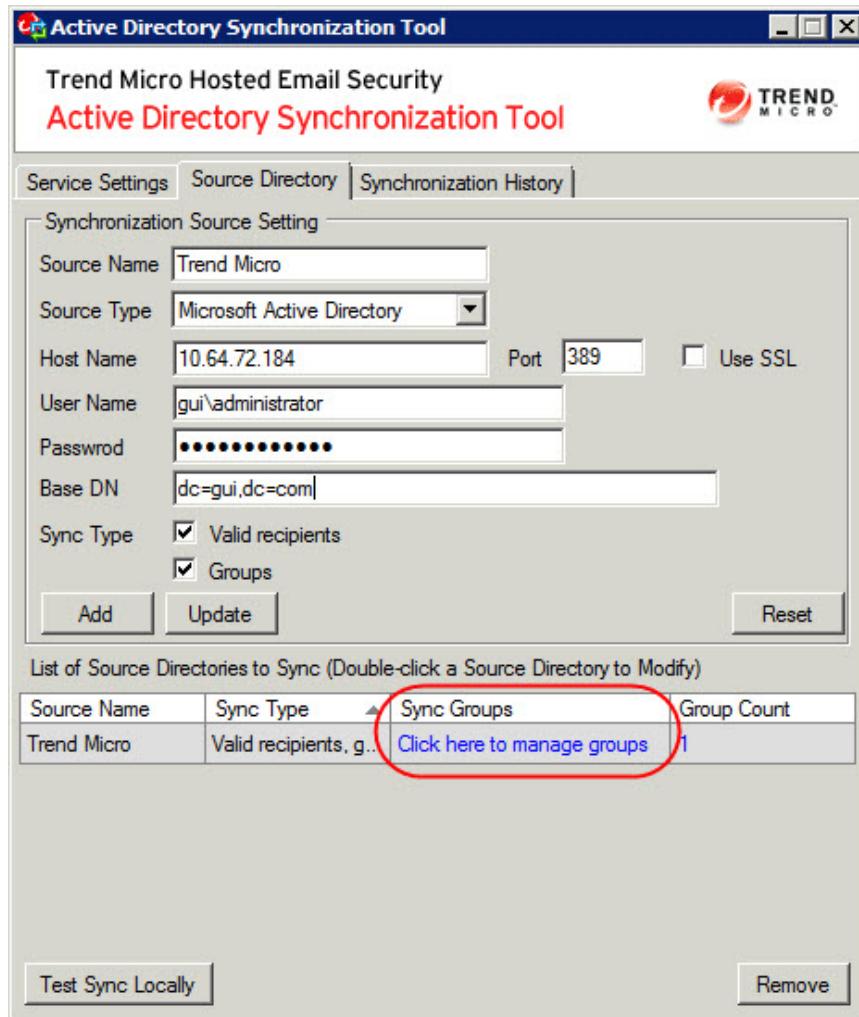
#### Note

If your network includes multiple Active Directory sources, configure all of these sources on the **Source Directory** tab, to enable Active Directory Synchronization Tool to synchronize directory data from all of the sources.

## Procedure

1. Start the **Active Directory Synchronization Tool** application.

2. On the **Source Directory** tab, configure the following under **Synchronization Source Setting** section:
  - **Source Name:** The name of the Active Directory source directory from where users and groups are imported to Hosted Email Security server.
  - **Source Type:** The type of directory that you are connecting that hosts users and groups. Select **Microsoft Active Directory** or **Microsoft AD Global Catalog** from the drop-down list.
  - **Host Name:** The host name or IP address of the Active Directory server.
  - **Port:** The port number used by Active Directory server.
  - **Use SSL:** If your Active Directory requires an encrypted connection, select this option.
  - **User Name and Password:** The user name and password that Active Directory Synchronization Tool will use to bind to Active Directory.
  - **Base DN:** The base distinguished name of the Active Directory server. If your source type is **Microsoft AD Global Catalog**, you can leave this field blank.
  - **Sync Type:** The items (**Valid recipients or Groups**) to synchronize from Active Directory server to Hosted Email Security server.
3. Click **Add** to add the source to the **List of Source Directories to Sync** at the bottom of the screen.
4. Click the text **Click here to manage groups** under **Sync Groups** column, or the group count under **Group Count** column to manage groups that you want to synchronize to the Hosted Email Security server.



**FIGURE 3-1. Source Directory tab**

The **Manage Groups to Sync** window appears.

5. From the **Available Groups in Directory** list on the left side of the screen, select the groups that you want to synchronize, and then click the **>>** button to move the

selected groups to the **Groups to Sync** list on the right. You can use the search box at the top of the list to find groups from the list.

To remove groups, that you do not want to synchronize, from the **Groups to Sync** list, select the groups that you want to remove and then click << button to move the selected groups to the **Available Groups in Directory** list. You can use the search box at the top of the list to find groups from the list.



#### Note

You can only select up to 50 groups from all the sources to synchronize.

---

6. Click **Apply**.

---

## Removing Source Directory

You can remove the source directory in Active Directory Synchronization Tool from the **Source Directory** tab.



#### Important

Removing a directory source will also remove the policies applied to the groups from this source while synchronizing directories the next time.

---

### Procedure

1. Start the **Active Directory Synchronization Tool** application.
2. Click the **Source Directory** tab.
3. Under the **List of Source Directories to Sync** section at the bottom of the screen, click the Active Directory source you want to remove from the list, and then click **Remove** at the bottom right of the screen.

---

## Updating Source Directory

If you have already configured a source directory in Active Directory Synchronization Tool, you can update its information to match the current settings.

---

### Procedure

1. Start the **Active Directory Synchronization Tool** application.
2. Click the **Source Directory** tab.
3. Under the **List of Source Directories to Sync** section at the bottom of the screen, double-click the Active Directory source that you want to update.  
All the fields under **Synchronization Source Setting** section populate with the current source information.
4. Modify the information as required, and then click **Update** to update and save the source information.

---

## Testing Synchronization Locally

The Active Directory Synchronization Tool enables you to test the synchronization on the local computer before synchronizing with the Hosted Email Security server.

---

### Procedure

1. Start the **Active Directory Synchronization Tool** application.
2. Click the **Source Directory** tab.
3. Configure at least one source directory for Active Directory Synchronization Tool to synchronize from. See [Configuring Source Directory on page 3-3](#) for the procedure.
4. Click **Test Sync Locally**, and select a folder on your local computer where you want to save the directory data.

5. The synchronization starts and creates the text (txt) files that contain groups and/or email accounts, at your selected location.
6. The synchronization starts and creates one or both of the following text (txt) files after it completes:
  - **Valid\_recipients\_yyyymmdd-hhmmss.txt**: This file includes the email addresses that are included in the source directory, and belong to the email domains that are registered with Hosted Email Security.
  - **Groups\_yyyymmdd-hhmmss.txt**: This file provides the association of each email address with the groups in Active Directory, and includes the following information:
    - The number of email addresses that are included in each group.
    - The group names that include a certain email address.



#### Note

The Active Directory Synchronization Tool will only create these files if the related sync type is selected, and the directory sources contain the related data.

---

## Synchronizing Groups and Email Accounts

The Active Directory Synchronization Tool synchronizes groups and email accounts from the Active Directory to the Hosted Email Security server.

---



#### Note

Trend Micro recommends testing the synchronization locally before synchronizing the groups and email accounts from Active Directory to the Hosted Email Security server. See [Testing Synchronization Locally on page 3-7](#) for the procedure.

---

**Important**

You can only use one Active Directory Synchronization Tool application to synchronize data. If you use Active Directory Synchronization Tool application installed on another location, the data synchronized from the last tool will be overwritten.

**Procedure**

1. Start the **Active Directory Synchronization Tool** application.
2. Configure the Hosted Email Security service settings. See *Configuring Service Settings on page 3-2* for the procedure.
3. Configure at least one source directory for Active Directory Synchronization Tool to synchronize from. See *Configuring Source Directory on page 3-3* for the procedure.
4. On the **Service Settings** tab, click **Synchronize Now**.

The synchronization starts, and the status displays on the **Synchronization History** tab.

Hosted Email Security collects the following types of data during the synchronization:

- Display names
- Email addresses
- Active Directory user groups

## Viewing Synchronization History

The Active Directory Synchronization Tool keeps the synchronization history and displays the last seven (7) days of history on the **Synchronization History** tab.

---

### Procedure

1. Start the **Active Directory Synchronization Tool** application.
2. Click the **Synchronization History** tab to view the history.

The logs includes the following statuses:

- Synchronization started
- Synchronizing data...
- Synchronization successful
- Synchronization unsuccessful

---

## Configuring Hosted Email Security Server

After synchronizing groups and email accounts from Active Directory to Hosted Email Security server, you can perform the following:

- Configure policies on the Hosted Email Security server for the newly imported groups.  
See *Configuring a Policy* topic in Hosted Email Security *Administrator's Guide* for the configuration details and procedure.
- Enable Hosted Email Security to perform the valid recipient check on **Directory Management** screen (**Administrator > Directory Management**).  
See *About Directory Management* topic in Hosted Email Security *Administrator's Guide* for the configuration details.

# Appendix A

## Troubleshooting Active Directory Synchronization Tool

This section includes the following topics:

- *Diagnostic Logs in Active Directory Synchronization Tool on page A-2*
- *Troubleshooting Active Directory Synchronization Tool on page A-2*

## Diagnostic Logs in Active Directory Synchronization Tool

In case you encounter any problem in using Hosted Email Security Active Directory Synchronization Tool, you can collect diagnostic logs and send them to for analysis to provide any solution.

The diagnostic log files are located at the following directory:

...\\Trend Micro\\HES Directory Sync Client\\logs\\

The Active Directory Synchronization Tool creates the following three types of logs:

- **dsacomfig.log:** Contains the UI configuration log details.
- **dsaservice.log:** Contains synchronization tool service log details.
- **dsamonitor.log:** Contains monitor log details.

## Troubleshooting Active Directory Synchronization Tool

If the Hosted Email Security Active Directory Synchronization Tool is unable to synchronize groups and email accounts from Active Directory to Hosted Email Security server, go through the following steps to troubleshoot the problem:

---

### Procedure

1. Navigate to the **Synchronization History** tab to view the reason mentioned in the **Details** column for the latest unsuccessful attempt.
2. Check the connection with Hosted Email Security server:
  - Go to the **Service Settings** tab, and click **Apply**.

The Active Directory Synchronization Tool attempts to connect to the Hosted Email Security server, and verifies your account name and service authentication key. This step also verifies if the Web Services are enabled on

the Hosted Email Security server to allow the Active Directory Synchronization Tool to synchronize data to the Hosted Email Security server.

3. If the Active Directory Synchronization Tool is outdated, or the new version of the tool is available on the Hosted Email Security server, download and install the latest version.
4. If the Active Directory Synchronization Tool uploads the synchronization result to the Hosted Email Security server, but the Hosted Email Security server still does not update the directory data, then wait for some time, and try again.
5. If the problem persists, contact Trend Micro Technical Support for help. Before contacting Trend Micro Technical Support, make sure that you have the diagnostic logs available with you that you can send to the Technical Support representative, if required. See *Diagnostic Logs in Active Directory Synchronization Tool* on page A-2 for the details on diagnostic logs.

---



# Index

## Symbols

.NET Framework, 2-2

## A

about

    Active Directory Synchronization Tool, 1-2

    Hosted Email Security, 1-2

Active Directory connector, 1-2

administration console

    European region, 2-2

    other regions, 2-2

authentication key, 2-3, 3-2

    generate, 2-3

automatic synchronization, 3-3

## D

diagnostic logs, A-2

## E

email accounts, 1-2, 3-4, 3-8

## I

installation package, 2-4

Internet access, 2-2

## L

log files, A-2

logs, 3-10, A-2

## S

service authentication key, 2-3, 3-2

    generate, 2-3

settings

    proxy, 3-2

    server, 3-10

service, 3-2

source directory, 3-3

setup file, 2-4

system requirements, 2-2, 2-4

## T

technical support, A-3

testing synchronization, 3-7, 3-8

troubleshoot, A-2

## U

user groups, 1-2, 3-4, 3-8

## V

valid recipient check, 1-2, 3-8

## W

Web services, 2-2

    authentication key, 2-3

    download, 2-2

    enable, 2-3





**TREND MICRO INCORPORATED**  
225 E. John Carpenter Freeway, Suite 1500  
Irving, Texas 75062 U.S.A.  
Phone: +1 (817) 569-8900, Toll-free: (888) 762-8736  
Email: support@trendmicro.com

[www.trendmicro.com](http://www.trendmicro.com)

Item Code: HSEM07257/151203